

# SERVICE MANUAL

# imageCLASS X MF1238 II



# Canon

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# Important Notices

## Application

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## Caution

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

## Explanation of Symbols

The following symbols are used throughout this Service Manual.

Symbols	Explanation	Symbols	Explanation
	Check.		Remove the claw.
	Check visually.		Insert the claw.
	Check a sound.		Push the part.
	Disconnect the connector.		Connect the power cable.
	Connect the connector.		Disconnect the power cable.
	Remove the cable/wire from the cable guide or wire saddle.		Turn on the power.
	Install the cable/wire to the cable guide or wire saddle.		Turn off the power.
	Remove the screw.		Loosen the screw.
	Install the screw.		Tighten the screw.
	Cleaning is needed.		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.

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# Safety Precautions

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## Laser

### Laser Safety

Since radiation emitted inside this machine is completely confined with protective housings and external covers, the laser beam cannot escape from the machine during any phase of normal use by users.

Therefore, this machine is classified as a Class 1 laser product under the international standard IEC60825-1 that is regarded as safe during normal use.

### How to Handle the Laser Scanner Unit

This machine is classified as a Class 1 laser product.

However, the laser scanner unit contains source of Class 3B laser beam and exposure to the beam may cause eye injuries.

Therefore, be sure not to disassemble the laser scanner unit. No adjustment can be made to the laser scanner unit in the machine in the field.

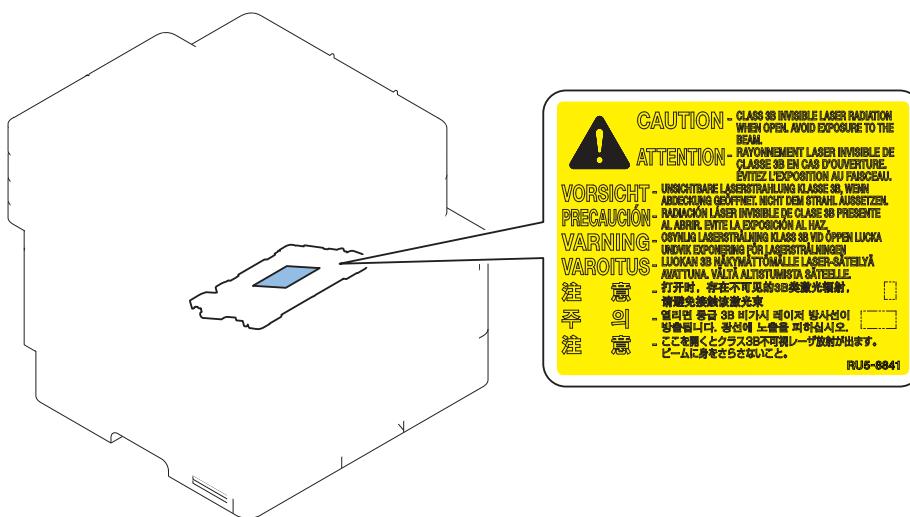
The mark or the warning label shown in the following figure is affixed on the laser scanner unit.

Dieses Gerät ist der Klasse 1 der Laserprodukte zugeordnet.

Allerdings enthält die Laserscannereinheit eine Laserstrahlquelle der Klasse 3B, die Augenschäden verursachen kann, wenn man in diesen Strahl blickt.

Deshalb darf die Laserscannereinheit nicht zerlegt werden. An der Laserscannereinheit kann keine Justage vor Ort vorgenommen werden.

Das in dem folgenden Bild dargestellte Kennzeichen bzw. der Warnaufkleber ist auf der Laserscannereinheit angebracht.



## Power Supply / Lithium Battery

### Power Supply Guidelines

- As a general rule, do not use extension cords.
- If an extension cord must be used, one that meets the rated voltage and current of the product must be used.
- When using, untie the bundle and plug the power cord into the root to ensure the connection between the power cord and extension cord.

#### CAUTION:

Do not plug multiple cords together to an extension cord. It may cause a fire or electrical shock.

- Use the power plug in an easily accessible location near the host machine.

## Notes When Handling a Lithium Battery

Dispose of used batteries according to the instructions.

### CAUTION:

Risk of explosion if battery is replaced by an incorrect type.

The following warnings are given to comply with Safety Principles (EN60950-1).

### CAUTION:

Wenn mit dem falschen Typ ausgetauscht, 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

## Toner Safety

### About Toner

Toner is a non-toxic material composed of plastic and small amount of pigment.

### CAUTION:

Never throw toner in flames to avoid explosion.

## Handling Adhered Toner

- Use dry tissue paper to wipe off toner adhered to skin or clothes and wash in water.
- Never use warm water for cleaning up toner to prevent toner particles from being gelated to soak into fibers permanently.
- Toner particles are reactive with vinyl polymers. Avoid contacting these materials.

## Notes on works

### Points to Note Before Servicing

- At servicing, be sure to turn OFF the power source according to the specified steps and disconnect the power plug.
- Be sure to disconnect the power plug on a regular basis and remove dust and dirt accumulated around the outlet with dry cloth.

### CAUTION:

Leaving the power plug connected for a long time in an environment having a lot of dust, moisture, or oily smoke will cause a fire. (Because dust accumulated in the surrounding area will absorb moisture and cause an insulation failure)

- Be careful not to be injured by burrs of edges, sharp corners or protrusions.

**⚠ CAUTION:**

Hazardous area such as corners, edges, springs and other sharp sections may be remaining on products. Always be aware of the presence of hazardous area to avoid injury caused by contacting and/or striking those area, by not over-concentrating on service work.

## Points to Note at Cleaning

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

## 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:****English****CAUTION**

The fuse may be in the neutral, and that the mains shall be disconnected to de-energize the phase conductors.

**German****VORSICHT**

Die Sicherung kann sich im Nullleiter befinden und das Hauptnetz muss abgetrennt werden, um die Phasenleiter stromlos zu machen.

# 1

# Product Overview

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## Product Lineup

### Host Machine

<MF1238 II/1238iF II/1238i II>



	MF1238 II/1238iF II	1238i II
Copy	Yes	Yes
Print	Yes	Yes
Fax	Yes	-
Remote UI	Yes	Yes
ADF	Simultaneous duplex scanning	Simultaneous duplex scanning
2-sided printing	Yes	Yes
Control Panel	5-inch Color Touch Panel	5-inch Color Touch Panel
NFC	-	-
MEAP	-	-
Wired LAN	Yes	Yes
Wireless LAN	Yes	Yes

PDL

	MF1238 II/1238iF II/1238i II
UFR II	Yes
PS	Yes
PCL	Yes

 Options

Name	Remark
Cassette Feeding Module-AH1	Up to 550 sheets of paper (80 g/m <sup>2</sup> ) can be set. Only one cassette can be connected to the host machine
Copy Card Reader-F1	
Copy Card Reader Attachment-J1	
MiCARD Attachment Kit-B1	IC Card Reader (sales company's option) is required.
Copy Control Interface Kit-C1	
TELEPHONE 6 KIT Long cord Cool White *	
Barcode Printing Kit-E1	
Send PDF Security Feature Set-E1	

\*: The option lineup differs according to the location or the model.

## Features

### Middle Class A4/LTR B&W Laser MFP

This machine is a system upgrade model of MF1238 series which is the current model.

- Usability improvement
  - Wifi setting improvement
  - Added linkage with cloud storage
- Enhancement of security
  - Support for TLS1.3
  - Support for HTTPS

\* No hardware or specification change from the current model.

# Specifications

## Product Specifications

Item	Specification/Function
Installation method of Host Machine	Desktop
Photoreceptor	OPC Drum (24 mm dia.)
Exposure method	Laser beam exposure
Charging method	Roller charging
Developing method	Toner projection development
Transfer method	Roller transfer
Separation method	Curvature separation
Pickup method	Cassette: Simple retard method Multi-purpose Tray: Pad separation method
Fixing method	On-demand fixing
Delivery method	Face-down
Drum cleaning method	Cleaning Blade
Toner type	One-component magnetic toner
Toner supplying method	Replacement of all-in-one cartridge (drum + toner)
Toner level detection function	Available
Toner save mode	Yes *1
Reading resolution	600 x 600 dpi (max.)
Print resolution	600 x 600 dpi
Reading speed	<b>Fixed reading (A4/LTR):</b> Approx. 1.7 seconds <b>Stream reading (1-sided):</b> SEND (300 dpi): [BW] 38.1 ipm (A4), [CL] 13.4 ipm (A4) Copy (600 dpi): 20 ipm (A4), 21 ipm (LTR) <b>Stream reading (2-sided):</b> SEND (300 dpi): [BW] 70.5 ipm (A4), [CL] 26.9 ipm (A4) Copy (600 dpi): 34 ipm (A4), 35 ipm (LTR)
Print speed *2	<b>At 1-sided printing:</b> • 38.0 ppm (A4), 40.0 ppm (LTR) <b>At 2-sided printing:</b> • 31.9 ppm (A4), 33.3 ppm (LTR)
Warm-up time*3	14 sec. or less
Recovery time*4	Approx. 4 sec. or less
First copy time	<b>Copyboard Glass:</b> Approx. 6.4 seconds (A4), Approx. 6.2 seconds (LTR) <b>Feeder:</b> Approx. 6.6 seconds (A4), Approx. 6.4 seconds (LTR)
First print time	<b>Multi-purpose Tray pickup:</b> Approx. 5.4 seconds (A4), Approx. 5.3 seconds (LTR) <b>Cassette pickup:</b> Approx. 5.5 seconds (A4), Approx. 5.4 seconds (LTR)
Document type	Original thickness: 20 mm or less
Maximum original size	215.9 mm x 297.0 mm
Magnification ratio	Zoom: 25 to 400 %
Continuous reproduction	999 sheets
Paper type	(Reference: "Paper Type" on page 11 )
Paper size	(Reference: "Paper Size" on page 12 )

Item	Specification/Function
Maximum stacking capacity	Cassette: 250 sheets (80 g/m <sup>2</sup> , 64 g/m <sup>2</sup> ) Multi-purpose Tray: 100 sheets (80 g/m <sup>2</sup> , 64 g/m <sup>2</sup> )
Delivery Tray Capacity <sup>*5</sup>	150 sheets (68 g/m <sup>2</sup> )
Auto 2-sided printing	Available (A4, LGL, LTR, OFICIO, B-OFICIO, M-OFICIO, FLS, Indian LGL, F4A, Custom (210.0 x 279.4 mm to 216.0 x 355.6 mm))
Memory capacity	1 GB
Operating environment temperature range	10 to 30 deg C
Operating environment humidity range	0 to 80 % (Relative humidity; no condensation)
Rated power supply	120 V model: 110 to 127 V (60 Hz) 200 V model: 220 to 240 V (50/60 Hz)
Power consumption	<p><b>Maximum</b></p> <p>120V: 1310 W or less 230V: 1350 W or less</p> <p><b>At operation</b></p> <p>120V: Approx. 520 W 230V: Approx. 500 W</p> <p><b>At standby</b></p> <p>120V: Approx. 10.0 W 230V: Approx. 9.4 W</p> <p><b>During sleep mode</b></p> <p>Approx. 0.9 W (USB connection) Approx. 0.9 W (Wired LAN) Approx. 0.9 W (Wireless LAN)</p> <p><b>At power OFF</b></p> <p>Approx. 0.1 W or less</p>
Dimensions (W x D x H)	453 mm x 464 mm x 392 mm
Weight (not including the Toner Cartridge)	Approx. 16.2 kg

\*1: Toner saving mode is a user mode setting, and it cannot be set in service mode.

\*2: The print speed may become lower depending on the settings such as output resolution, paper type / orientation, and number of sheets to print. In the case of 2-sided printing, 1 page on the front side and 1 page on the back side are output as 1 sheet.

\*3: The time from when the power is turned ON to when the basic screen appears. This may vary depending on the usage conditions and environment of this machine.

\*4: The time for recovery from sleep to standby

\*5: The actual stack capacity may vary depending on the site environment and the type of paper used.

## Reader Specifications

Item	Specification/Function
Photo conductor	LED
Resolution at reading	600 dpi x 600 dpi
Number of gradations	256 gradations
Magnification ratio	25 to 400 % (in increments of 1 %)
Number of lines of the original scanning sensor	1 line
Original size detection	None
Maximum original size	LGL

## ADF Specifications

Item	Specifications
Document pickup method	Auto pickup method
Original setting method	Face-up stacking
Original feed mode	1-sided/2-sided
Original Type	Sheet document
Document size	Size: A4R/B5R/A5R/A6R/LGL/LTRR/STMTR <ul style="list-style-type: none"> <li>• Horizontal size: 105.0 mm to 215.9 mm</li> <li>• Vertical size: 128.0 mm to 355.6 mm</li> </ul>
Document weight	50 g/m2 to 105 g/m2
Document stack capacity (80 g/m2)	A4/LTR: 50 sheets, LGL: 30 sheets
Original reference	Center reference
Original scanning method	Stream reading
Mixed paper	Same configuration only
Original size detection function	None
Stamp function	None
Original processing speed	Stream reading <ul style="list-style-type: none"> <li>• At Copy (600 dpi) <ul style="list-style-type: none"> <li>• 1-sided A4/LTR: 20 ipm /21 ipm (B/W, Color)</li> <li>• 2-sided A4/LTR: 34 ipm /35 ipm (B/W, Color)</li> </ul> </li> <li>• At Scan (300 dpi) <ul style="list-style-type: none"> <li>• 1-sided A4: 38.1 ipm (B/W) A4: 13.4 ipm (Color)</li> <li>• 2-sided A4: 70.5 ipm (B/W) A4: 26.9 ipm (Color)</li> </ul> </li> </ul>

## FAX Specifications

Item	Specification/Function
Applicable Line <sup>*1</sup>	General telephone subscriber line (PSTN), Fax communication network
Scanning line density	<ul style="list-style-type: none"> <li>• Normal: 8 pels<sup>*2</sup>/mm x 3.85 line/mm</li> <li>• Fine: 8 pels<sup>*2</sup>/mm x 7.7 line/mm</li> <li>• Superfine: 8 pels<sup>*2</sup>/mm x 15.4 line/mm</li> <li>• Ultrafine: 16 pels<sup>*2</sup>/mm x 15.4 line/mm</li> </ul>
Transmission Speed <sup>*3</sup>	Super G3: 33.6 Kbps G3: 14.4 Kbps
Coding method	MH, MR, MMR,JBIG
Communication mode	Super G3, G3
Maximum send original size	A4
Recording Paper Size	A4, B5, A5, LGL, LTR, STMT
Transmission Time	Approx. 2.6 seconds/page <sup>*4</sup>

\*1: Depending on your locale or your telephone connection, you may be unable to perform data communication.

\*2: Pels stands for picture elements (pixels).

\*3: With the Automatic Fallback function.

\*4: Value obtained with Canon original test sheet of A4 size, standard ECM (JBIG) transmission.

## Paper Type

(Yes: Pickup possible -: Pickup not possible)

Type of paper		Paper settings in this machine	Standard Cassette	Multi-purpose Tray	Auto 2-sided printing
Plain paper	61 to 74 g/m <sup>2</sup>	Plain 1	Yes	Yes	Yes
	75 to 89 g/m <sup>2</sup>	Plain 2	Yes	Yes	Yes
	90 to 105 g/m <sup>2</sup>	Plain 3	Yes	Yes	Yes
Thin paper	60 g/m <sup>2</sup>	Thin 1	Yes	Yes	Yes
Recycled paper	61 to 74 g/m <sup>2</sup>	Recycled 1	Yes	Yes	Yes
	75 to 89 g/m <sup>2</sup>	Recycled 2	Yes	Yes	Yes
Color paper	61 to 74 g/m <sup>2</sup>	Color paper	Yes	Yes	Yes
Heavy paper	106 to 120 g/m <sup>2</sup>	Heavy 1	Yes	Yes	Yes
	121 to 149 g/m <sup>2</sup>	Heavy 2	-	Yes	-
	150 to 163 g/m <sup>2</sup>	Heavy 3	-	Yes	-
Bond paper	60 to 74 g/m <sup>2</sup>	Bond 1	Yes	Yes	Yes
	75 to 104 g/m <sup>2</sup>	Bond 2	Yes	Yes	Yes○
	105 to 120 g/m <sup>2</sup>	Bond 3	Yes	Yes	Yes
Label paper		Label paper	-	Yes	-
Envelope		Envelope 1	-	Yes	-
		Envelope 2	-	Yes	-

## Paper Size

(Yes: Pickup possible - : Pickup not possible)

Paper size	Standard Cassette	Multi-purpose Tray	2-sided
A4	210.0 mm x 297.0 mm	Yes	Yes
B5	182.0 mm x 257.0 mm	Yes	Yes
A5	148.0 mm x 210.0 mm	Yes	Yes
A5R	210.0 mm x 148.0 mm	Yes	Yes
A6	105.0 mm x 148.0 mm	Yes	Yes
LGL	215.9 mm x 355.6 mm	Yes	Yes
LTR	215.9 mm x 279.4 mm	Yes	Yes
STMT	139.7 mm x 215.9 mm	Yes	Yes
EXEC	184.1 mm x 266.7 mm	Yes	Yes
OFICIO	215.9 mm x 317.5 mm	Yes	Yes
B-OFICIO	216.0 mm x 355.0 mm	Yes	Yes
M-OFICIO	216.0 mm x 341.0 mm	Yes	Yes
G-LTR	203.2 mm x 266.7 mm	Yes	Yes
G-LGL	203.2 mm x 330.2 mm	Yes	Yes
FLSC	215.9 mm x 330.2 mm	Yes	Yes
AFLS	206.0 mm x 337.0 mm	Yes	Yes
Indian LGL	215.0 mm x 345.0 mm	Yes	Yes
Index Card (3x5 inch)	76.2 mm x 127.0 mm	-	Yes
16K	195.0 mm x 270.0 mm	Yes	Yes
F4A	215.9 mm x 342.9 mm	Yes	Yes
Envelope No.10 (COM10)	104.7 mm x 241.3 mm	-	Yes
Envelope Monarch	98.4 mm x 190.5 mm	-	Yes
Envelope C5	162.0 mm x 229.0 mm	-	Yes
Envelope DL	110.0 mm x 220.0 mm	-	Yes
Custom paper	-	Yes <sup>*1</sup>	Yes <sup>*2</sup>
			Yes <sup>*3</sup>

\*1: 105.0 to 148.0 mm x 216.0 to 355.6 mm

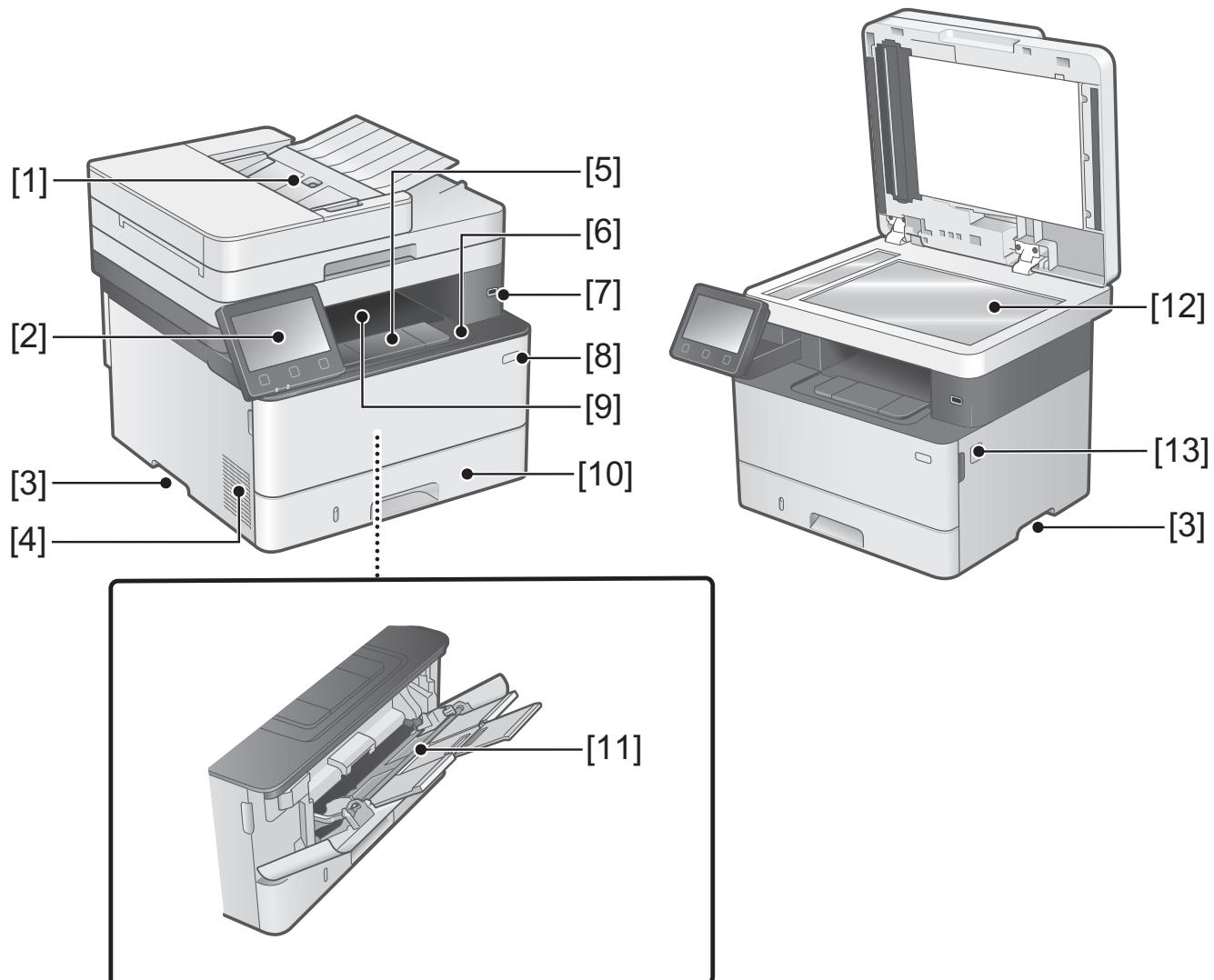
\*2: 76.2 to 127.0 mm x 216.0 to 355.6 mm

\*3: 210.0 to 279.4 mm x 216.0 to 355.6 mm

## Parts Name

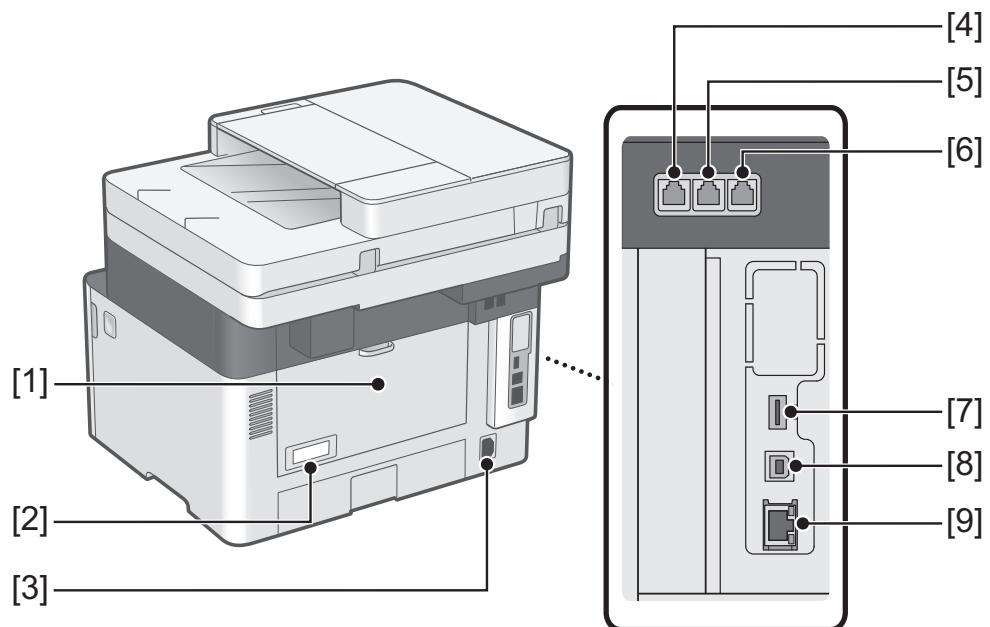
### External Cover

#### Front Side of the Machine



No.	Name	No.	Name
[1]	Feeder	[8]	Power Switch
[2]	Control Panel	[9]	Delivery Tray
[3]	Handle for carrying	[10]	Pickup Cassette
[4]	Ventilation hole	[11]	Multi-purpose Tray
[5]	Delivery Stopper	[12]	Copyboard Glass
[6]	Front Cover	[13]	Front Cover Open Button
[7]	USB port		

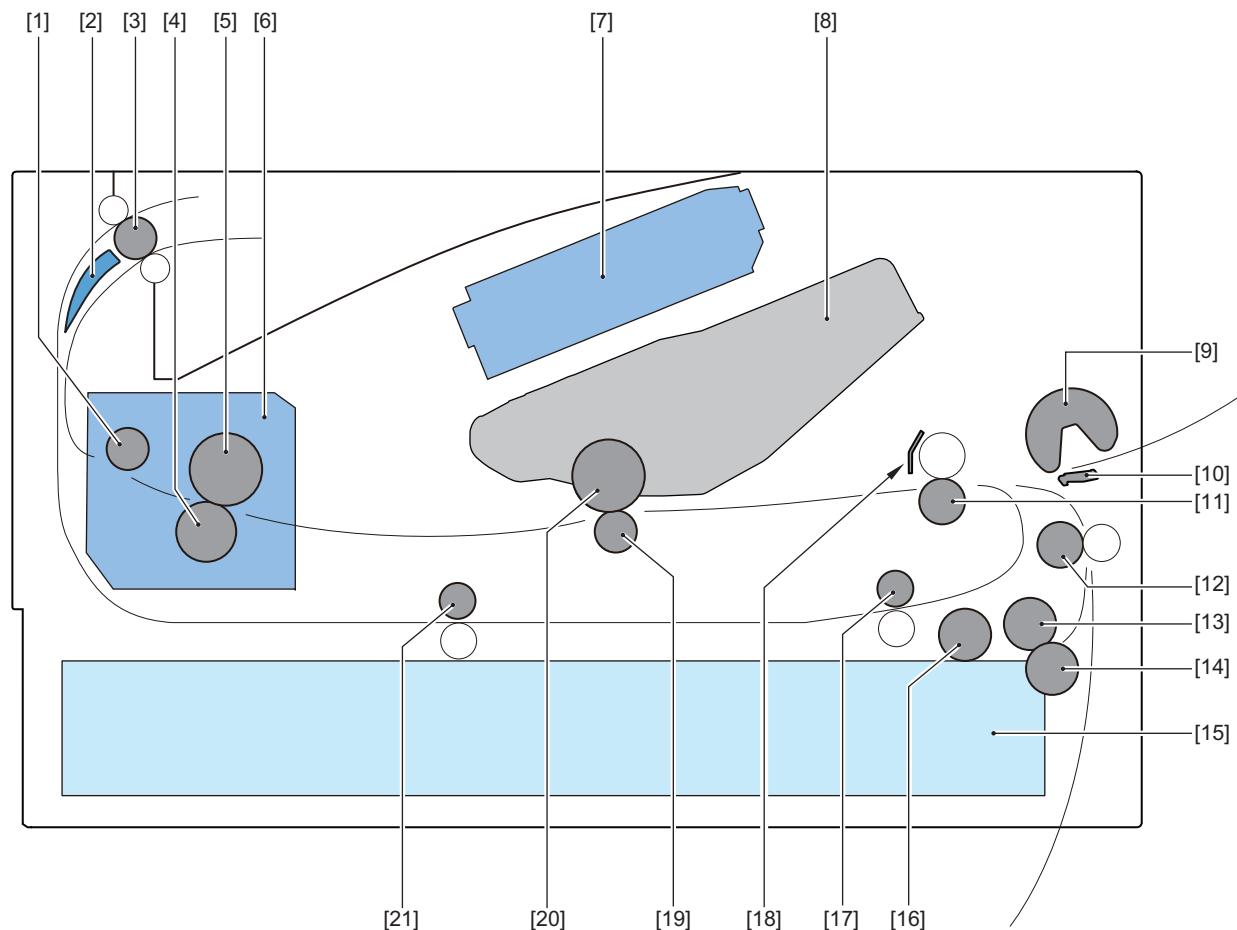
## ■ Rear Side of the Machine



No.	Name	No.	Name
[1]	Rear Cover	[6]	Terminal for Handset
[2]	Rating name plate label	[7]	USB port (for USB device)
[3]	Power Socket	[8]	USB port (for PC)
[4]	Terminal for telephone line	[9]	LAN Port
[5]	Terminal for external telephone		

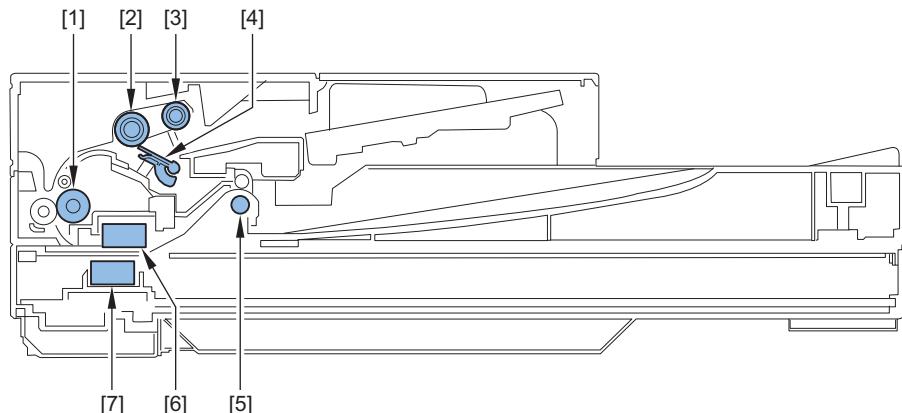
## Cross Section View

### ■ Host Machine



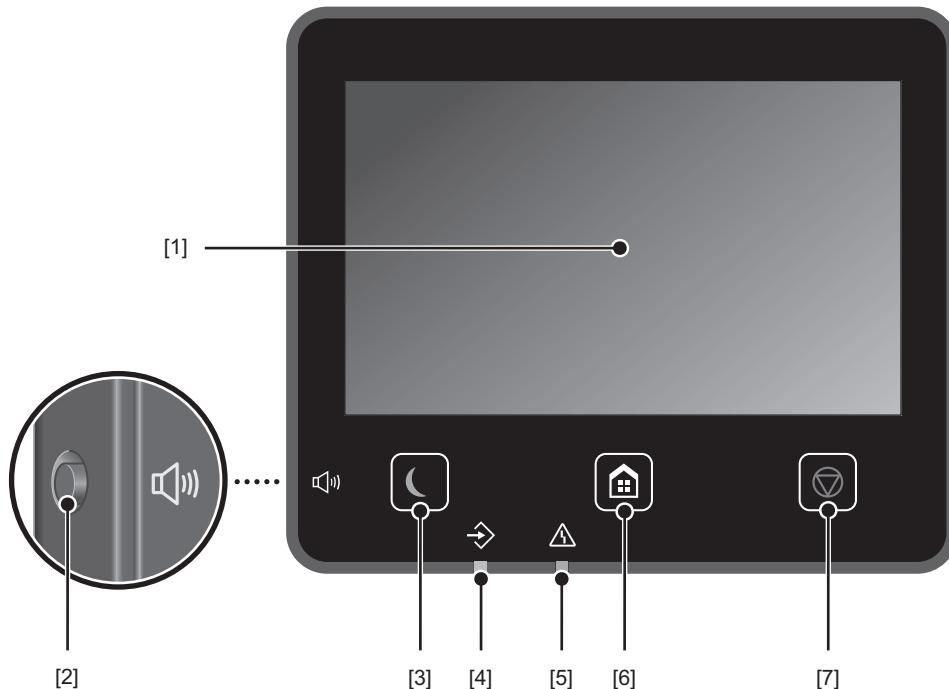
No.	Name	No.	Name
[1]	Fixing Delivery Roller	[12]	Delivery Roller
[2]	Duplex Flapper	[13]	Cassette Feed Roller
[3]	Delivery Roller	[14]	Cassette Separation Roller
[4]	Pressure Roller	[15]	Cassette
[5]	Fixing Film	[16]	Cassette Pickup Roller
[6]	Fixing Assembly	[17]	Duplex Re-pickup Roller
[7]	Laser Scanner Unit	[18]	Registration Shutter
[8]	Cartridge	[19]	Transfer Roller
[9]	MP Tray Pickup Roller	[20]	Photosensitive Drum
[10]	MP Tray Separation Pad	[21]	Duplex Feed Roller
[11]	Registration Roller		

## ■ ADF/Reader Unit



No.	Name	No.	Name
[1]	Feed Roller	[5]	Delivery Roller
[2]	Separation Roller	[6]	Contact Image Sensor (back side)
[3]	Pickup Roller	[7]	Contact Image Sensor (front side)
[4]	Separation Pad		

## Control Panel



No.	Name	No.	Name
[1]	Display	[5]	Error Lamp
[2]	Volume key	[6]	Home key
[3]	Energy Saver Key	[7]	Stop key
[4]	Data Lamp		

# 2

## Technical Explanation (Device)

Basic Configuration.....	18
Original Exposure/Feed System.....	19
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Laser Exposure System.....	30
Image Formation System.....	32
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Pickup Feed System.....	40

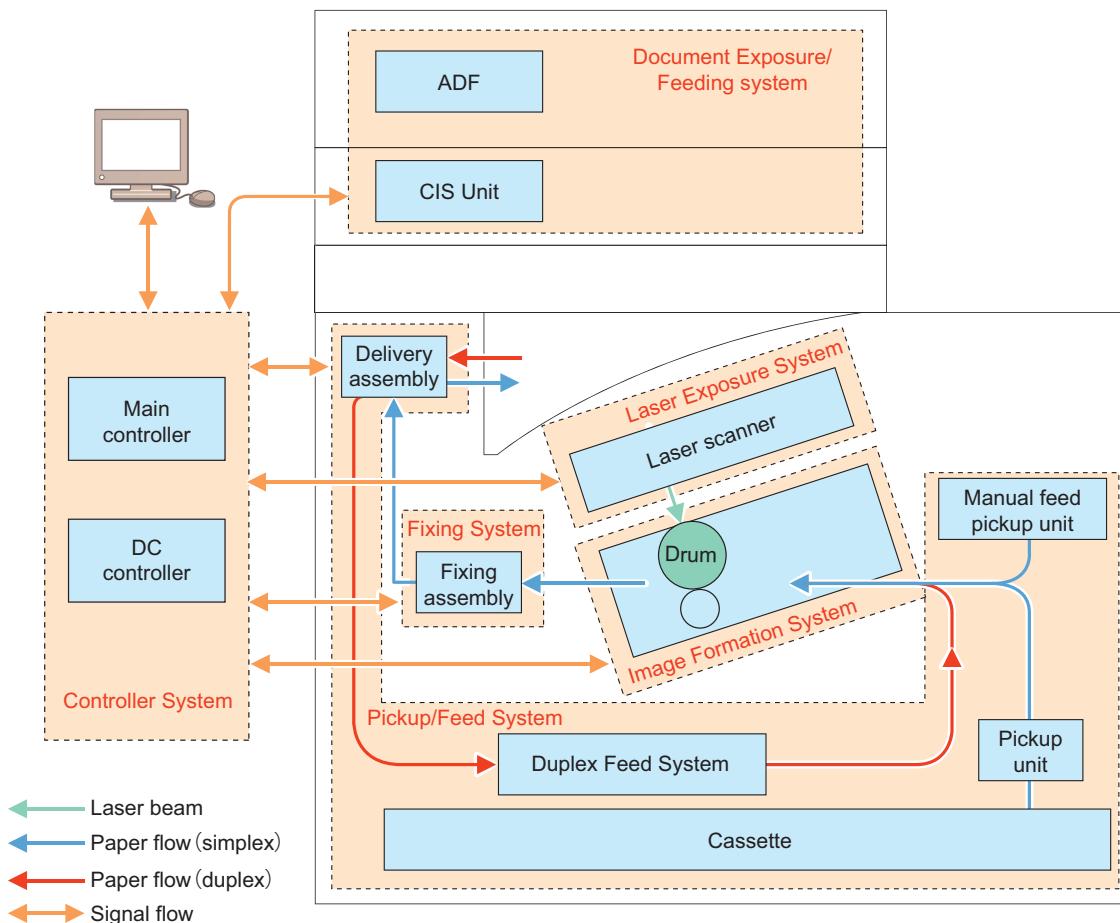
## Basic Configuration

### Functional Configuration

#### Description

This machine is roughly composed of the following six blocks.

- Document Exposure/Feeding System
- Laser Exposure System
- Controller System
- Image Formation System
- Pickup Feed System
- Fixing System



## Original Exposure/Feed System

### Original Exposure System

#### Functional Configuration

##### Description

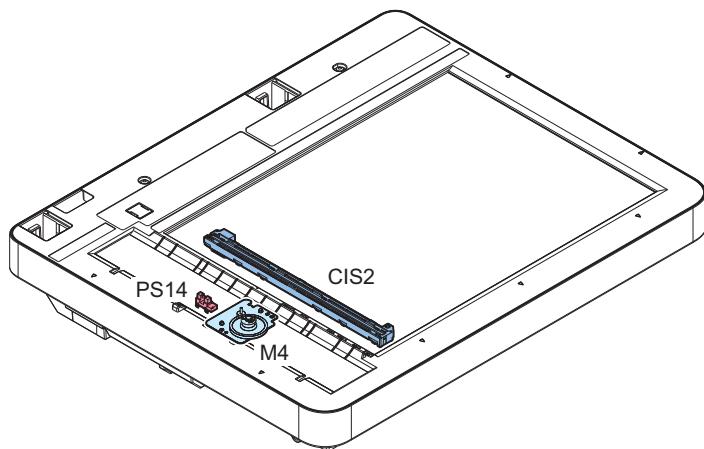
The original on the Copyboard Glass is read by moving the Contact Image Sensor (CIS) by rotating the Reader Motor based on the drive signal from the Main Controller PCB.

When using the ADF, the original is read by feeding it using the ADF, without moving the CIS.

A CIS for reading the back side of the document is built in the ADF so that both sides of the original can be simultaneously read by feeding the paper only once.

#### Major Components

##### Description



Symbol	Name
M4	Reader Motor
CIS2	Contact Image Sensor (Reader)
PS14	CIS HP Sensor

#### Dust Detection Control

##### Overview

Presence/absence of dust on the Stream Reading Glass is detected when an original is read. In accordance with the detection result, the original reading position is changed or image correction is performed to prevent the dust from being printed on the image.

Control of dust detection consists of the following two items:

- Dust detection correction
- Dust evasion

##### Execution Condition/Timing

###### Dust detection correction

During the period of time from the moment when the original of a stream reading job arrives just before the reading position to the moment when reading of the original is completed (for each page)

###### Dust evasion

When a job starts

##### Description

###### Dust detection correction

If dust on the Stream Reading Glass is detected, the image is corrected to prevent the dust from being printed.

1. Before the original arrives, the White Plate is read through the Stream Reading Glass, and points where dust may exist are detected.
2. The leading edge of the original is detected.
3. The detection results before and after the leading edge of the original appears on the Stream Reading Glass are compared. If dust does not exist at the dust point detected in step 1, it is judged to be dust on the White Plate and dust correction is not performed. If dust exists at the point detected in step 1, it is judged to be dust on the Stream Reading Glass and dust correction is performed.

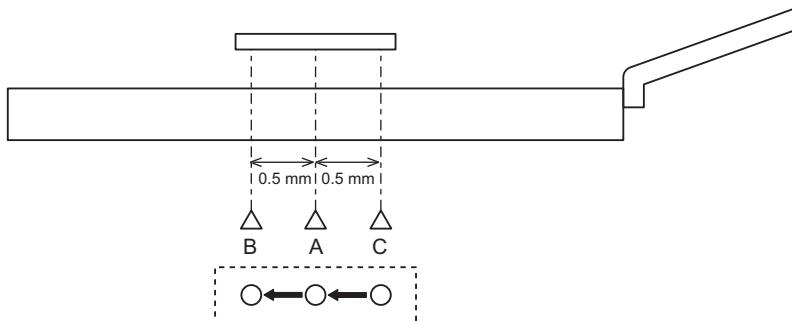
### Dust evasion

If dust is detected when the last job paper is read, the reading position of the next stream reading job is changed in order to avoid the dust.

The amount of adjustment for dust evasion is -0.5 mm (B), 0 mm (A), and +0.5 mm (C).

Each time dust is detected when reading the last paper of a stream reading job, the CIS moves to the three positions in the order shown below.

A -> B -> C -> A ->



#### NOTE:

This control is applied only to reading of the front side where the CIS can be moved.

If any of the following conditions is detected 6 times in a row, it is judged that the Stream Reading Glass is soiled, and a message prompting the user to clean the Stream Reading Glass is displayed on the screen of the Control Panel.

- Dust of 1 pixel or larger and smaller than 5 pixels is detected at 11 points or more.
- Dust of 5 pixels or larger is detected at 1 point or more.

### Service Mode

- Adjustment of the image correction level at stream reading [front]  
COPIER > OPTION > BODY > DFDST-L1
- Adjustment of the image correction level at stream reading [back]  
COPIER > OPTION > BODY > DF2DSTL1

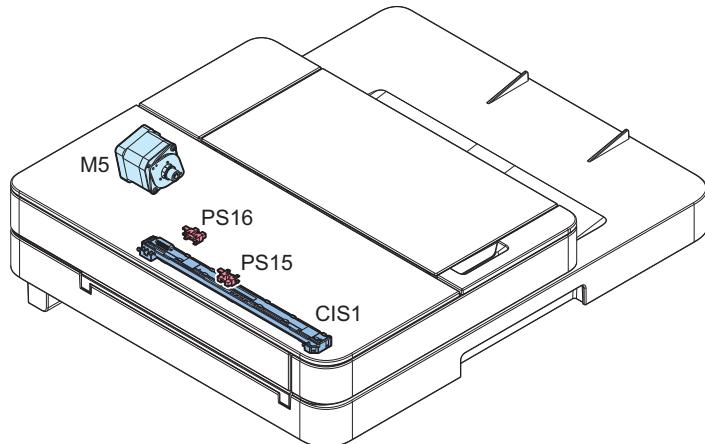
### Additional Functions Mode/Menu

- ON/OFF of automatic correction at the time of dust detection  
Menu > Adjustment/Maintenance > Adjust Image Quality > Remove Streaks from Orig. Scanning Area
- ON/OFF of notification to clean the Stream Reading Glass  
Menu > Preferences > Display Settings > Notify to Clean Original Scanning Area

## Original Feed System

### Major Components

#### Description

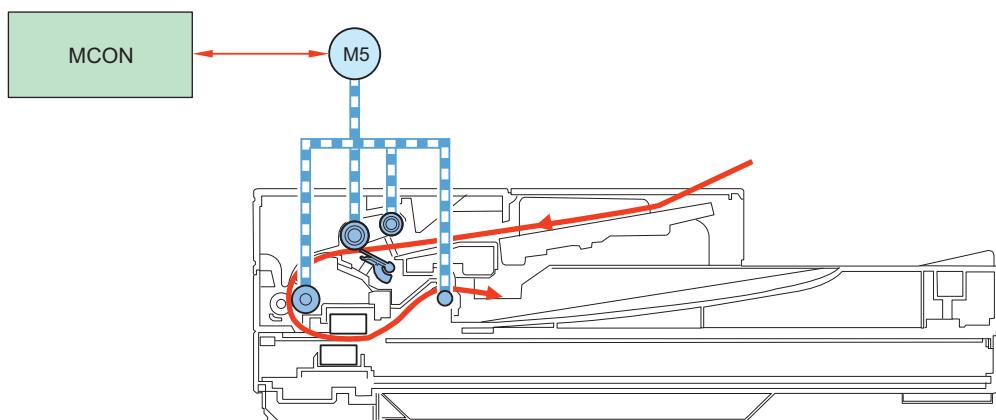


Symbol	Name
M5	ADF Motor
CIS1	Contact Image Sensor (ADF)
PS16	Document Sensor
PS15	Document End Sensor

### Drive Configuration

#### Description

When copy, fax, or scan is started, the ADF Motor (M5) is driven by a drive command from the Main Controller PCB. The document which is placed face-up on the Original Tray is picked up and fed one sheet at a time in order from the top. When the fed original passes over the Platen Glass, the image is read by the Contact Image Sensor (CIS), and then the original is delivered face-down to the Document Delivery Assembly.



Symbol	Name
M5	ADF Motor
MCON	Main Controller PCB

### Original Detection

#### Overview

This machine has the following two types of original detection functions.

- Original Detection
- Original Edge Detection

**NOTE:**

This machine does not have a document size (original width) detection function.

## Description

### Original Detection

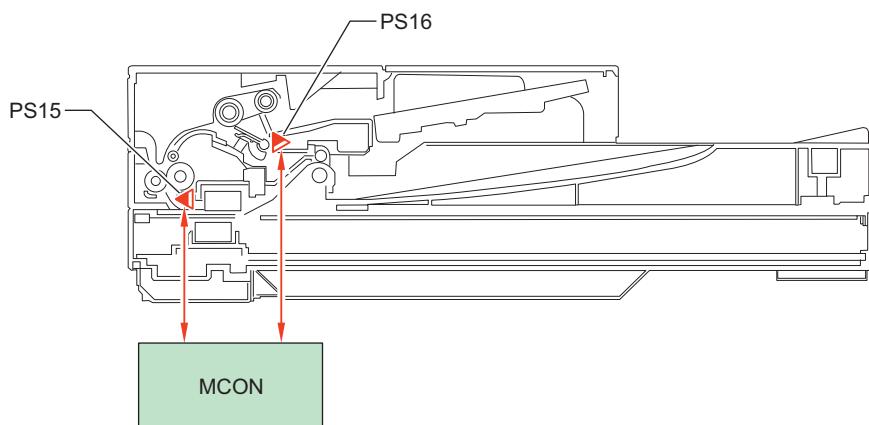
As the actuator is pushed up by placing an original on the Original Tray, the Document Sensor (PS16) is turned ON (light is transmitted -> light is blocked) so that the presence of an original is detected.

### Original Edge Detection

As the actuator is pushed up by the leading edge of the fed original, the Document End Sensor (PS15) is turned ON (light is blocked -> light is transmitted) so that the leading edge of the original 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 (PS15) to turn OFF (light is transmitted -> light is blocked) to detect the trailing edge of the original.

Note that the original length that can be read by this machine is 400 mm and less; if an original longer than that is fed, it is stopped due to jam. The original size is determined by the time required from when the Document End Sensor (PS15) detects the original's leading edge to when it detects its trailing edge.



Symbol	Name
PS16	Document Sensor
PS15	Document End Sensor

## ■ Jam Detection

### Execution Condition/Timing

When the power is turned ON or when the original is being read

### Description

In the following cases, it is judged that an ADF jam has occurred.

- When the original is late in arriving the Document End Sensor (PS15) or remains in the ADF while the original is being read
- When the Document End Sensor (PS15) detects presence of paper when the power is turned ON (residual paper jam)
- When a document of 400 mm or more is detected

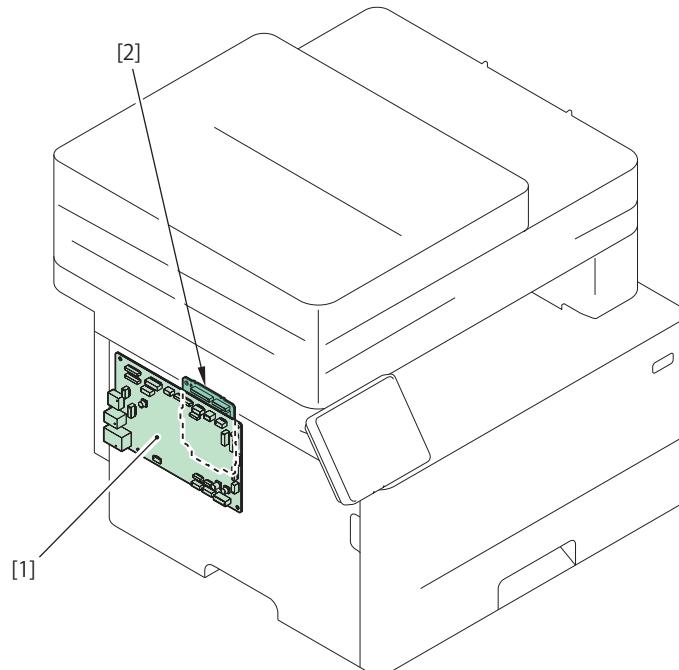
When a jam is detected, the reading operation stops and "Paper is jammed." is displayed on the screen of the Control Panel. The jam can be cleared by removing the jammed paper, closing the ADF Upper Cover, and placing the original again.

# Controller System

## Functional Configuration

### Description

This machine is controlled by the Main Controller PCB and the DC Controller PCB.



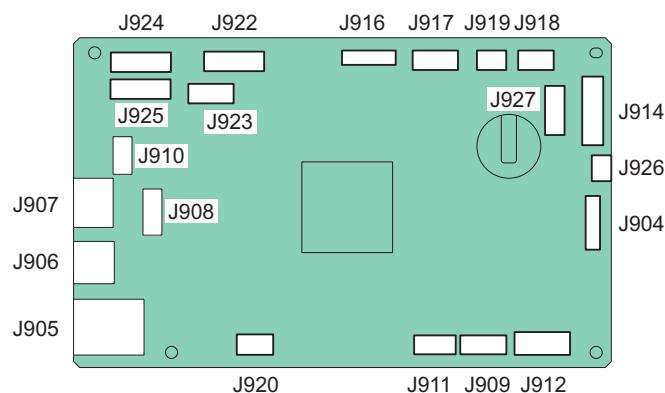
No.	Parts name	Role
[1]	Main Controller PCB	System control, image processing control, reader/ADF control, FAX control*, network control, and retaining various setting values.
[2]	DC Controller PCB	Printer control, laser control, high voltage control, various I/O control, and retaining setting values

\*: Models with FAX only

## Main Controller PCB

### CAUTION:

The number of connectors varies depending on the model.

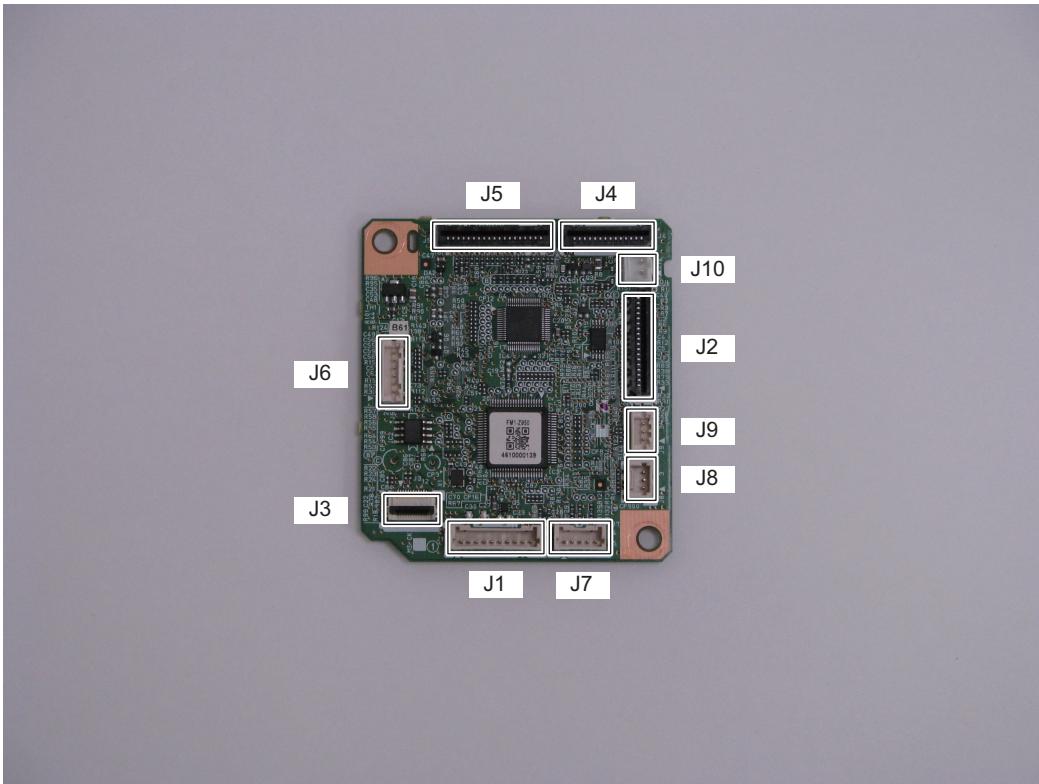


No.	Roles and Specifications	No.	Roles and Specifications
J904	Wireless LAN PCB I/F	J917 *1	Off Hook PCB I/F
J905	LAN I/F	J918	USB Relay PCB I/F
J906	USB TypeB	J919 *1	Speaker
J907	USB TypeA	J920	DC Controller PCB
J908	CC-VI (OP)	J922	ADF Motor I/F
J909	SOFT-ID PCB I/F	J923	Reader Motor I/F
J910	New card reader (OP)	J924	Contact Image Sensor I/F (Reader side)
J911	Memory PCB I/F	J925	Contact Image Sensor I/F (ADF side)
J912	Power supply control I/F	J926	Control Panel PCB I/F (touch panel)
J914	Panel PCB (5 lines)	J927	Control Panel PCB I/F (touch panel)
J916 *1	NCU PCB I/F		

\*1: Models with FAX only

## DC Controller PCB

### Description



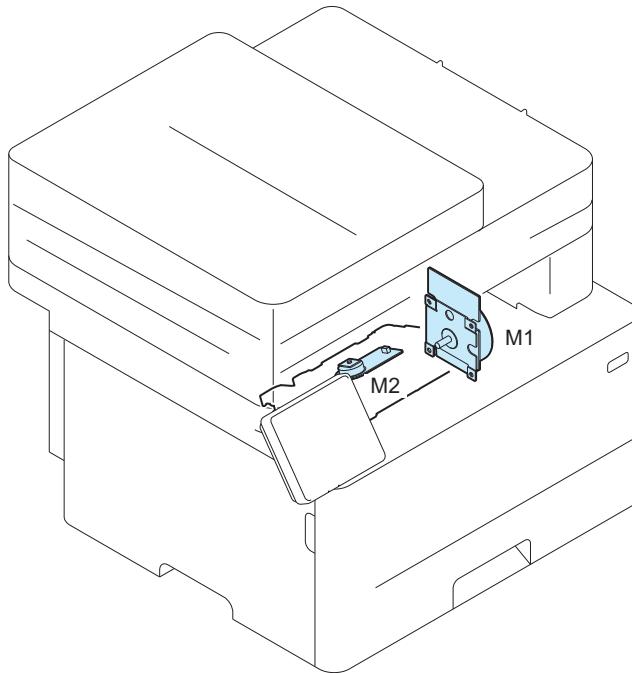
No.	Roles and Specifications	No.	Roles and Specifications
J1	Low Voltage Power Supply Unit	J6	Delivery Tray Full Sensor PCB
J2	High Voltage Power Supply PCB	J7	Paper Width/Duplex Feed Sensor PCB
J3	Main Controller PCB	J8	Cassette Paper Sensor PCB
J4	Laser Scanner Driver PCB	J9	Multi-purpose Tray Paper Sensor PCB
J5	Relay PCB	J10	Memory

## Motor Control

### Overview

This machine uses motors for paper feed and image formation.

## Description



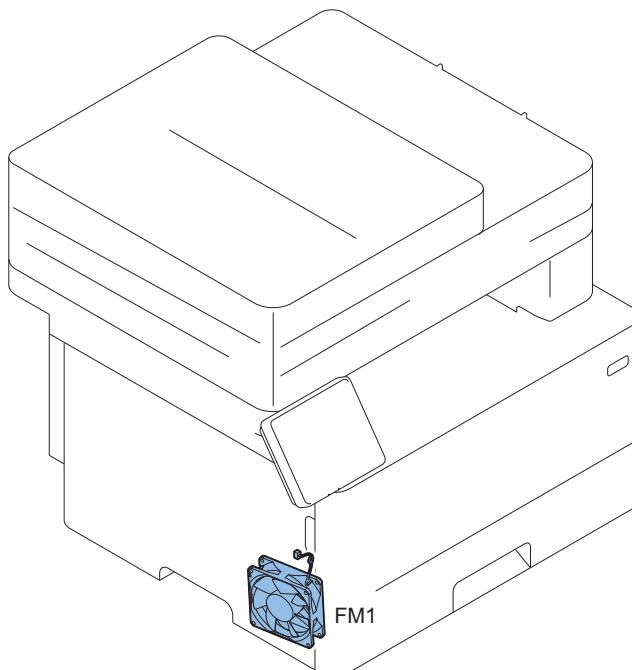
Symbol	Name	Drive parts	Failure Detection
M1	Main Motor	Photosensitive Drum, Transfer Roller, Pressure Roller, Fixing Film, Delivery Roller, Duplex Flapper, Duplex Feed Roller, Cassette Pickup Roller, Cassette Feed Roller, Feed Roller, Registration Roller, Multi-purpose Tray Pickup Roller	Yes
M2	Laser Scanner Motor	Scanner Mirror	Yes

## Fan Control

### Overview

This machine uses a fan for preventing temperature rising inside the machine.

### Description



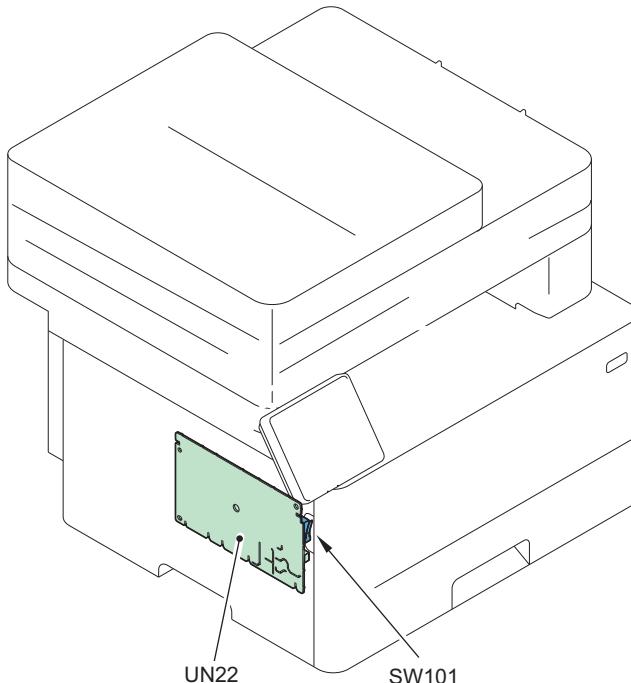
Symbol	Name	Cooling area	Type	Speed
FM1	Main Fan	Around the cartridge and low voltage power supply	Suction	Full speed

## Door Open Detection

### Overview

This machine uses the Front Cover Switch (SW101) of the High Voltage Power Supply PCB (UN22) to detect whether the Front Cover is opened or closed.

### Description



Symbol	Name	Remarks
UN22	High Voltage Power Supply PCB	
SW101	Front Cover Switch	When the switch has failed, the PCB needs to be replaced.

When door open is detected by this switch, the DC Controller stops drive of the motors and the solenoids.

## Low Voltage Power Supply Control

### Overview

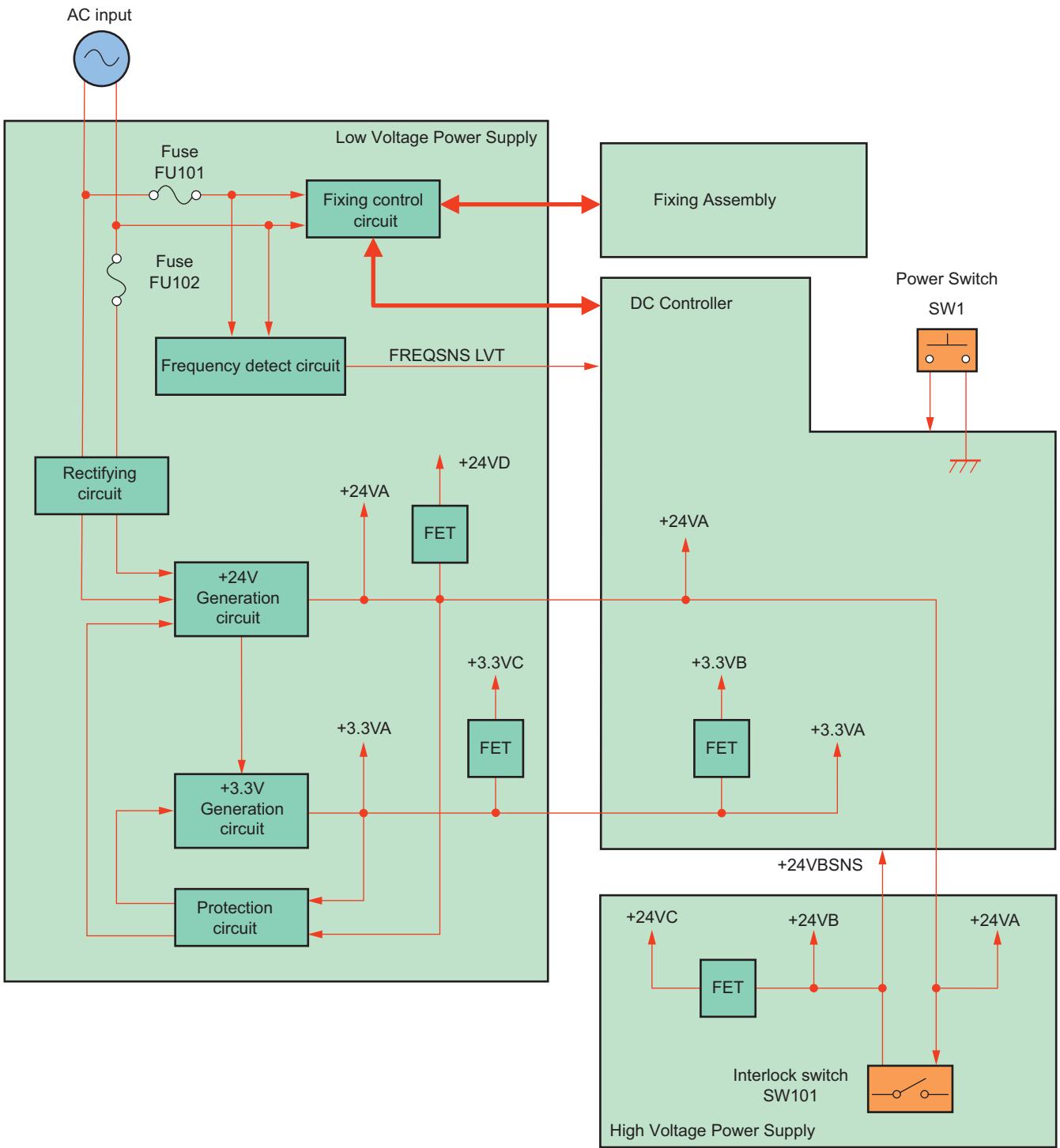
This circuit converts the AC voltage to DC power supply and provides it to each load.

### Description

The following shows a block diagram of the low voltage power supply.

- Low voltage power supply: Generates the DC power supply needed inside the printer. It also controls the temperature of the Fixing Heater of the Fixing Assembly.

The low voltage power supply starts to operate when the AC power supply is connected to the inlet. The AC power supply is converted to +24 V, which is the DC power supply required by the printer, and +3.3 V.



## Protection Function

### Overview

This machine has a protection function against overcurrent and overvoltage.

### Description

If overcurrent or abnormal voltage occurs due to a trouble, the DC voltage is automatically cut off to prevent damage to the Power Supply PCBs.

The Low Voltage Power Supply has a protection function to prevent damage to the Power Supply PCB caused by overcurrent and overvoltage.

When no DC voltage is output from the Low Voltage Power Supply Assembly, it is possible that the protection function has been activated. Therefore, turn OFF the Power Switch, disconnect the AC Power Supply Cord from the inlet, and then fix the trouble before turning ON the Power Switch again.

The machine has 2 power supply fuses (FU101 and FU102) inside the PCB as an additional protection function. If overcurrent occurs in the AC line, the power supply fuse blows and cuts off the power supply.

**NOTE:**

This machine has a function that stops supplying the +24VB and +24VC when the Cartridge Door Switch is turned OFF for the safety of users and service technicians.

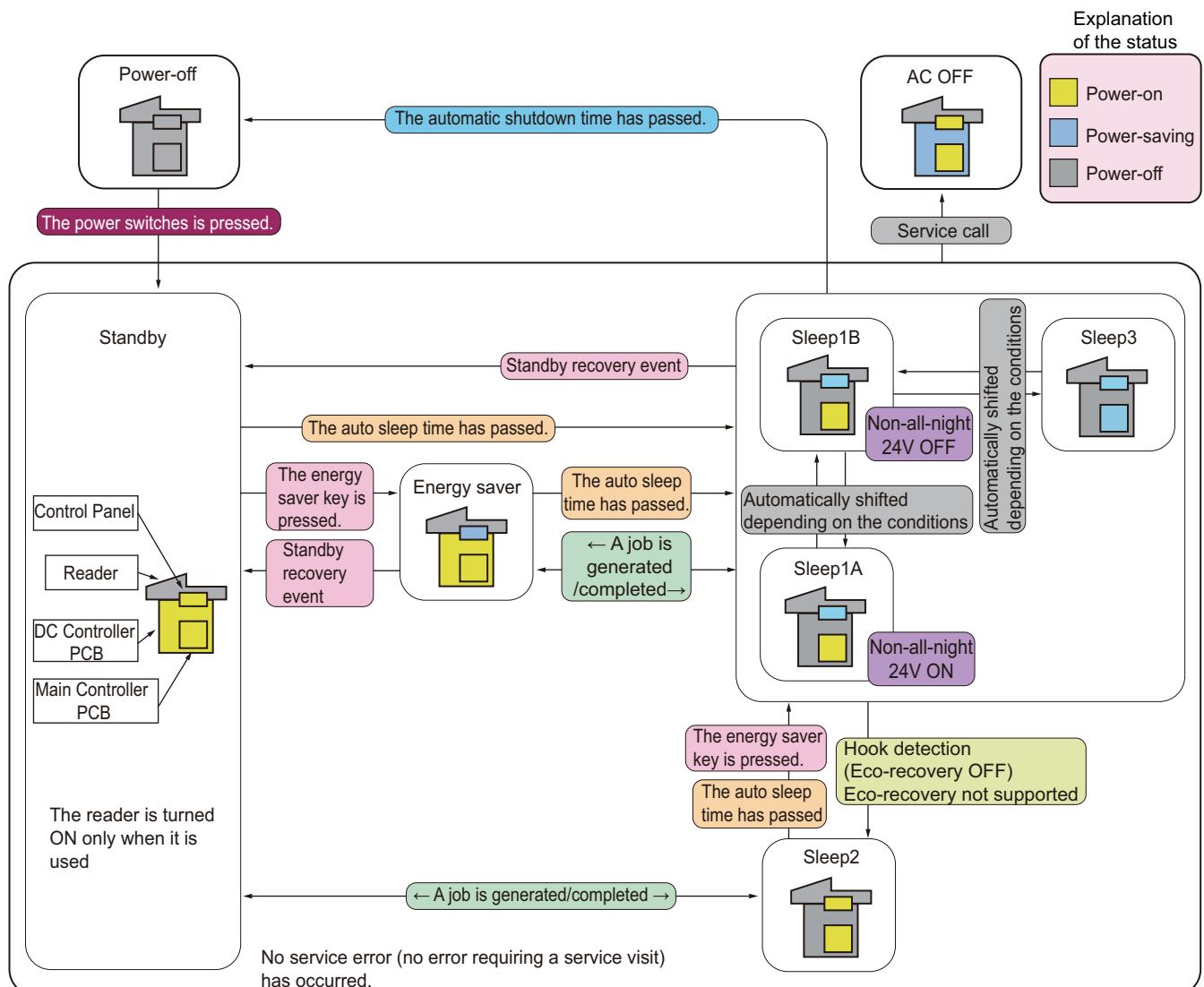
As the power of this machine is turned ON/OFF by the remote switch control circuit, power is supplied to the AC line even when the Power Switch is turned OFF. Never disassemble the machine while the Power Supply Cord is connected to the inlet.

## Power-saving Mode

### Overview

Power-saving mode is a function that reduces the printer power consumption.

### Description



	State	Description
Standby	The machine moves to a standby state by turning ON the main switch.	When introduction of jobs become possible, timers of the auto low power time and auto sleep time start counting.
Energy Saver	In a standby state, the machine moves to an energy saver state by pressing the Energy Saver key.	The Control Panel LCD, Function LED, Start Key LED and Paper Source LED are turned OFF. Moreover, the LED of energy saver is turned ON.

Sleep 1A	The machine is in a state where the 24V non-all-night power is ON.	When the auto sleep time has elapsed, transition to sleep 1A occurs.
Sleep 1B	The machine is in a state where the 24V non-all-night power is OFF.	Sleep 1B is a state where CPU moves to an operation state from sleep 3 by a hardware interruption.
Sleep 2	When change in on-hook/off-hook state is detected while the machine is in sleep 1A, sleep 1B, or sleep 3, it moves to sleep 2.	The Control Panel LCD display is turned ON, and the machine accepts key operations. When the auto sleep time has elapsed, the machine moves back to sleep 1.
Sleep 3	The controller itself gets into a power-saving mode.	In this mode, CPU of the controller has stopped. (The most effective power saving state)
Service error	When an error requiring a service visit occurs, the machine moves to this state.	Power state of the printer remains in power-saving mode so that the machine can respond to request from service mode.
Sleep Mode Eco Exit		It is a function that saves power consumption and improves noise reduction by letting the machine get into a standby state without turning ON the engine and reader when recovering from sleep.

# Laser Exposure System

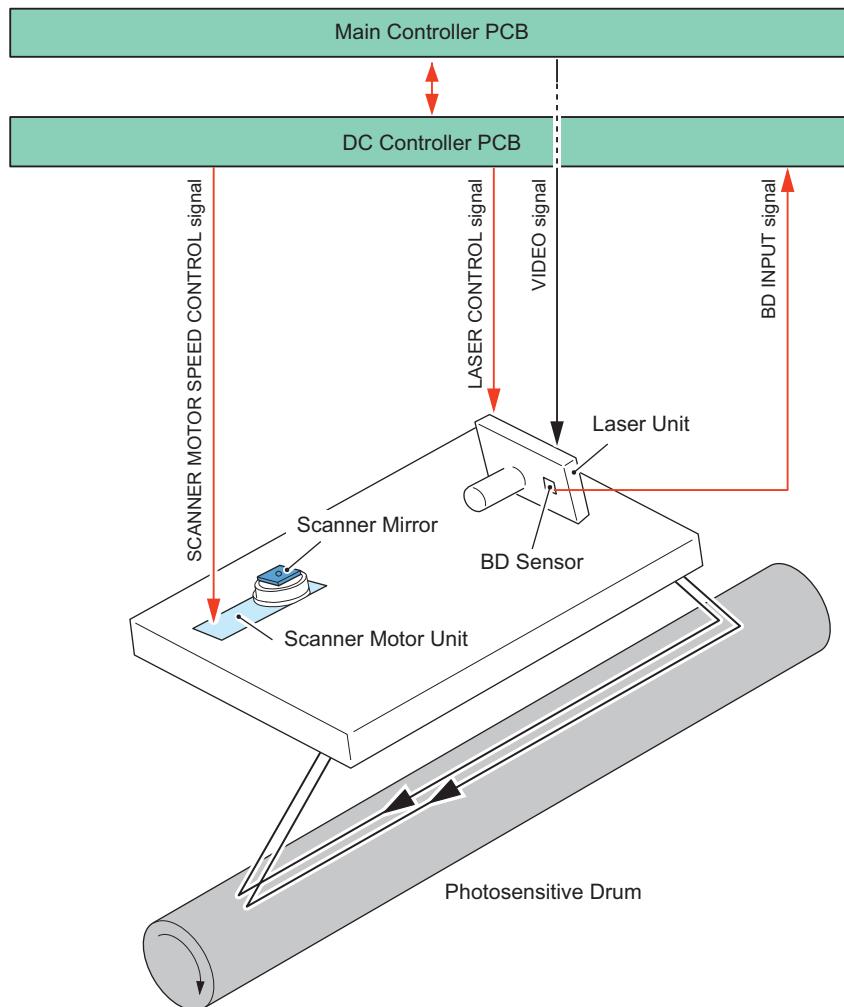
## Functional Configuration

### Overview

The laser exposure system forms a static latent image on the Photosensitive Drum by laser exposure.

### Description

The Laser Scanner Unit consists of the Laser Unit and the Scanner Motor Unit, and is controlled by the signal input from the DC Controller.



### Shutter Control

The Laser Scanner Unit of this machine has the laser shutter mechanism.

The Laser Shutter blocks laser path of the Laser Scanner Unit when the Front Cover is opened for the safety of users and service technicians.

## Failure Detection

### Overview

The DC Controller detects the following failures in the Laser Scanner Unit.

- Scanner area failure
- Scanner Motor failure

### Description

#### Scanner area failure detection

If an error in any of the Scanner Motor, Laser Unit, or BD detection in the scanner area is detected, an error code is notified.

**Scanner Motor failure detection**

- When the BD cycle is out of the specified range, an error code is notified.
- If a motor error is detected while the Scanner Motor is being driven, an error code is notified.

**Error Code**

E100: Scanner area failure

- E100-0000: BD error

E110: Scanner Motor failure

- E110-0000: Scanner Motor startup error
- E110-0001: Scanner Motor rotation error

# Image Formation System

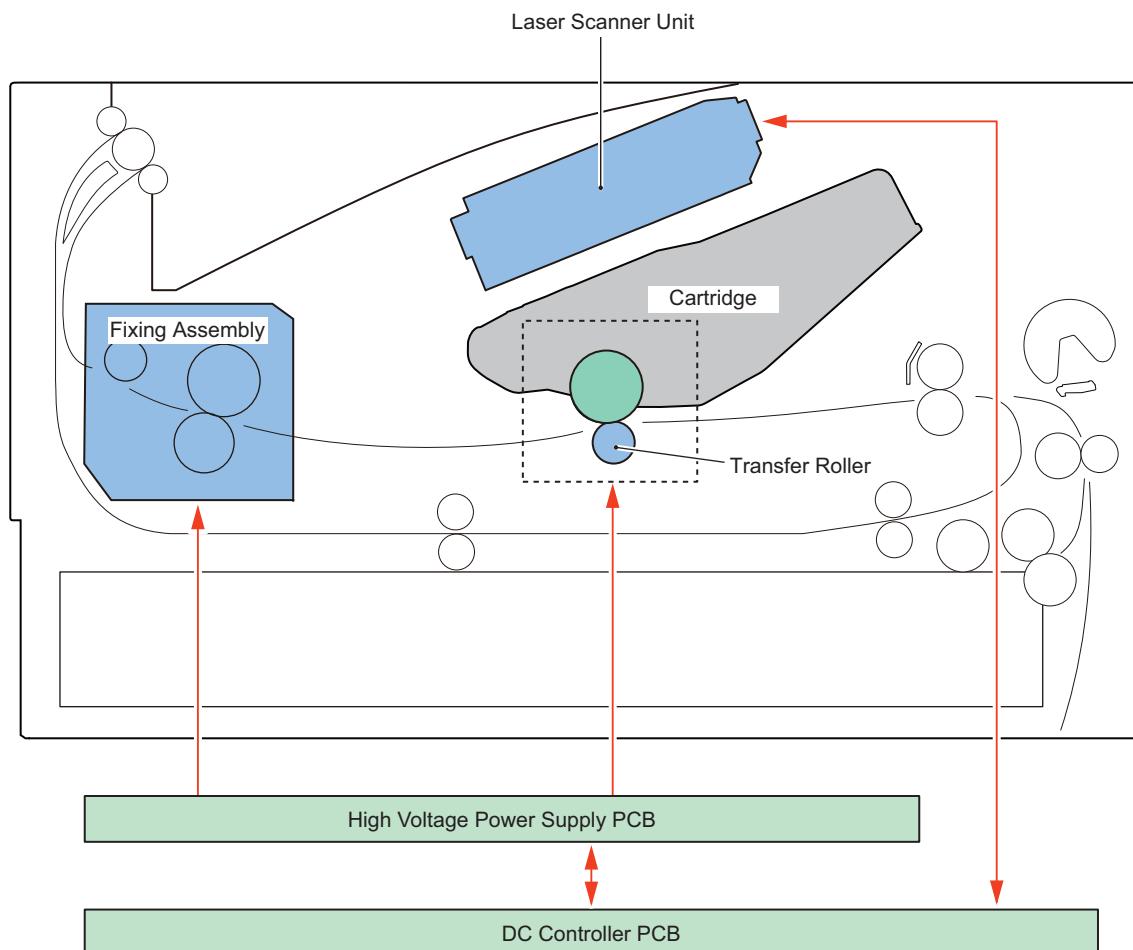
## Functional Configuration

### Overview

The image formation system forms a toner image on the paper.

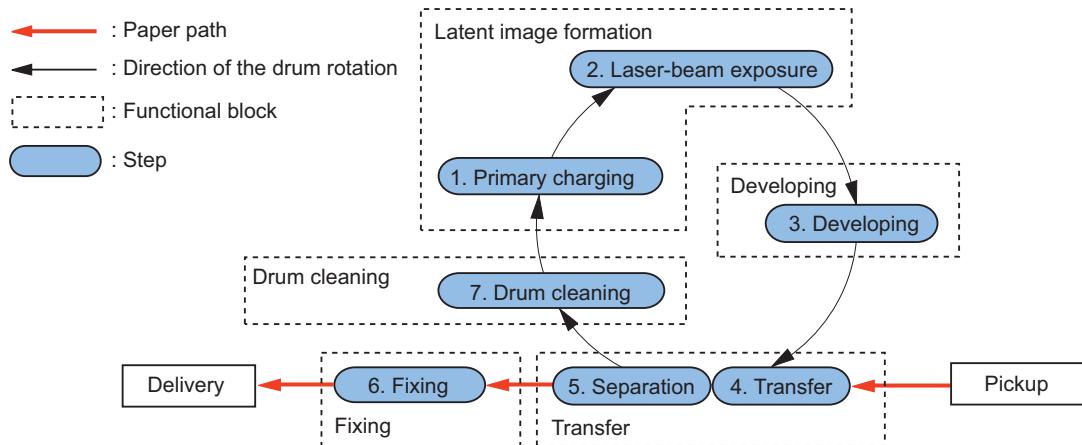
### Description

The DC Controller controls the Laser Scanner Unit and High Voltage Power Supply to form the toner image on the Photosensitive Drum, and transfers and fixes this to the paper.



## Image Formation Process

### Description



Block	No.	Process	Description
Static latent image formation block	1	Primary charging	The surface of the Photosensitive Drum is uniformly charged with negative potential.
	2	Laser beam exposure	With irradiation of laser beam, a static latent image is formed on the surface of the Photosensitive Drum. (Image exposure: Area exposed by laser is the image area)
Developing block	3	Development	With the toner projection development method, toner that has been negatively charged by the Developing Cylinder is attached to the Photosensitive Drum.
Transfer block	4	Transfer	Toner on the surface of the Photosensitive Drum is transferred to a paper by applying positive charge to the Transfer Roller.
	5	Separation	With the curvature separation method, the paper is separated from the Photosensitive Drum. In the case of thin paper which has low elastic force, the Static Eliminator reduces potential on the back side of paper to make the thin paper to be separated easily.
Fixing block	6	Fixing	Toner on the paper is fixed on the paper using heat and pressure.
Drum cleaning block	7	Drum cleaning	The Cleaning Blade removes the residual toner attached on the Photosensitive Drum.

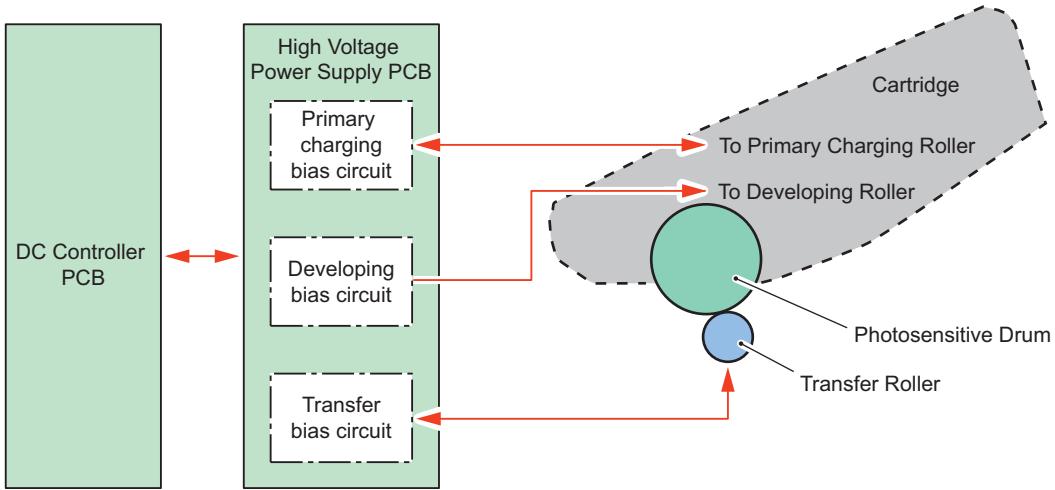
## High Voltage Power Supply Control

### Description

The High Voltage Power Supply applies high voltage biases to the following:

- Primary Charging Roller (inside the cartridge)
- Developing Roller (inside the cartridge)
- Transfer Roller

The high voltage biases are generated by the DC Controller controlling the High Voltage Power Supply.



## Cartridge

### Overview

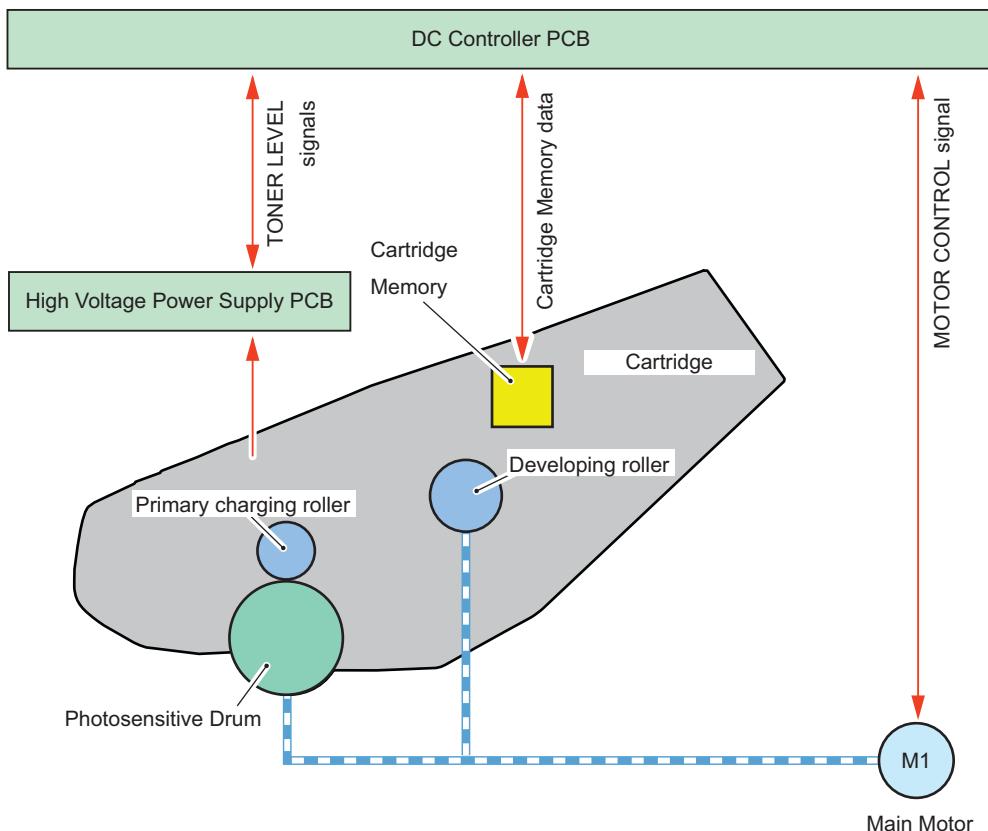
#### Overview

The cartridge has the function to form a visible image on the Photosensitive Drum with toner.

#### Description

The cartridge consists of the Photosensitive Drum, Developing Assembly, Primary Charging Roller, Cartridge Memory, etc. The DC Controller drives the Main Motor to rotate the Photosensitive Drum and Developing Roller. The Primary Charging Roller is driven and rotated by the Photosensitive Drum.

The DC Controller detects the toner level by monitoring the toner level detection signal.



## ■ Cartridge State Detection

### Execution Condition/Timing

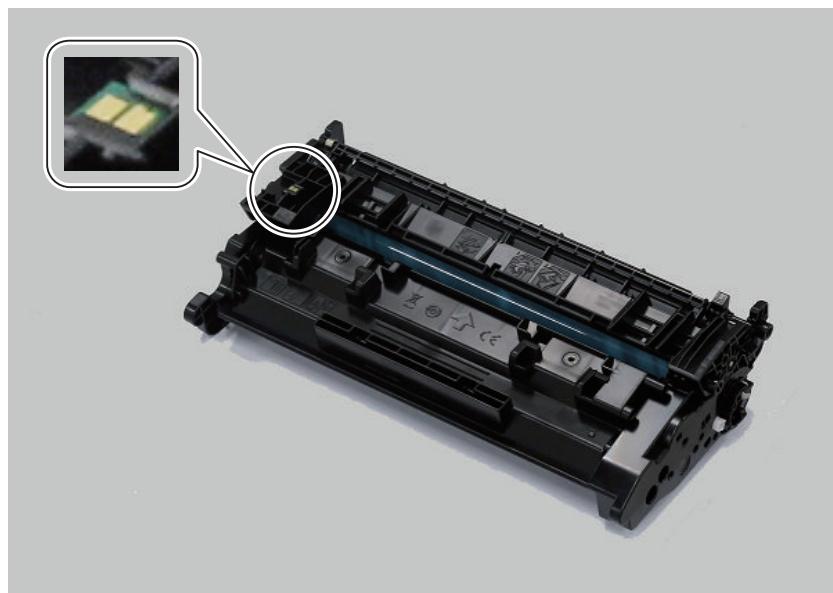
- At power-on
- When the Front Cover is closed
- At recovery from sleep mode
- When a job is completed and no jobs remain in the machine

### Description

The DC Controller detects/records the cartridge usage, etc. by reading/writing data stored in the Cartridge Memory. When the Cartridge Memory cannot be detected or a non-genuine part is detected, it notifies the Main Controller and a message is displayed on the display.

Display:

Cartridge communication error| A counterfeit or non-Canon cartridge may be in use.



Cartridge Memory Position

## ■ Cartridge Detection

### Execution Condition/Timing

- At power-on
- When the Front Cover is closed

### Description

The DC Controller detects whether a cartridge is installed according to the presence/absence of Cartridge Memory and the detected toner level.

If a cartridge is detected as absent, it is notified the Main Controller and a message is displayed on the display.

Display:

Toner Cartridge Not Inserted

## ■ Cartridge Life Detection

### Execution Condition/Timing

- At power-on
- When the engine operation is completed after the Front Cover is closed
- At completion of printing
- When the reference value of cartridge life is changed

## Description

The DC Controller notifies the Main Controller when cartridge consumption reaches the specified value.

Upon receipt of the notification, the Main Controller displays a warning or a message that the cartridge has reached the end of its life on the display.

	<b>Warning display<sup>*2</sup></b>	<b>End of life display<sup>*4 *5</sup></b>
Toner level <sup>*1</sup>	Differs depending on the setting <sup>*3</sup>	0%
Detected to (location)	Cartridge Memory	Cartridge Memory
Message	Prepare the toner cartridge.	End of Cartridge Lifetime

\*1 : The remaining toner level can be checked on the Status Monitor.

Refer to "Checking remaining toner level" in "Settings/Registration Mode/Menu" shown below.

\*2 : Whether to display or hide warnings can be specified in the menu.

Refer to "Setting of whether to display or hide warnings" in "Settings/Registration Mode/Menu" shown below.

\*3 : The threshold value to display a warning can be specified in the menu.

Refer to "ON/OFF of display of the screen for setting the threshold value for preparation of the cartridge" in "Service Mode" shown below.

Refer to "Setting of the threshold value to display a warning" in "Settings/Registration Mode/Menu" shown below.

\*4 : The operation when the cartridge has reached the end of life can be specified in service mode.

Refer to "Setting of the behavior when the cartridge reaches the end of its estimated life" in "Service Mode" shown below.

\*5 : The reference value of cartridge life (Photosensitive Drum, Developing Assembly, and Waste Toner) can be specified in service mode.

Refer to "Setting of the reference values for replacement of the Photosensitive Drum, Developing Assembly, and Waste Toner (Bk)" in "Service Mode" shown below.

## Service Mode

- Setting of the behavior when the cartridge reaches the end of its estimated life:  
COPIER > OPTION > FNC-SW > CRG-PROC
- Setting of the reference values for replacement of the Photosensitive Drum, Developing Assembly, and Waste Toner (Bk):  
COPIER > OPTION > FNC-SW > CRGLF-K
- ON/OFF of display of the screen for setting the threshold value for preparation of the cartridge:  
COPIER > OPTION > DSPLY-SW > CRGLW-LV

## Additional Functions Mode/Menu

- Checking remaining toner level:  
Status Monitor > Device Information > Cartridge Information
- Setting of whether to display or hide warnings:  
Menu > Preferences > Display Settings > Displ. Timing for Cartridge Prep. Notif.
- Setting of the threshold value to display a warning:  
Menu > Preferences > Display Settings > Displ. Timing for Cartridge Prep. Notif. > Custom

## ■ Developing Roller Engagement/Disengagement Control

### Description

This machine does not control the Developing Roller inside the Toner Cartridge to be engaged/disengaged with the Photosensitive Drum according to the machine state.

# Fixing System

## Functional Configuration

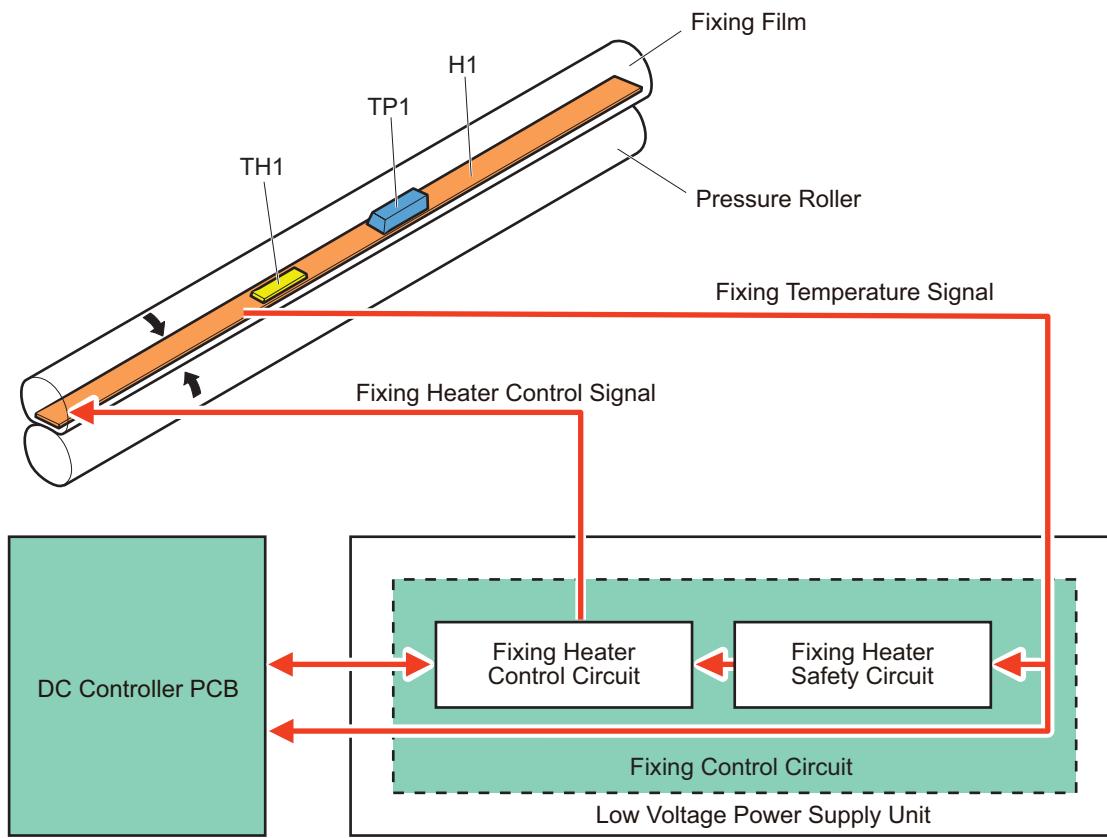
### Overview

The fixing system forms a permanent image by melting the toner on the paper using pressure and heat.

### Description

The fixing control circuit controls the temperature of the Fixing Assembly.

The Fixing Assembly of this machine uses the on-demand fixing method.



Symbol	Parts name
H1	Fixing Heater
TH1	Thermistor
TP1	Thermo Switch

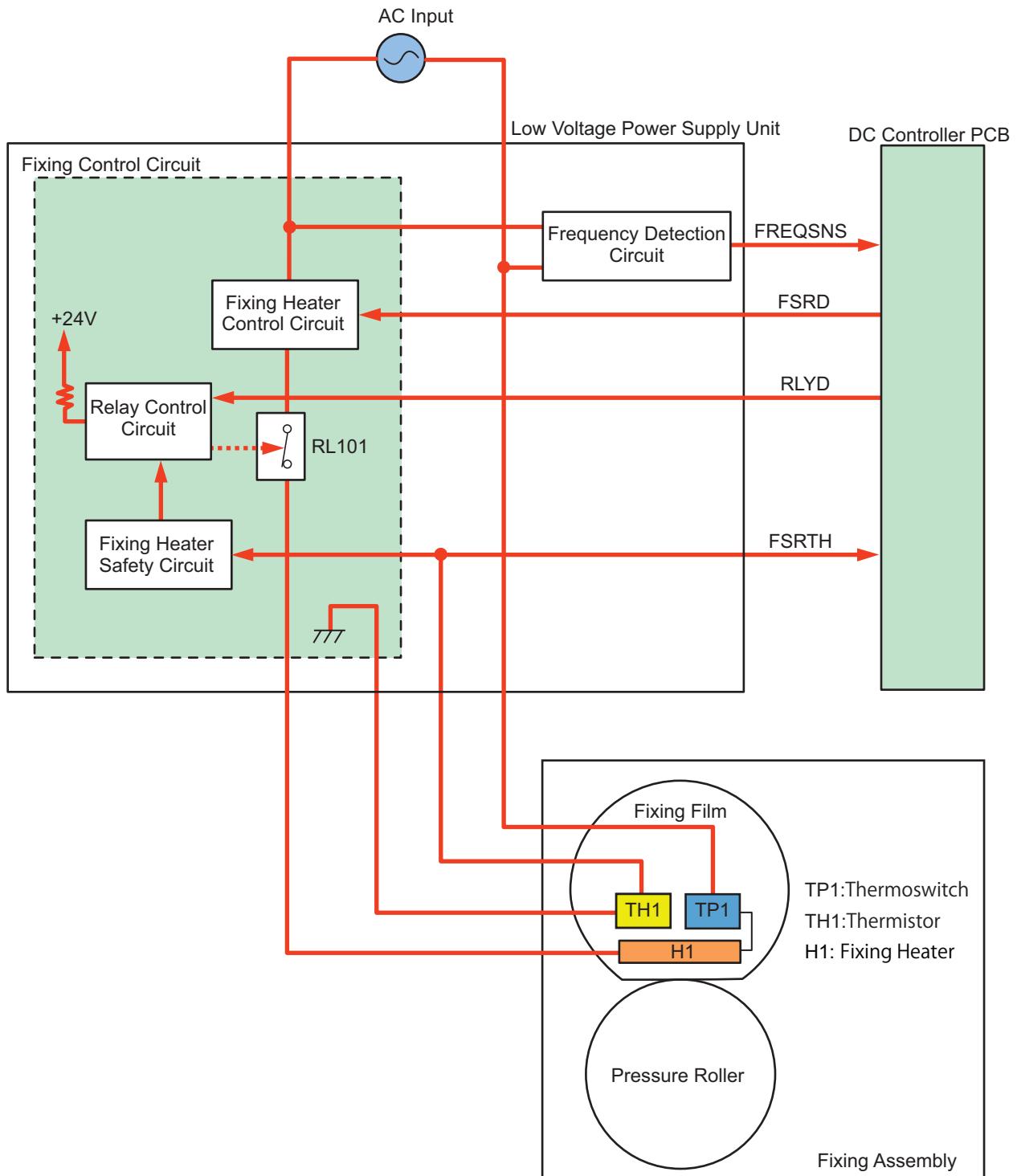
## Fixing Temperature Control

### Overview

Temperature control of the Fixing Assembly is performed by the Fixing Heater control circuit and Fixing Heater safety circuit according to the command of the DC Controller.

### Description

The DC Controller PCB monitors the fixing temperature detection signal and outputs a fixing control signal according to the detected temperature. The fixing control circuit controls the Fixing Heater on the basis of this signal, and controls the temperature of the Fixing Heater to the target value.



## Protection Function

### Overview

This machine has a function to detect abnormal temperature rising in the Fixing Assembly and cut off the power supply to the Fixing Heater.

### Description

This machine has the following four protection functions to prevent abnormal temperature rising in the Fixing Heater.

- DC Controller PCB
- Fixing Heater safety circuit
- Thermo Switch
- Down sequence control

The details are explained below.

### **DC Controller PCB**

The DC Controller PCB monitors the thermistor temperature of the Fixing Heater (Center).

When it exceeds the specified temperature, it is judged that the temperature of the Fixing Assembly is abnormally high, and the fixing control signal (FSRD) output is stopped, the relay is turned OFF, and the power supply to the heater is turned OFF.

### **Fixing Heater safety circuit**

The Fixing Heater safety circuit monitors the thermistor temperature of the Fixing Heater (Center).

When it exceeds the specified temperature, it is judged that the temperature of the Fixing Assembly is abnormally high, and the relay is turned OFF and the power supply to the heater is turned OFF.

### **Thermo Switch**

If the temperature of the Fixing Heater rises abnormally and it exceeds the specified temperature, contact point of the Thermo Switch is opened and the power supply to the heater is turned OFF.

### **Down sequence control**

The DC Controller monitors the thermistor temperature of Fixing Heater. If it rises above the specified temperature due a case such as the continuous printing of small size paper, the productivity may be greatly lowered (depending on Paper Settings, lower to approx. 4 page/min for B5/A5/A6/EXEC and approx. 6 pages/min for envelopes) to limit the temperature rise.

## **Fixing Assembly Failure Detection**

### **Overview**

When the machine is under the following conditions, the DC Controller shuts down the power supply to the Fixing Assembly and notifies an error.

- Startup failure
- Abnormal high temperature failure
- Abnormal low temperature failure
- Fixing control circuit failure

### **Description**

#### **Fixing Assembly startup failure**

An error code is notified if the Fixing Assembly does not reach a certain temperature within a specified period of time.

#### **Abnormal high temperature failure**

An error code is notified if an abnormally high temperature is detected in the Fixing Assembly.

#### **Abnormal low temperature failure**

An error code is notified if an abnormally low temperature is detected in the Fixing Assembly.

#### **Fixing control circuit failure**

An error code is notified if a zero cross signal is not detected for the specified period of time or more.

### **Error Code**

- E000-0000: Fixing Assembly startup failure
- E001-0000: Abnormal high temperature of Fixing Assembly
- E003-0000: Abnormal low temperature of Fixing Assembly
- E004-0000: Fixing control circuit failure

# Pickup Feed System

## Overview

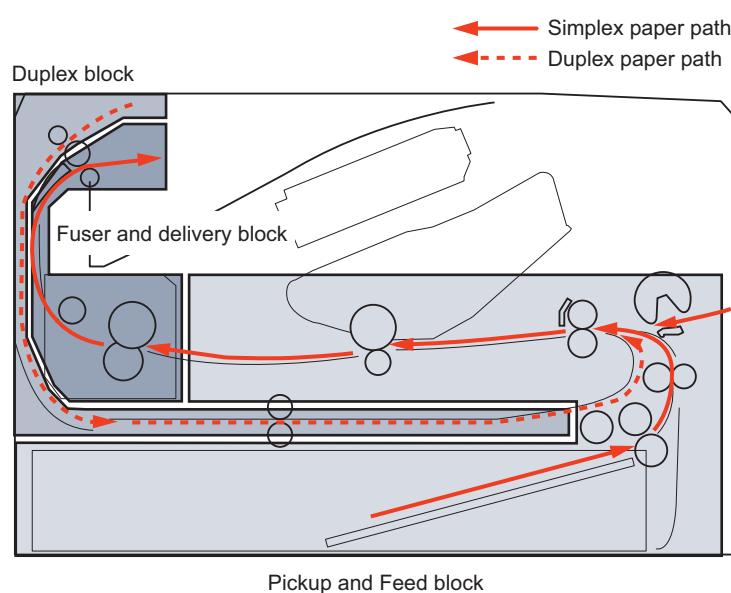
The pickup, feed, and delivery systems are controlled by the DC Controller.

The DC Controller controls the blocks in the pickup, feed, and delivery systems to pickup, feed, and deliver paper inside the machine.

## Description

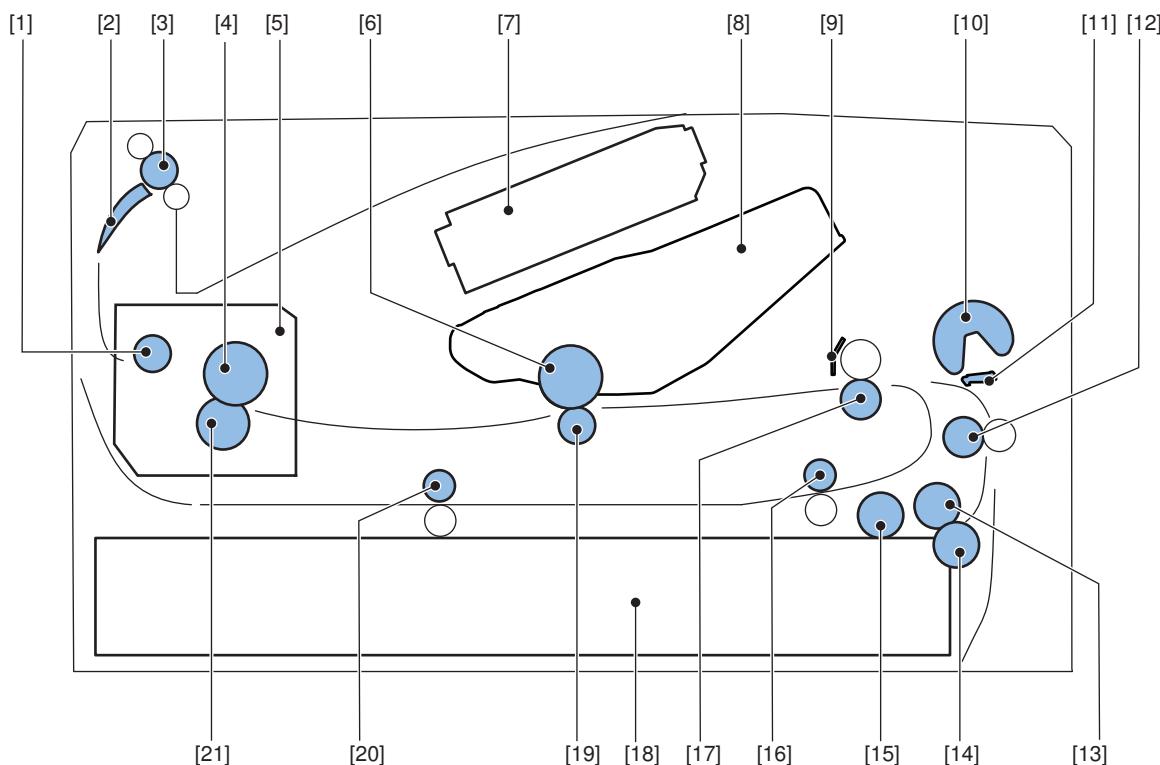
The pickup, feed, and delivery systems consist of the following three blocks.

- Pickup/Feed: From each pickup slot to the inlet of the Fixing Assembly
- Fixing/Delivery: From the Fixing Assembly to the delivery outlet
- Duplex: From the Duplex Reverse Assembly to the Duplex Re-pickup Assembly



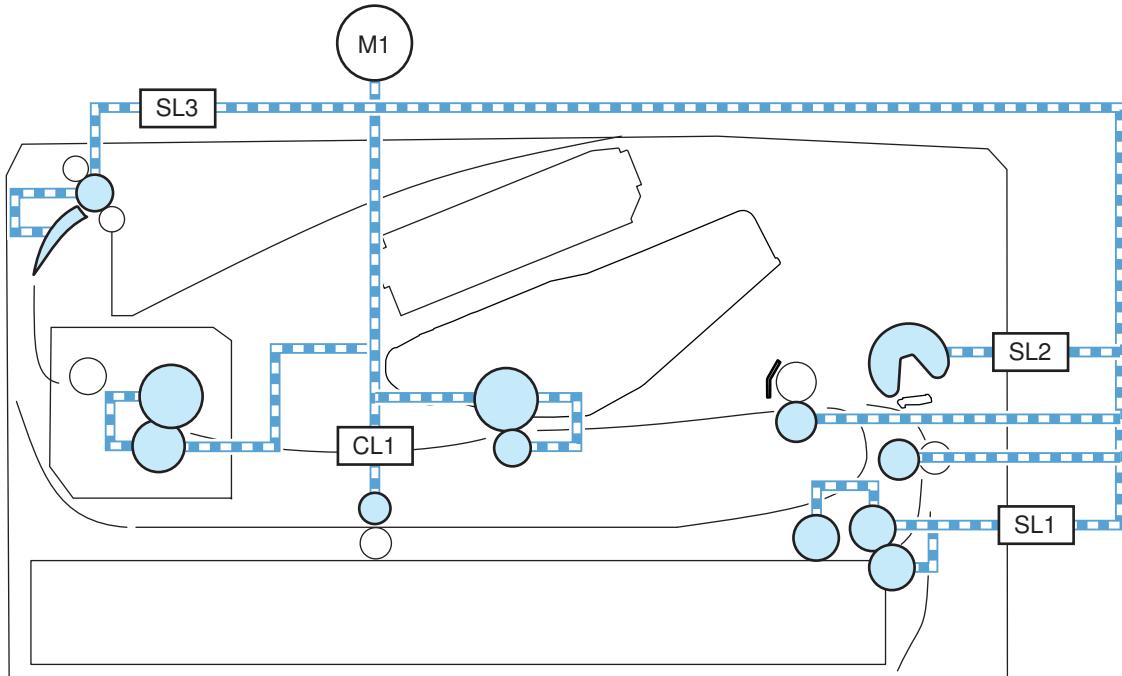
## Parts Configuration

### Description



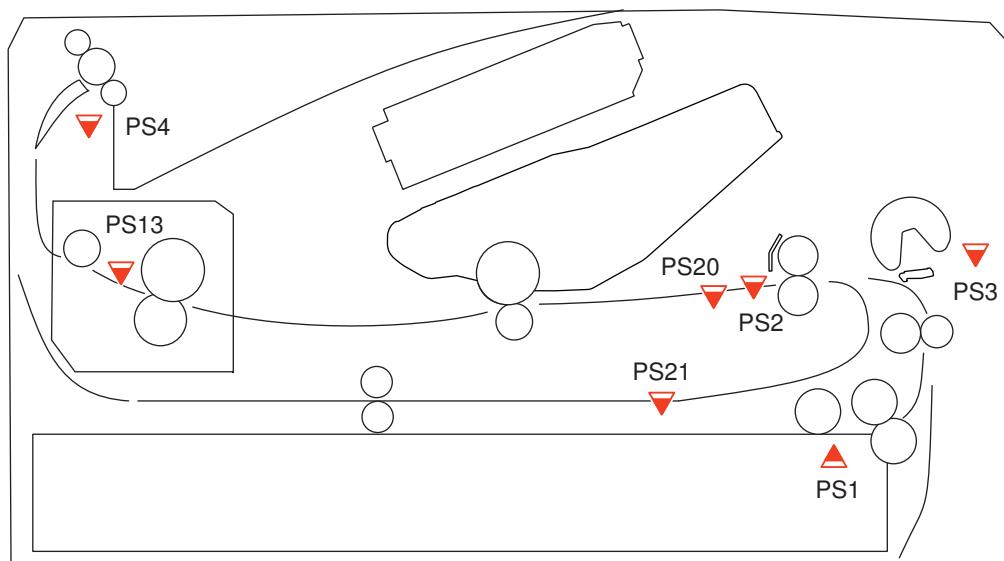
No.	Name	No.	Name
[1]	Fixing Delivery Roller	[12]	Feed Roller
[2]	Duplex Flapper	[13]	Cassette Feed Roller
[3]	Delivery Roller	[14]	Cassette Separation Roller
[4]	Fixing Film	[15]	Cassette Pickup Roller
[5]	Fixing Assembly	[16]	Duplex Re-pickup Roller
[6]	Photosensitive Drum	[17]	Registration Roller
[7]	Laser Scanner Unit	[18]	Cassette
[8]	Cartridge	[19]	Transfer Roller
[9]	Registration Shutter	[20]	Duplex Feed Roller
[10]	MP Tray Pickup Roller	[21]	Pressure Roller
[11]	MP Tray Separation Pad		

## Drive Configuration



Symbol	Name	Symbol	Name
M1	Main Motor	SL3	Duplex Reverse Solenoid
SL1	Cassette Pickup Solenoid	CL1	Duplex Re-pickup Clutch
SL2	Multi-purpose Tray Pickup Solenoid		

## Layout of Sensors

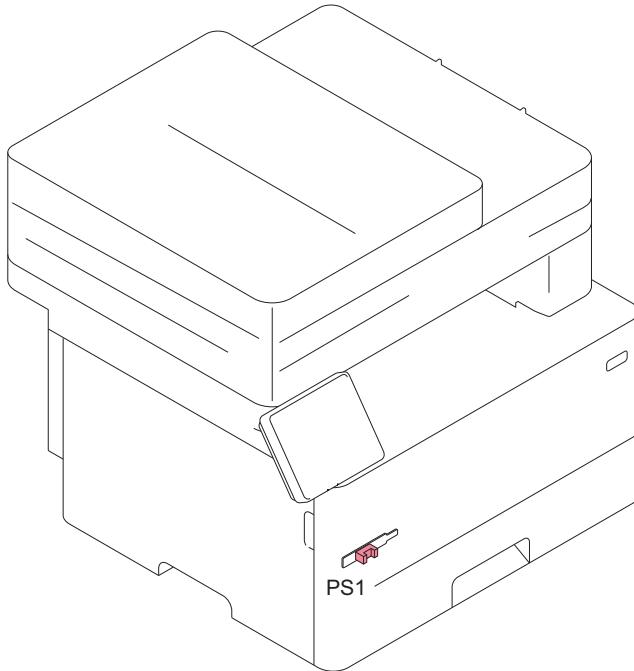


Symbol	Name	Symbol	Name
PS1	Cassette Paper Sensor	PS13	Fixing Delivery Sensor
PS2	TOP Sensor	PS20	Paper Width Sensor
PS3	Multi-purpose Tray Paper Sensor	PS21	Duplex Feed Sensor
PS4	Delivery Tray Full Sensor		

## Cassette Detection

### Description

Presence of the cassette is detected using the Cassette Paper Sensor (PS1).



Symbol	Name
PS1	Cassette Paper Sensor

## Cassette Pickup Control

### Description

The DC Controller rotates the Pickup Roller by rotating the Main Motor (M1).

The Pickup Arm is lifted and lowered to feed the paper by rotating the Pickup Cam with the Cassette Pickup Solenoid (SL1).

## Double Feed Prevention Mechanism

### Overview

This equipment employs the retard separation method to prevent double feed.

The retard separation method is the method to prevent double feed of paper, using the Separation Roller that has no drive.

The Separation Roller rotates by following the Feed Roller.

### Description

#### At normal state

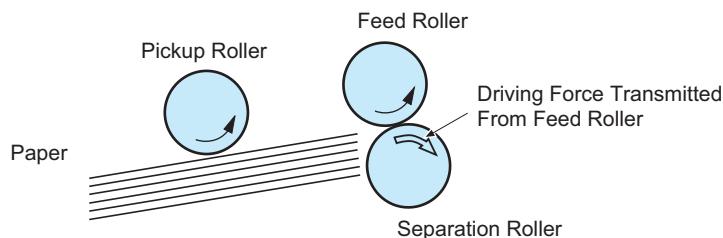
The Separation Roller is driven by the drive force of the Feed Roller transmitted through the paper. This rotates the Separation Roller in the feed direction.

#### During Double Feed

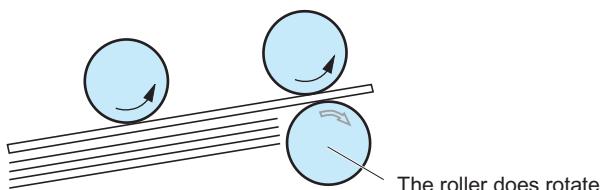
When there are multiple sheets of paper between the rollers, the friction force between those paper becomes weaker; thus the drive force of the Feed Roller transmitted to the Separation Roller becomes extremely weak.

This mechanism prevents the Separation Roller from being rotated by the weak drive force transmitted from the Feed Roller during double feed by applying a force to the Separation Roller to suppress its rotation.

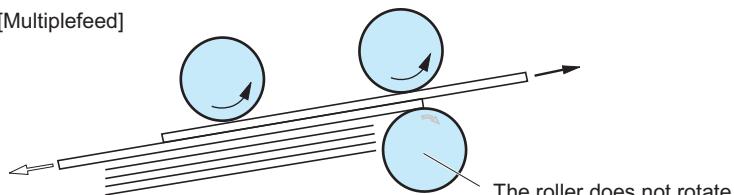
This stops the rotation of the Separation Roller and prevents it from picking up double feed paper.



[Normally]



[Multiplefeed]



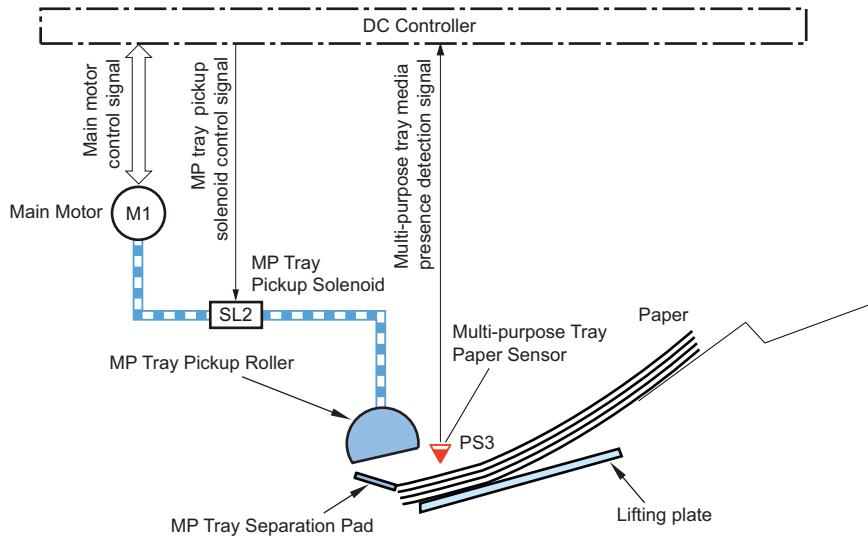
## Multi-purpose Tray Pickup Control

### Description

The Multi-purpose Tray pickup feeds paper from the Multi-purpose Tray one sheet at a time into the machine.

The following describes the operation of the Multi-purpose Tray pickup.

1. When a print command is input from the Main Controller, the DC Controller rotates the Main Motor (M1).
2. When the DC Controller turns ON the Multi-purpose Tray Pickup Solenoid (SL2), the Multi-purpose Tray Pickup Roller rotates and paper is picked up.
3. After double feed paper is removed by the Multi-purpose Tray Separation Pad, paper is fed into the machine. Note that the presence of paper on the MP Tray is detected by the Multi-purpose Tray Paper Sensor (PS3), and printing is not performed if there is no paper.



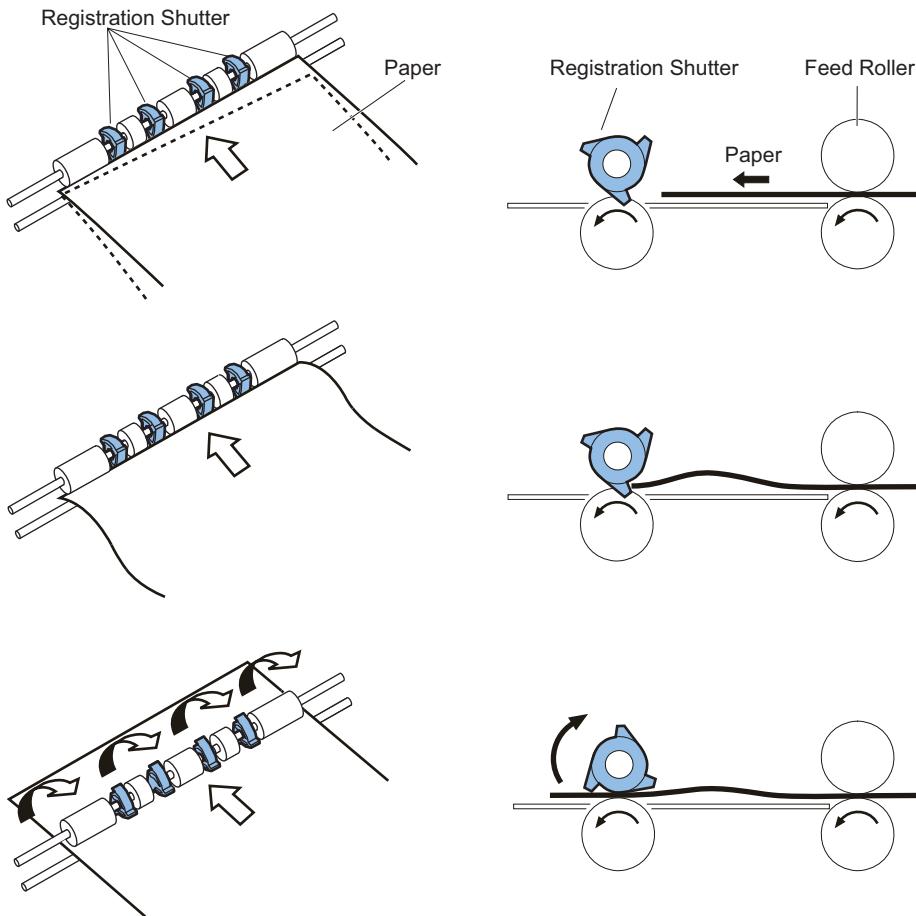
## Skew Correction

### Description

This machine can correct paper skew without lowering throughput.

Skew is corrected as follows.

1. The paper leading edge pushes against the Registration Shutter to align the leading edge of the paper.
2. The trailing edge of the paper is fed and slack is generated at the leading edge of the paper.
3. When the trailing edge is fed even further, the paper leading edge for which slack was generated pushes up the Registration Shutter and then the paper is fed to the Registration Roller while the paper leading edge is aligned.

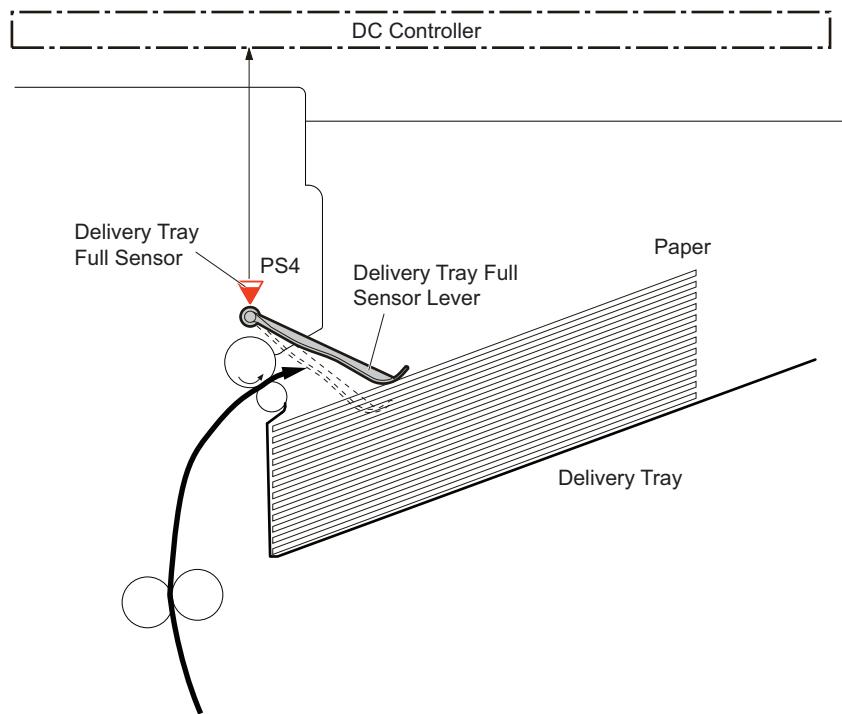


## Delivery Tray Full Detection

### Description

The DC Controller detects paper full in the Output Tray using the Delivery Tray Full Sensor (PS4).

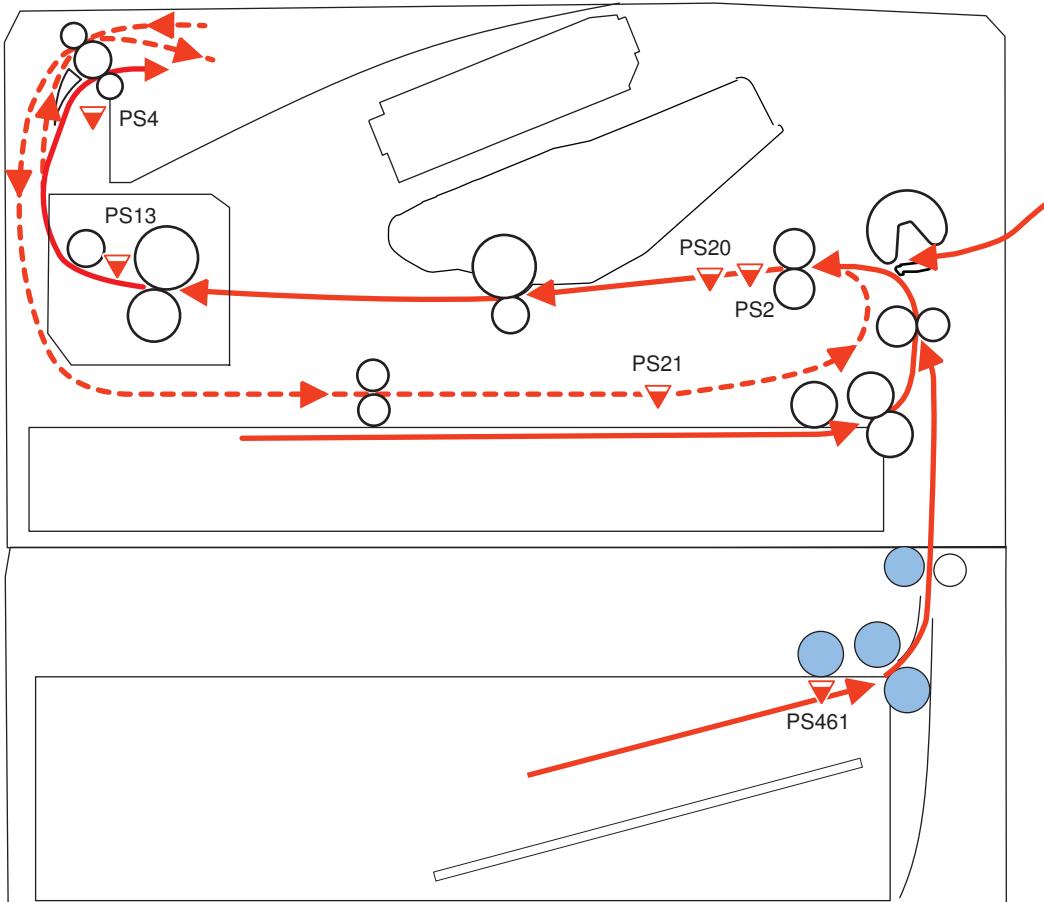
The DC Controller judges that the Output Tray is full and notifies the Main Controller when the Delivery Tray Full Sensor detects paper for more than the specified period of time during printing.



## Jam Detection

### Description

The sensors are provided at the locations shown below to detect the presence of print paper and whether the print paper is being fed correctly.



This machine uses the following sensors to detect the presence of print paper and whether the print paper is being fed correctly.

- TOP Sensor (PS2)
- Paper Width Sensor (PS20)
- Fixing Delivery Sensor (PS13)
- Duplex Feed Sensor (PS21)
- Delivery Tray Full Sensor (PS4)
- Cassette Paper Sensor (PS461)

Jam name	Details
Pickup delay jam	When the TOP Sensor (PS2) fails to detect the leading edge of paper within a specified period of time after the start of pickup from a cassette, pickup retry is performed twice. After that, if the TOP Sensor (PS2) fails to detect the leading edge of paper within a specified period of time again.
Pickup stationary jam	When the TOP Sensor (PS2) fails to detect the trailing edge of paper although a specified period of time has passed after it detects the leading edge of paper.
Fixing delivery delay jam	When the Fixing Delivery Sensor (PS13) fails to detect the leading edge of paper although a specified period of time has passed after the TOP Sensor (PS2) detects the leading edge of paper.
Fixing delivery stationary jam	The Fixing Delivery Sensor (PS13) does not detect the paper trailing edge although a specified period of time has passed after the detection of the paper leading edge.
Duplex feed delay jam	When the Duplex Feed Sensor (PS21) fails to detect paper although a specified period of time has passed after the start of duplex reversing.
Duplex re-pickup delay jam	At 2nd sheet pickup, the TOP Sensor (PS2) does not detect the paper leading edge although a specified period of time has passed.
Wrapping jam	The Fixing Delivery Sensor (PS13) detected the paper trailing edge earlier than the specified period of time after it detected the leading edge.
Internal residual jam	One of the following sensors detected presence of paper at power-on, door close, or before/after print operation. <ul style="list-style-type: none"> <li>• TOP Sensor (PS2)</li> <li>• Paper Width Sensor (PS20)</li> <li>• Fixing Delivery Sensor (PS13)</li> <li>• Duplex Feed Sensor (PS21)</li> <li>• Delivery Tray Full Sensor (PS4)</li> <li>• Cassette Paper Sensor (PS461)</li> </ul>
Door Open Jam	The door open was detected during printing and feeding paper.

# 3

## Technical Explanation (System)

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## Overview of System Management

This chapter describes information for service technicians on the system of this machine.

Although this chapter contains some information described in the User's Guide, for details on the functions for users, refer to the e-Manual.

# Version Upgrade

## Function Overview

The following firmware upgrade methods are available with this device.

### Version upgrade using User Support Tool (UST).

Upgrade the firmware of the device using UST

Open the file for UST version upgrade on a PC connected with the device and upgrade the firmware.

Since the host machine and the PC are connected using a USB cable, version upgrades can be performed in an environment where a network is not available.

### Version upgrade via Internet

Access the dedicated server, and download and upgrade the firmware.

Provided that Internet connection is available, the system automatically configures the connection destination setting and executes processing such as download and version upgrade.

### Version upgrade using a USB flash drive (released only in special cases)

Upgrade the firmware of this machine using a USB flash drive.

Connect a USB flash drive where the firmware is stored to the device, and update the firmware in service mode.

Version upgrades can be performed in an environment where a PC or network is not available.

**NOTE:**

Firmware that can be used for version upgrade using a USB flash drive is released only in special cases such as a tender business, and is not normally released. As for the detailed version upgrade procedure, follow the instructions given at the time of release of the customized firmware for version upgrade using a USB flash drive.

### Version upgrade by replacing the PCB

Version upgrade by replacing the existing PCB with a PCB where the latest firmware is installed

### Version upgrade using Local CDS

Use iW EMC/iW MC and DFU plug-in to download firmware from Local CDS and upgrade the host machine.

**NOTE:**

When using Local CDS to upgrade it, refer to the manual/material of iW EMC/iW MC DFU plug-in.

**CAUTION:**

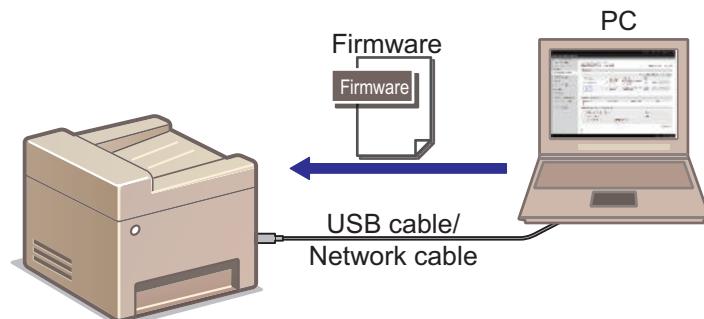
A message appears when an attempt is made to upgrade a host machine to which specified firmware has been applied. This is a precaution not to use wrong firmware to upgrade a host machine to which specified firmware has been applied. See the following regarding the combination of whether the message will be displayed:

Type of firmware applied to the host machine	Firmware to upgrade	
	General firmware	Specified firmware
General firmware	No message	No message
Specified firmware	Message displayed	Message displayed

## Version Upgrade Using UST

UST is included in the firmware for the machine that can be downloaded from the website of CINC. Firmware is downloaded as a zip file and a folder containing UST is extracted by decompressing the file.

When executing UST on the PC connected to the machine with a USB Cable, the firmware can be upgraded by downloading it from the PC to the machine. For the detailed procedure, refer to "User Support Tool Operation Guide" stored in the decompressed folder. "User Support Tool Operation Guide" is also available on the website of CINC.



## Version Upgrade via Internet

Connect to the Internet using the network function of the device, and download and upgrade the latest firmware from the server. If the device is in an environment where Internet connection is available, firmware versions can be upgraded only by operation from the menu without using PC.

### ■ Prerequisite

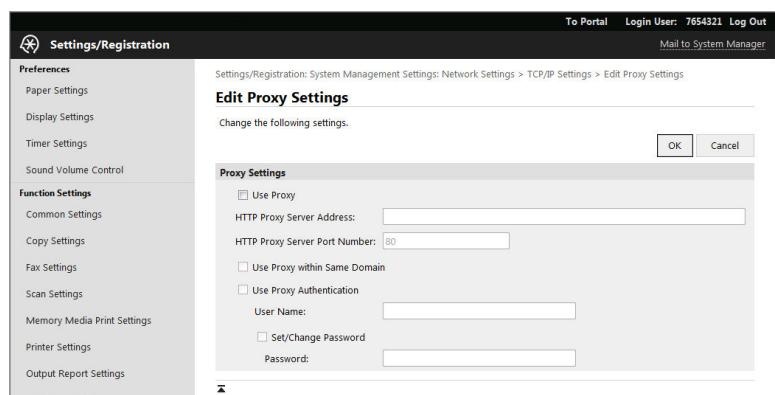
In order to perform version upgrade of the device via Internet, the following conditions must be met.

#### **There should be no other jobs being executed.**

Firmware cannot be upgraded while there is a job being executed. If there is a job being executed, wait for completion of the job and then perform the work.

#### **The device should be able to be connected to the external network.**

If connection is not available because, for example, there is a proxy server, follow the e-Manual to configure the proxy server settings and enable connection to the external network.



#### **The serial number of the host machine should be shown on the Main Controller PCB.**

Whether or not the serial number of the host machine is shown on the Main Controller PCB can be checked from the Control Panel or SPEC REPORT.

#### **Procedure to check from SPEC REPORT**

1. Execute the following service mode to print SPEC REPORT.
  - COPIER > FUNCTION > MISC-P> SPEC

2. Check if the serial number ("3 alphabetical characters + 5-digit number" or "1-digit number + 2 alphabetical characters + 5-digit number") is shown in [BODY No.] of the printed SPEC REPORT.

***** *** SPEC REPORT *** *****	
Device Info	ZZ999 Series
ROM Version	
MAIN	00.75
BOOT	00.25
LANG	01.36
ECONT	00.10
PANEL	05.01
Device Code	A0000000
Locale	9
Voltage Type	0
BODY No.	ZZZ99999
Factory Flag	12345678

## ■ Procedure for Upgrading the Firmware via Internet

### 1. Select the following menu to upgrade the firmware via Internet:

- [Management Settings] > [Remote UI Settings/Update Firmware] > [Update Firmware] > [Via Internet] > [Yes]
- When the upgrading of firmware is completed, the machine automatically restarts.

### 2. Select the following menu, and check that the firmware has been correctly upgraded:

- [Management Settings] > [Remote UI Settings/Update Firmware] > [Update Firmware] > [Version Information]

#### CAUTION:

This function does not support the operations from remote UI. ( [Update Firmware] does not exist in the [System Management Settings] menu of the remote UI.)

## ■ Messages

The message displayed on the device operation panel is as follows.

No.	Error message	The timing of occurrence	Remedy
1	Job in progress... Wait a moment, then try again.	If there is a job being executed:	1. Wait until the job is completed. 2. Cancel the job.
2	Cannot check the firmware version. (Server communication error.)	Network error	1. Check whether the device can be connected to the external network. 2. Check whether the proxy setting has been made (in case of access via a proxy server).
3	Cannot download the firmware. (Error during download.)		1. Check whether the device can be connected to the external network. 2. Check whether the proxy setting has been made (in case of access via a proxy server). 3. Check that the serial number of the host machine is shown on the Main Controller PCB.
4	***DOWNLOAD MODE*** NETWORK AVAILABLE IP ADDRESS IP address of the machine PRESS STOP KEY TO EXIT	If update (writing) of the firmware has ended in failure:	1. Update the firmware again using UST.
5	***DOWNLOAD MODE*** FAILED TO UPDATE		
6	***DOWNLOAD MODE*** UPDATE IS COMPLETE	If the update of the firmware is successful	-

## ● Version Upgrade Using a USB Flash Drive

Connect a USB flash drive where the firmware is stored to this machine, and update the firmware in service mode.

## ■ Prerequisite

In order to perform version upgrade of the machine using a USB flash drive, the following conditions must be met.

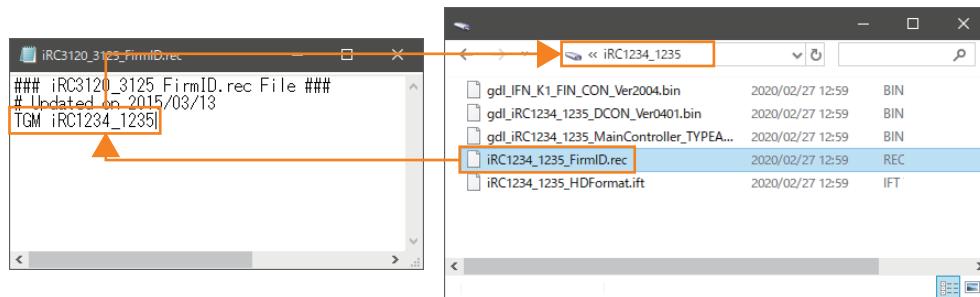
### **There should be no other jobs being executed.**

Firmware cannot be upgraded while there is a job being executed. If there is a job being executed, wait for completion of the job and then perform the work.

## ■ Procedure for Upgrading the Firmware Using a USB Flash Drive

### 1. Store the firmware on a USB flash drive.

1. Decompress the firmware and open the "(Model name)\_FirmID.rec" (Example: iRC1234\_1235\_FirmID.rec) in it by a text editor or other program.
2. Create the folder with same name as the model name described in the "TGM" row of opened file at the root directory of USB flash drive.
3. Store the decompressed firmware in this created folder.



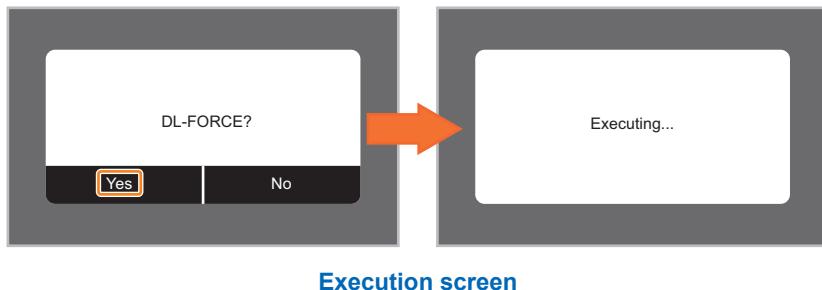
### 2. Connect a USB flash drive where the firmware is stored to this machine.

### 3. Execute one of the following service modes.

- COPIER > FUNCTION > SYSTEM > DOWNLOAD
- COPIER > FUNCTION > SYSTEM > DL\_FORCE

**NOTE:**

If you want to apply only firmware that is newer than the firmware currently applied in the machine, execute DOWNLOAD. If you want to apply all the firmware contained in the USB flash drive regardless of whether it is newer or older, execute DL\_FORCE.

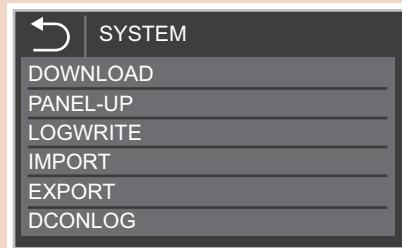


Execution screen

**CAUTION:**

When the machine returns to the service mode screen without restarting after executing this service mode, one of the following had occurred so return to step 1 and check again.

- The folder name that the firmware is stored in is not correct
- The structure of folder that the firmware is stored in is not correct. (It is not located on the root directory of USB flash drive)
- The firmware for the different model as the target model is stored

**4. The machine will automatically restart and the version upgrade process for firmware starts.****NOTE:**

After transitioning to [DOWNLOAD MODE], the USB flash drive can be removed.

**5. When the upgrading of firmware is completed, the machine automatically restarts again.**

# Setting Information Export/Import Function (DCM)

## Overview

Various data is stored in the storage inside the device.

Depending on the works to be done such as replacing parts, this data needs to be backed up and restored.

There are some ways to back up and restore data, and the appropriate one should be used depending on the purpose and storage destination.

This section describes the procedure for backing up and restoring service mode setting values.

For the procedure for backing up and restoring other information, refer to the e-Manual.

## Function Overview

This machine has a setting information export/import function (hereinafter referred to as DCM (Device Configuration Management) function) which exports/imports the machine's setting value information as a file. The file exported/imported using the DCM function is called a DCM file, and the target setting information is as follows:

- Setting information of the menu ([Settings/Registration] menu)
- Service mode setting information
- Address Book

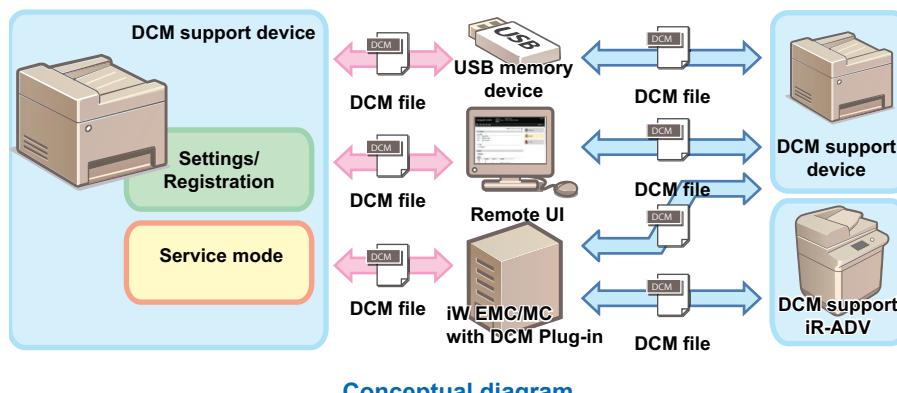
The DCM file is exported to a USB flash drive or PC local disk from the Control Panel or remote UI.

The exported DCM file can be returned to the original device or imported to a different device.

When the file is returned to the original device, this can be used as a function to back up the settings, and when the file is imported to a different device, this can be used as a function to copy setting information.

Data can also be imported to or exported from an iR-ADV machine by using iW EMC/MC DCM Plug-in.

In the case of the setting value backup function before implementation of the DCM function, an exported file could be imported only to the same device, but the DCM function enables import of an exported file to a different device.



Conceptual diagram

**NOTE:**

In order to export or import setting information using DCM, it is necessary that the device supports DCM.

## Backup/Restoration for Service Technicians

### Backup and Restoration from the Menu ([Settings/Registration] Menu)

Setting information can be backed up and restored from the Control Panel of the device or from the menu ([Settings/Registration] menu) of remote UI.

Although the menu ([Settings/Registration] menu) is for users, the service mode settings information can be backed up and restored from the Import/Export function by changing the service mode setting.

The service mode settings information can be backed up and restored only by accessing from the remote UI [Settings/Registration] menu.

### Backup/Restoration Using Service Mode

Some of the functions in service mode can be used to backup and restore data.

Setting value information and service counter (DC-CON) values can be backed up and restored.

## ■ Combination of Information Exported/Imported by DCM, Means, and Storage Locations

A DCM file is exported and imported using the Control Panel, remote UI, or the iW EMC server, depending on the situation of the site.

The information exported/imported differs depending on the means.

Combinations of them are shown in the following table.

Menu used	Operation	Information exported			Save destination
		Setting values of menu options	Address book* <sup>1</sup>	Service mode setting values	
[Settings/Registration] menu	Control panel	Yes (fixed)* <sup>2</sup>	Yes (fixed)* <sup>2</sup>	No	USB flash drive
	Remote UI	Yes	Yes	With conditions* <sup>3</sup>	PC local disk
Service mode	Control panel	No	No	Yes	USB flash drive / Storage in the host machine
	Remote UI	No	No	Yes	Storage in the host machine

## ■ Compatibility of Data

The following table shows compatibility of data in the case where the device from which the data is exported and the device to which the data is imported differ in model and/or serial number.

For items that are imported in Cases A, B, and C, refer to "List of Items Which Can Be Imported" on page 318.

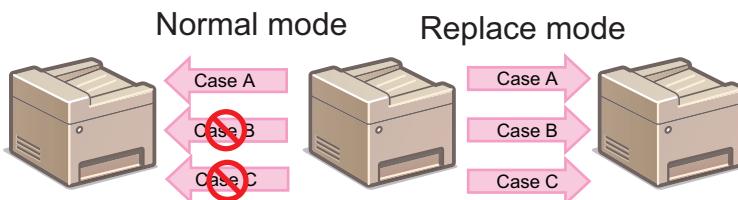
Model	Serial number	Import process
Same	Same	Items corresponding to Case A are imported.* <sup>4</sup>
Same	Different* <sup>5</sup>	Items corresponding to Case B are imported.* <sup>4</sup>
Different	Different* <sup>5</sup>	Items corresponding to Case C are imported.* <sup>6</sup>
Different	Same	The file is judged to be invalid, and the process ends with an error.

## ■ Replacement Mode

When this function is used for migrating the setting data upon replacement of a device, some of the data cannot be migrated depending on the model to which the data is migrated.

When this function is used in normal mode, data that is applicable to either Case B (of different serial number) or Case C (of different mode) cannot be imported.

When replacement mode of the device to which the data is imported is enabled, data can be forcibly migrated even to a device of a different serial number or even between different models.



\*1. Models without address books are excluded. In the case of a fax option model without SEND function, address books are exported only if a fax option is connected with the device.

\*2. When the [Settings/ Registration] menu is used from the Control Panel, both the setting menu information and the address book are imported/exported. It is not possible to export/import only either of them.  
Information which is not included in the data to be imported is not imported.

\*3. Service mode is added to the data to be exported only when service mode COPIER > OPTION > USER > SMD-EXPT is set.  
For information on items that are imported, refer to "List of Items Which Can Be Imported".

\*4. If the firmware version at the time of import differs from that at the time of export, predetermined corrective processing may be performed.

\*5. If a serial number is missing, the serial numbers are judged to be mismatched.

\*6. Predetermined corrective processing may be performed.

The following shows the procedure to turn ON replacement mode of the device to which the data is imported:

**1. Set the following service mode setting value to "1":**

- COPIER > OPTION > USER > RPL-IMP

**NOTE:**

Refer to “List of Items Which Can Be Imported” on page 318 for the target data of replacement mode.

**CAUTION:**

Since replacement mode is not lifted automatically, the setting value of the foregoing service mode needs to be changed back to "0" to return to normal mode.

## Import/Export Procedure from [Settings/Registration] of Remote UI

This section describes the procedure for backing up and restoring service mode setting information by using the [Import/Export] function in the [Settings/Registration] menu of Remote UI.

**CAUTION:**

- The service mode setting information can be backed up and restored only from the [Settings/Registration] menu on Remote UI, and the operation cannot be performed from the [Settings/Registration] menu on the Control Panel.
- In the case of backing up and restoring only the setting information of the [Settings/Registration] menu or the address book, refer to the procedure described in the e-Manual.

### ■ Limitations

The following limitations exist when backing up and restoring the service mode settings information from the [Settings/Registrations] menu of remote UI.

**A job must not be accepted during an import/export processing.**

Except for the calibration requested by the engine, a job is not allowed to be accepted during a processing. In addition, import/export must not be performed during execution of a job.

**Firmware must not be updated during an import/export processing.**

Fax cannot be received while firmware is updated during a processing. In addition, import/export must not be performed also during firmware update.

**Power must not be turned off during an import/export processing.**

If power discontinuity occurs during an import processing, a rollback processing is not performed, therefore the settings imported up to that point are reflected while the rest of the settings remain as-is.

When power discontinuity occurs during an export processing, export is not executed.

## ■ Procedure for Export from Remote UI ([System Management Settings] Menu)

Service mode setting information can be exported from the [System Management Settings] menu by setting the following service mode setting value to "1".

**1. Enter service mode, and set the following item to "1".**

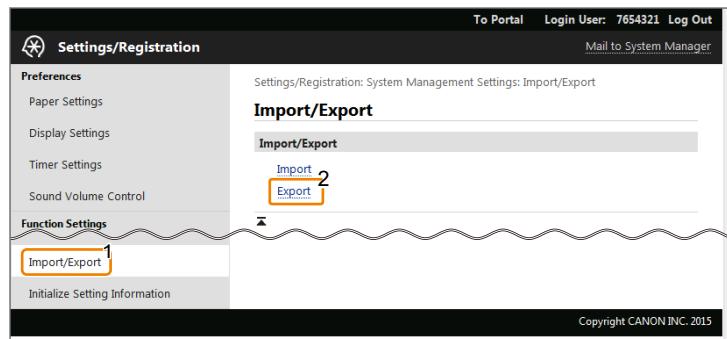
- COPIER > OPTION > USER > SMD-EXPT

**NOTE:**

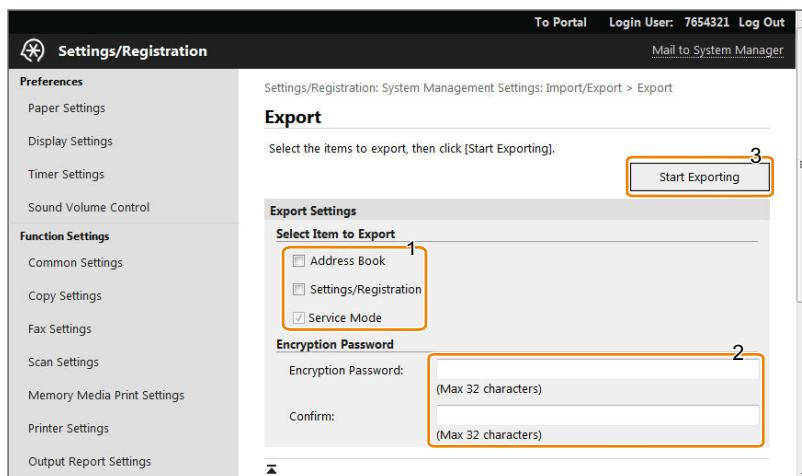
The [SMD-EXPT] setting can be configured either from the Control Panel or from the remote UI.

**2. Exit service mode, start remote UI, log in as a system administrator, and then select the following item:**

- [Settings/Registration] > [Import/Export] > [Export]



3. After confirming that [Service Mode] is displayed/selected in [Select Item to Export], enter the password and click [Start Exporting].



#### Address Book

Select the check box to export the address book data.

#### Settings/Registration

Select this check box to import the menu option data.

#### Encryption password

Enter 32 or less numeric characters set when the file was exported.

4. The file download dialog box will appear. Save the file to any location.

5. Enter service mode, and set the following item to "0".

- COPIER > OPTION > USER > SMD-EXPT

#### CAUTION:

Since the screen of export function can also be accessed by the user, be sure to disable the [SMD-EXPT] setting (setting value: 0).

## ■ Procedure for Import from Remote UI ([System Management Settings] Menu)

Import the service mode setting information file that was exported in the previous procedure.

1. Enter service mode, and set the following item to "1".

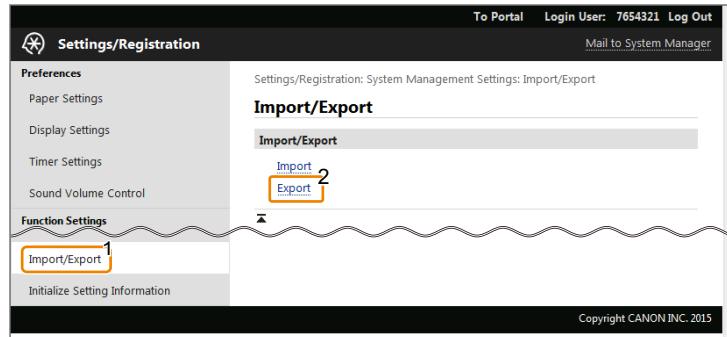
- COPIER > OPTION > USER > SMD-EXPT

#### NOTE:

The [SMD-EXPT] setting can be configured either from the Control Panel or from the remote UI.

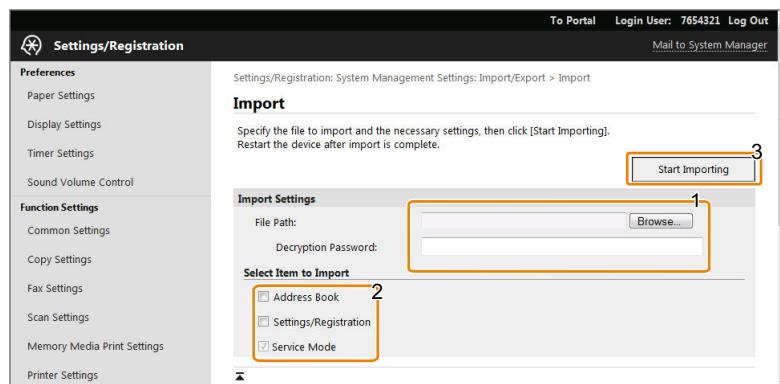
**2. Exit service mode, start remote UI, log in as a system administrator, and then select the following item:**

- [Settings/Registration] > [Import/Export] > [Import]



**3. Configure the import settings, and click [Start Importing].**

Entering the password and clicking [Start Importing] imports the menu option data.



**[Browse...] button**

Click to select the file to import.

**Decryption password**

Enter 32 or less numeric characters set when the file was exported.

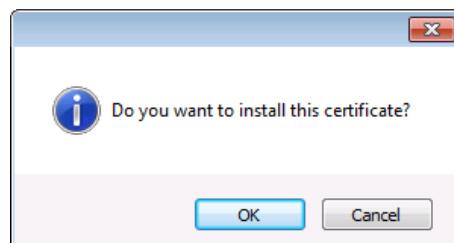
**Address Book**

Select the check box to import the address book data.

**Settings/Registration**

Select this check box to import the menu option data.

**4. Click [OK] when a dialog box confirming whether you want to execute the import process is displayed.**



**5. When a message indicating completion of the processing appears, click [OK].**



6. Restart this machine, enter service mode, and confirm that the setting information is reflected. This completes the procedure for importing a setting information file.
7. Enter service mode, and set the following item to "0".
  - COPIER > OPRION > USER > SMD-EXPT

**CAUTION:**

Since the screen of export function can also be accessed by the user, be sure to disable the [SMD-EXPT] setting (setting value: 0).

## Procedure for Exporting/Importing Service Mode Setting Information

Service mode setting information can be backed up and restored by using service mode functions. The backup file can be saved to a USB flash drive or a storage in the machine.

**Backup/restoration to a USB flash drive**

COPIER > FUNCTION > SYSTEM > EXPORT  
COPIER > FUNCTION > SYSTEM > IMPORT

**Backup/restoration to a storage in the machine**

COPIER > FUNCTION > SYSTEM > SAVE-SM  
COPIER > FUNCTION > SYSTEM > RSTR-SM

	<b>Backup/restoration to a USB flash drive</b>	<b>Backup/restoration to a storage in the machine</b>
Storage destination	USB flash drive	Storage in the machine
Number of files saved	Depends on the capacity of the USB flash drive	One
Duplication of the setting values for other machines	Possible	Not possible

### ■ Procedure for Exporting to a USB Flash Drive

Use the service mode function to save the service mode setting information to a USB flash drive.

This operation can be performed both from the Control Panel and remote UI.

The following USB flash drives can be used for export/import.

- USB flash drive in FAT 16 format (storage capacity: 2 GB)
- USB flash drive in FAT 32 format (storage capacity: 32 GB)

Note that the descriptions in parenthesis in the procedure are the descriptions in the case of remote UI.

1. Connect the USB flash drive to the USB Memory Port.
2. Enter service mode, and execute the following service mode.
  - COPIER > FUNCTION > SYSTEM > EXPORT

**CAUTION:**

Even if the service mode is executed without connecting a USB flash drive, an error is not displayed.

It looks as if the process has been completed successfully, but the file has not been exported to anywhere.

For the reason shown above, be sure to check before execution that a USB flash drive is connected.

3. The message displayed during the process will disappear. When the display has returned to the original state, remove the USB flash drive.
  4. Check that a setting information file (service.dcm) exists in the directory directly under the root of the USB flash drive.
- This completes the export of a setting information file.

### ■ Procedure for Import from USB Flash Drive

1. Save the setting information file (service.dcm) to be imported to directly under the root of the USB flash drive.
2. Connect the USB flash drive to the USB Memory Port.

3. Enter service mode, and execute the following service mode.
  - COPIER > FUNCTION > SYSTEM > IMPORT
4. The message displayed during the process will disappear. When the display has returned to the original state, remove the USB flash drive.
5. Restart this machine, enter service mode, and confirm that the setting information is reflected.  
This completes the import of a setting information file.

## ■ Backup Procedure to the Storage in the Machine

Use the service mode function to back up the service mode setting information to the storage in the machine.

This operation can be performed both from the Control Panel and remote UI.

The setting information that can be saved in the machine's storage is only one.

1. Enter service mode, and execute the following service mode.
  - COPIER > FUNCTION > SYSTEM > SAVE-SM
2. Backup process is complete after checking that the message displayed during the process disappears and the display returns to the original state.

## ■ Procedure for Restoration from Internal Storage

Restore the service mode setting information that has been backed up to the storage in the machine in the previous procedure.

1. Enter service mode, and execute the following service mode.
  - COPIER > FUNCTION > SYSTEM > RSTR-SM
2. Restoration process is complete after checking that the message displayed during the process disappears and the display returns to the original state.

# Monitoring Function

## Overview of System

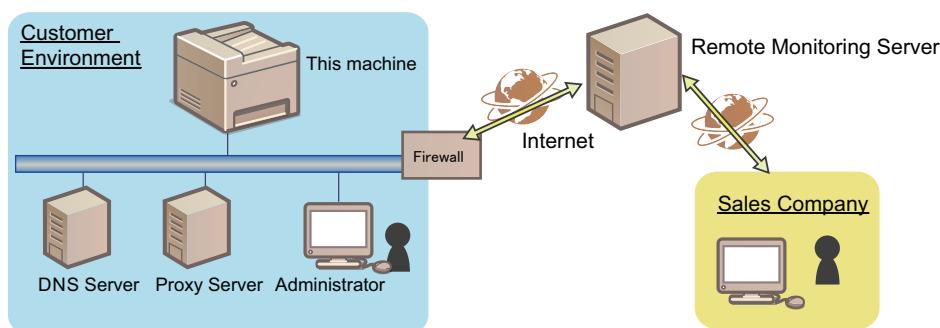
### Function Overview

E-RDS (Embedded 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.

The information to be monitored is:

- Billing counter
- Parts counter
- ROM version
- Service call error log
- Jam log
- Alarm log
- Change of status (such as status of consumables)

Since the information shown above is customer information, HTTPS/ SOAP protocol is used for communication between the UGW server and the host machine to improve security.



### Features

E-RDS is embedded in the network module of the device, and the front-end module of the Remote Monitoring Service is realized without requiring hardware besides the device.

### Main Functions

Functional category	Sub category	Description
Communication Test	Test	By executing the following service mode, E-RDS communicates with Remote Monitoring Server, retrieves schedule information, and establish communication. COPIER > FUNCTION > INSTALL > COM-TEST
Transmission of counters	Billing/all resources/parts/mode-by-mode counters	E-RDS Periodically send billing/all resources/parts/mode-by-mode counters to the Remote Monitoring Server.
Transmission of event logs	Service call/alarm/jam log	Each time a service call, alarm, or jam log occurs, the error log is sent to the Remote Monitoring Server. Having alarm log or not is different by a model.
Data transmission	ROM version / Device configuration	E-RDS periodically sends the firmware information of the device to Remote Monitoring Server. E-RDS sends the device configuration information only when there is any change in the configuration.
	E-RDS Debug information	Debug information of E-RDS are stored in E-RDS, and they are sent to Remote Monitoring Server only when they exceed a specific size.
	Repair request	E-RDS sends error information (image failure, jams or others) according to the instruction of the user.
	Debug log transmission	When E-RDS catches the debug log transmission of a message designation than Remote Monitoring Server, send data such as device Debug logs and DCON logs to the Remote Monitoring Server.

Functional category	Sub category	Description
Operation instruction	Operation check	E-RDS contacts Remote Monitoring Server to check if there is processing to be executed next, and receives the following instructions if any. <ul style="list-style-type: none"> <li>• Linkage with CDS</li> <li>• Debug log transmission</li> </ul>

## Servicing Notes

- After clearing the Main Controller PCB, initialization of the E-RDS setting (ERDS-DAT) and a communication test (COM-TEST) need to be performed. If this work is omitted, an error may occur when counters are sent to UGW.  
After replacing the Main Controller PCB, all the settings need to be reconfigured.
- Do not change the values of the following service modes unless otherwise instructed.  
If they are changed, a communication error will occur with UGW.
  - Port number of UGW  
[COPIER] > [FUNCTION] > [INSTALL] > [RGW-PORT]  
Default: 443
- If the e-Maintenance/imageWARE Remote contract of the device becomes invalid, be sure to turn OFF the E-RDS setting (E-RDS: 0).
- When the E-RDS function is enabled, a communication test can be performed from [Check Counter] of the Control Panel of the host machine. \*1  
When conducting a communication test from [Check Counter], pay attention to 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 [Check Counter], do not conduct a communication test from the other. This operation is not guaranteed.

## Setting Procedure

### Preparation

Since this function communicates with the Remote Monitoring server, it is necessary to connect to the external network. Check the following items, and make the settings if not yet set.

- IP address settings
- DNS server settings
- Proxy server settings\*2
- Installation of CA certificate (arbitrary \*3 )

#### CAUTION:

- Obtain the information on the network environment from the system administrator of the user.
- When having changed the network settings, turn OFF and then ON the main power of the machine.

### Procedure for Setting E-RDS

1. In the following service mode, select the following service mode to initialize the E-RDS setting values:
  - COPIER > FUNCTION > CLEAR > ERDS-DAT

#### NOTE:

This operation initializes the E-RDS settings to factory setting values.

For the setting values to be initialized, see the section of "Setting values and data to be initialized" on page 64 .

\*1. The user can perform a communication test or browse the result of communication test.

If the communication results in failure, an error code (hexadecimal number, 8 digit) is displayed on the Control Panel.

\*2. If authentication is necessary, make the settings of the authentication information as well.

\*3. When using a certificate other than those pre-installed in the device

## 2. Enable the E-RDS function in the following service mode, and perform a communication test.

1. Select the following item:
  - COPIER > FUNCTION > INSTALL > ERDS
2. Enter [1] from the keyboard, and press [Apply].

### CAUTION:

The following settings i.e. RGW-PORT in Service mode must not be change unless there are specific instructions to do so. Changing these values will cause error in communication with Remote Monitoring Server.

When the E-RDS function is enabled, the function to communicate with Remote Monitoring Server is enabled.

## 3. Select [COM-TEST] and then touch [Yes].

If the communication is successful, "OK" is displayed. If "NG" is displayed, check the network settings and Remote Monitoring Server address (URL).

### CAUTION:

The communication results with Remote Monitoring Server can be distinguished by referring to the COM-LOG. By performing the communication test with Remote Monitoring Server, E-RDS acquires schedule information and starts monitoring and meter reads operation.

## Maintenance

### ■ 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

Follow the procedure shown below to initialize E-RDS.

1. Enter service mode as a system administrator user.
2. Select the following service mode, and press [OK] to execute.
  - COPIER > Function > CLEAR > ERDS-DAT

#### • Setting values and data to be initialized

The following E-RDS settings, internal data, and Alarm filtering information are initialized.

- COPIER > FUNCTION > INSTALL > ERDS
- COPIER > FUNCTION > INSTALL > RGW-PORT
- COPIER > FUNCTION > INSTALL > COM-LOG

### CAUTION:

If a certificate other than the CA certificate at the time of shipment has been installed, initializing the E-RDS setting will not change the settings back to those at the time of shipment. To change the certificate back to the CA certificate at the time of shipment, delete the certificate (install the CA certificate at the time of shipment) after initializing the E-RDS settings.

### ■ Report Output of Communication Error Log (COM-LOG)

A report of communication error log information on five affairs can be output.

#### • Report output procedure

1. Select the following service mode, and press [Yes].
  - COPIER > FUNCTION > MISC-P > ERDS-LOG

12/09 2015 10:14AM

```
*****
*** E-RDS-COM-LOG ***
*****
```

No.01 DATE 12/09/2015 TIME 03:21 AM CODE 05000003  
Information SUSPEND: Communication test is not performed.

No.02 DATE 12/09/2015 TIME 03:21 AM CODE 00000000  
Information SUSPEND: mode changed.

No.03 DATE 12/09/2015 TIME 03:18 AM CODE 05000003  
Information SUSPEND: Communication test is not performed.

No.04 DATE 12/09/2015 TIME 03:18 AM CODE 00000000  
Information SUSPEND: mode changed.

No.05 DATE 12/09/2015 TIME 01:56 AM CODE 05000003  
Information SUSPEND: Communication test is not performed.

**Output sample**

## Error Message List

Error information displayed on the communication error log detail screen is shown below.  
(The "server" described here means Remote Monitoring Server.)

Code	Character strings	Cause	Remedy
0000 0000	SUSPEND: mode changed.	Operation mode mismatch	Execute initialization of the E-RDS settings (ERDS-DAT).
0500 0003	SUSPEND: Communication test is not performed.	E-RDS was enabled, but the main power of the device was turned OFF and then ON without performing a communication test.	Perform and complete a communication test (COM-TEST).
0xxx 0003	Server schedule is not exist	The schedule does not exist.	Perform and complete a communication test (COM-TEST).
0xxx 0003	Communication test is not performed	Communication test has not been completed.	Perform and complete a communication test (COM-TEST).
84xx 0003	E-RDS switch is setted OFF	E-RDS is not enabled.	Set the value of the E-RDS setting (E-RDS) to 1, and perform a communication test (COM-TEST).
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 in the device (event processing) failed.	Turn OFF and then ON the power of the device. If the error occurs again after turning OFF and then ON the power, replace the system software of the device (version upgrade).
8700 0306	SRAM version unmatch!	An invalid value has been entered at the beginning of the NVMEM area of E-RDS (nonvolatile memory area).	Turn OFF and then ON the power of the device.
8700 0306	SRAM AeRDS version unmatch!	An invalid value has been entered at the beginning of the NVMEM area of E-RDS (nonvolatile memory area).	Turn OFF and then ON the power of the device.

Code	Character strings	Cause	Remedy
8xxx 0004	Operation is not supported	The user tried to execute a method which is not supported by E-RDS.	Collect Debug log and contact the Support Dept. of the sales company.
8xxx 0101	Server response error ( NULL )	Remote Monitoring Server reply error: Processing of the Remote Monitoring Server error code failed.	Perform and complete a communication test (COM-TEST).
8xxx 0201 8xxx 0202 8xxx 0203 8xxx 0204 8xxx 0206	Server schedule is invalid	The schedule specified by Remote Monitoring Server is invalid.	Report the detailed information at the time of occurrence of the error to the Support Dept. Perform a remedy on the Remote Monitoring Server side, and then perform a communication test again.
8xxx 0207 8xxx 0208	Internal Schedule is broken	The internal schedule of E-RDS is invalid.	Perform and complete a communication test (COM-TEST).
8xxx 0221	Server specified list is too big	The information the Remote Monitoring Server instructed to send for the alert code/alarm code filter function is invalid.	There is a problem with the alarm filter set for Remote Monitoring Server. Contact the Support Dept. of the sales company.
8xxx 0222	Server specified list is wrong	The information the Remote Monitoring Server instructed to send for the alert code/alarm code filter function is invalid.	There is a problem with the alarm filter set for Remote Monitoring Server. Contact the Support Dept. of the sales company.
8xxx 0304	Device is busy, try later	A semaphore consumption error occurred during a communication test.	Wait for a while and then perform a communication test again.
8xxx 0709	Tracking ID is not match	When the firmware is updated, the tracking ID in the reply of Updater differs from that specified by Remote Monitoring Server.	Collect Debug log and send it to the Support Dept. of the sales company.
8xxx 2000	Unknown error	Other communication errors	Perform and complete a communication test (COM-TEST).
8xxx 2003	Network is not ready, try later	After the main power of the device is turned OFF and then ON, a communication test was performed with the network not ready.	Check the connection status of the network. Perform a communication test (COM-TEST) 60 seconds after turning ON the power of the device.
8xxx 2004	Server response error ([hexadecimal]) [detailed error information on the server side]	Remote Monitoring Server reply error: Communication to Remote Monitoring Server has succeeded, but an error occurred and Remote Monitoring Server returned an error.	Wait for a while and then try again. Check the error code (in hex notation) and the details of the error (detailed error information on the server side) from Remote Monitoring Server displayed after the message.
8xxx 200A	Server connection error	Remote Monitoring Server connection error: <ul style="list-style-type: none"><li>• TCP/IP communication failed.</li><li>• The IP address of the device has not been set.</li></ul>	<ul style="list-style-type: none"><li>• Check the connection status of the network.</li><li>• If proxy is used, configure the proxy settings and check the status of the proxy server.</li></ul>
8xxx 200B	Server address resolution error	Remote Monitoring Server address resolution error	<ul style="list-style-type: none"><li>• Check that Internet connection is available in the environment.</li></ul>
8xxx 2014	Proxy connection error	The address is invalid and connection to the proxy server fails.	Check the address/port of the proxy server, and configure the settings again.
8xxx 2015	Proxy address resolution error	Proxy address name resolution error	<ul style="list-style-type: none"><li>• Check the host name and the DNS settings of the proxy server.</li><li>• Set the proxy server using the IP address.</li></ul>
8xxx 201E	Proxy authentication error	Proxy authentication error	Check the user name and password for logging in to the proxy, and configure the settings again.
8xxx 2028	Server certificate error	<ul style="list-style-type: none"><li>• The root certificate for the server has not been registered on the device.</li><li>• The user has used another certificate and the correct certificate file has not been registered.</li><li>• The date and time of the device is correct.</li></ul>	<ul style="list-style-type: none"><li>• Install the latest device system software (upgrade the version).</li><li>• Set the correct date and time on the device.</li><li>• Execute CLEAR &gt; CA-KEY, and turn OFF and then ON the power of the device (automatic installation of the CA certificate at the time of shipment).</li></ul>

Code	Character strings	Cause	Remedy
8xxx 2046	Server certificate expired	<ul style="list-style-type: none"> <li>The root certificate registered on the device has expired.</li> <li>The root certificate registered by the user at first is used and the correct certificate has not been registered.</li> <li>The date of the device is outside the validity period.</li> </ul>	Set the correct date and time on the device. If the date and time set on the device is correct, upgrade the version to the latest system.
8xxx 2047	Server response time out	Remote Monitoring Server reply time-out	If this occurs during a communication test, wait for a while and then perform a communication test (COM-TEST) again.
8xxx 2058	Unknown error	SOAP Client failed to obtain SOAPResponse. It may be caused by a problem on the server side or a temporary problem in network load, etc.	Perform and complete a communication test (COM-TEST).
8xxx 2063	SOAP Fault	SOAP error (SOAP Fault)	Check that the value of the port number of Remote Monitoring Server (RGW- PORT) is 443.
xxxx xxxx	Device internal error	Device internal error	Turn OFF and then ON the power of the device. Or, replace the system software of the device (version upgrade).
xxxx xxxx	SUSPEND: Initialize Failure!	Internal error at startup of E-RDS	Turn OFF and then ON the power of the device.

# Security Functions

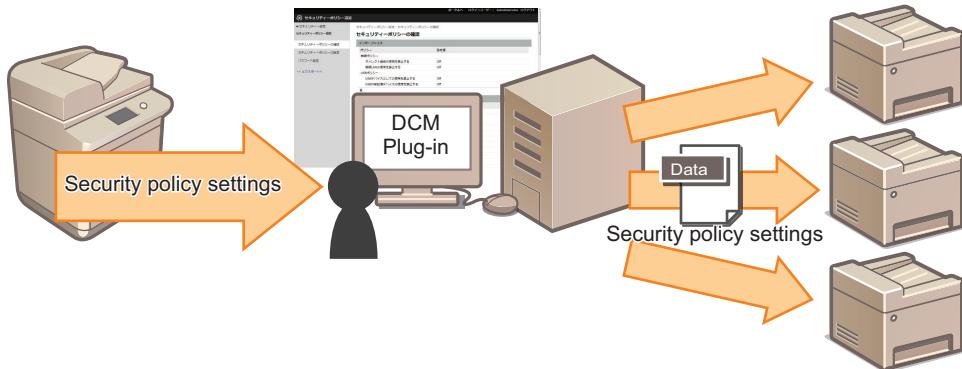
A technical description on the security-related functions implemented in this equipment and the works to be performed for servicing are shown below.

## Security Policy Function

### What is security policy function?

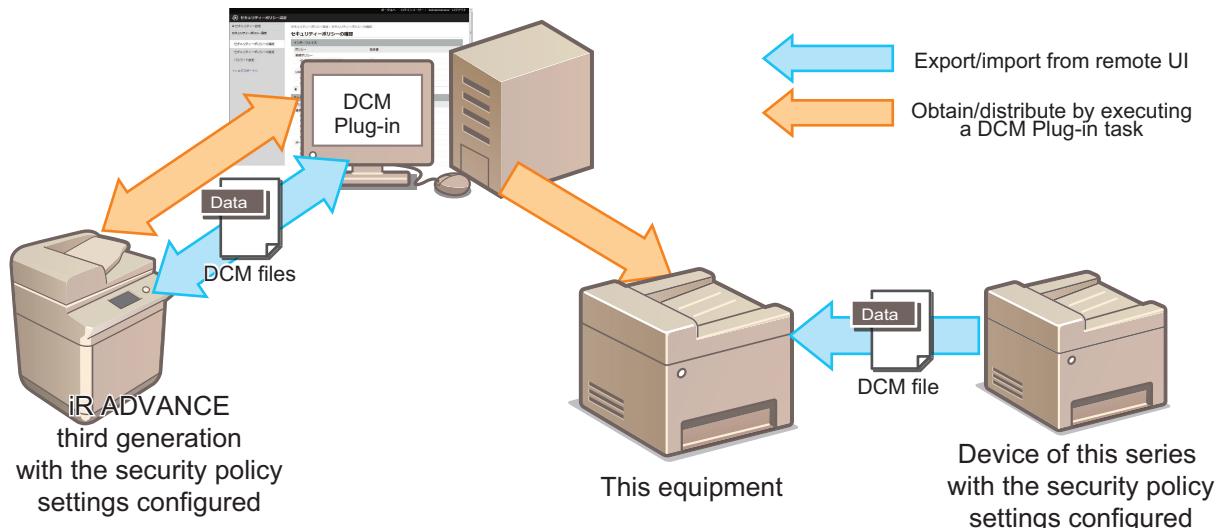
The security policy function is a function for collectively configuring the security-related settings on devices located at various places.

If the user has security policies such as information security basic policies and security standards, the settings can be collectively configured/managed in accordance with the security policies.



Perform either of the following works to configure the security policies on this equipment.

- Using iW EMC DCM Plug-in, distribute the security policy settings created by an iR ADVANCE third generation device.
- Import the DCM file exported from a device of the same series where the security policy settings have already been enabled.



#### NOTE:

Security policy settings can be configured on devices of this series only by distributing the settings using iW EMC DCM Plug-in. A DCM file imported from a device of this series where the security policy settings have been configured can be used to configure the settings, but the original device where the settings have been configured can be created only by using iW EMC DCM Plug-in. In iR ADVANCE series, the security policy function is implemented only in the third generation devices.

## ■ Security Administrator

### • Differences between Security Administrator and System Manager

In the security policy setting function, there is an administrator called a "security administrator" in addition to the conventional "system manager".

The system manager can operate/set all the items in the [Settings/Registration] menu of the device.

However, if the security policy has been set by the security administrator described later, even the system manager cannot perform operation or change the settings against the security policy.

The security administrator is an administrator who creates, applies, edits, backs up, and restores the security policy.

The security administrator is a system manager and is a user who knows the password for the security policy settings.

	Account	[Settings/Registration] menu					Policy-related		
		Add/delete	Settings (Administrator settings)	Settings (Other than the administrator settings)	Initialize (User mode)	Initialize (Service mode)	Introduce/change	Browse	Back up/restore
Security administrator	✓	✓ <sup>*1</sup>	✓ <sup>*1</sup>	✓	-	✓	✓	✓	✓
System manager	✓	✓ <sup>*1</sup>	✓ <sup>*1</sup>	-	-	-	✓	✓	-
End user	-	-	✓ <sup>*1</sup>	-	-	-	-	-	-
Service technician	✓	-	-	-	✓	-	-	-	✓

## • Security Administrator Password

The security administrator password is a password that is set to protect the configured security policy. The password setting is not mandatory.

### Behavior when the security administrator password has been set

If the security administrator password has been set on this equipment, the security administrator password is required when [Initialize All Data/Settings] is executed. This is intended to prevent the device from being initialized without discretion and the configured security policy from being disabled.

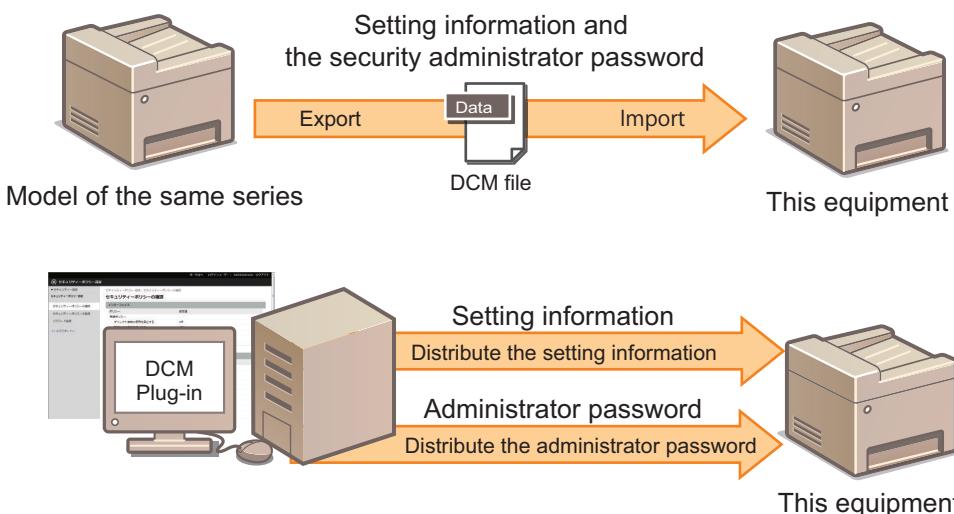
#### NOTE:

Even if the security administrator password has not been set, as long as the security policy has been configured, [Management Settings] > [Data Management] > [Initialize Menu] is grayed out and cannot be used.

### Importing the security administrator password

If a security policy setting file of iR ADVANCE series where the security administrator password has been set is imported via iW EMC DCM Plug-in, the security administrator password is not reflected.

In the case of importing the file via iW EMC DCM Plug-in, it is necessary to execute [Create Task to Change Security Policy Password] and distribute the security administrator password to set the security administrator password.



### Initializing the security administrator password

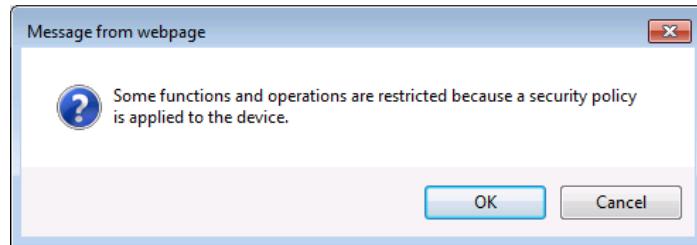
In case the user has forgotten the security administrator password, there is a service mode setting for initializing the password. Execute the service mode shown below to initialize the security administrator password set on this equipment.

Service mode > COPIER > Function > CLEAR > PLPW-CLR

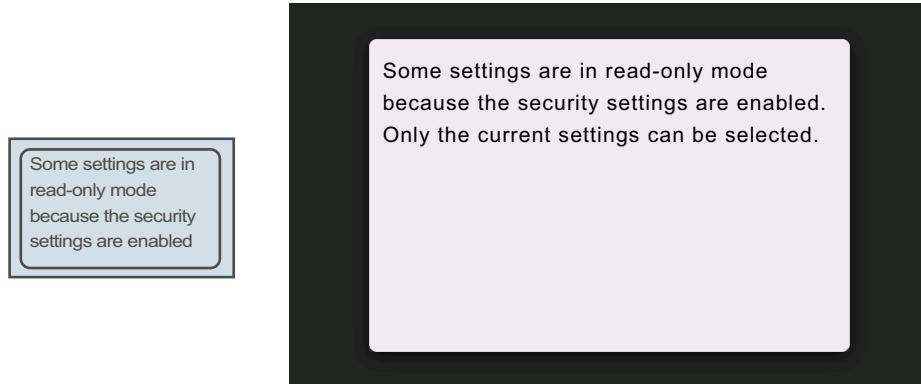
\*1. Restrained by the policy

## ■ Screen Displayed When Security Policy Is Applied

If the security policy is applied, the message shown below appears when you access the [Settings/Registration] screen.

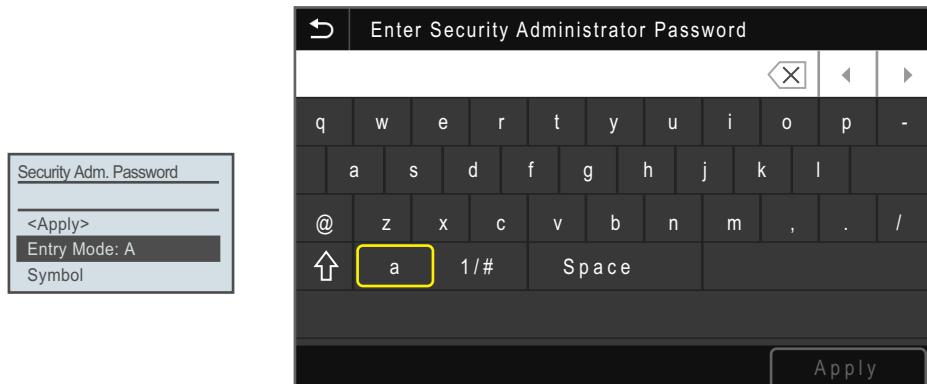


**Example of the remote UI screen**



**Example of the Control Panel (Touch Panel) screen**

If the security administrator password has been set, the security administrator password is required when [Initialize All Data/Settings] is executed.



**Security administrator password entry screen**

## ■ Checking the Configured Settings

The policy settings that have been configured can be checked on the remote UI screen shown below.

1. Start remote UI as a user having the administrator privileges.

## 2. Display the screen shown below.

- [Settings/Registration] > [Management Settings] > [Security Settings] > [Confirm Security Policy]

The screenshot shows the 'Confirm Security Policy' screen in the 'Management Settings: Security Settings' section. The left sidebar lists categories such as Preferences, Function Settings, Set Destination, Management Settings, and Data Management. The main content area displays policy configurations:

- Interface**: Wireless Connection Policy (Prohibit Use of Direct Connection: On, Prohibit Use of Wireless LAN: On), USB Policy (Prohibit Use as USB Device: Off, Prohibit Use as USB Storage Device: Off).
- Network**: Communication Operational Policy (Always Verify Signatures for SMS/WebDAV Server Functions: Off, Always Verify Server Certificate When Using TLS: Off, Prohibit Cleartext Authentication for Server Functions: Off, Prohibit Use of SNMPv1: Off).
- Port Usage Policy**: A list of ports with their status (e.g., Restrict LPD Port: Off, Restrict RAW Port: Off, Restrict FTP Port: Off, etc.).
- Authentication**: Authentication Operational Policy (various ports like Restrict Remote Operator's Software Port, Restrict SIP (IP Fax) Port, etc., all set to Off).

Screen example

**NOTE:**

On the [Confirm Security Policy] screen, all the settings related to security policies are displayed regardless of the model.

Therefore, policy settings related to functions that are not implemented in the model are also displayed.

For example, the models of this series do not have the SMB server function, but [Restrict SMB Port] is displayed.

## ■ Export/Import of Setting Information

For the procedure for exporting/importing setting information, refer to the User's Guide of this equipment or the User's Guide of iW EMC DCM Plug-in.

# 4

## Periodical Service

Periodically Replaced Parts.....	73
Consumable Parts.....	74
Periodical Services.....	75

## Periodically Replaced Parts

This machine does not have any periodically replaced parts.

## Consumable Parts

This machine does not have any consumable parts.

## Periodical Services

This machine does not require any periodical service.

# 5

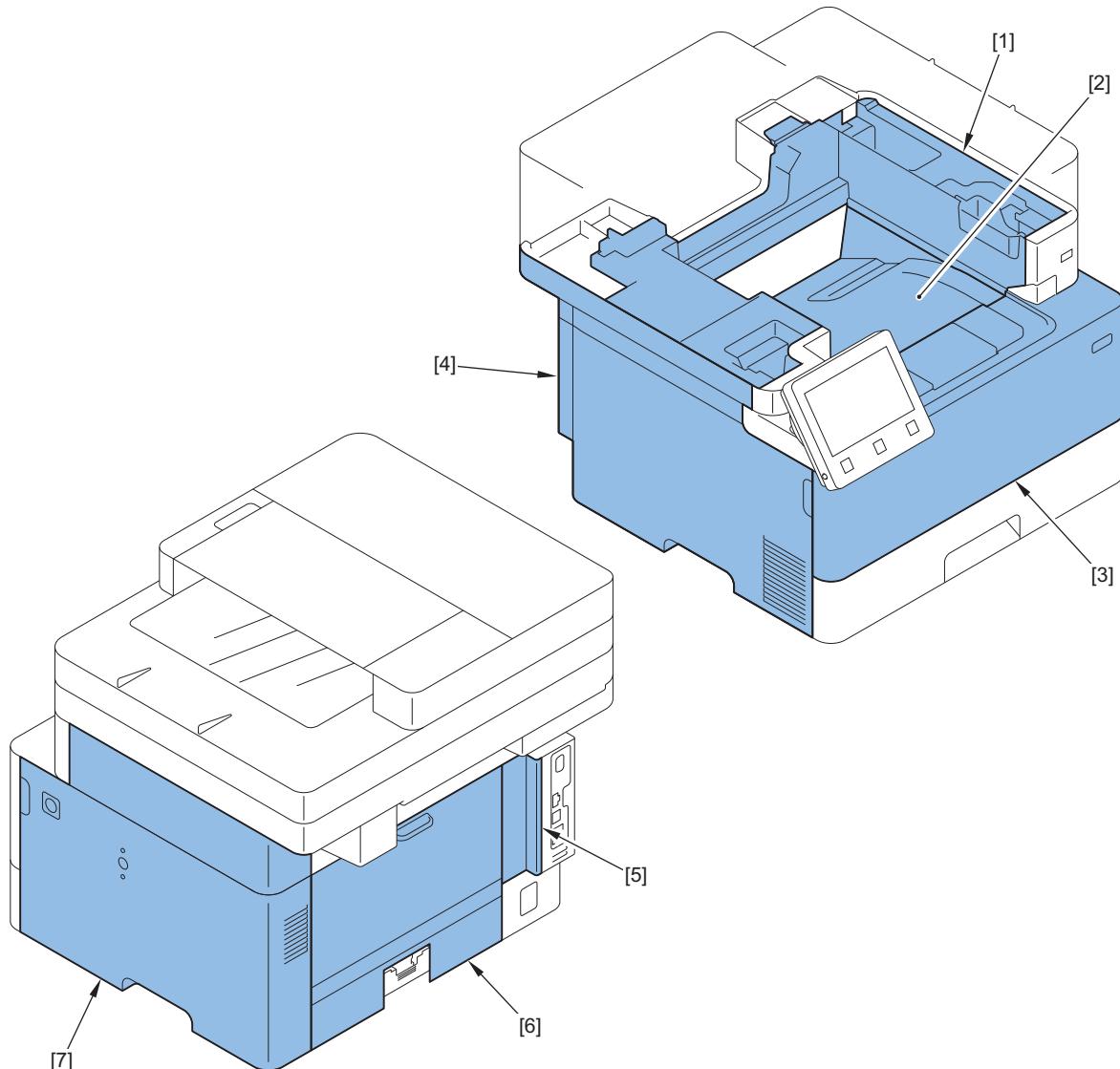
## Parts Replacement and Cleaning

List of Parts.....	77
External Cover System.....	85
Original Exposure/Feed System.....	99
Controller System.....	124
Laser Exposure System.....	142
Image Formation System.....	144
Fixing System.....	145
Pickup Feed Delivery System.....	148

## List of Parts

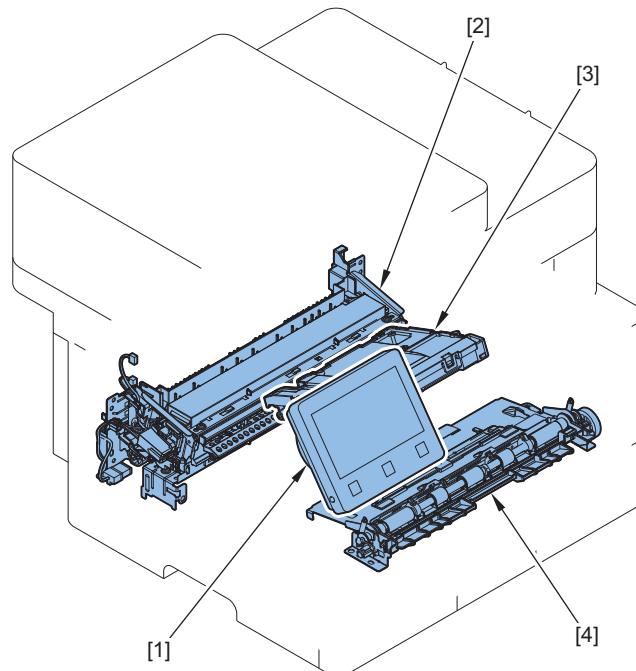
### Major Units

#### ■ External Cover



No.	Name
[1]	Upper Cover
[2]	Output Tray
[3]	Front Cover
[4]	Left Cover
[5]	Left Rear Cover
[6]	Rear Cover
[7]	Right Cover

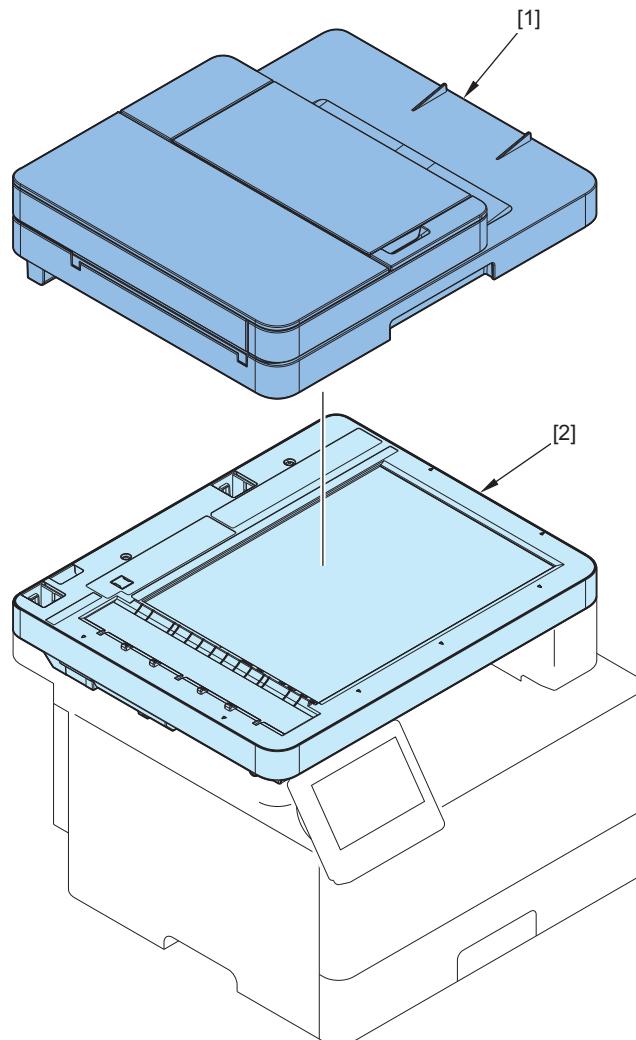
## ■ Host Machine



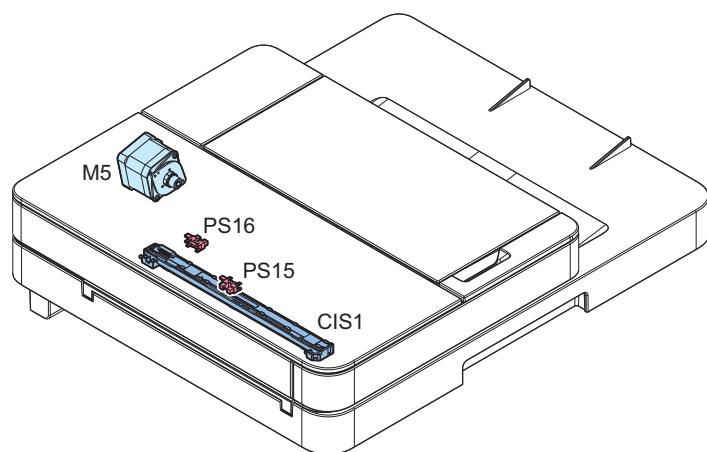
No.	Name
[1]	Control Panel Unit
[2]	Fixing Assembly
[3]	Laser Scanner Unit
[4]	Registration Unit

**CAUTION:**

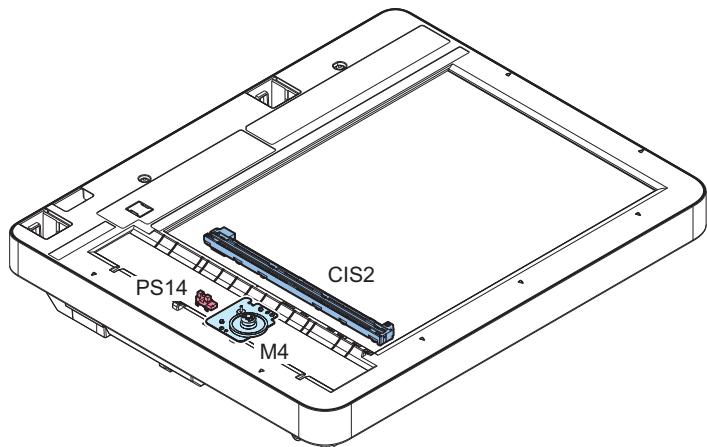
Do not disassemble the Main Drive Assembly as it cannot be rebuilt after the disassembly.

**■ ADF/Reader**

No.	Name
[1]	ADF Unit
[2]	Reader Unit

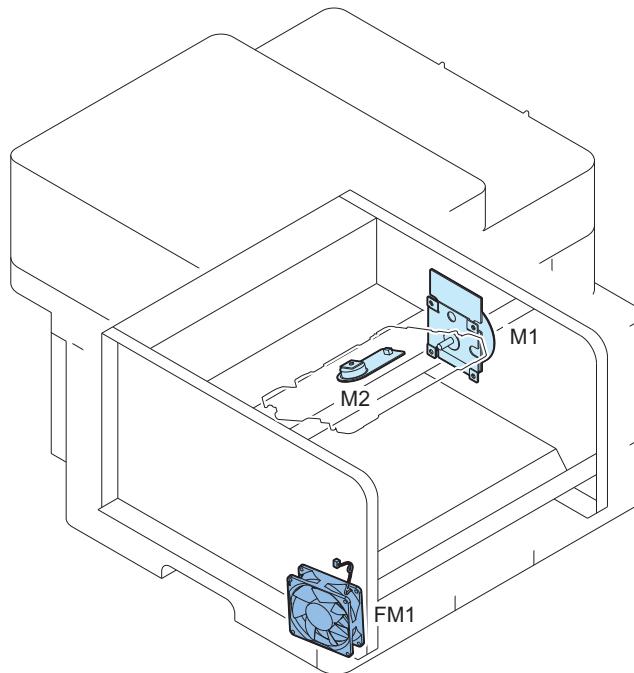
**● Layout Drawing of Electrical Components****■ ADF/Reader**

No.	Name
M5	ADF Motor
CIS1	Contact Image Sensor
PS16	Document Sensor
PS15	Document End Sensor



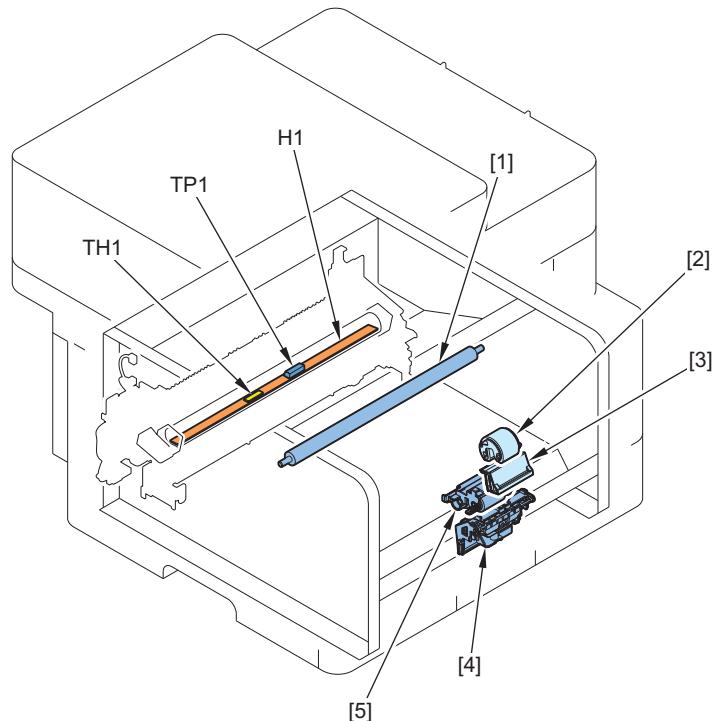
No.	Name
M4	Reader Motor
CIS2	Contact Image Sensor
PS14	CIS HP Sensor

## ■ Motor/Fan



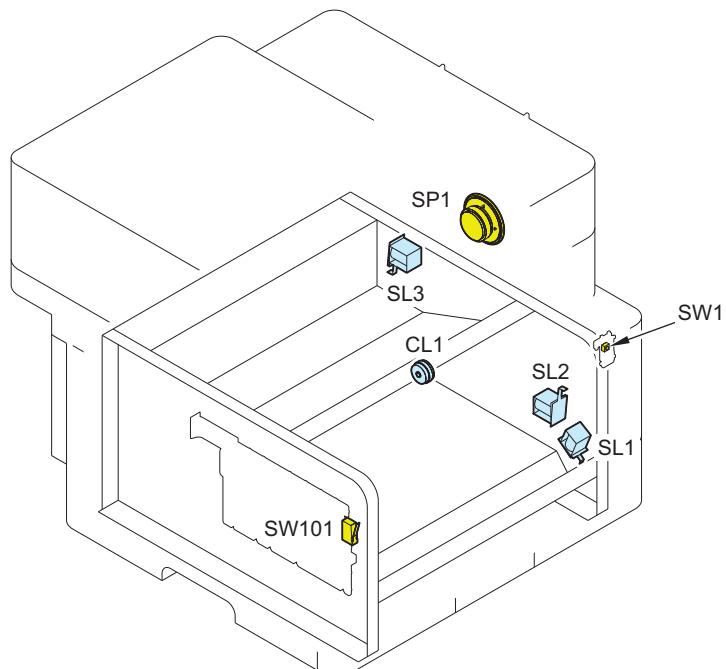
No.	Name
M1	Main Motor
M2	Laser Scanner Motor
FM1	Main Fan

## ■ Heater/Etc.



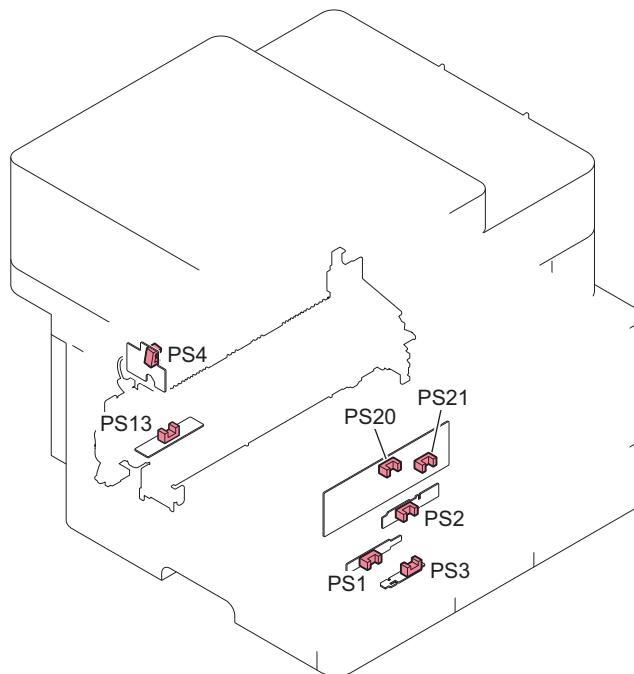
No.	Name
H1	Fixing Heater
TH1	Thermistor
TP1	Thermo switch
[1]	Transfer Roller
[2]	Multi-purpose Tray Pickup Roller
[3]	Multi-purpose Tray Separation Pad
[4]	Cassette Separation Roller Unit
[5]	Cassette Pickup Roller Unit

## ■ Switch/Clutch/Solenoid



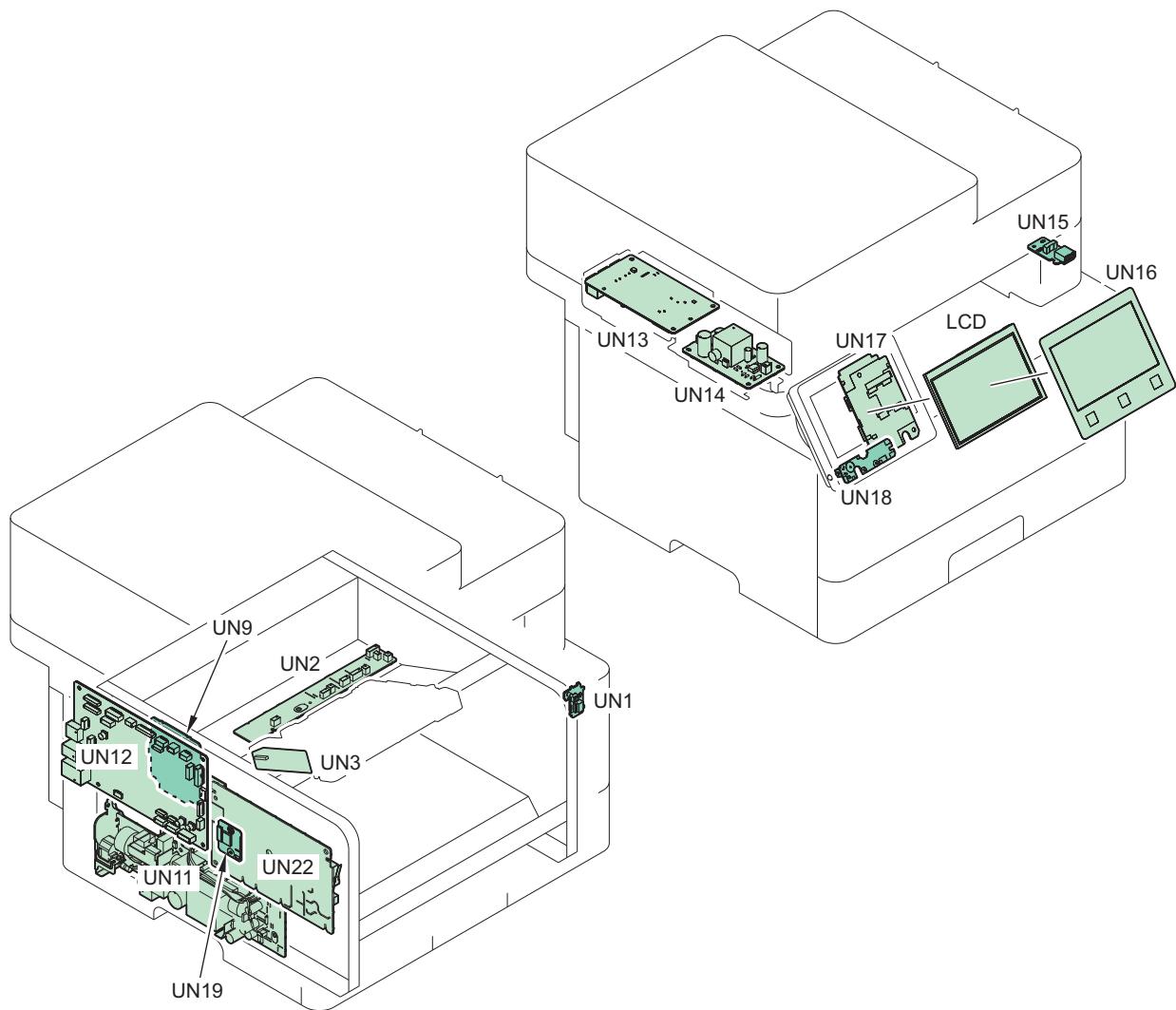
No.	Name
CL1	Duplex Re-pickup Clutch
SL1	Cassette Pickup Solenoid
SL2	Multi-purpose Tray Pickup Solenoid
SL3	Duplex Reverse Solenoid
SW1	Power Switch
SW101	Front Cover Switch
SP1	Speaker <b>FAX model only&lt;MF1238 II/1238iF II&gt;</b>

## ■ Sensor

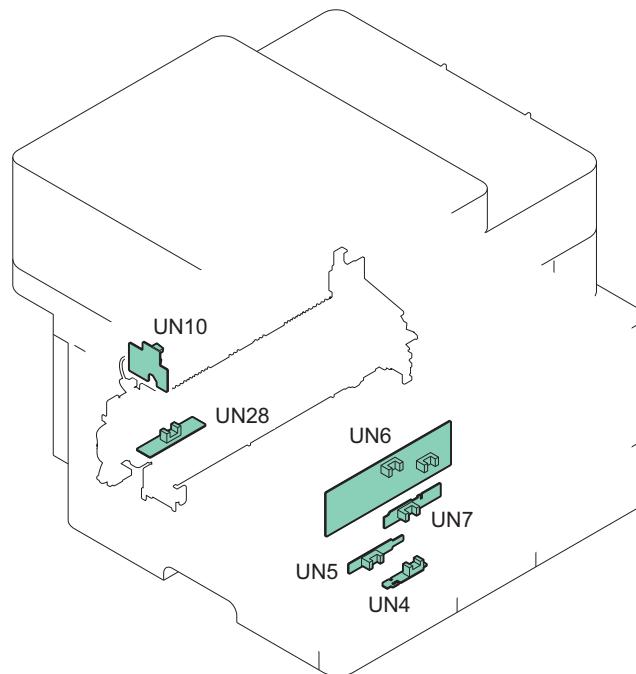


No.	Name
PS1	Cassette Paper Sensor
PS2	TOP Sensor
PS3	Multi-purpose Tray Paper Sensor
PS4	Delivery Tray Full Sensor
PS13	Fixing Delivery Sensor
PS20	Paper Width Sensor
PS21	Duplex Feed Sensor

## ■ PCB



No.	Name
UN1	Power Switch PCB
UN2	Relay PCB
UN3	Laser Scanner Driver PCB
UN9	DC Controller PCB
UN11	Low Voltage Power Supply Unit
UN12	Main Controller PCB
UN13	NCU PCB <b>FAX model only&lt;MF1238 II/1238iF II&gt;</b>
UN14	Off-hook PCB <b>FAX model only&lt;MF1238 II/1238iF II&gt;</b>
UN15	USB PCB
UN16	Touch Panel
UN17	Control Panel PCB
UN18	Control Panel LED PCB
UN19	Wireless LAN PCB
UN22	High Voltage Power Supply PCB
LCD	LCD



No.	Name
UN4	Multi-purpose Tray Paper Sensor PCB
UN5	Cassette Paper Sensor PCB
UN6	Paper Width/ Duplex Feed Sensor PCB
UN7	TOP Sensor PCB
UN10	Delivery Tray Full Sensor PCB
UN28	Fixing Delivery Sensor PCB

## External Cover System

### ➊ Removing the Cartridge

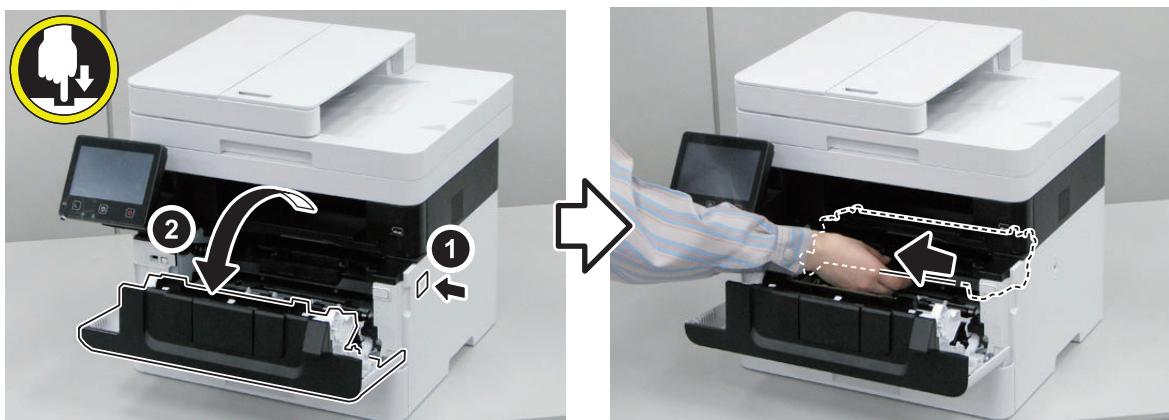
#### ■ Procedure

**CAUTION:**

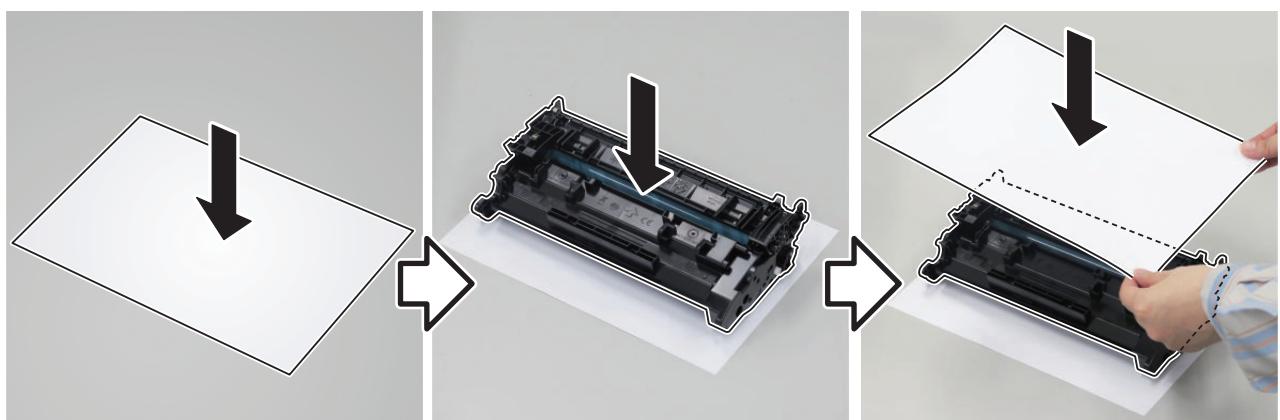
When handling the cartridge, be sure to follow the CAUTION shown below.

- When removing the cartridge, be sure to block light to the Photosensitive Drum. Cover the removed drum with 5 or more sheets of paper to block light.

1.



2.



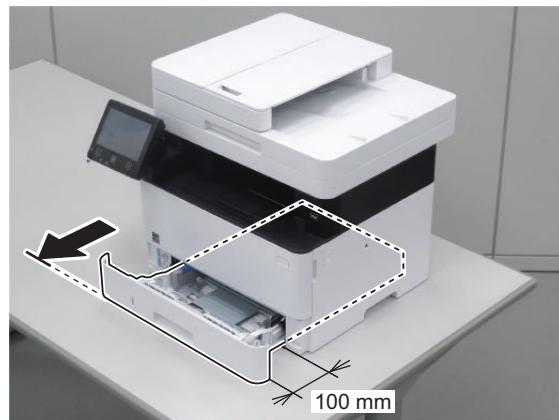
### ➋ Removing the Right Cover

#### ■ Preparation

1. “Removing the Cartridge” on page 85

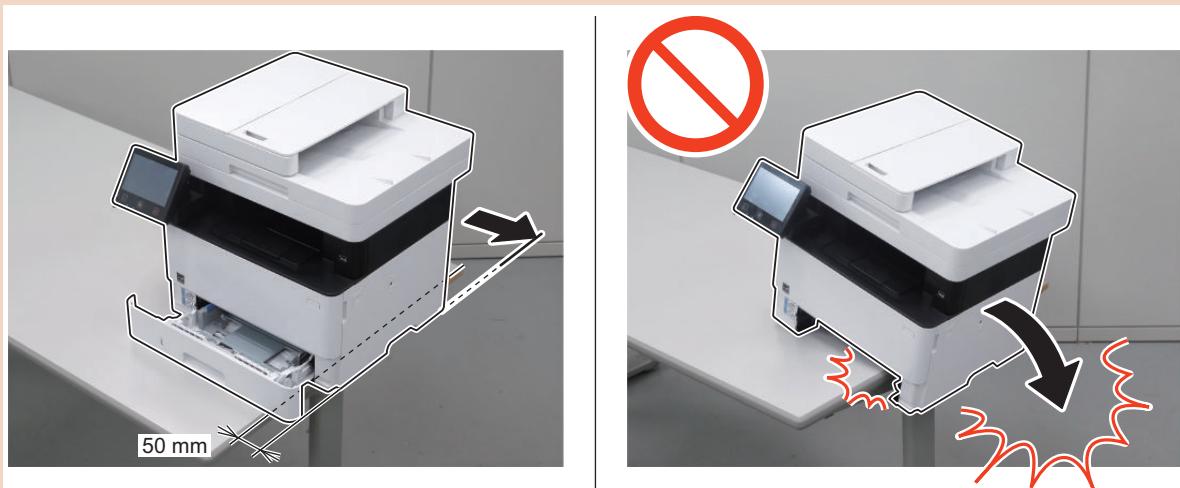
#### ■ Procedure

1.



**⚠ CAUTION:**

When removing the cover, moving the product 50 mm or more while the cassette is pulled out will disturb the balance of the product and may cause it to fall down; therefore, do not completely pull out the cassette.



2.

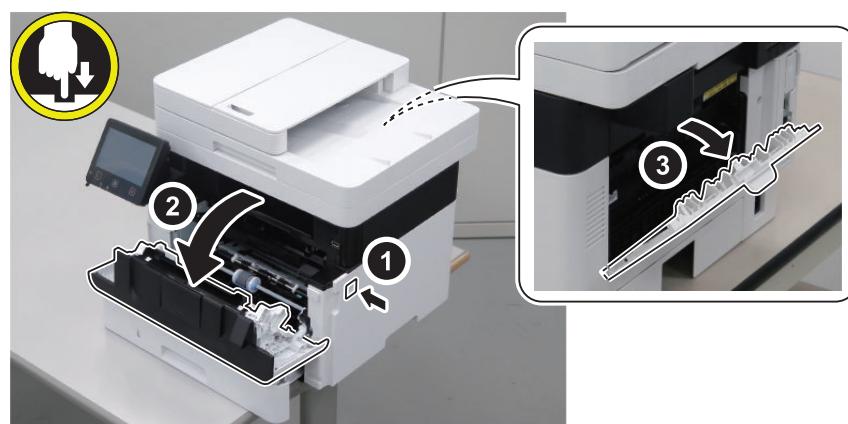
**CAUTION:**

If it is moved too much when removing the Cover, pressure will be applied to the Cassette Rear Cover and the cover may be damaged.



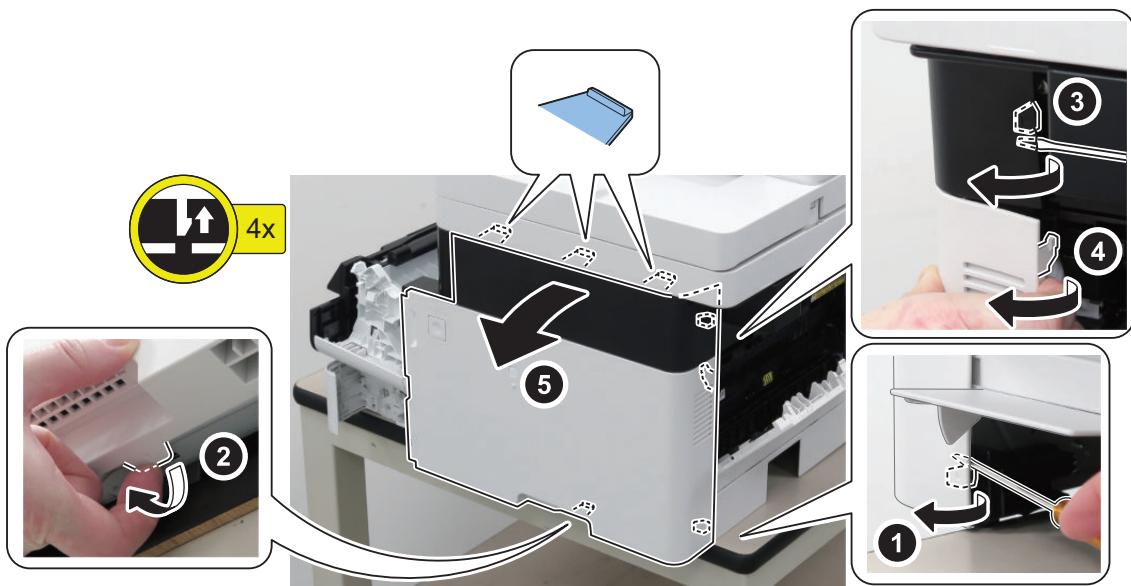
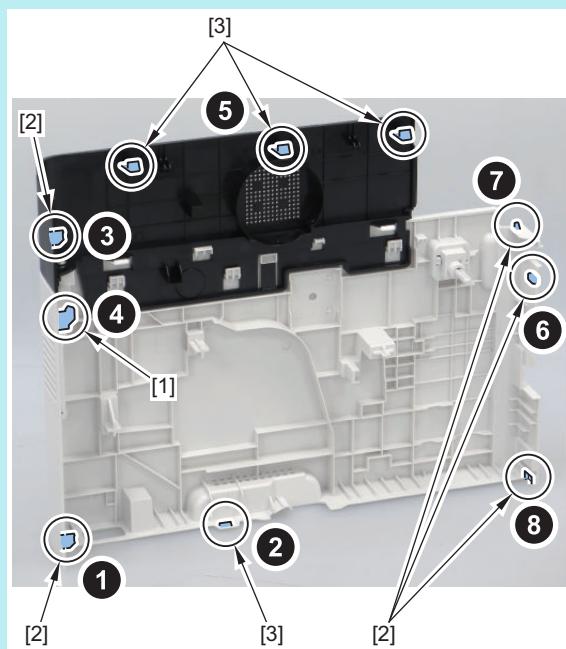


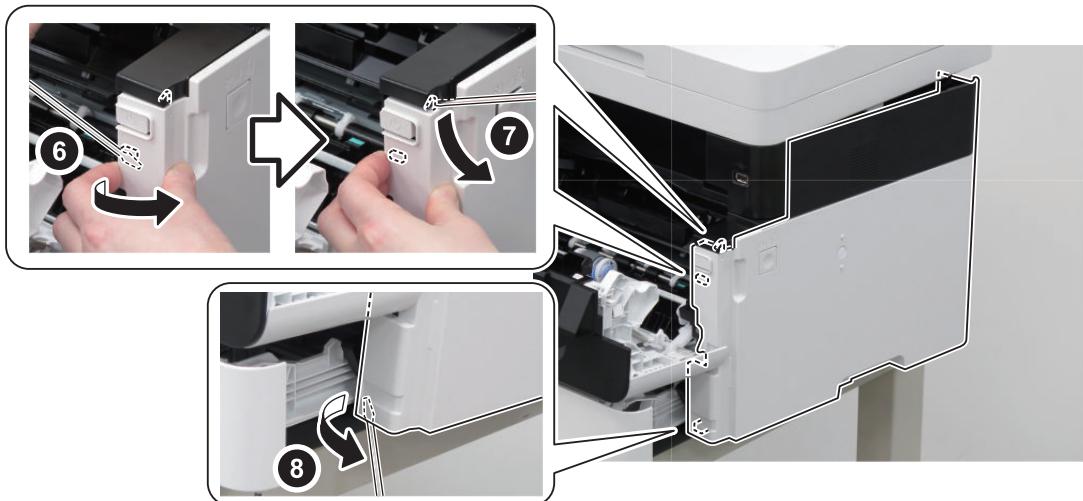
3.



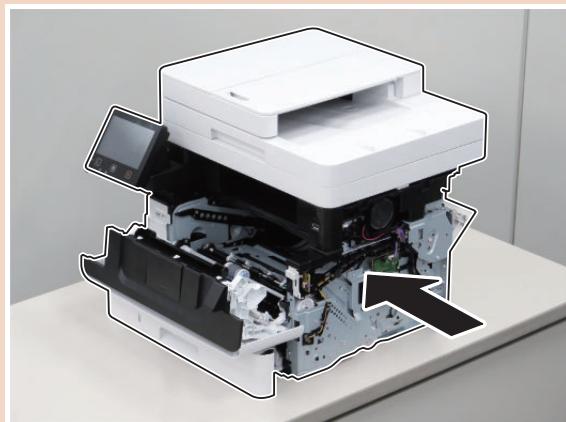
**4.****NOTE:**

The positions and removal order of the hook [1], protrusions [2] and claws[3] of the Right Cover are shown below.



**5.****6.****CAUTION:**

Shift the host machine back to the center of the working table to prevent it from falling down.

**NOTE:**

When installing the Right Cover, be sure to push in the Cartridge Door Button if it is not installed properly.

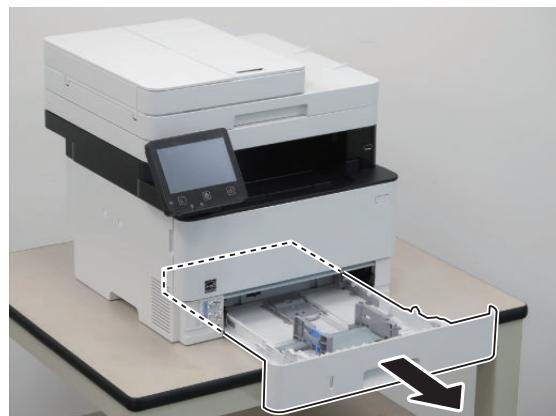
## Removing the Left Cover

### ■ Preparation

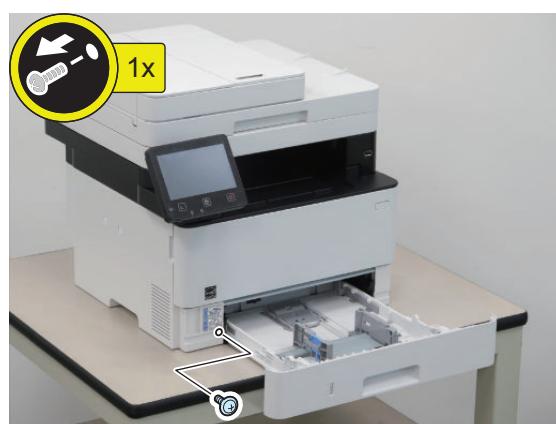
1. “Removing the Cartridge” on page 85

## ■ Procedure

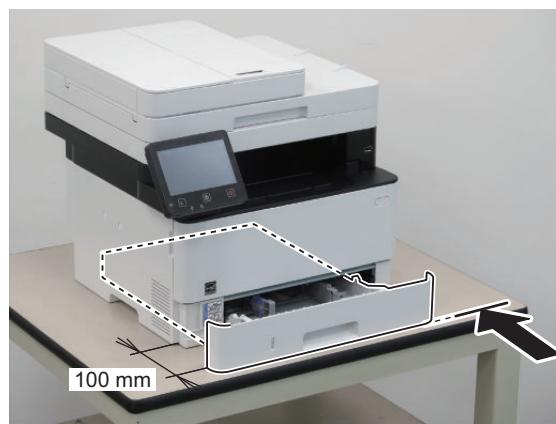
1.



2.

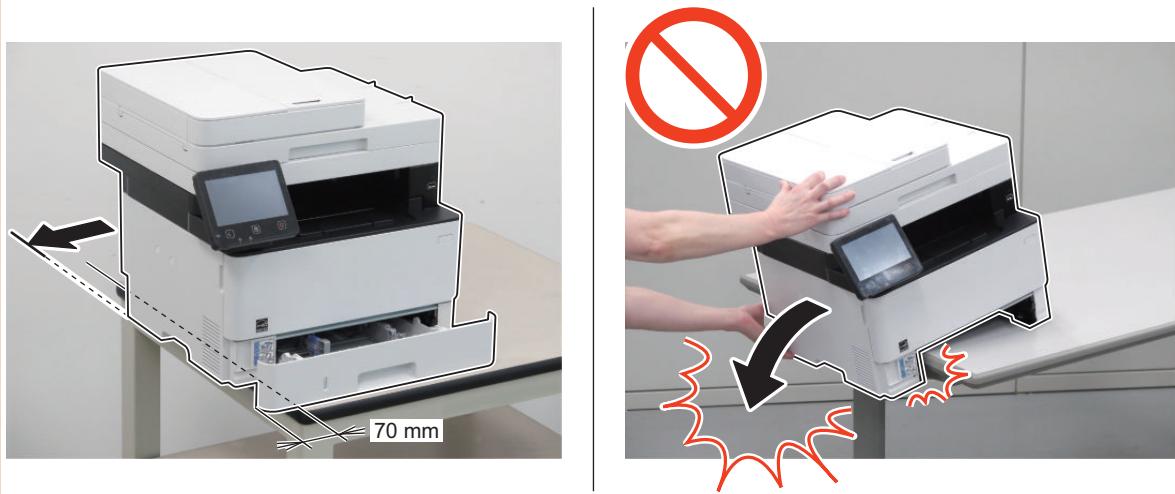


3.

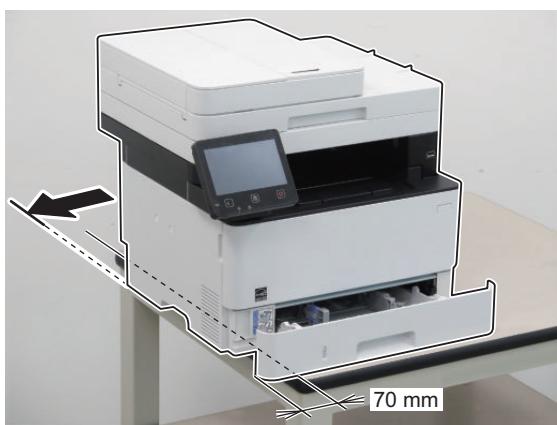


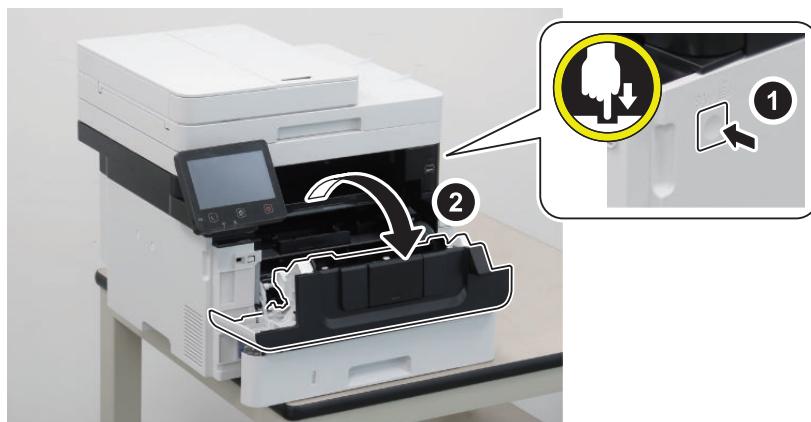
**⚠ CAUTION:**

When removing the cover, moving the product 70 mm or more while the cassette is pulled out will disturb the balance of the product and may cause it to fall down; therefore, do not completely pull out the cassette.

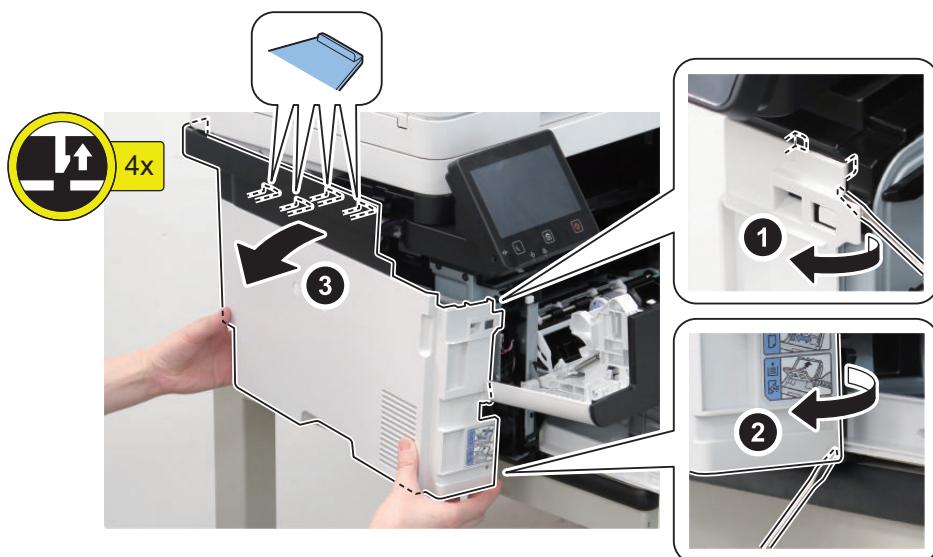
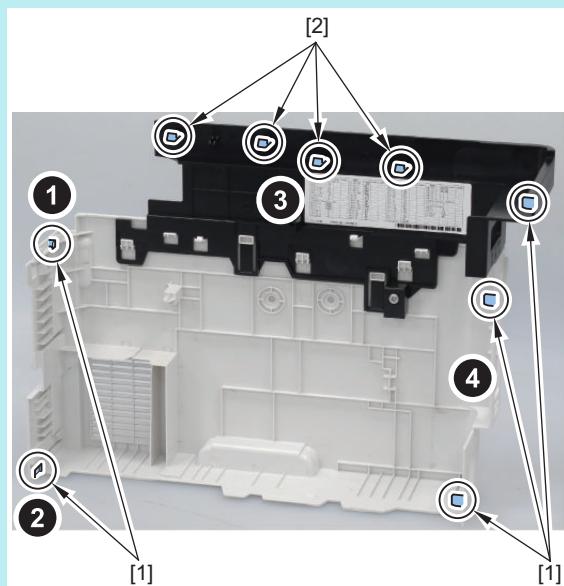
**4.****CAUTION:**

If it is moved too much, pressure will be applied to the Cassette Rear Cover and the cover may be damaged.

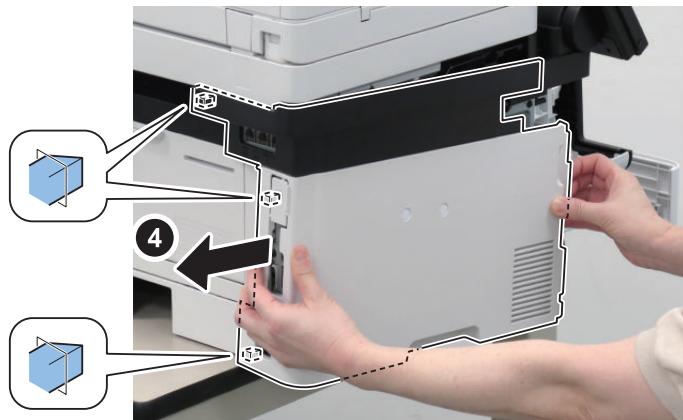


**5.****6.****NOTE:**

The positions and removal order of the protrusions [1] and claws[2] of the Left Cover are shown below.

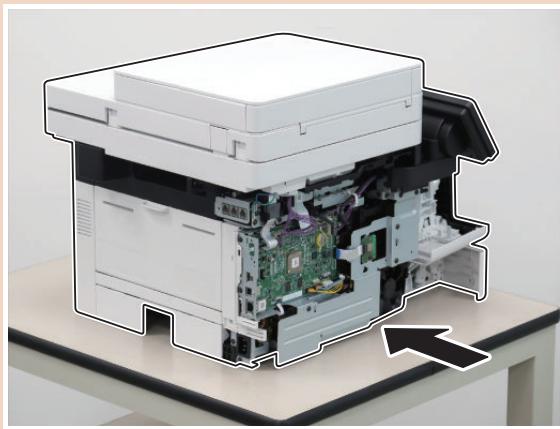


7.



**⚠ CAUTION:**

The positions and removal order of the protrusions [1] and claws[2] of the Left Cover are shown below.



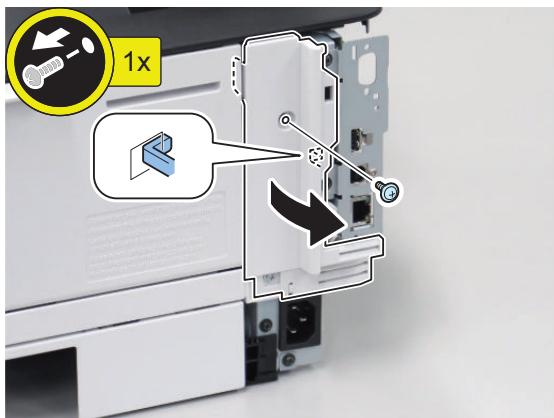
## ➊ Removing the Left Rear Cover

### ■ Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89

### ■ Procedure

1.



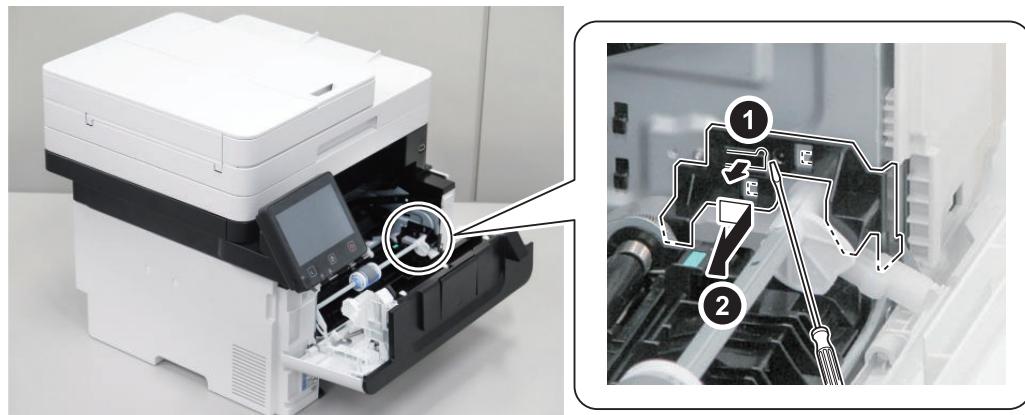
## ➊ Removing the Front Cover

### ■ Preparation

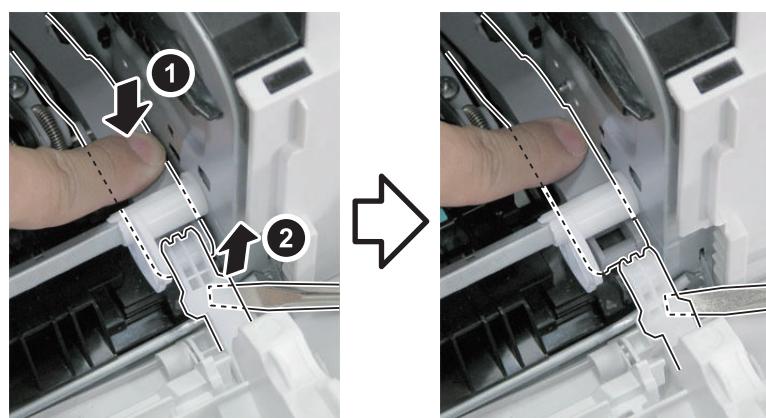
1. Remove the cassette.
2. "Removing the Cartridge" on page 85

### ■ Procedure

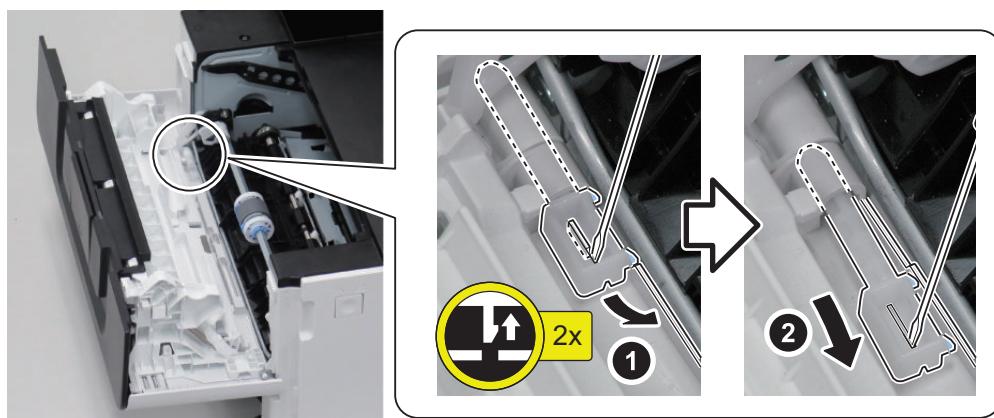
1.

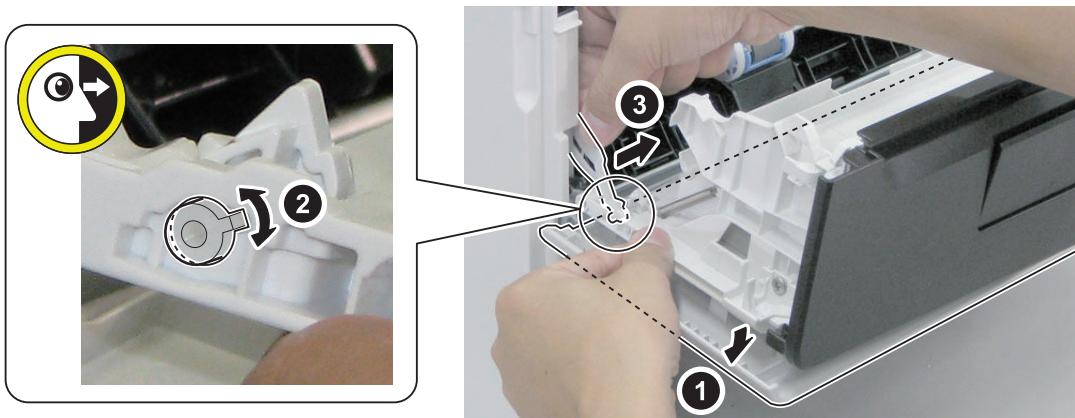
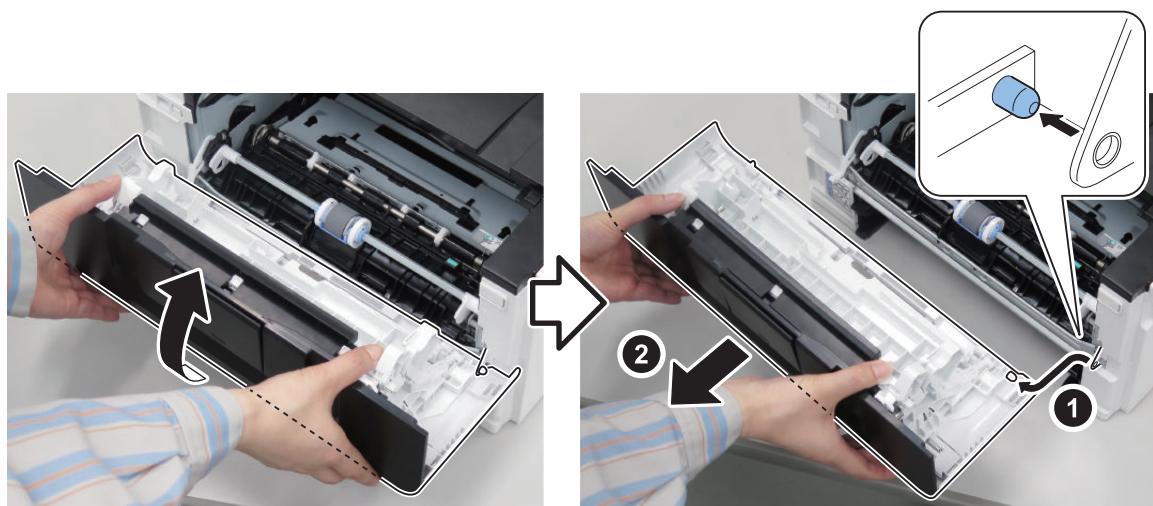


2.



3.



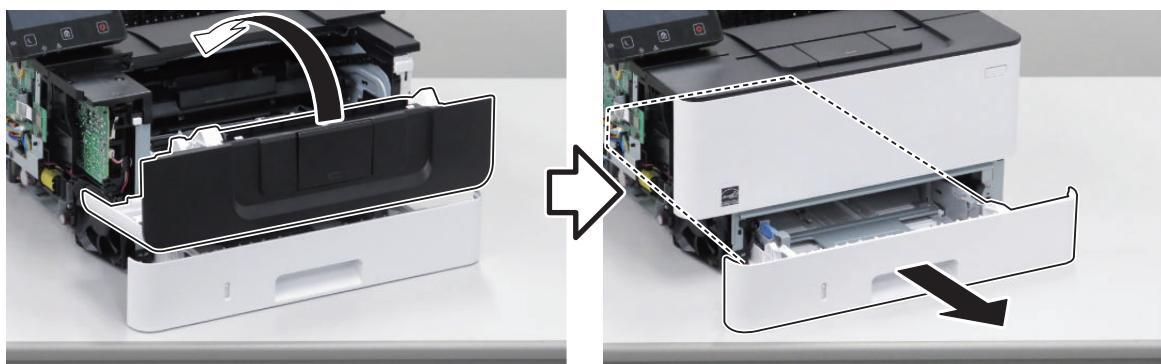
**4.****5.**

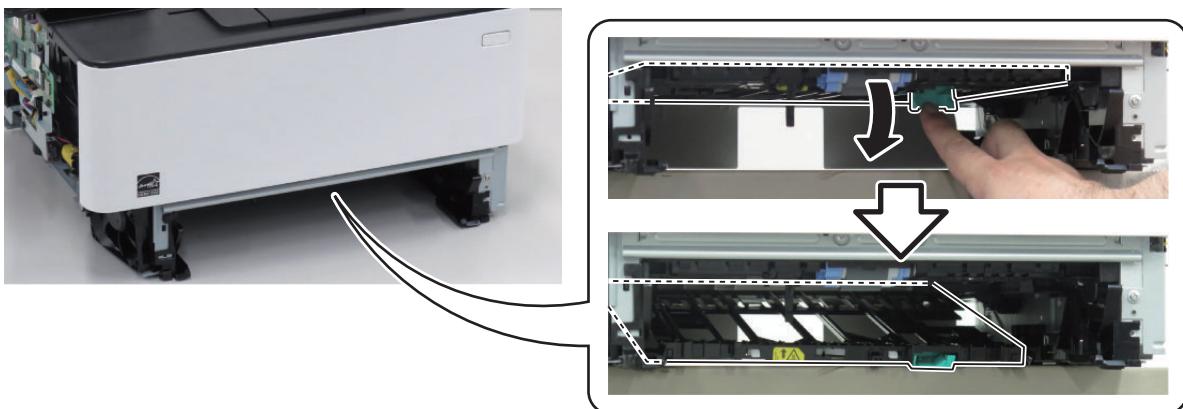
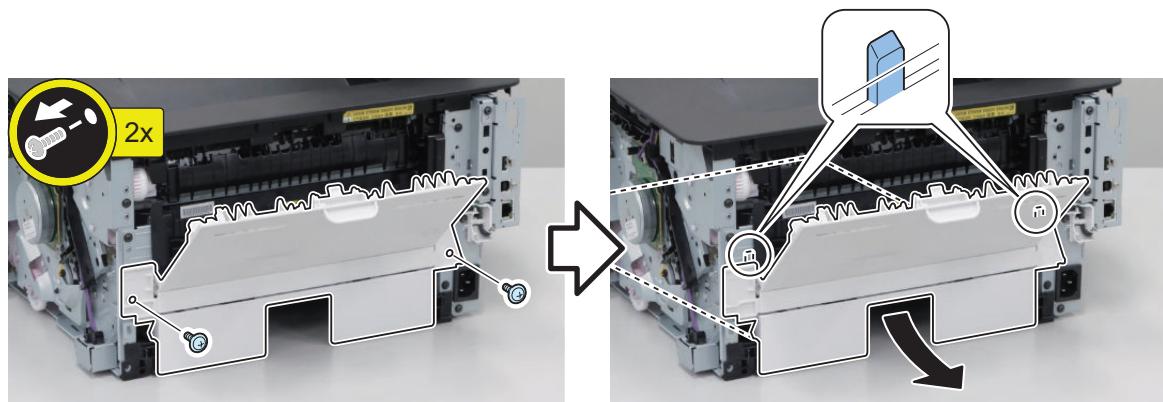
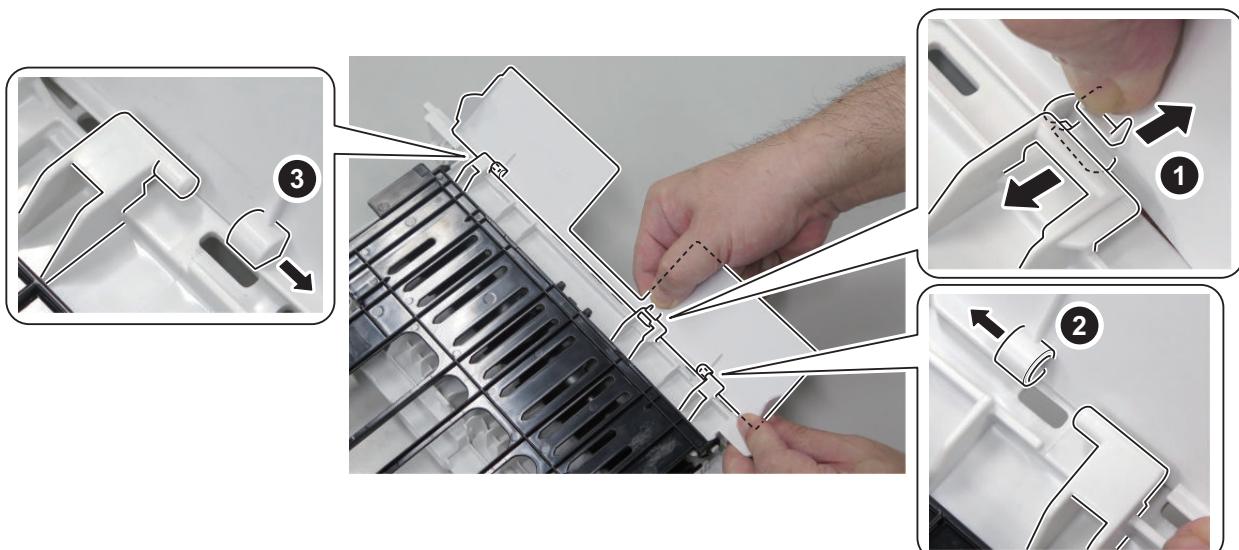
## Removing the Rear Cover

### ■ Preparation

1. [“Removing the Cartridge” on page 85](#)
2. [“Removing the Left Cover” on page 89](#)
3. [“Removing the Left Rear Cover” on page 93](#)
4. [“Removing the Right Cover” on page 85](#)

### ■ Procedure

**1.**

**2.****3.****4.**

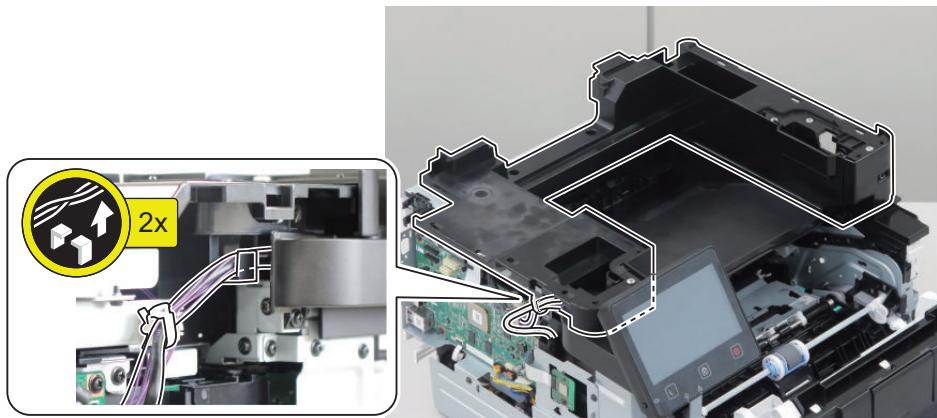
## Removing the Upper Cover

### ■ Preparation

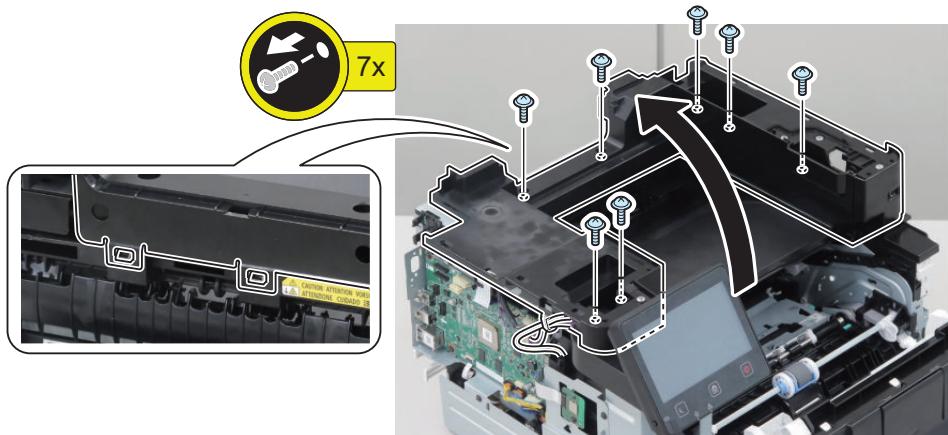
1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89
3. “Removing the Right Cover” on page 85
4. “Removing the ADF Unit + Reader Unit” on page 99

## ■ Procedure

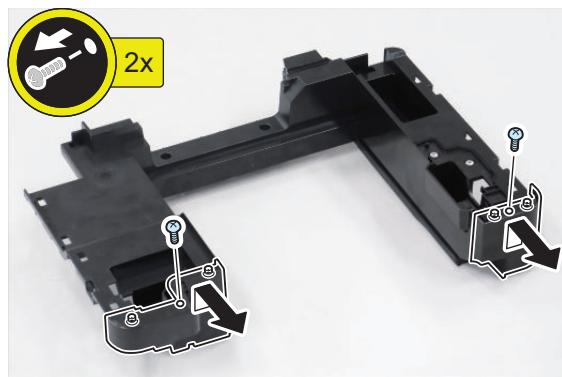
**1.**



**2.**



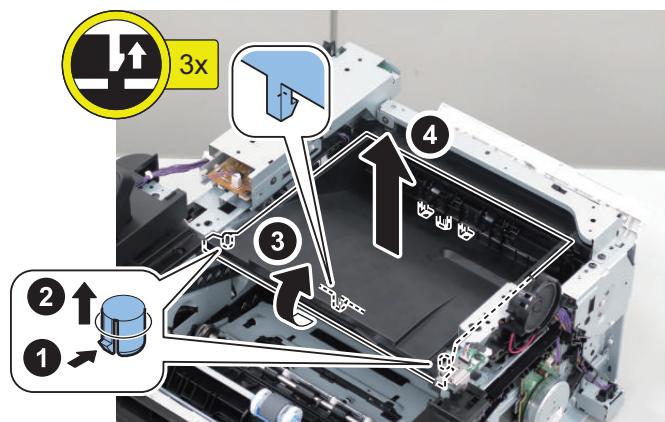
**3.**



## ● Removing the Output Tray

### ■ Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89
3. “Removing the Right Cover” on page 85
4. “Removing the ADF Unit + Reader Unit” on page 99
5. “Removing the Upper Cover” on page 96

**■ Procedure****1.**

## Original Exposure/Feed System

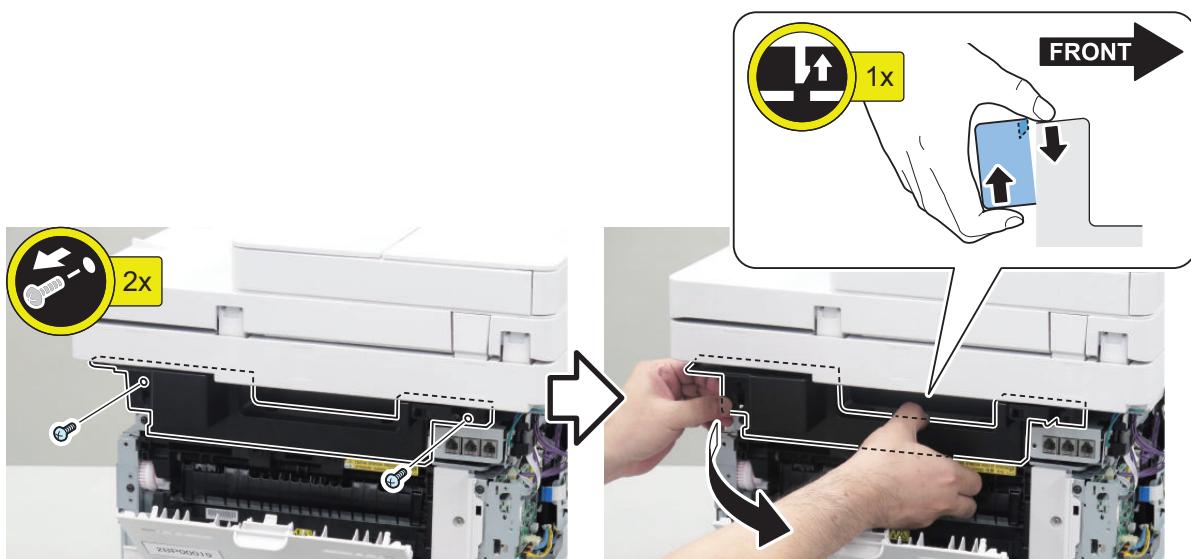
### Removing the ADF Unit + Reader Unit

#### Preparation

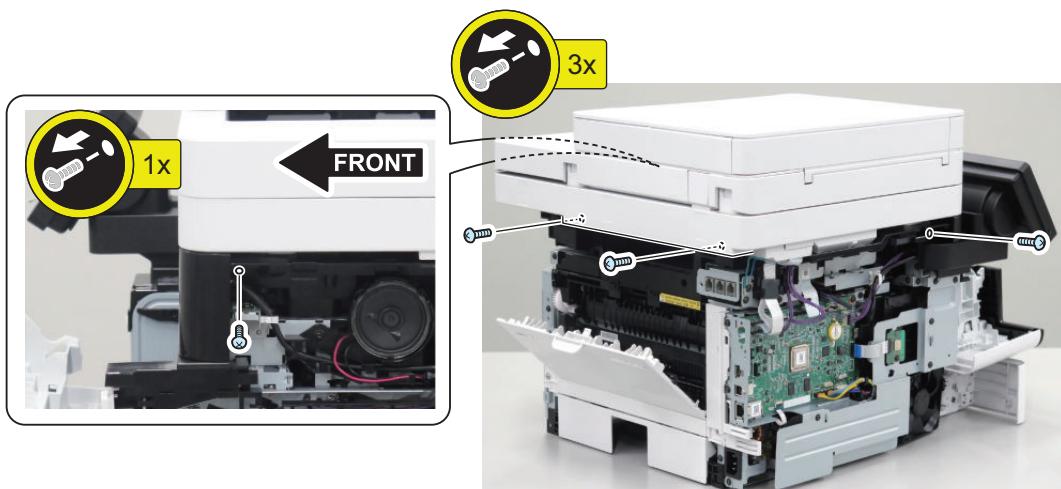
1. "Removing the Cartridge" on page 85
2. "Removing the Left Cover" on page 89
3. "Removing the Right Cover" on page 85

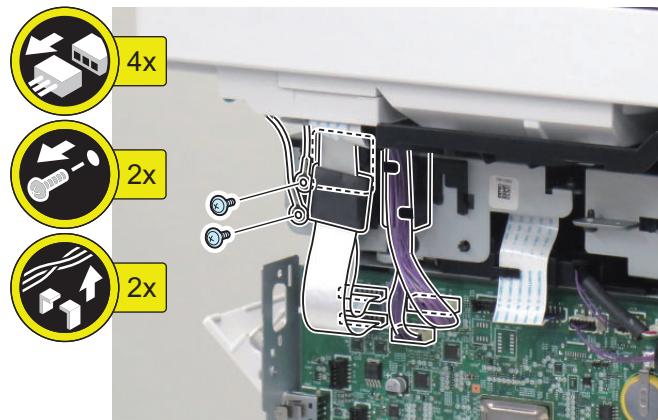
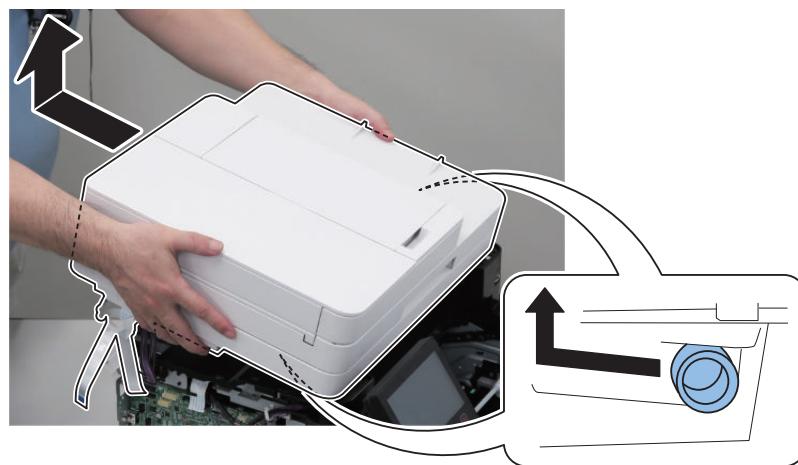
#### Procedure

1.



2.



**3.****4.**

## Separating the ADF Unit + Reader Unit

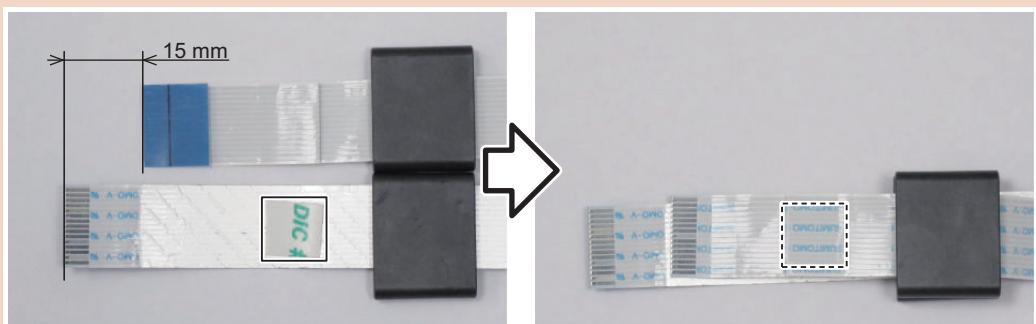
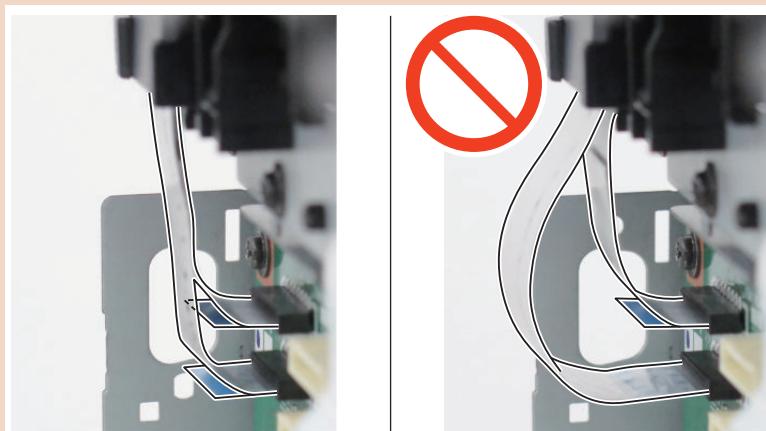
### ■ Preparation

1. “[Removing the Cartridge](#)” on page 85
2. “[Removing the Left Cover](#)” on page 89
3. “[Removing the Right Cover](#)” on page 85
4. “[Removing the ADF Unit + Reader Unit](#)” on page 99

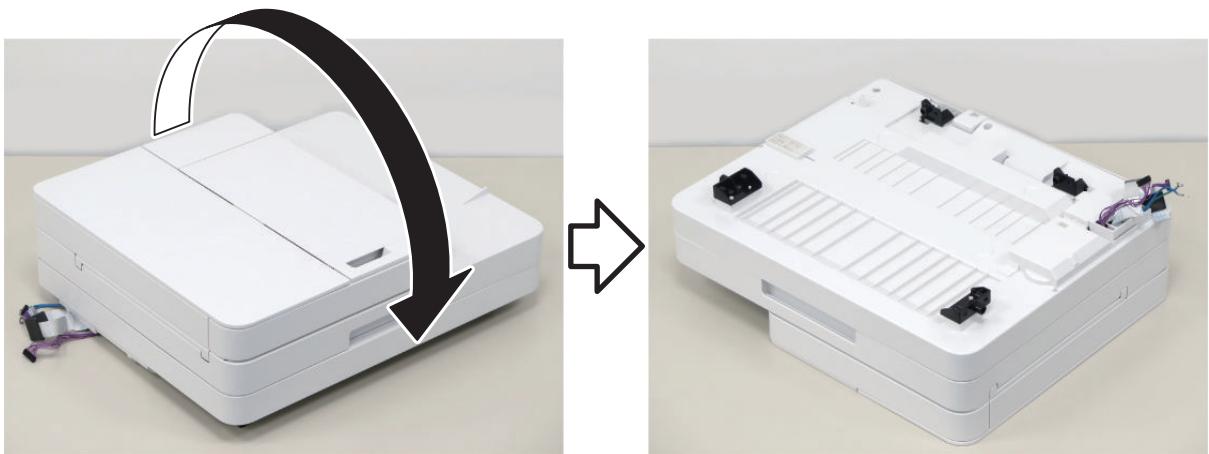
## ■ Procedure

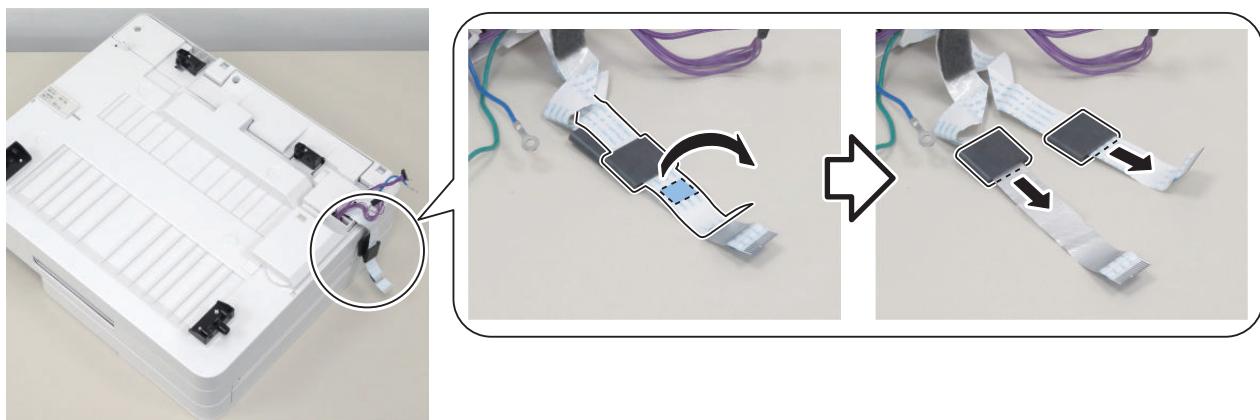
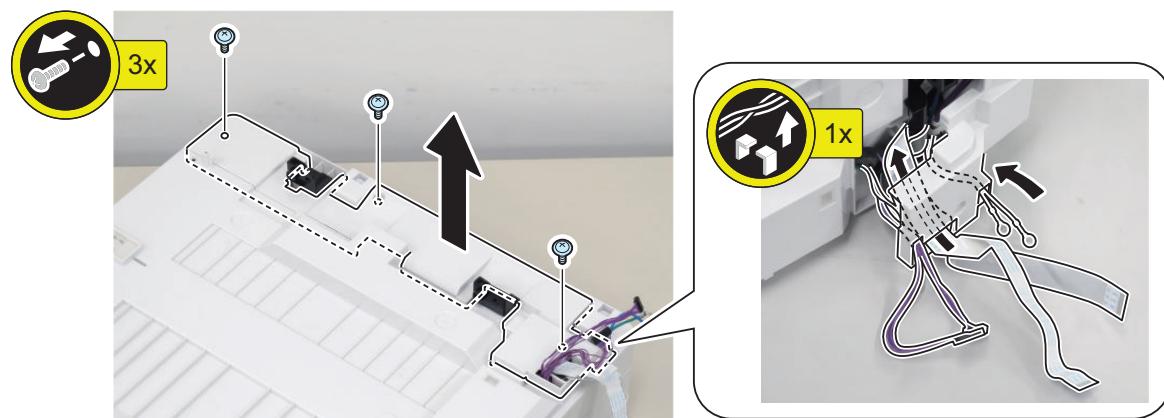
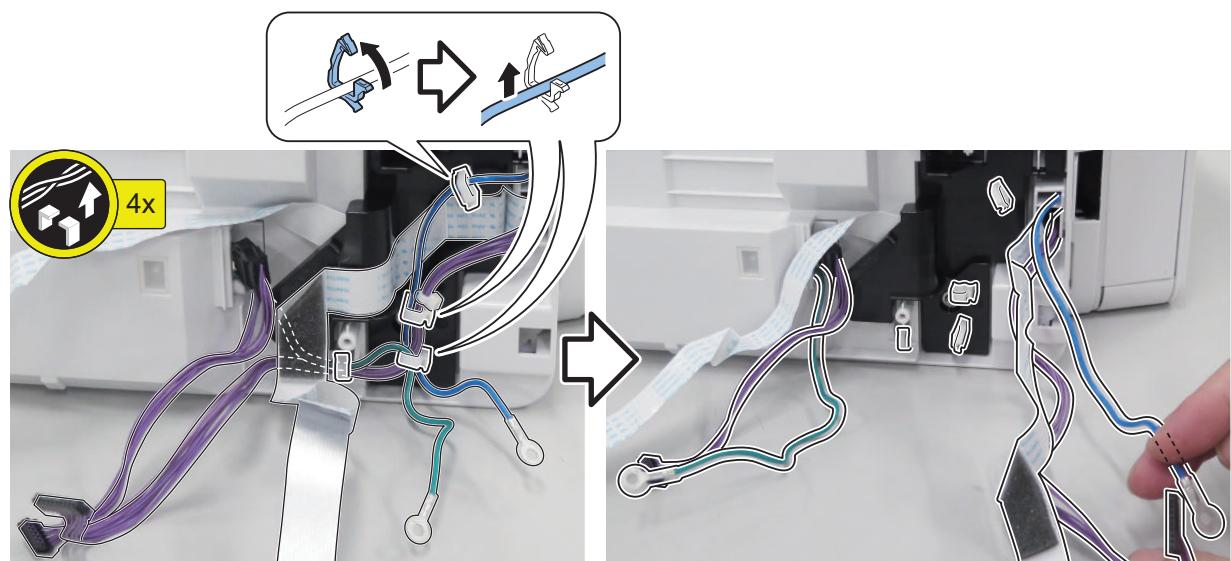
### CAUTION:

If the Flat Cable is not securely fitted when removing the Left Cover, it may come in contact with the protrusion on the back side of the Left Cover, resulting pulling out the Flat Cable from the connector or damage on the Flat Cable. When installing the ADF Unit and the Reader Unit, affix the Flat Cable for the Reader to the Flat Cable for the ADF using the double-sided tape on the cable for the ADF while shifting the leading edge of the cable for the Reader for 15 mm so that the cable is securely fitted.



1.

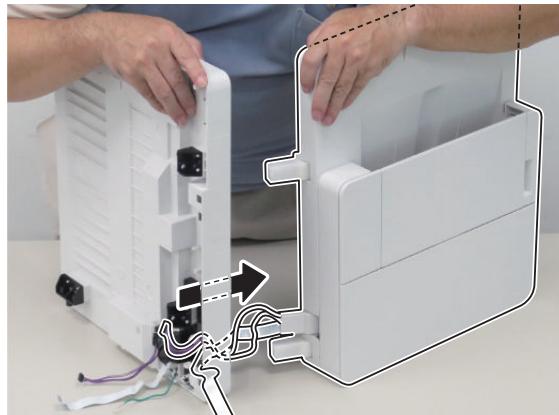


**2.****3.****4.**

## 5.

**NOTE:**

The ADF Unit can only be removed from the Reader Unit if it is opened to the position indicated by the arrow [A], as it has two claws.



## 6. Actions after replacement: ["After Replacing the ADF Unit" on page 171](#)

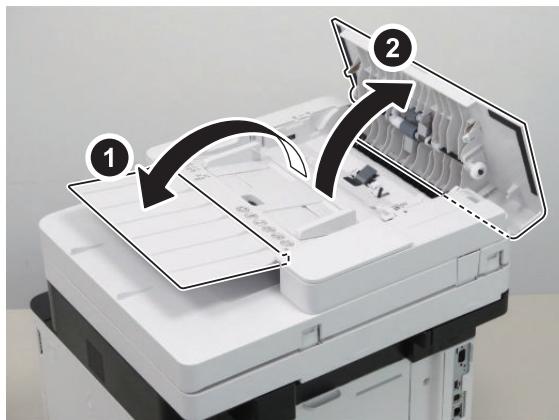
### Removing the ADF Roller Unit

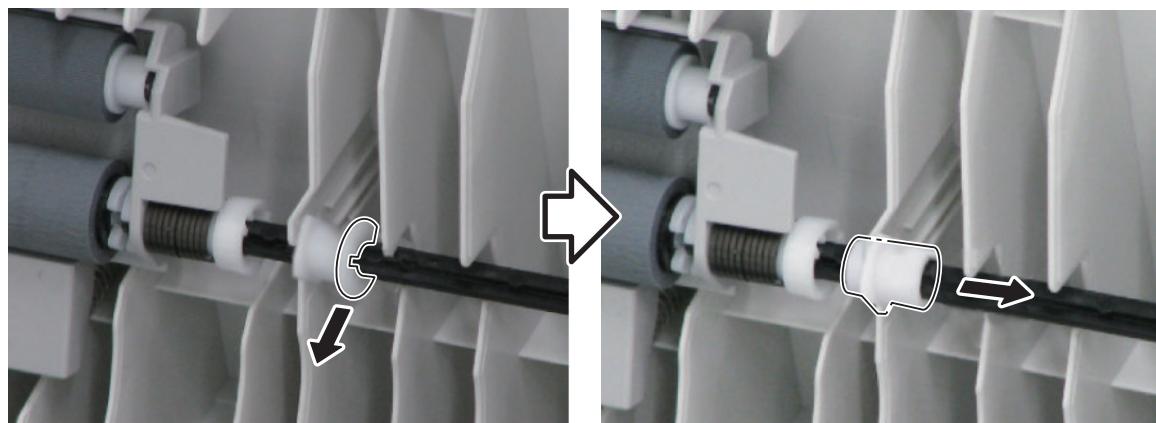
#### ■ Procedure

**CAUTION:**

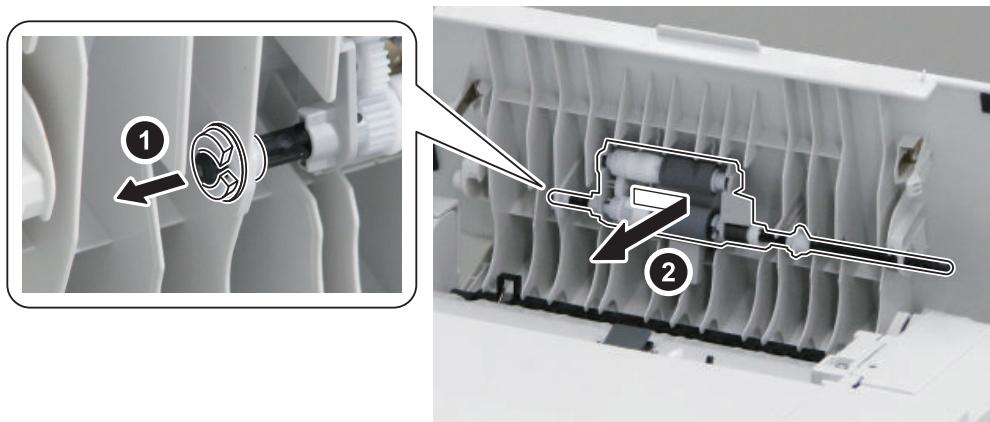
Do not touch the surface of the roller with bare hands, as doing so will attach skin oil on it and decrease feedability.

## 1.



**2.****3.**

4.

**CAUTION:**

Because the spring attached to the ADF Roller Unit is easy to come off, be careful about its loss.

**NOTE:**

When installing, match the spring of the ADF Roller Unit to the boss.



## ➊ Removing the ADF Pickup Roller

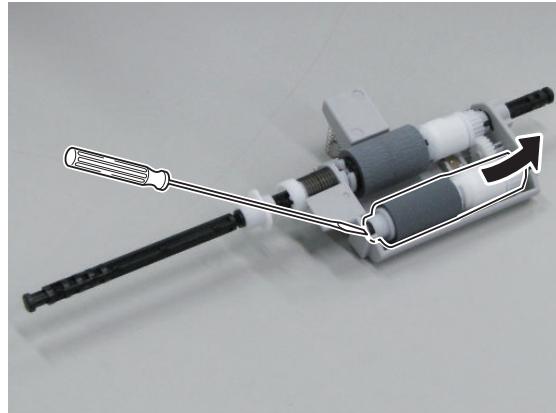
### ■ Preparation

1. “Removing the ADF Roller Unit” on page 103

## ■ Procedure

**CAUTION:**

Do not touch the surface of the roller with bare hands, as doing so will attach skin oil on it and decrease feedability.

**1.****2.**

## ● Removing the ADF Separation Roller

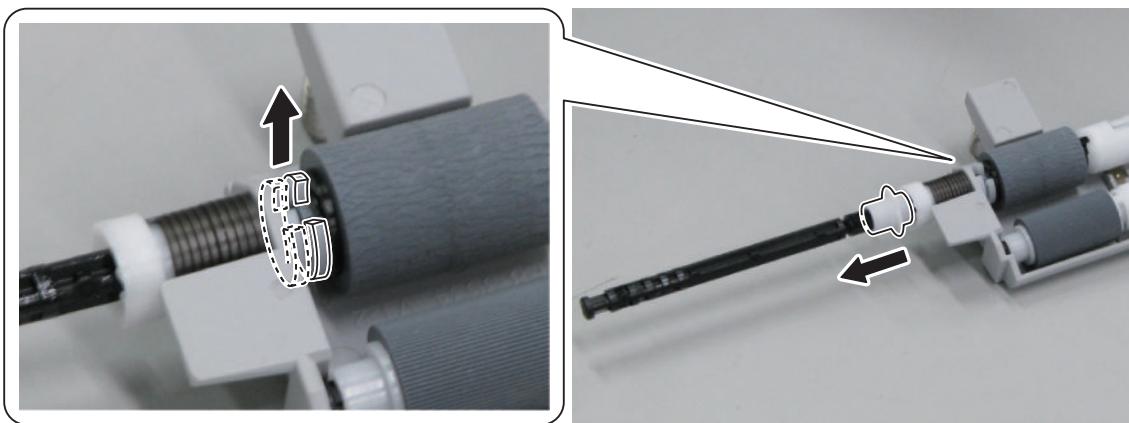
### ■ Preparation

1. “[Removing the ADF Roller Unit](#)” on page 103

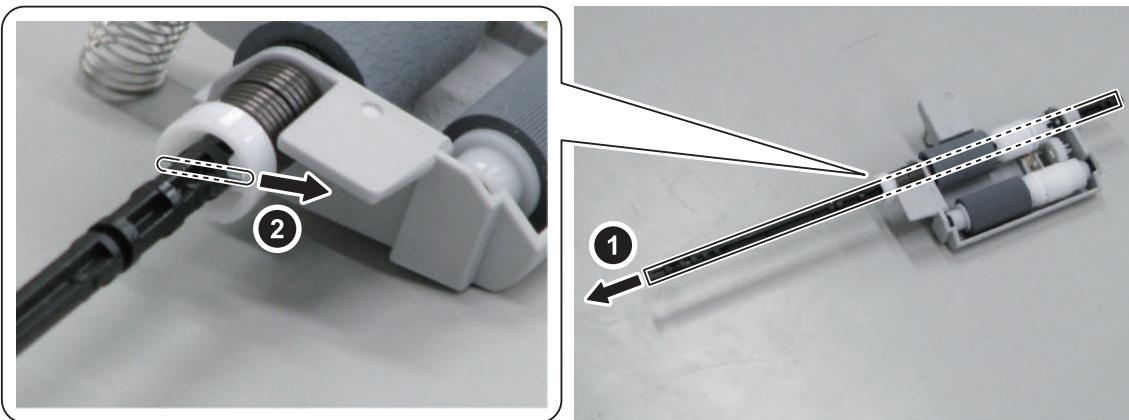
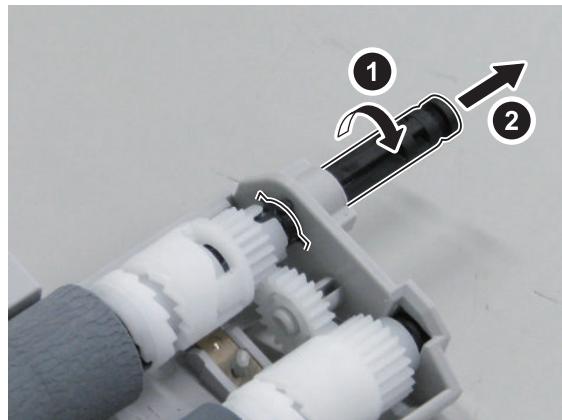
### ■ Procedure

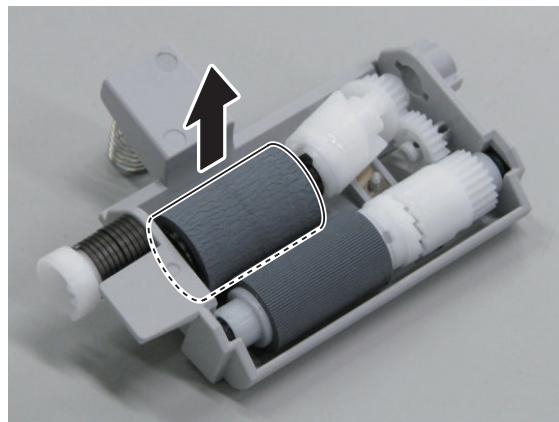
**CAUTION:**

Do not touch the surface of the roller with bare hands, as doing so will attach skin oil on it and decrease feedability.

**1.****2.****CAUTION:**

Be careful not to lose the Parallel Pin during installation/removal because it can easily come off.

**3.**

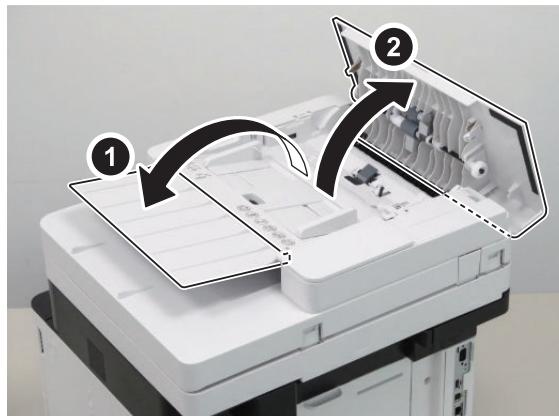
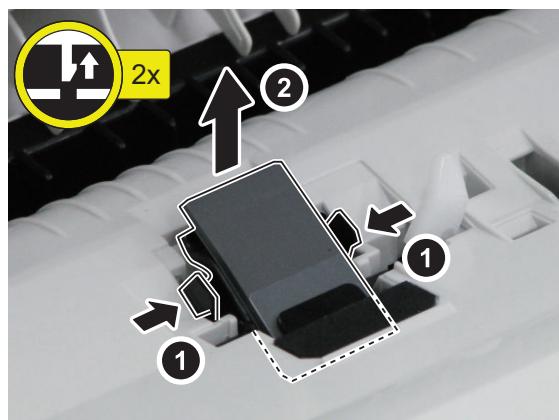
**4.**

## Removing the ADF Separation Pad Unit

### ■ Procedure

**CAUTION:**

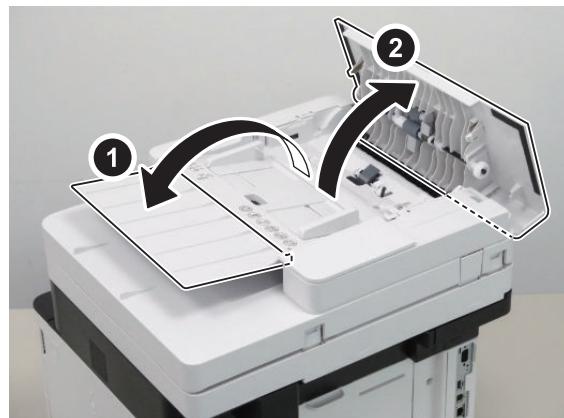
Do not touch the surface of the pad with bare hands, as doing so will attach skin oil on it and decrease feedability.

**1.****2.**

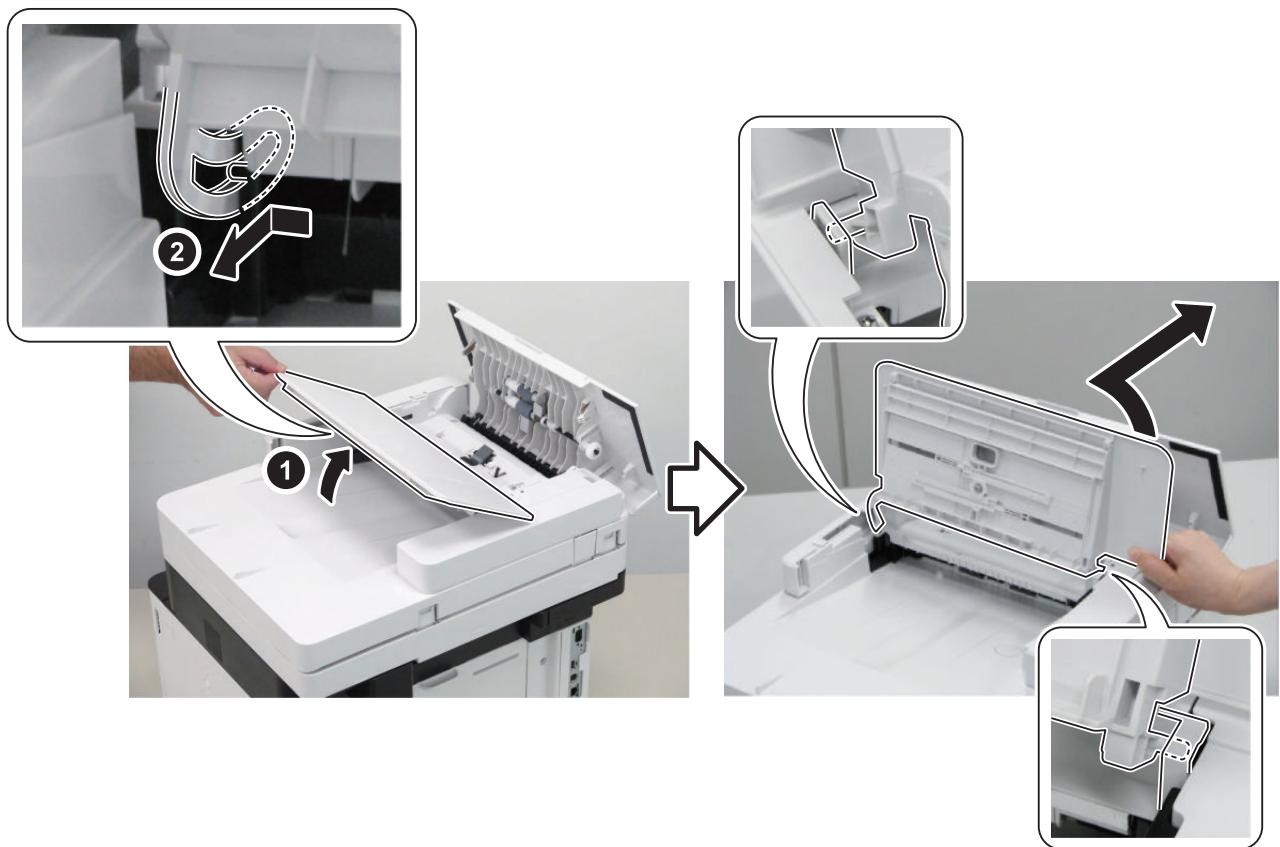
## ➊ Removing the ADF Upper Cover Unit

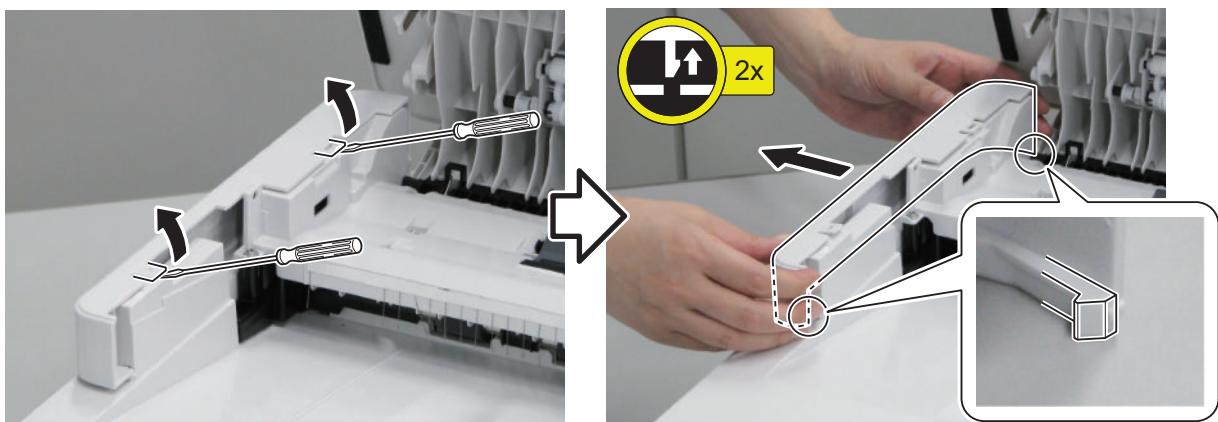
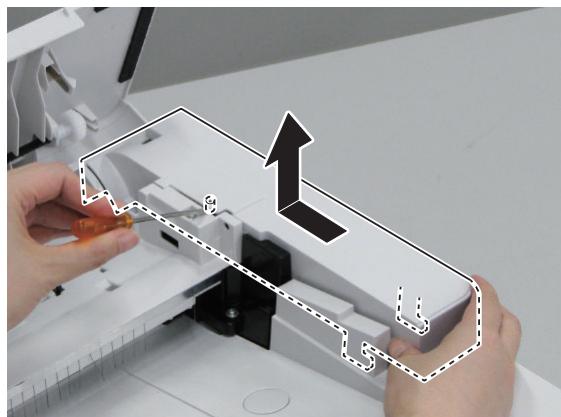
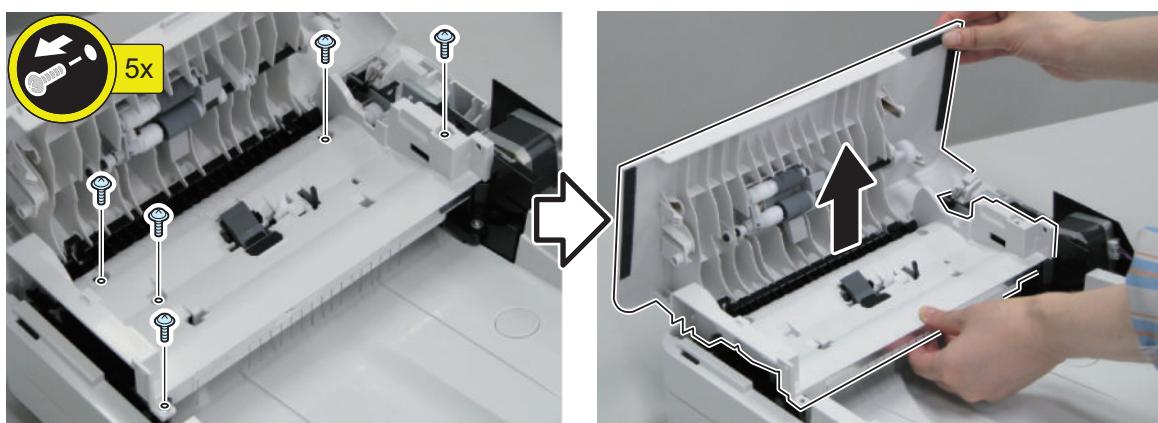
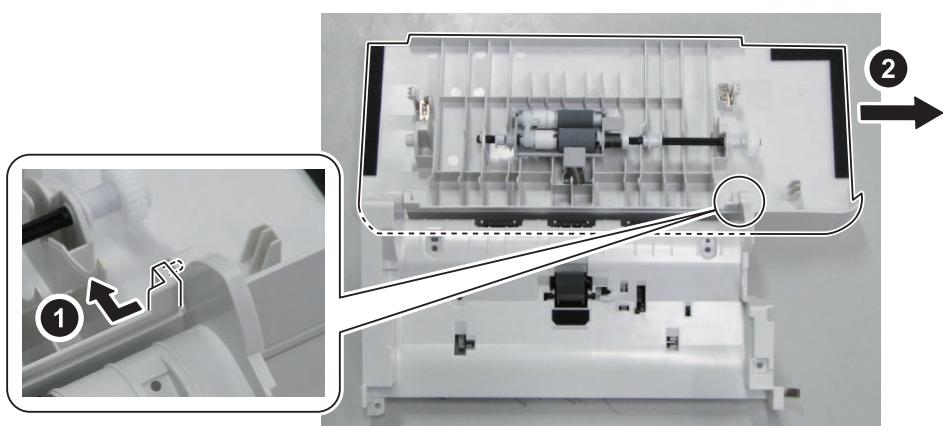
### ■ Procedure

1.



2.



**3.****4.****5.****6.**

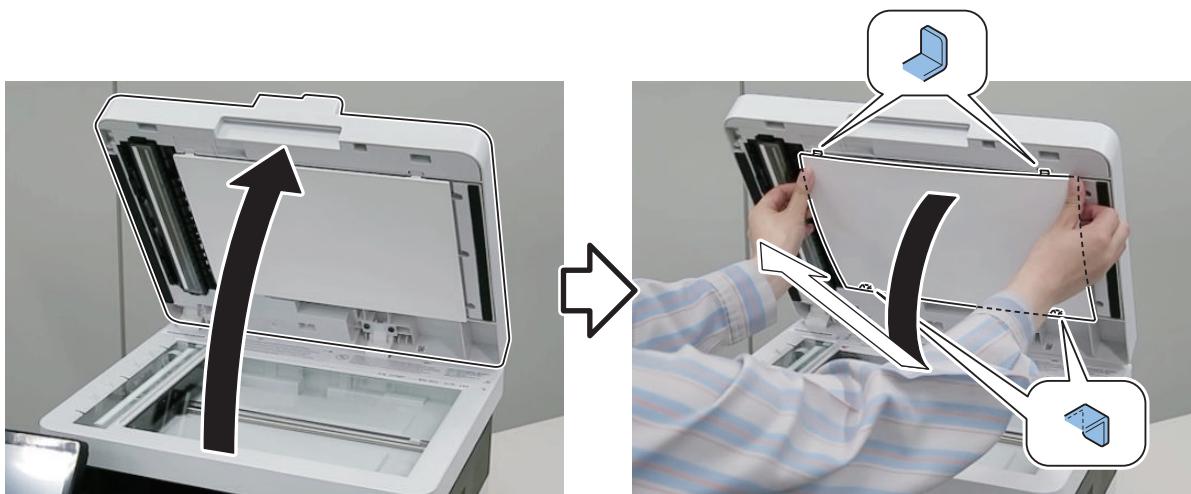
## ➊ Removing the ADF Feed Unit

### ■ Preparation

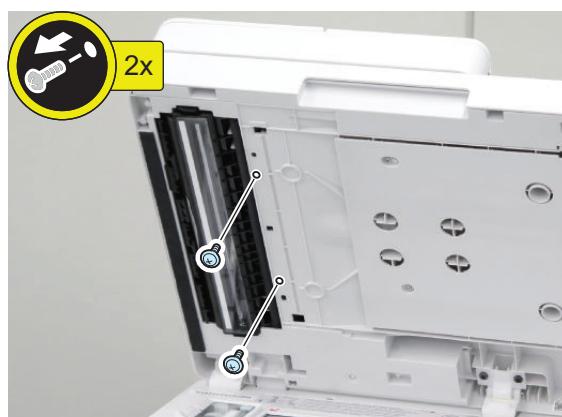
1. “Removing the ADF Upper Cover Unit” on page 109

### ■ Procedure

1.

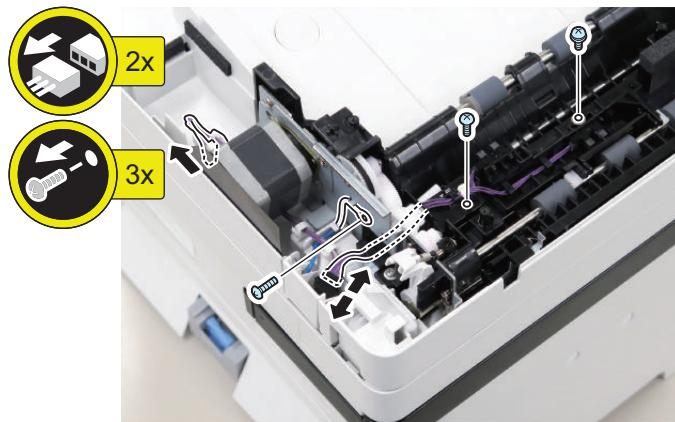
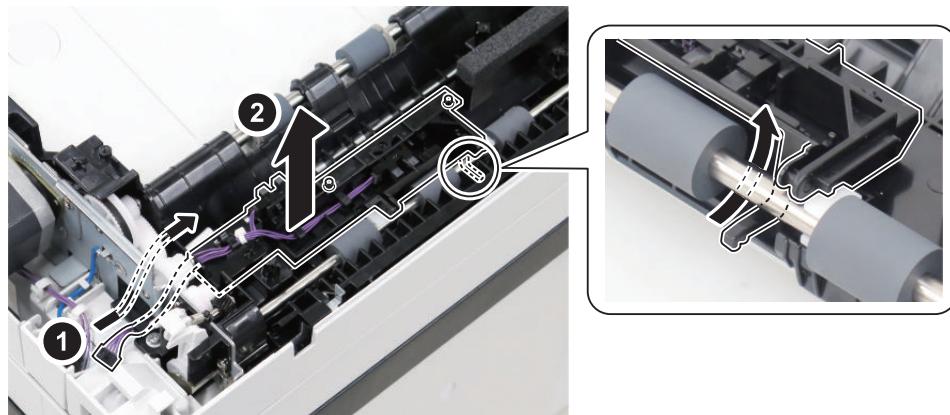
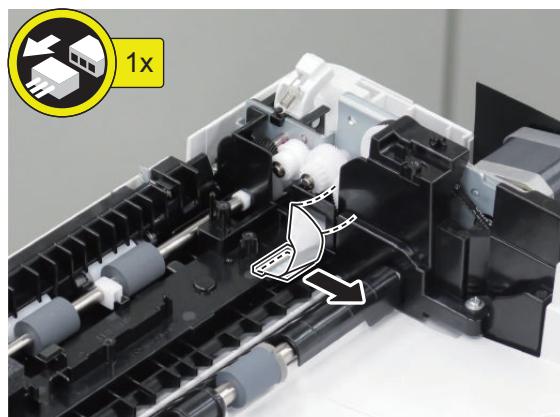
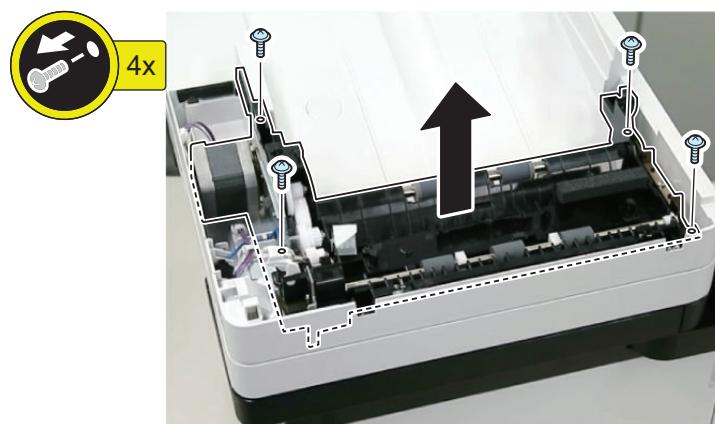


2.



3.



**4.****5.****6.****7.**

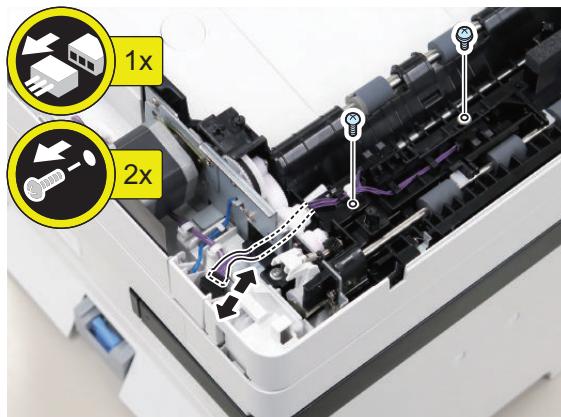
## ➊ Removing the ADF CIS Unit

### ■ Preparation

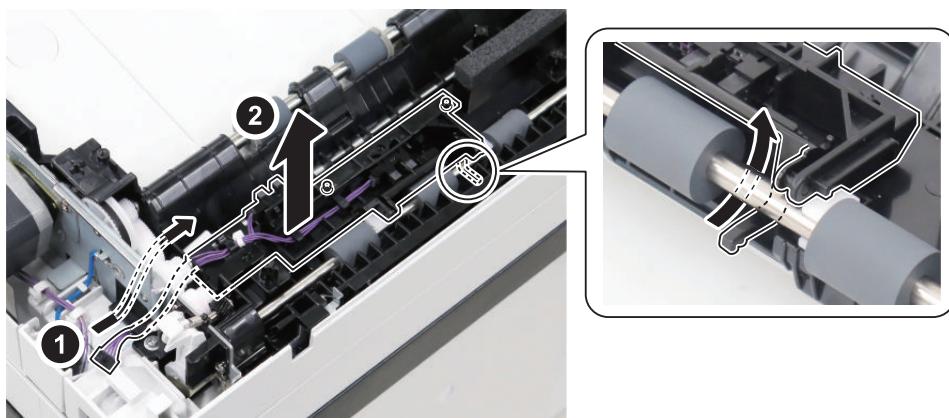
1. “Removing the ADF Upper Cover Unit” on page 109

### ■ Procedure

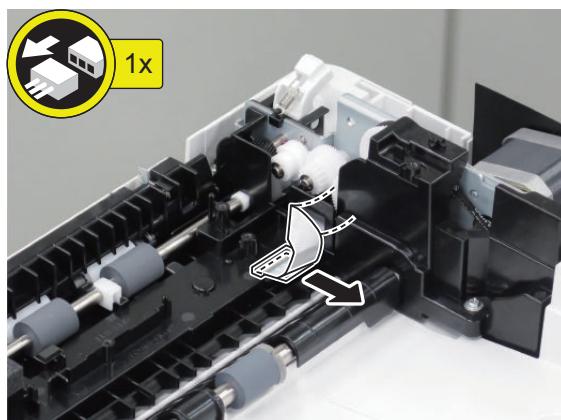
1.



2.



3.

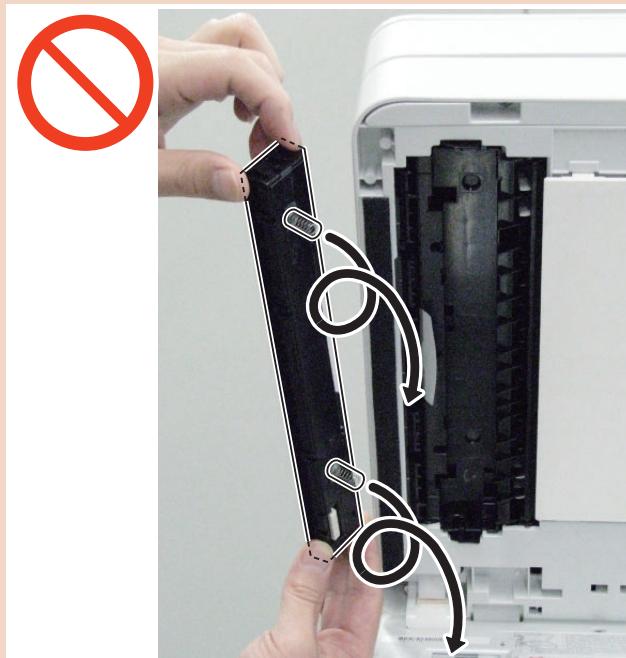


4.



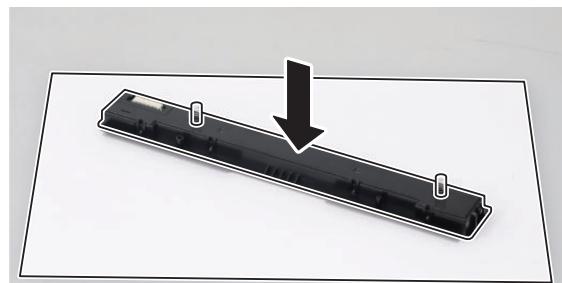
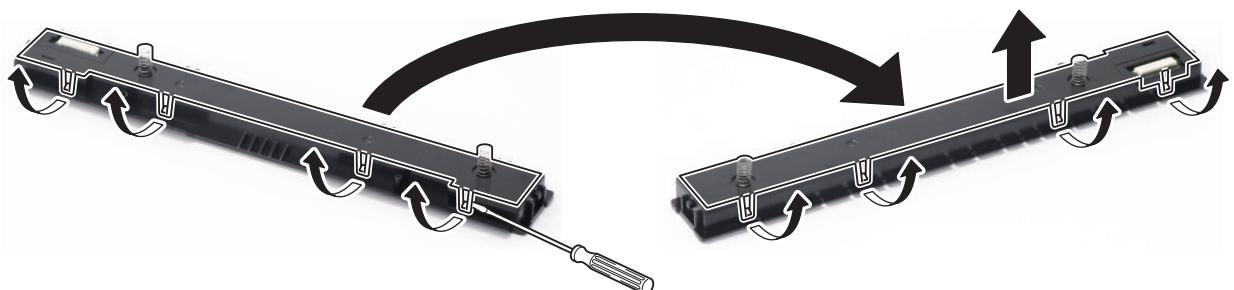
**5.****CAUTION:**

Because the spring is easy to come off, be careful about its loss.



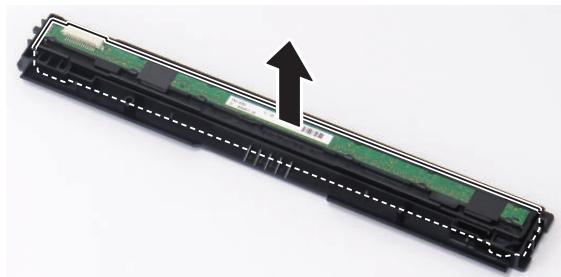
**CAUTION:**

When installing the ADF CIS Unit, be careful that the Guide Sheet does not get caught in the interior.

**6.****7.**

**8.****CAUTION:**

Do not touch the CIS sensor area of ADF with your hands, as doing so will attach skin oil on it and cause image failure such as lines from soiling.


**9.** Actions after replacement: "[After Replacing the ADF CIS Unit](#)" on page 178

## Removing the ADF Drive Unit

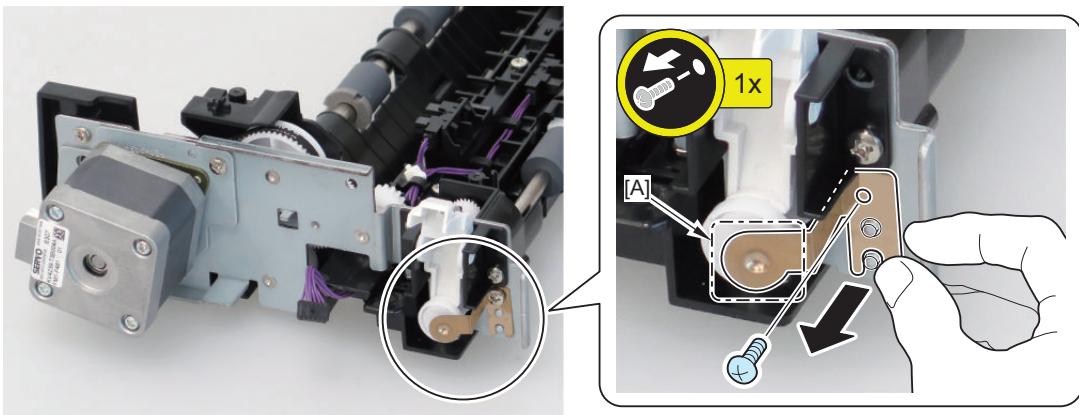
### ■ Preparation

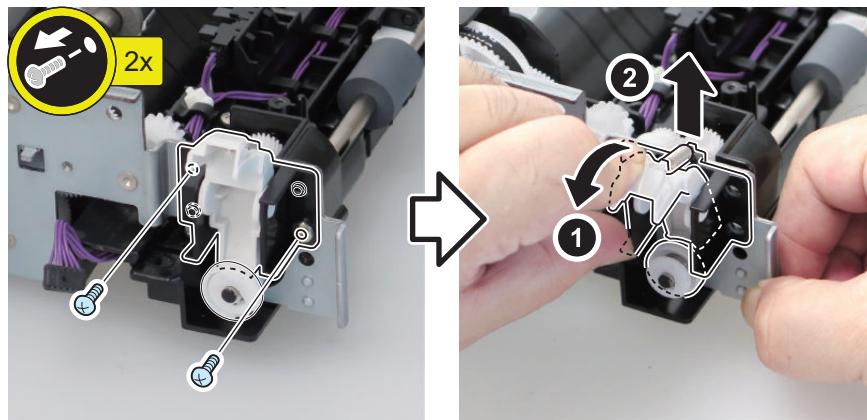
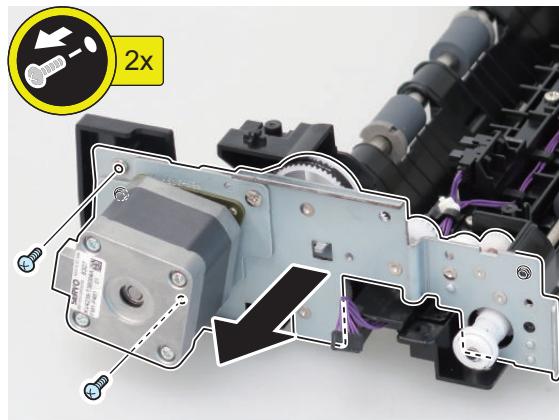
1. "[Removing the ADF Upper Cover Unit](#)" on page 109
2. "[Removing the ADF Feed Unit](#)" on page 111

### ■ Procedure

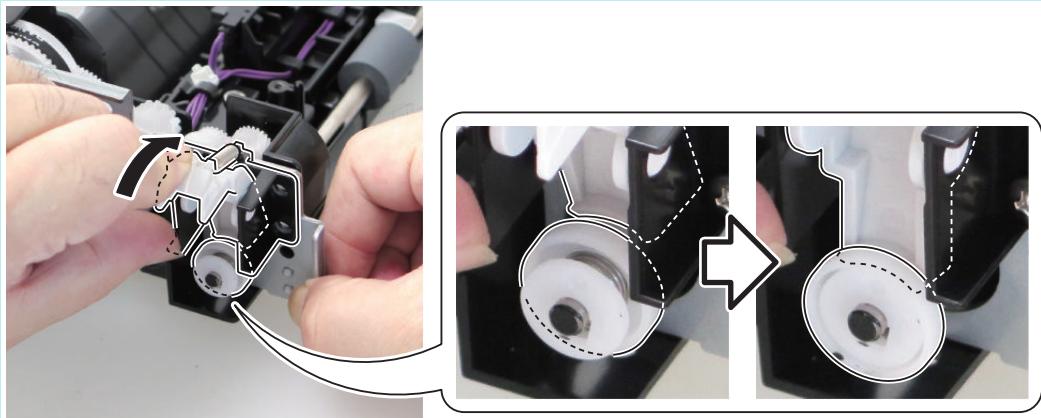
**1.****NOTE:**

Be sure to avoid touching grease as grease is applied to the A part.



**2.****3.****NOTE:**

When installing the ADF Drive Unit, mount the lever on the bush.



## Removing the Reader Upper Cover Unit

### ■ Preparation

1. “[Removing the Cartridge](#)” on page 85
2. “[Removing the Left Cover](#)” on page 89
3. “[Removing the Right Cover](#)” on page 85
4. “[Removing the ADF Unit + Reader Unit](#)” on page 99
5. “[Separating the ADF Unit + Reader Unit](#)” on page 100

## ■ Procedure

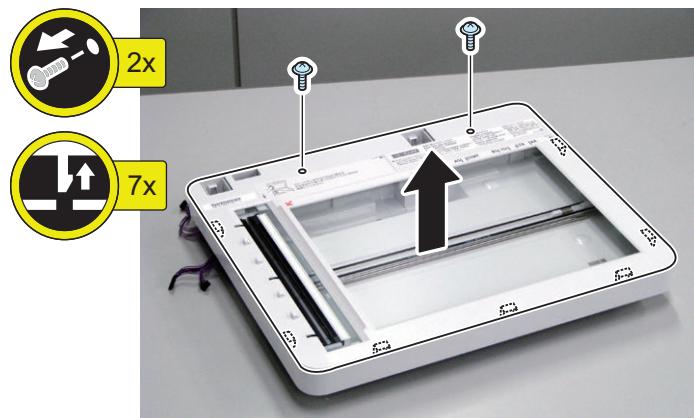
### CAUTION:

Since the Copyboard Glass is included in the Reader Upper Cover Unit, replace the entire Reader Upper Cover Unit when replacing the Copyboard Glass.

**1.**

### CAUTION:

Do not touch the Copyboard Glass with your hands, as doing so will attach skin oil on it and cause image failure from soiling. If soiling is attached, wipe it with lint-free paper moistened.



**2.** Actions after replacement:[“After Replacing the Reader Upper Cover Unit” on page 172](#)

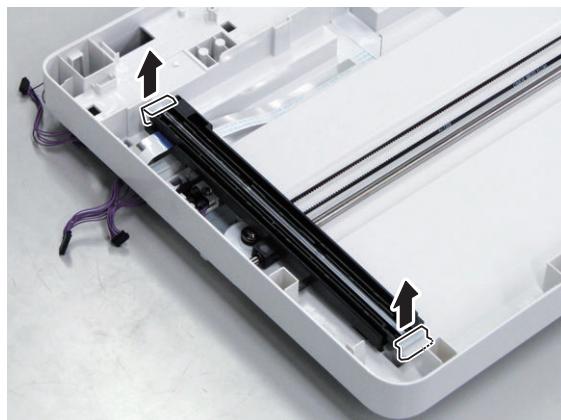
## ● Removing the Reader CIS

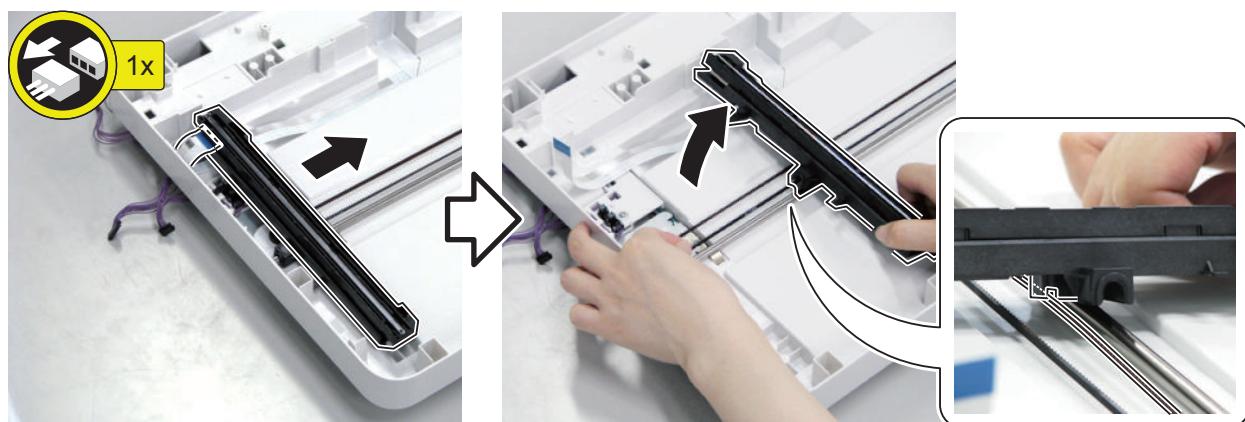
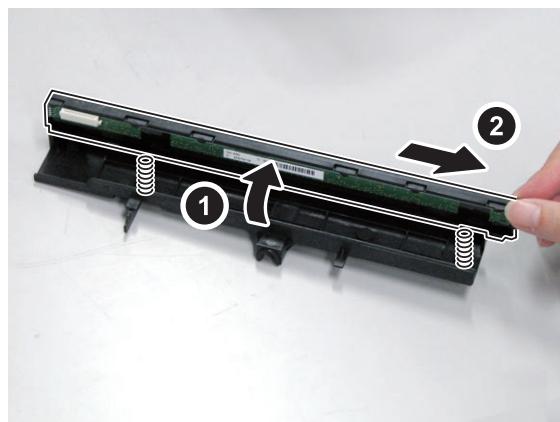
### ■ Preparation

1. [“Removing the Cartridge” on page 85](#)
2. [“Removing the Left Cover” on page 89](#)
3. [“Removing the Right Cover” on page 85](#)
4. [“Removing the ADF Unit + Reader Unit” on page 99](#)
5. [“Separating the ADF Unit + Reader Unit” on page 100](#)
6. [“Removing the Reader Upper Cover Unit” on page 118](#)

### ■ Procedure

**1.**



**2.****3.**

**CAUTION:**

Do not touch the sensor of the Reader CIS with your hands, as doing so will attach skin oil on it and cause image failure such as lines from soiling.

**CAUTION:**

When installing the Reader CIS, align the 2 shafts on the right and left, and confirm that the protrusions and grooves are properly fitted.



## 4. Actions after replacement: [“After Replacing the Reader CIS Unit” on page 176](#)

### Removing the Reader CIS Timing Belt

#### ■ Preparation

1. [“Removing the Cartridge” on page 85](#)
2. [“Removing the Left Cover” on page 89](#)
3. [“Removing the Right Cover” on page 85](#)
4. [“Removing the ADF Unit + Reader Unit” on page 99](#)
5. [“Separating the ADF Unit + Reader Unit” on page 100](#)
6. [“Removing the Reader Upper Cover Unit” on page 118](#)
7. [“Removing the Reader CIS” on page 119](#)

#### ■ Procedure

- 1.** Remove the [A] part of the belt from the gear.



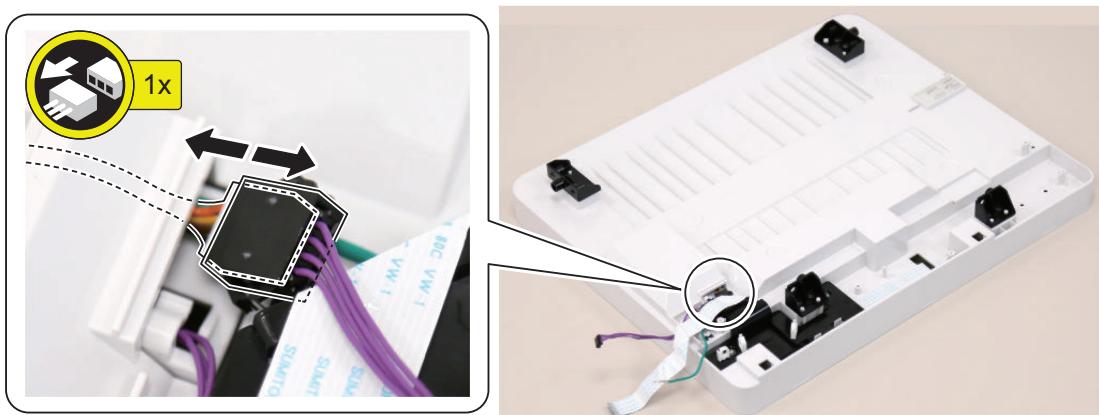
## Removing the Reader Scanner Motor

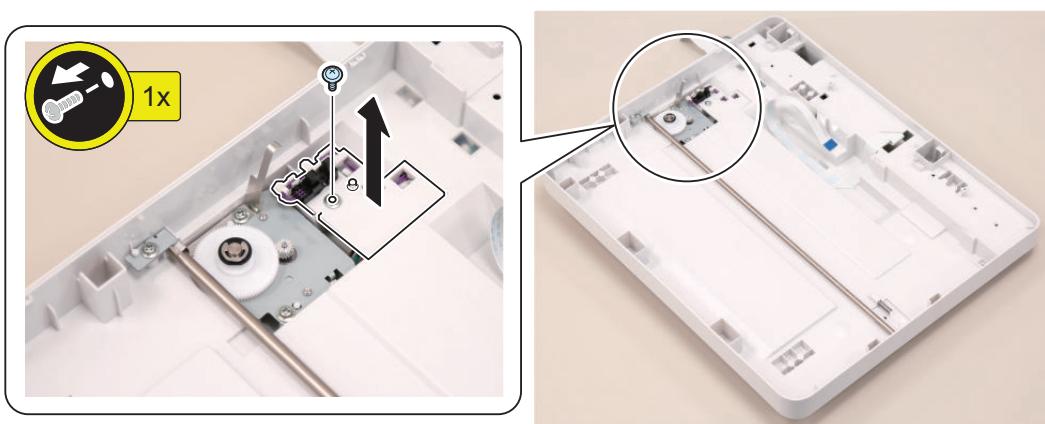
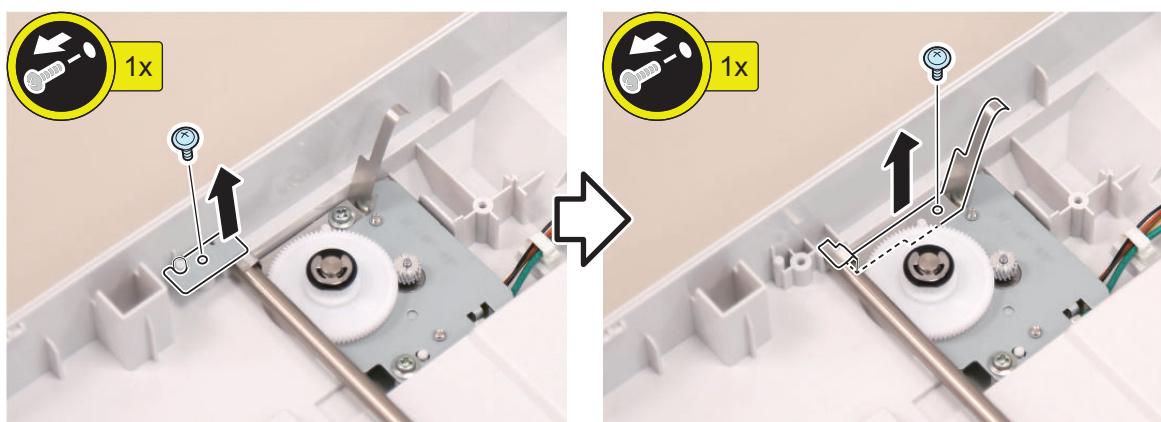
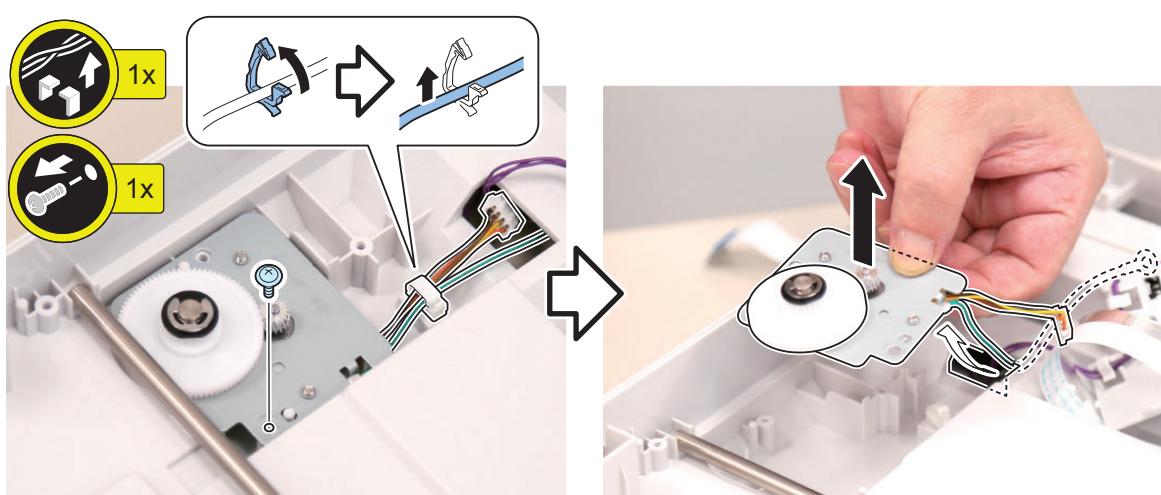
### Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89
3. “Removing the Right Cover” on page 85
4. “Removing the ADF Unit + Reader Unit” on page 99
5. “Separating the ADF Unit + Reader Unit” on page 100
6. “Removing the Reader Upper Cover Unit” on page 118
7. “Removing the Reader CIS” on page 119
8. “Removing the Reader CIS Timing Belt” on page 121

### Procedure

- 1.**



**2.****3.****4.**

## Controller System

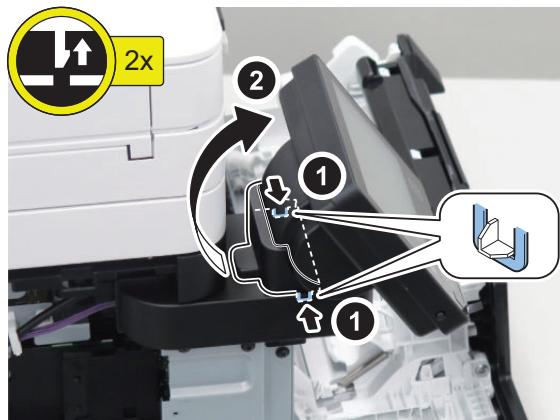
### Removing the Control Panel Unit

#### Preparation

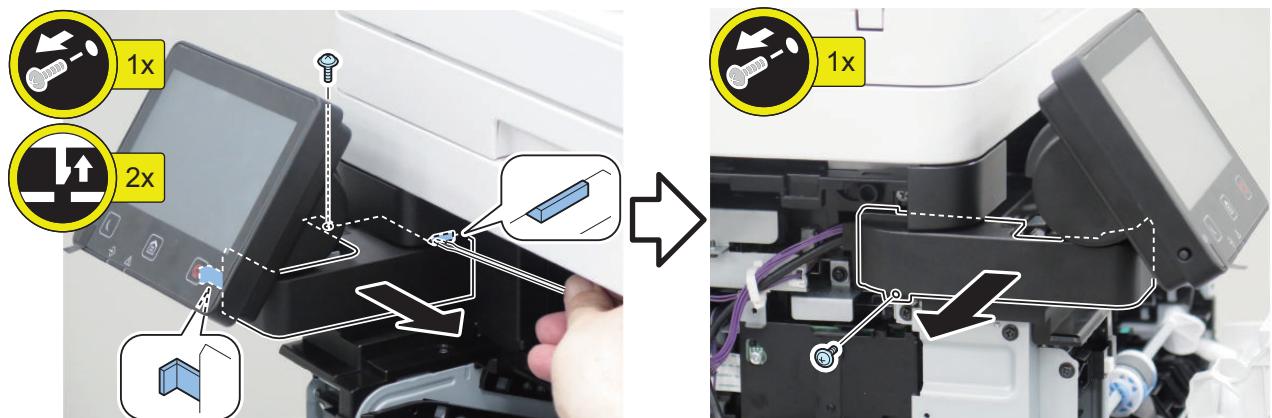
1. "Removing the Cartridge" on page 85
2. "Removing the Left Cover" on page 89

#### Procedure

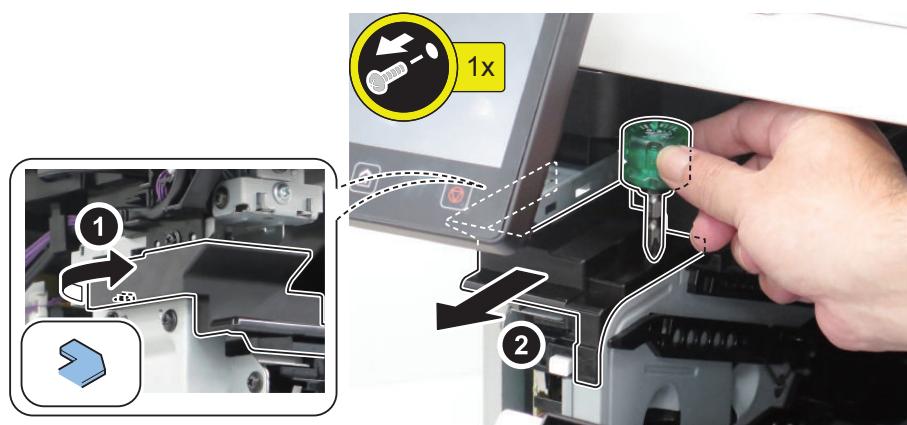
1.

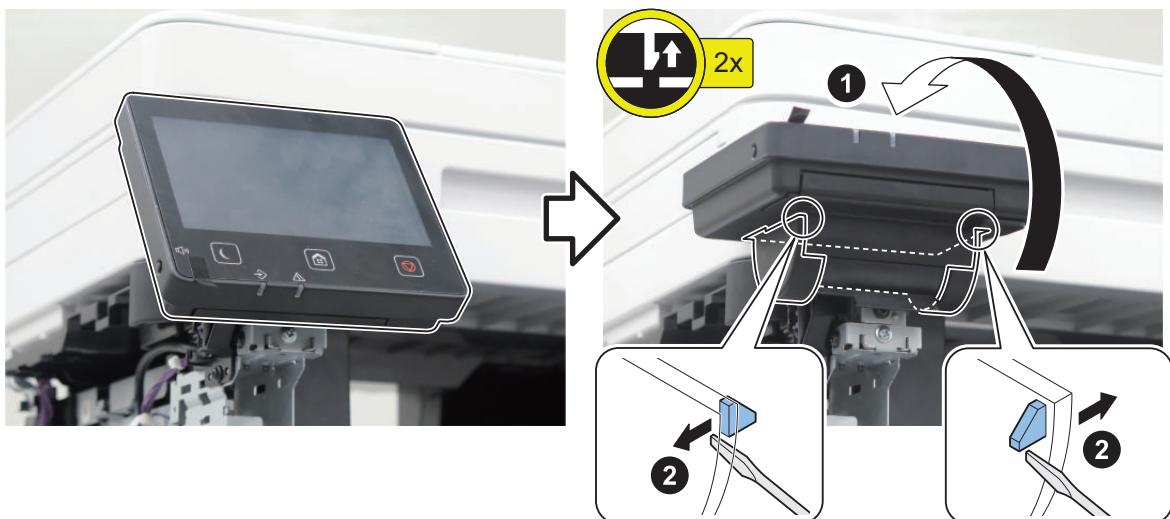
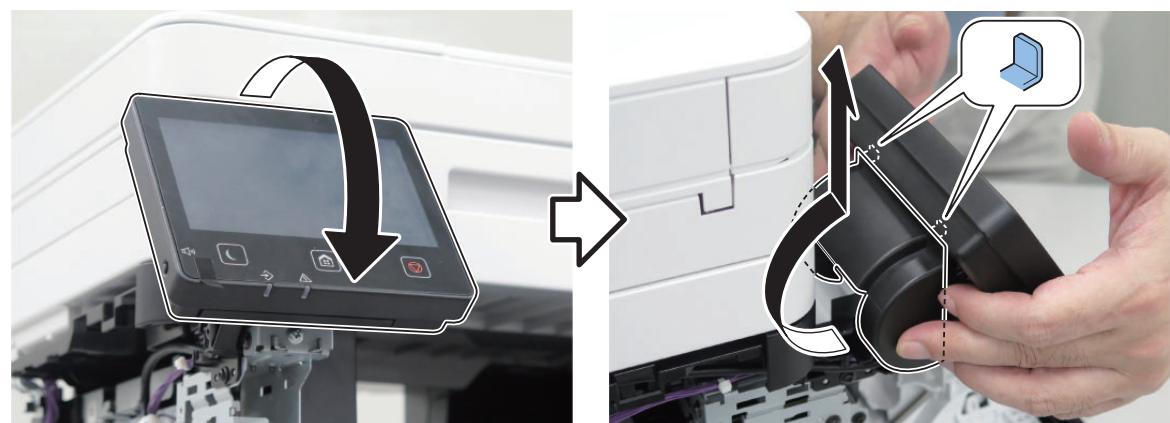
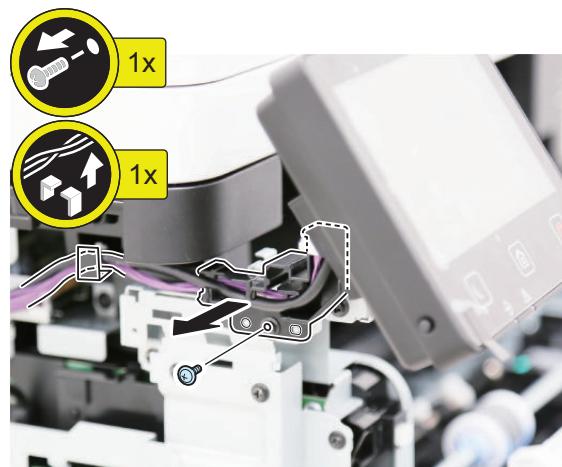


2.

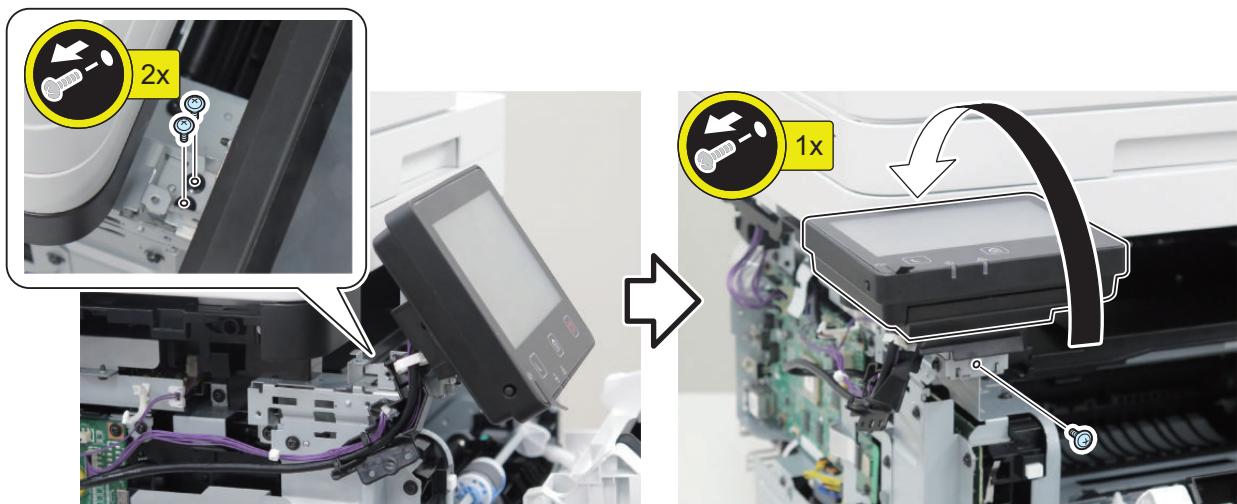


3.

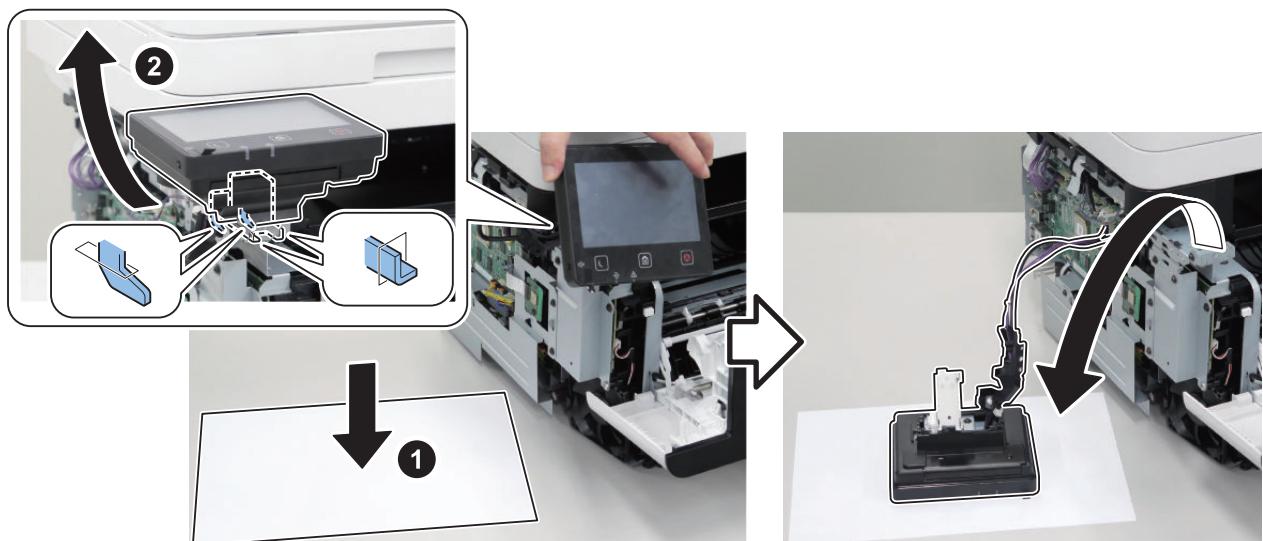


**4.****5.****6.**

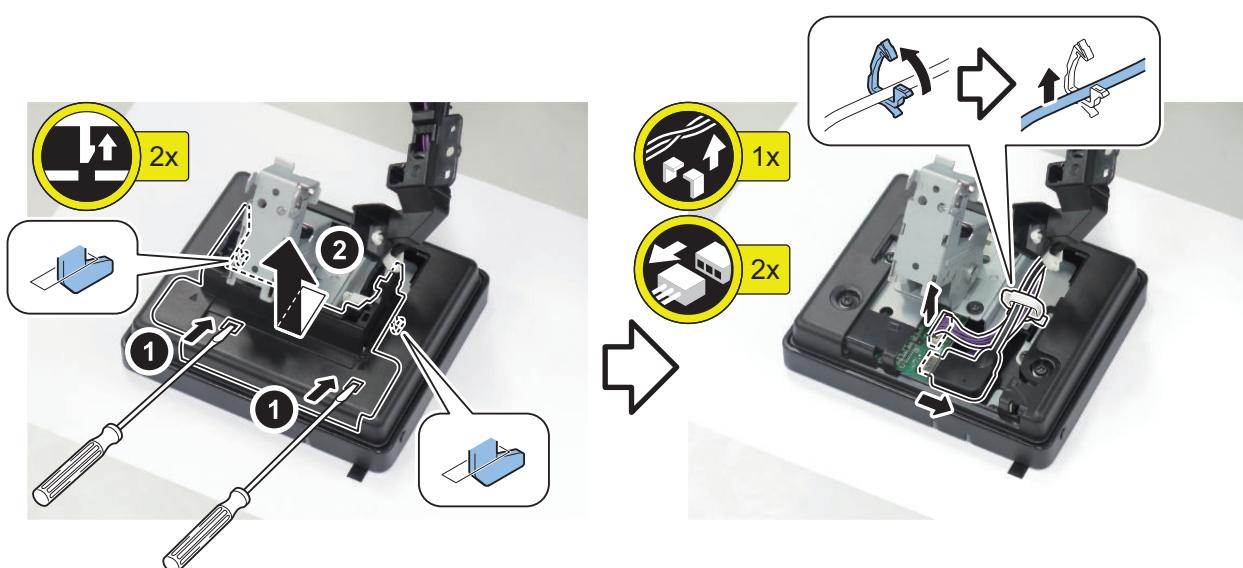
7.

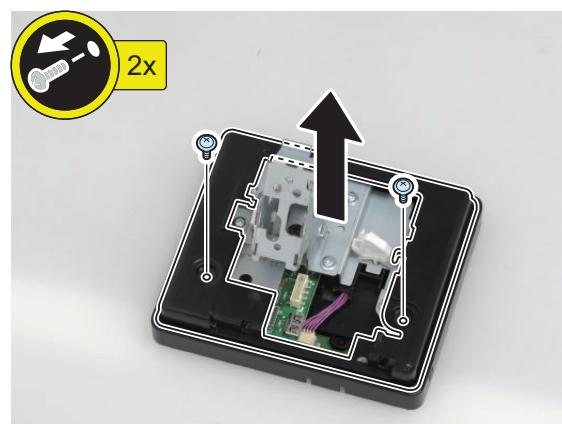
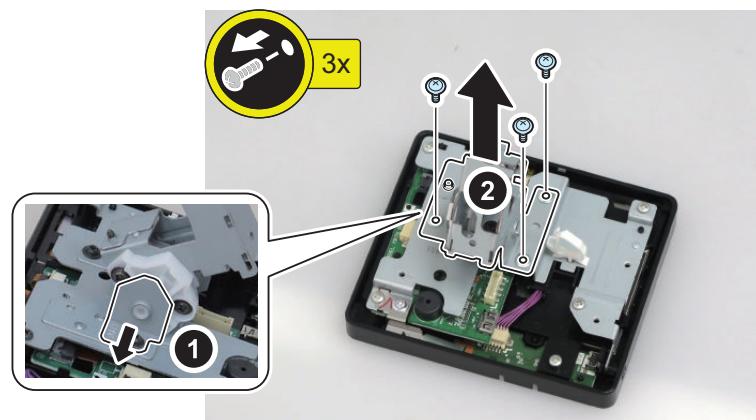


8.



9.



**10.****11.**

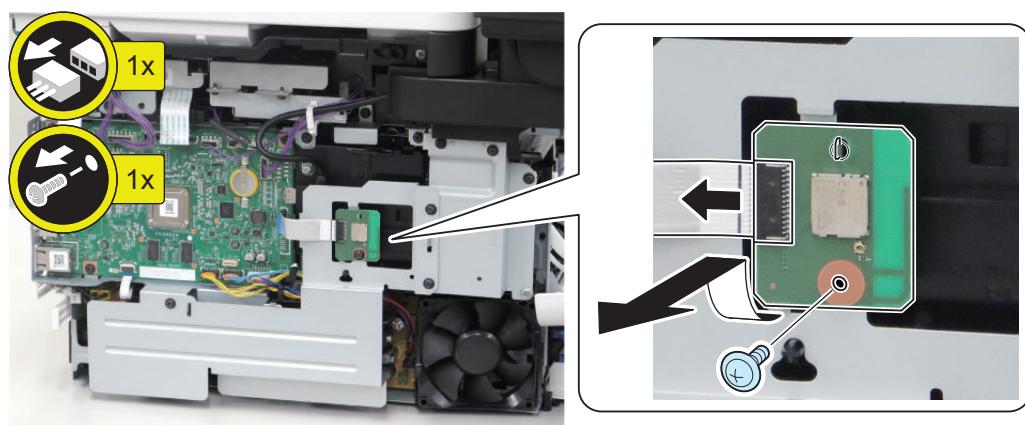
**12.** Actions after replacement: "[After Replacing the Control Panel](#)" on page 157

## ➊ Removing the Wireless LAN PCB

### ■ Preparation

1. "[Removing the Cartridge](#)" on page 85
2. "[Removing the Left Cover](#)" on page 89

### ■ Procedure

**1.**

**NOTE:**

When installing, turn over the gloss surface of the Flat Cable to the front side facing upward.

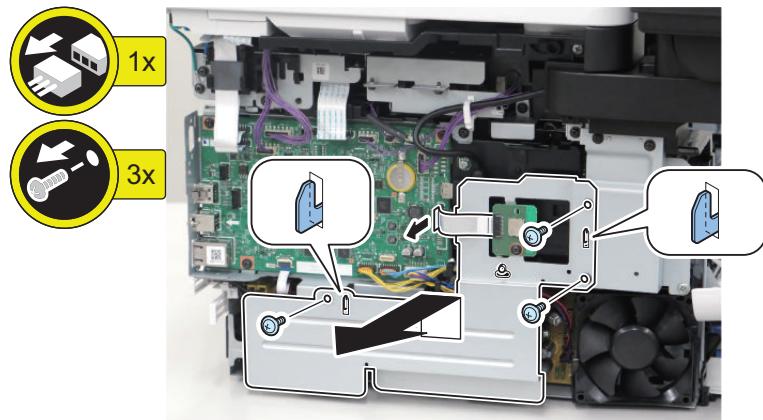
## ➊ Removing the Wireless LAN Unit

### ■ Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89

### ■ Procedure

**1.**

**NOTE:**

When installing, turn over the gloss surface of the Flat Cable to the front side facing upward.

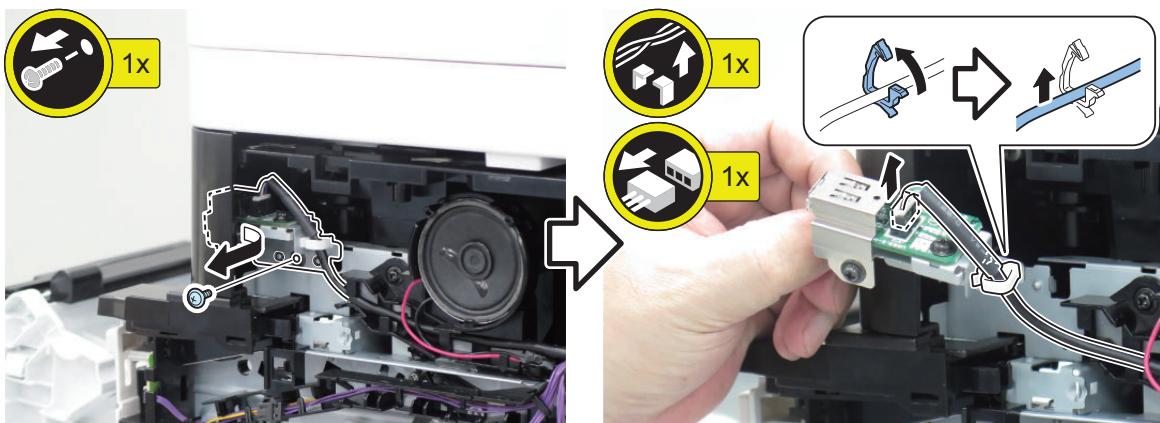
## ➋ Removing the USB Unit

### ■ Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Right Cover” on page 85

### ■ Procedure

**1.**



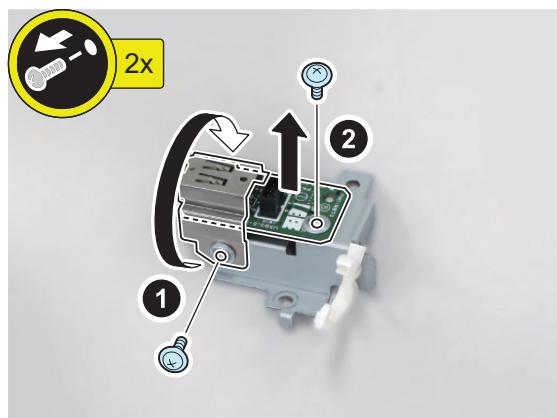
## ➊ Removing the USB PCB

### ■ Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Right Cover” on page 85
3. “Removing the USB Unit” on page 128

### ■ Procedure

1.



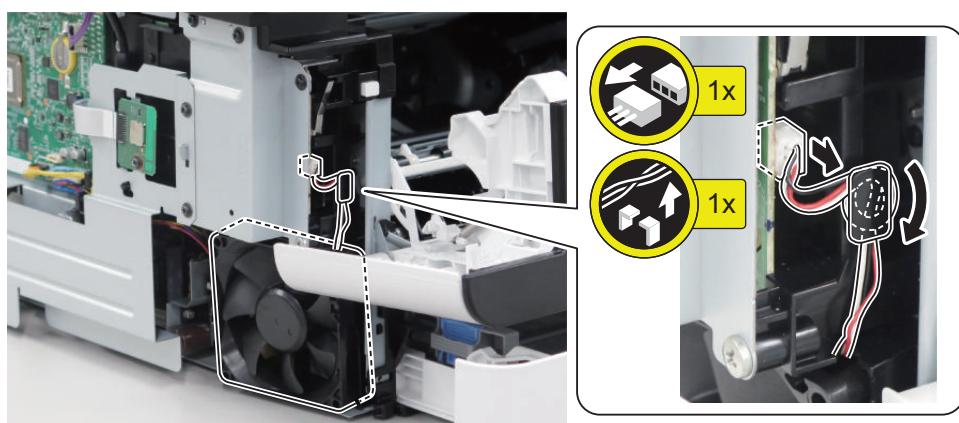
## ➋ Removing the Main Fan

### ■ Preparation

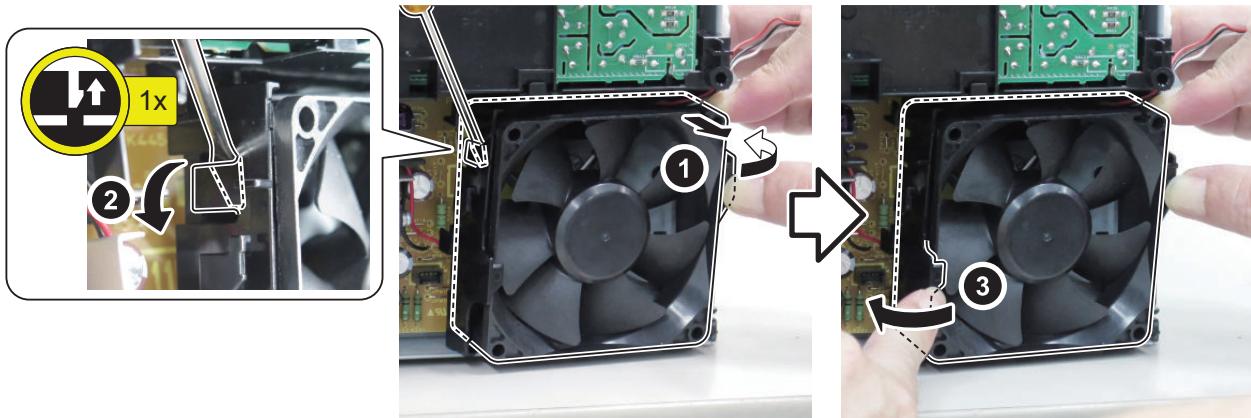
1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89

### ■ Procedure

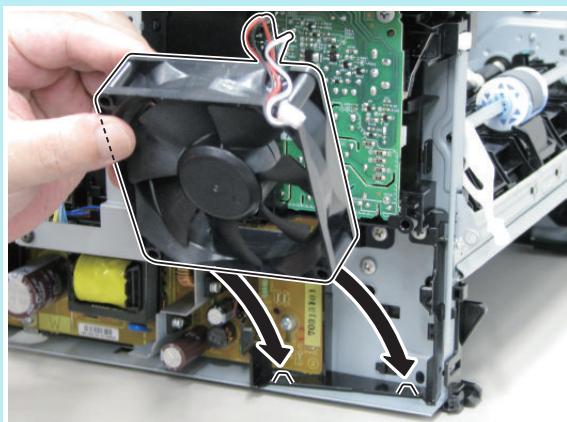
1.



## 2.

**NOTE:**

When installing, install to 2 hooks at the lower side.



## Removing the Main Controller PCB

### ■ Preparation

**CAUTION:**

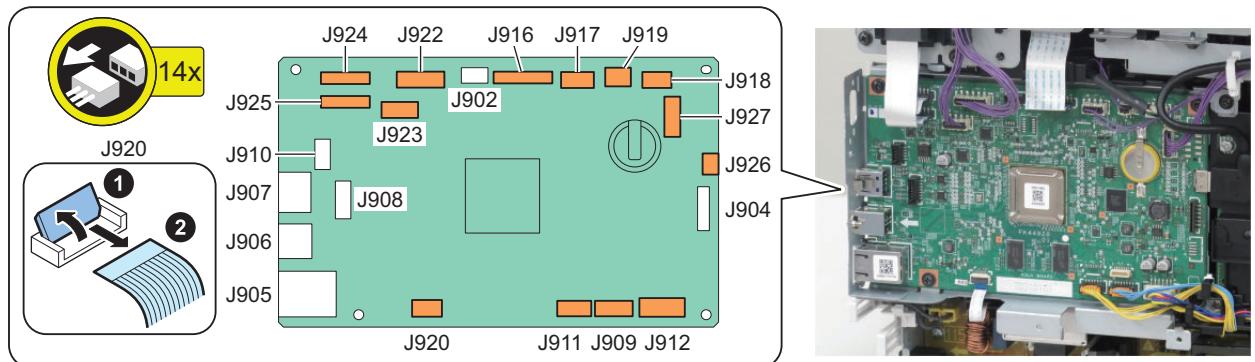
Make sure to perform "Before Replacing the Main Controller PCB" on page 157 before replacing the Main Controller PCB.

1. ["Removing the Cartridge" on page 85](#)
2. ["Removing the Left Cover" on page 89](#)
3. ["Removing the Wireless LAN Unit" on page 128](#)

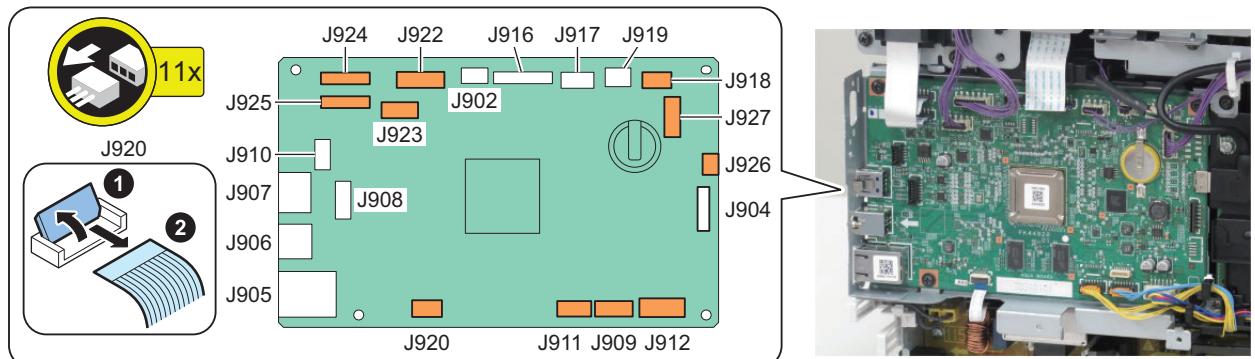
## ■ Procedure

### 1.

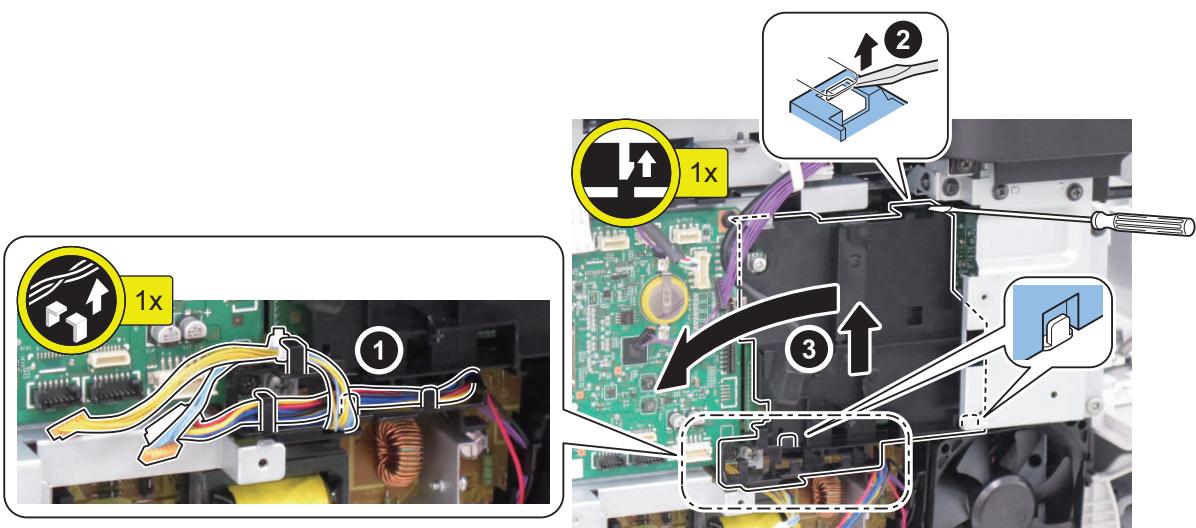
&lt;MF1238II/1238iF II&gt;

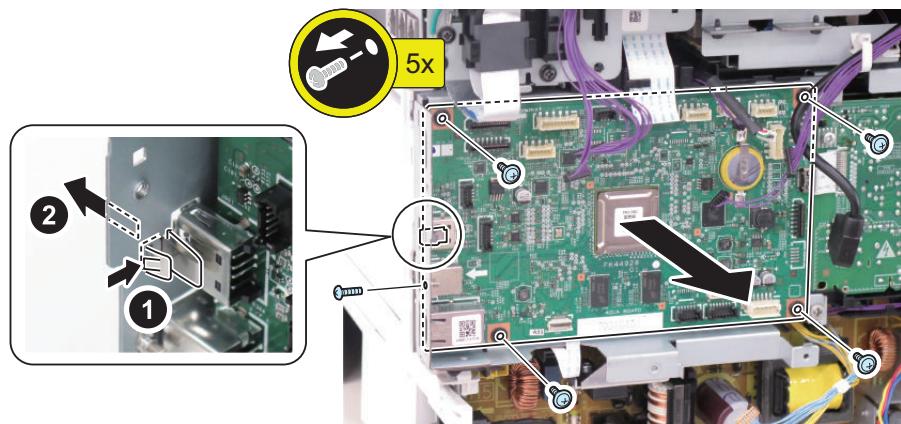


&lt;1238i II&gt;



### 2.



**3.**

**4.** Actions after replacement: "After Replacing the Main Controller PCB" on page 157

## ● Removing the Main Controller Unit

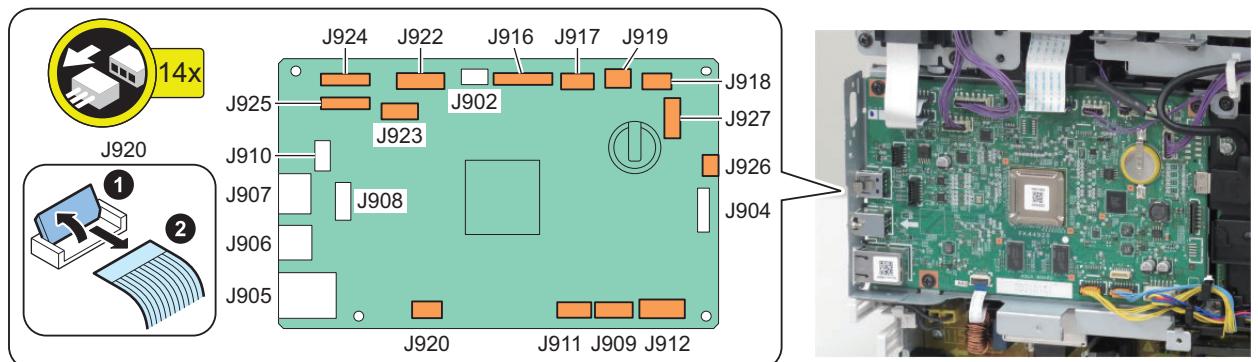
### ■ Preparation

1. "Removing the Cartridge" on page 85
2. "Removing the Left Cover" on page 89
3. "Removing the Wireless LAN Unit" on page 128

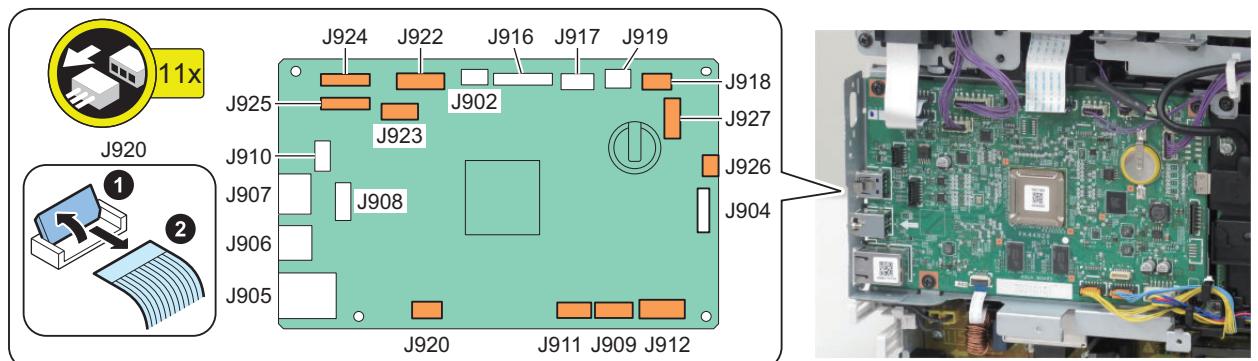
### ■ Procedure

**1.**

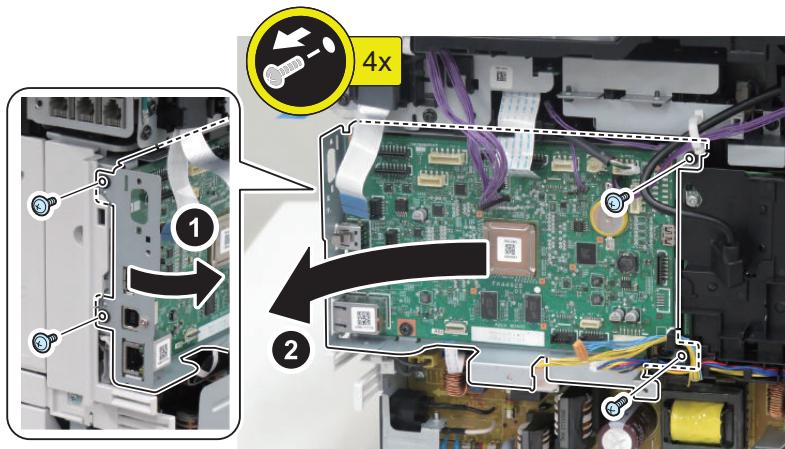
&lt;MF1238II/1238iF II&gt;



&lt;1238i II&gt;



2.



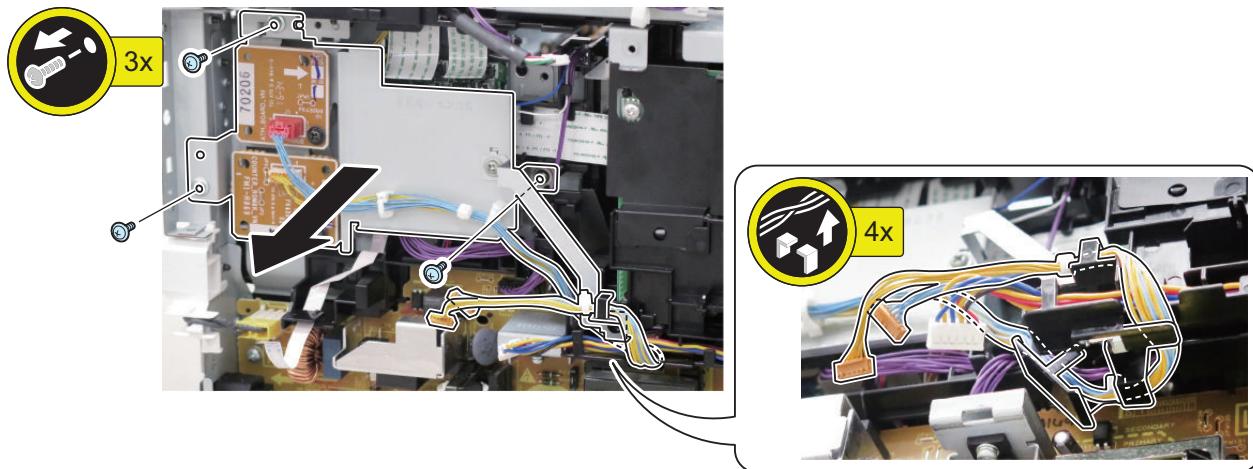
## Removing the DC Controller PCB Cover

### Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89
3. “Removing the Wireless LAN Unit” on page 128
4. “Removing the Main Controller Unit” on page 132

### Procedure

1.



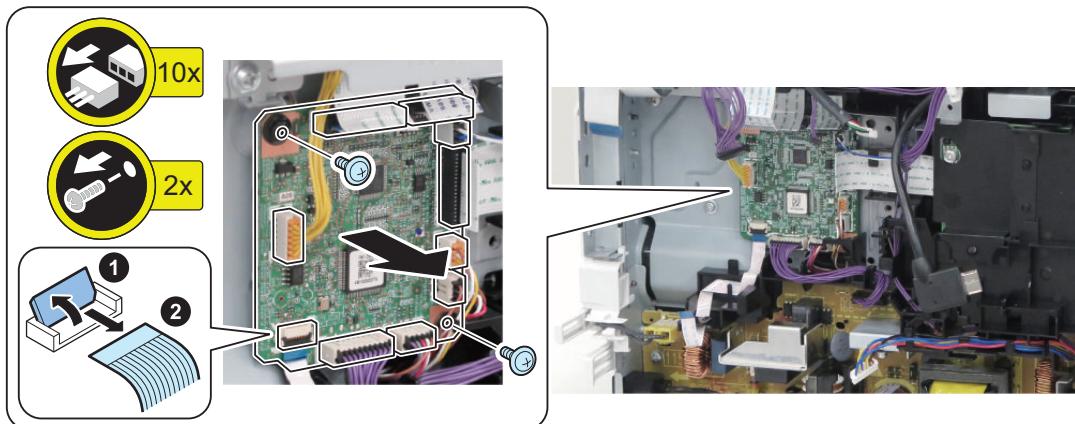
## Remove the DC Controller PCB

### Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89
3. “Removing the Wireless LAN Unit” on page 128
4. “Removing the Main Controller Unit” on page 132
5. “Removing the DC Controller PCB Cover” on page 133

## ■ Procedure

**1.**



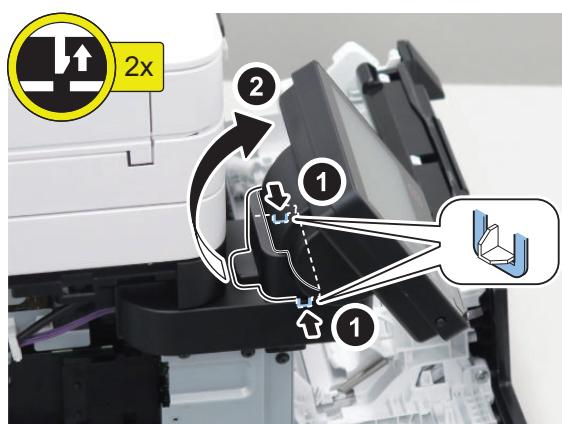
## ➊ Removing the High Voltage Power Supply PCB

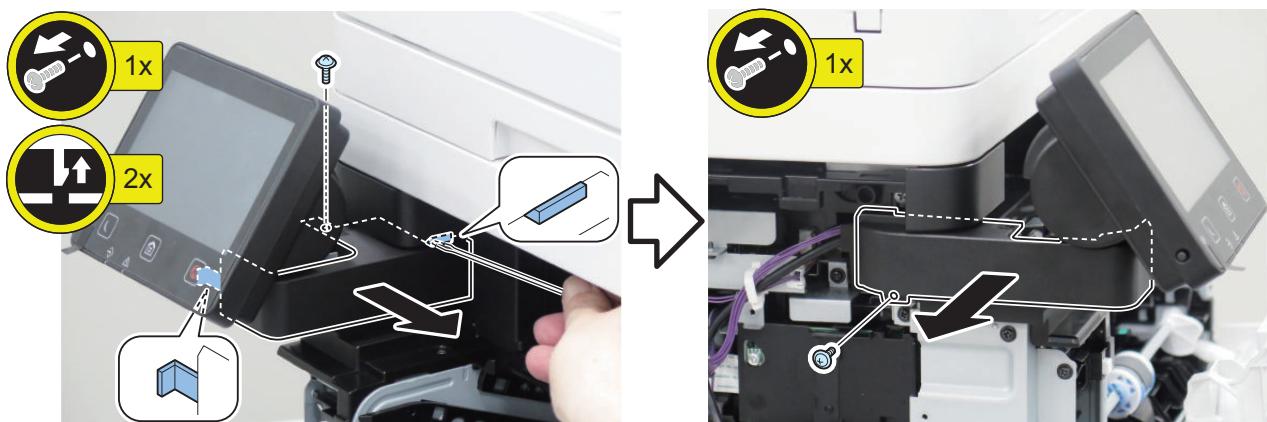
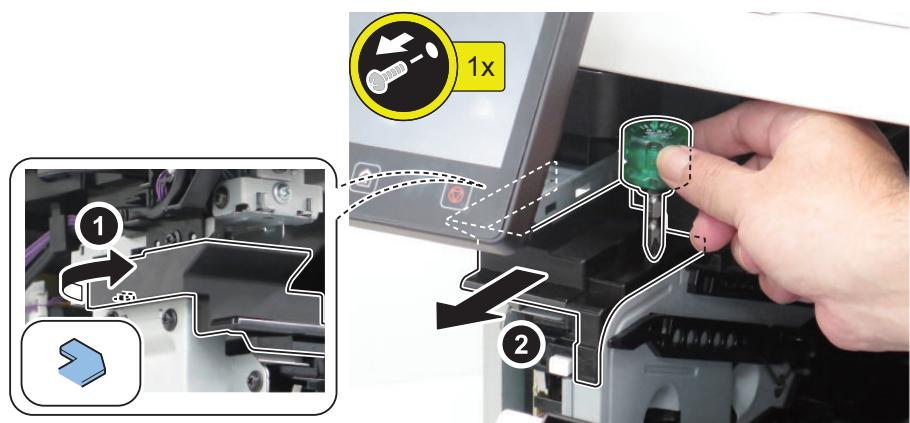
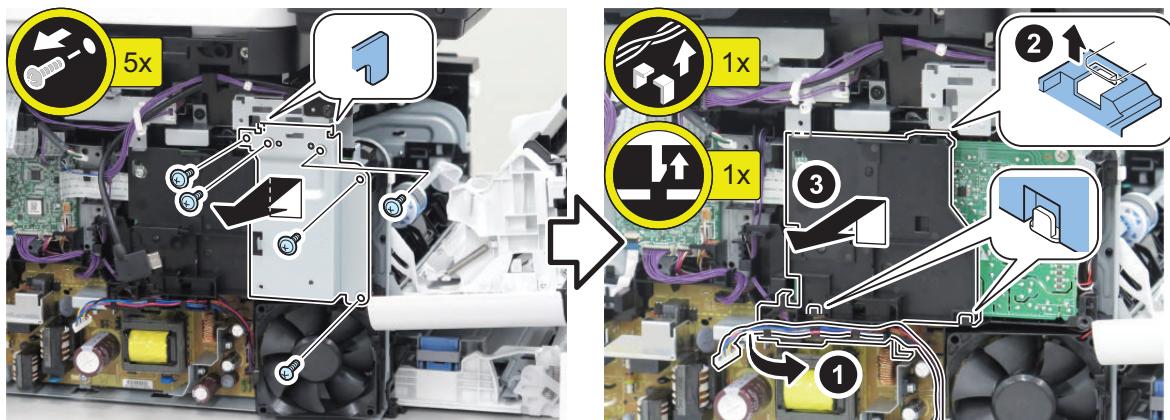
### ■ Preparation

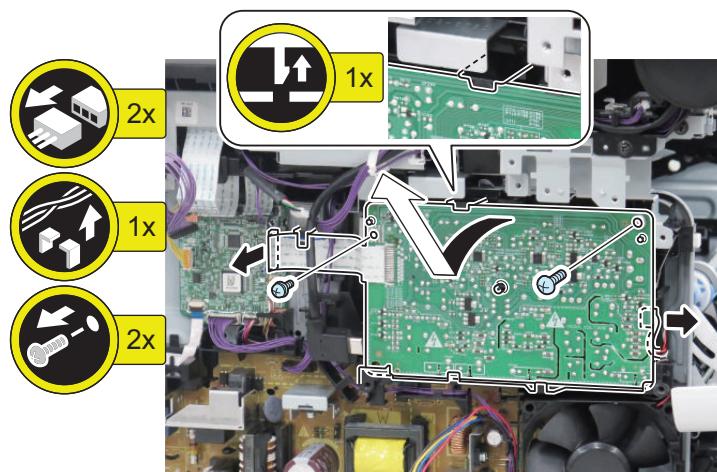
1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89
3. “Removing the Wireless LAN Unit” on page 128
4. “Removing the Main Controller Unit” on page 132
5. “Removing the DC Controller PCB Cover” on page 133

### ■ Procedure

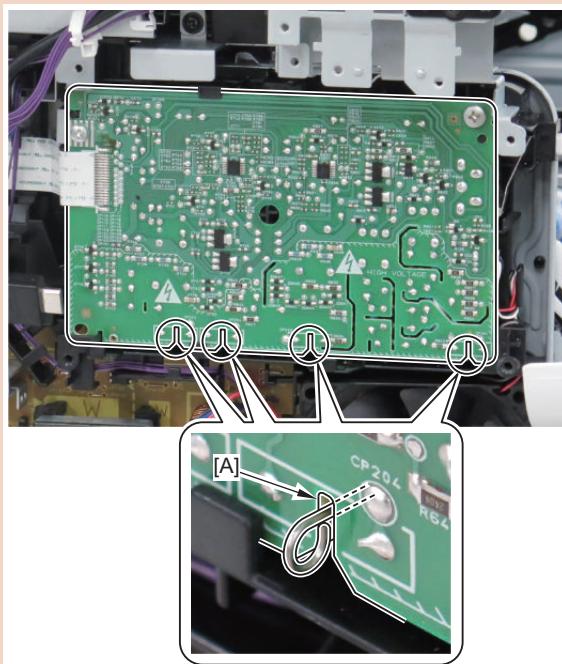
**1.**



**2.****3.****4.**

**5.****CAUTION:**

When installing, make sure that the groove [A] of High Voltage Power Supply PCB and Contact Spring are in contact.



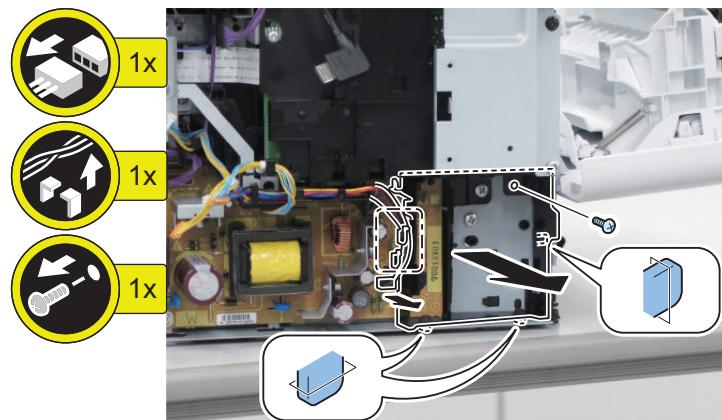
## Removing the Low Voltage Power Supply Unit

### ■ Preparation

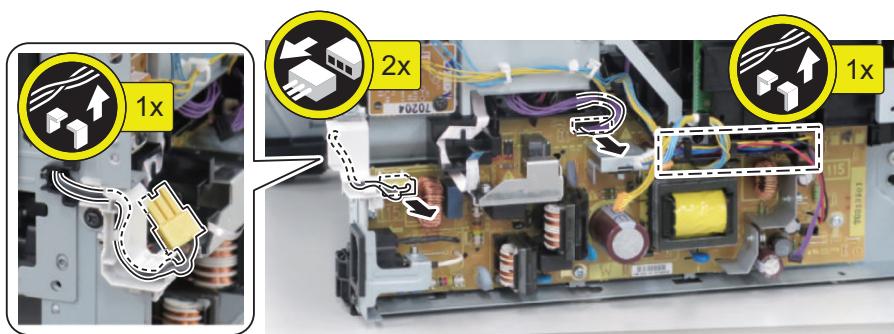
1. [“Removing the Cartridge” on page 85](#)
2. [“Removing the Left Cover” on page 89](#)
3. [“Removing the Left Rear Cover” on page 93](#)
4. [“Removing the Right Cover” on page 85](#)
5. [“Removing the Rear Cover” on page 95](#)
6. [“Removing the Wireless LAN Unit” on page 128](#)
7. [“Removing the Main Controller Unit” on page 132](#)
8. [“Removing the Main Fan” on page 129](#)

## ■ Procedure

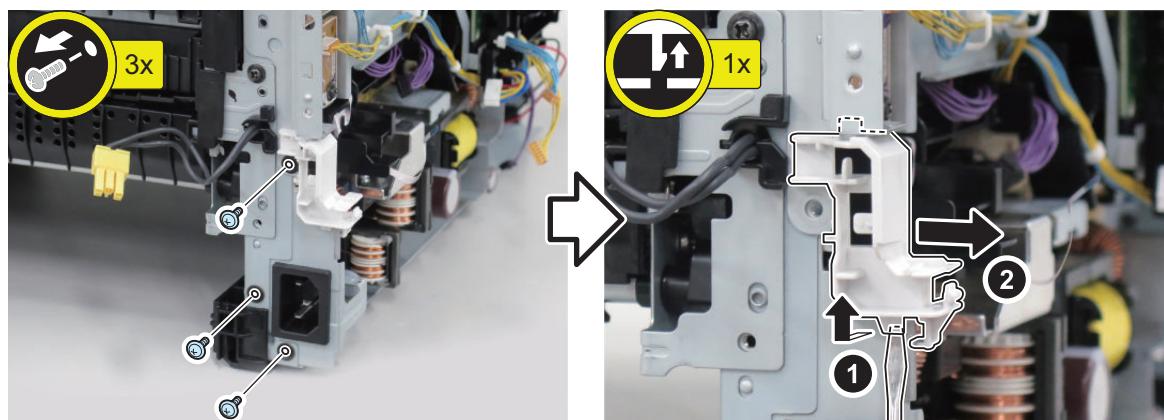
**1.**



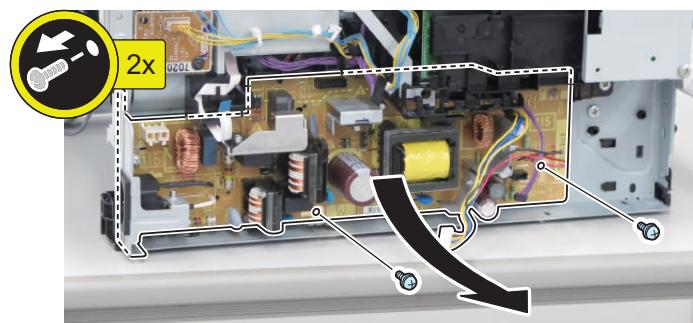
**2.**



**3.**



**4.**



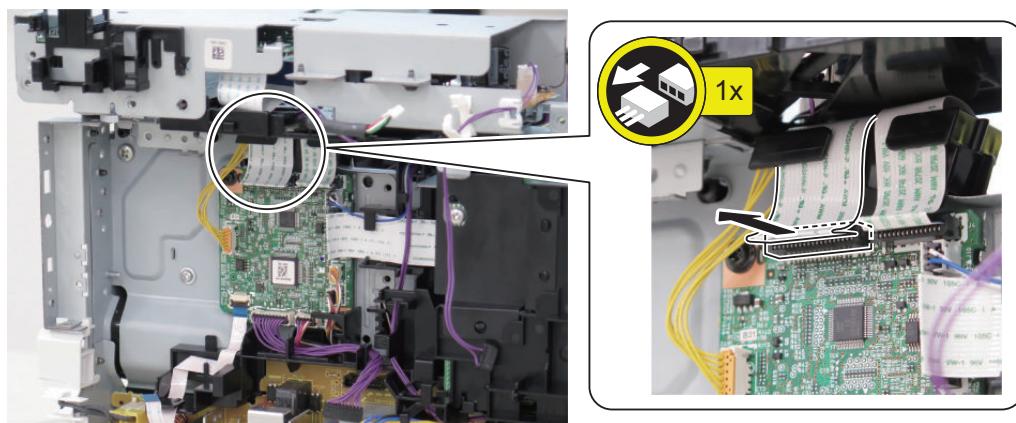
# Removing the Relay PCB

## ■ Preparation

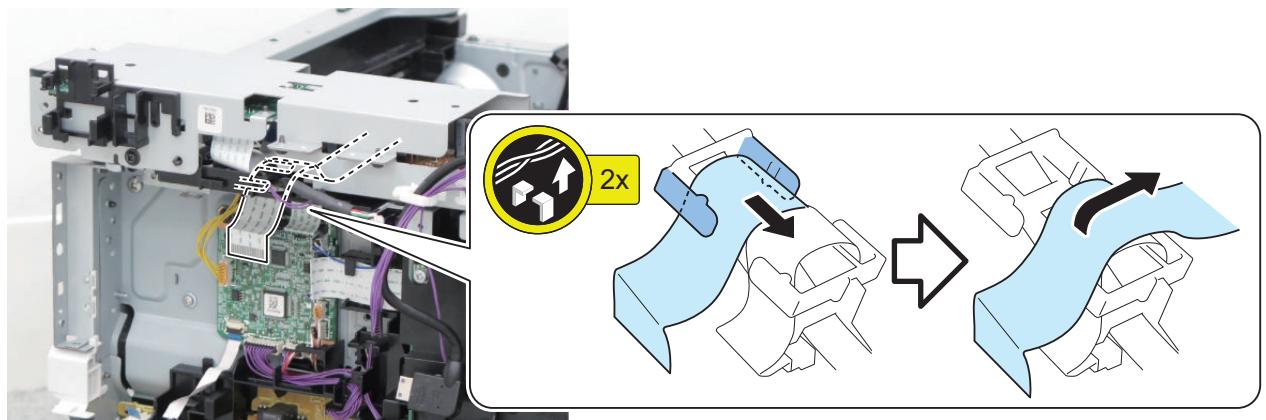
1. “[Removing the Cartridge](#)” on page 85
2. “[Removing the Front Cover](#)” on page 94
3. “[Removing the Left Cover](#)” on page 89
4. “[Removing the Right Cover](#)” on page 85
5. “[Removing the ADF Unit + Reader Unit](#)” on page 99
6. “[Removing the Upper Cover](#)” on page 96
7. “[Removing the Output Tray](#)” on page 97
8. “[Removing the Wireless LAN Unit](#)” on page 128
9. “[Removing the Main Controller Unit](#)” on page 132
10. “[Removing the DC Controller PCB Cover](#)” on page 133

## ■ Procedure

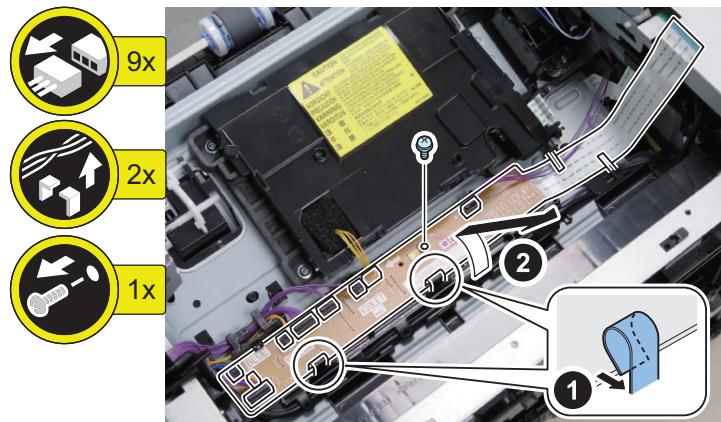
1.



2.



3.



## Removing the FAX Unit

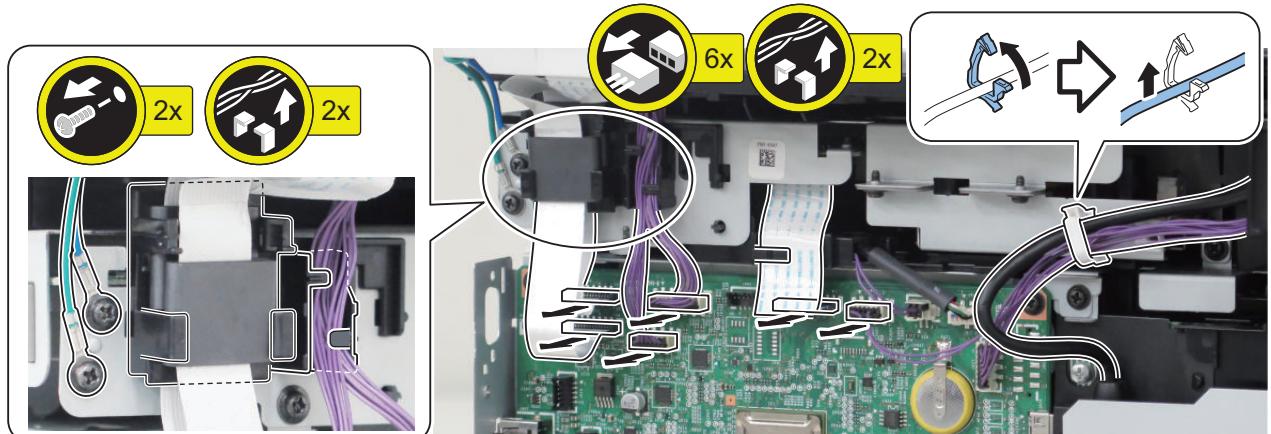
FAX model only<MF1238II/1238iF II>

### ■ Preparation

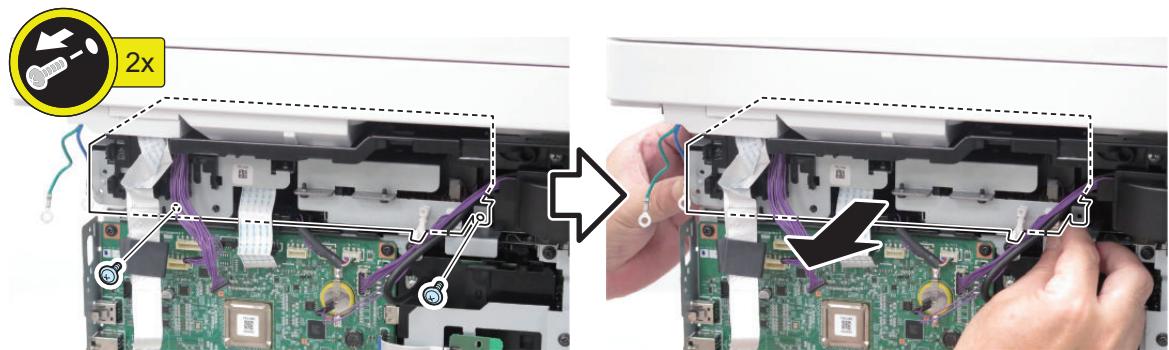
1. "Removing the Cartridge" on page 85
2. "Removing the Left Cover" on page 89

### ■ Procedure

1.



2.



## ➊ Removing the NCU PCB

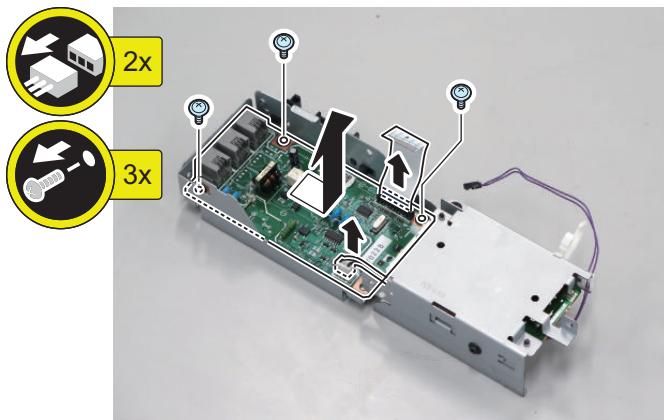
FAX model only<MF1238II/1238iF II>

### ■ Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89
3. “Removing the FAX Unit” on page 139

### ■ Procedure

**1.**



## ➋ Removing the OFF Hook PCB

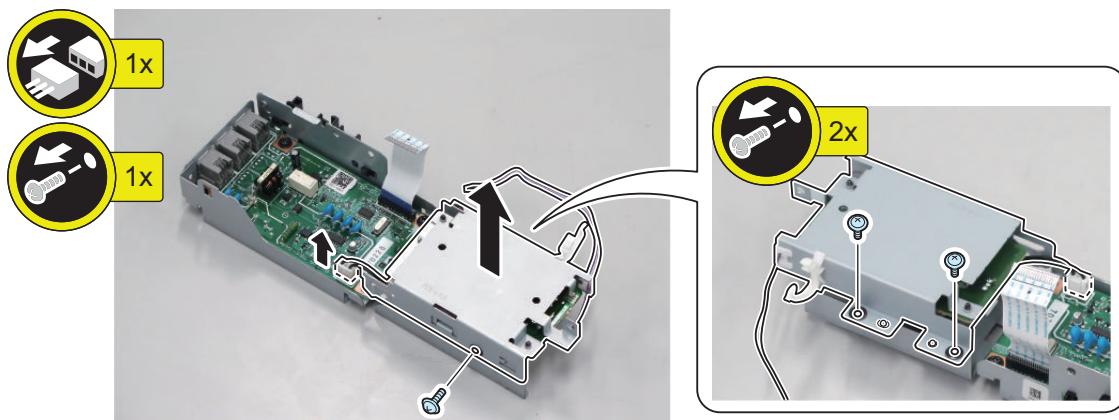
FAX model only<MF1238II/1238iF II>

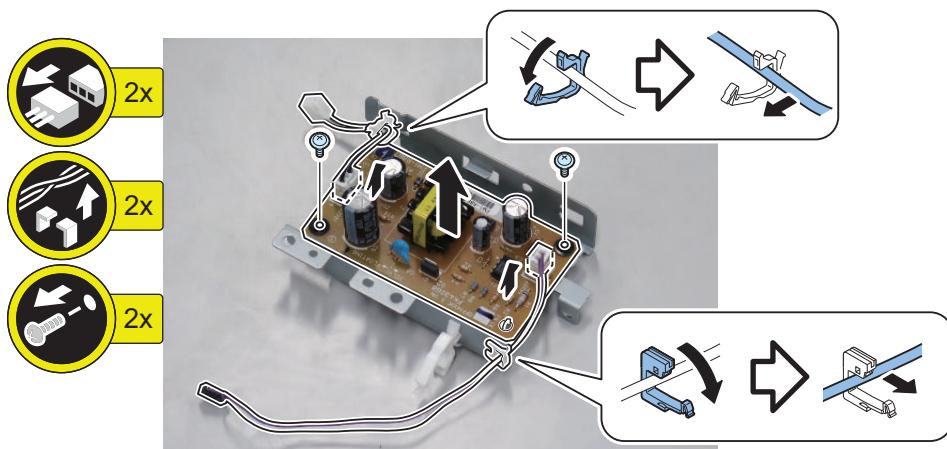
### ■ Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89
3. “Removing the FAX Unit” on page 139

### ■ Procedure

**1.**



**2.**

## Removing the Speaker

FAX model only<MF1238II/1238iF II>

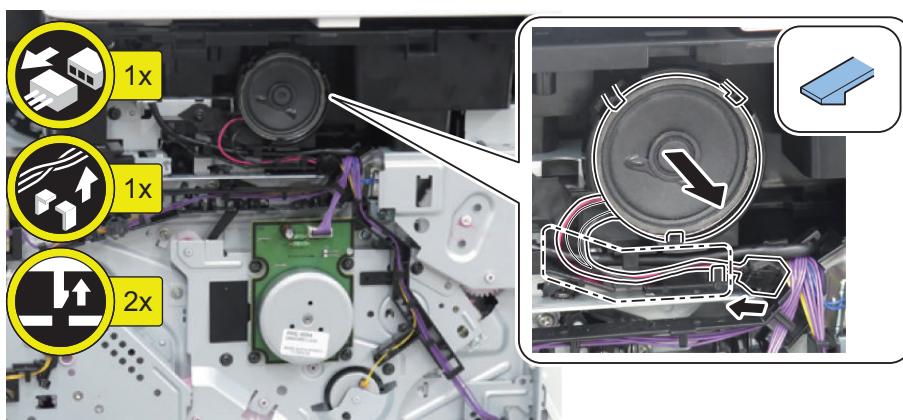
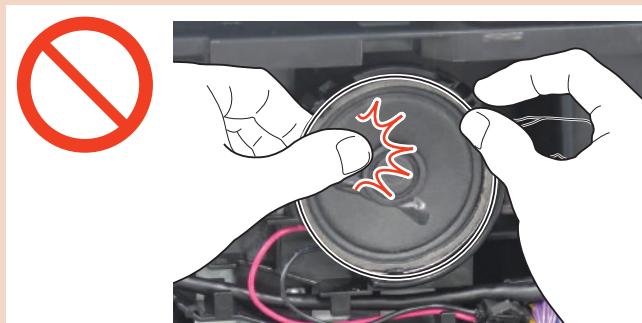
### ■ Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Right Cover” on page 85

### ■ Procedure

**1.**
**CAUTION:**

- Do not directly touch the speaker of the Fax Unit.
- Be sure not to damage the speaker.



# Laser Exposure System

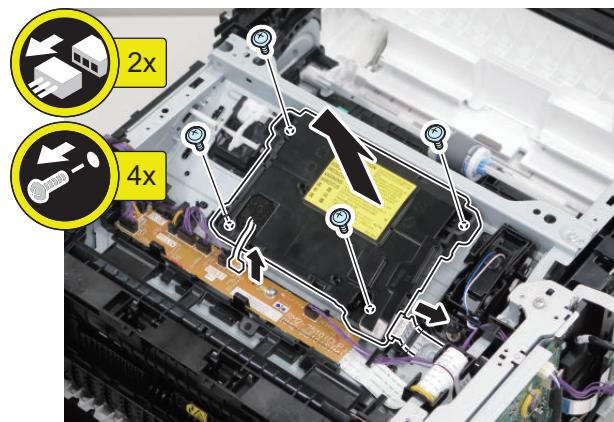
## Removing the Laser Scanner Unit

### Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89
3. “Removing the Right Cover” on page 85
4. “Removing the ADF Unit + Reader Unit” on page 99
5. “Removing the Upper Cover” on page 96
6. “Removing the Output Tray” on page 97

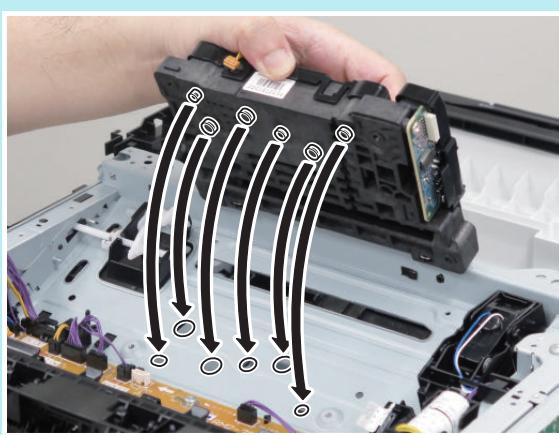
### Procedure

**1.**



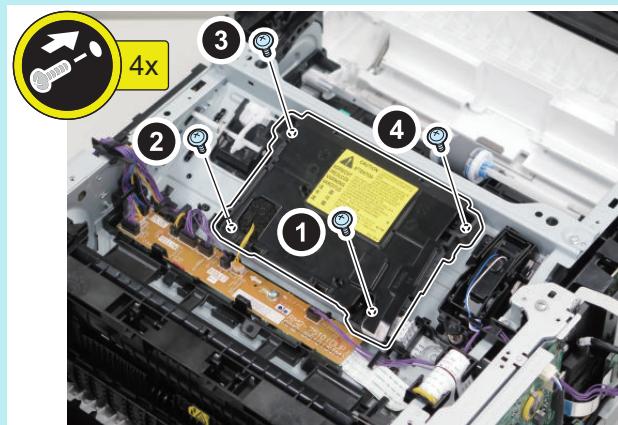
**NOTE:**

When installing, insert the bosses into the positioning holes, and check that the Laser Unit is correctly positioned.



**NOTE:**

When installing it, tighten the screws in the order of numbers in the illustration.



## Image Formation System

### Removing the Transfer Roller

#### Preparation

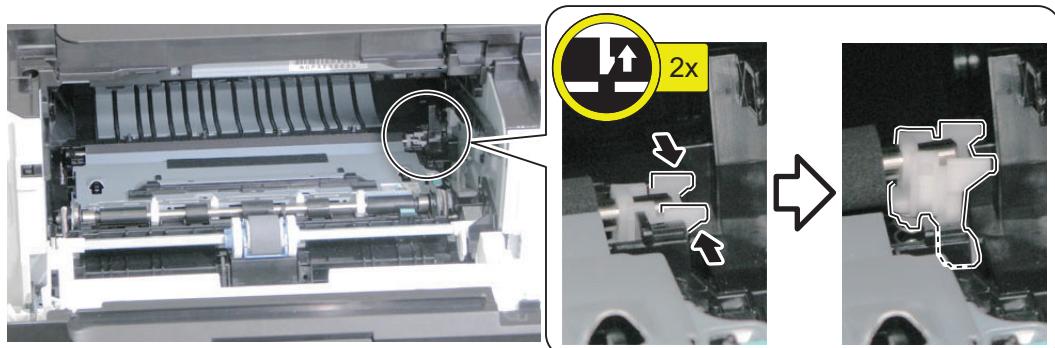
1. “Removing the Cartridge” on page 85

#### Procedure

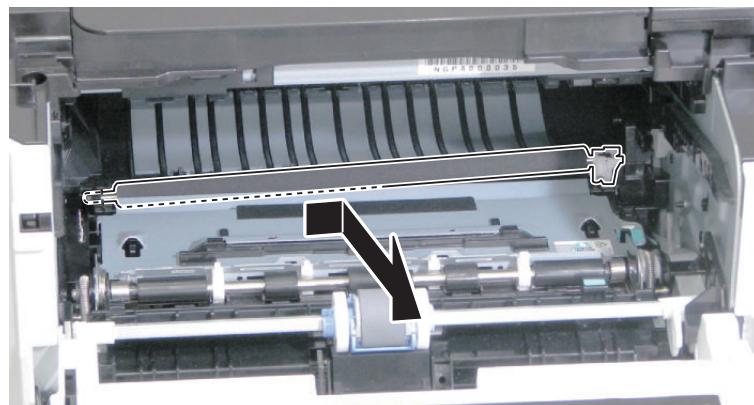
**CAUTION:**

Do not touch the surface of the roller with bare hands, as doing so will attach skin oil on it and decrease feedability.

1.

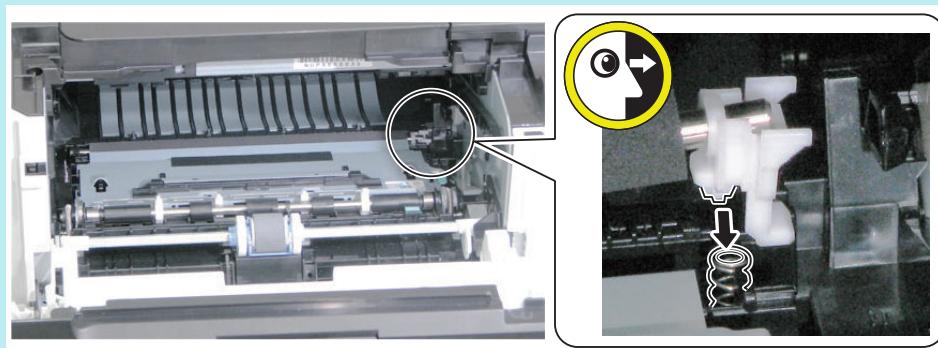


2.



**NOTE:**

Procedure for Installing the Transfer Roller. Be sure to fit the boss of the bushing to the spring.



# Fixing System

## ➊ Removing the Fixing Assembly

### ■ Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Left Cover” on page 89
3. “Removing the Left Rear Cover” on page 93
4. “Removing the Right Cover” on page 85
5. “Removing the Rear Cover” on page 95

### ■ Procedure

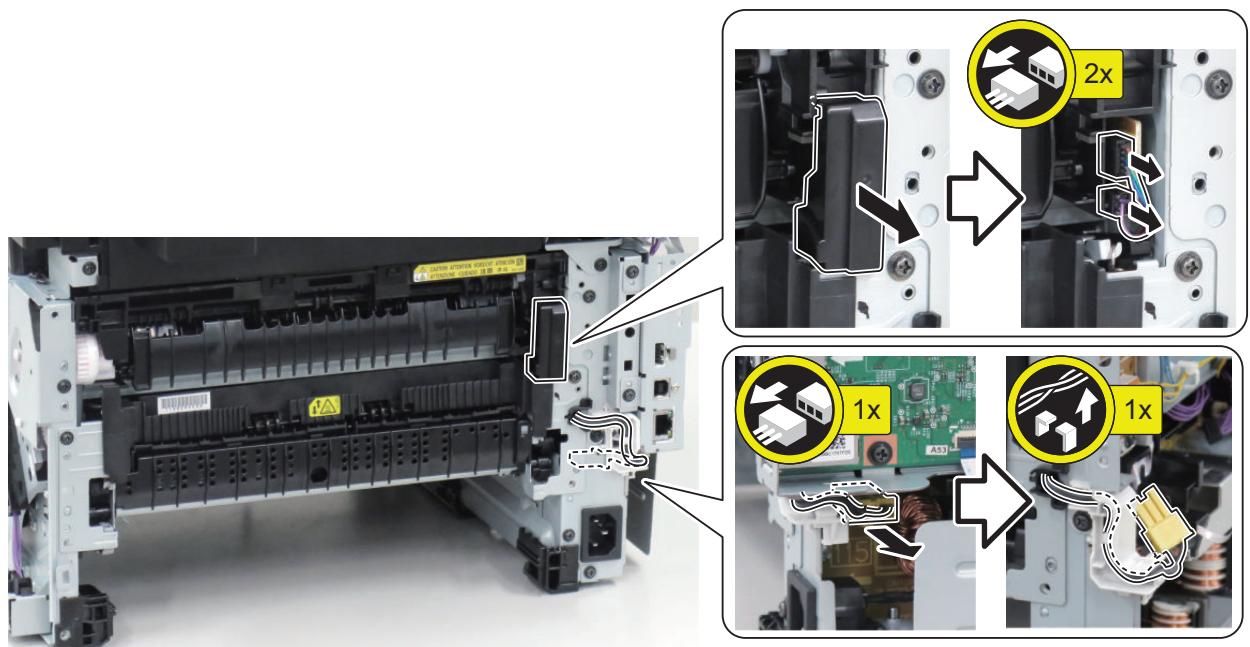
**⚠ CAUTION:**

Since the Fixing Assembly is hot immediately after the power is turned OFF, give it time to cool down before removing it.

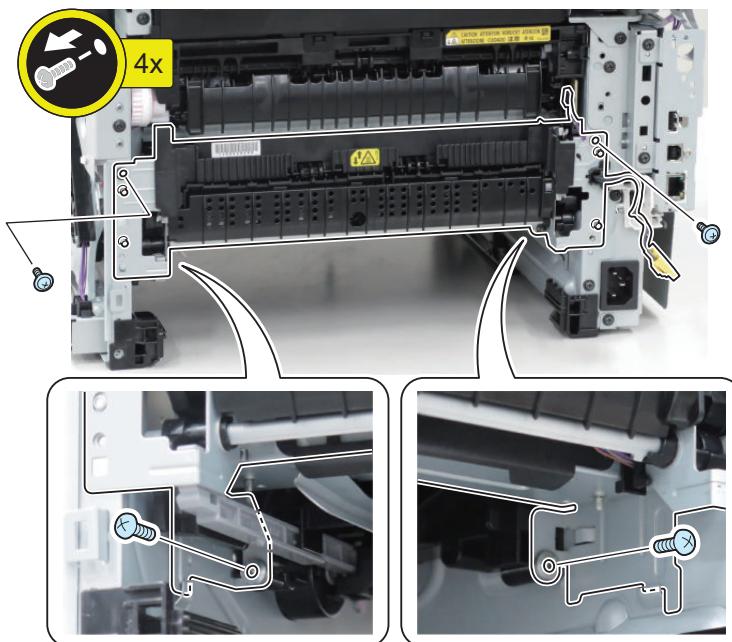
1.



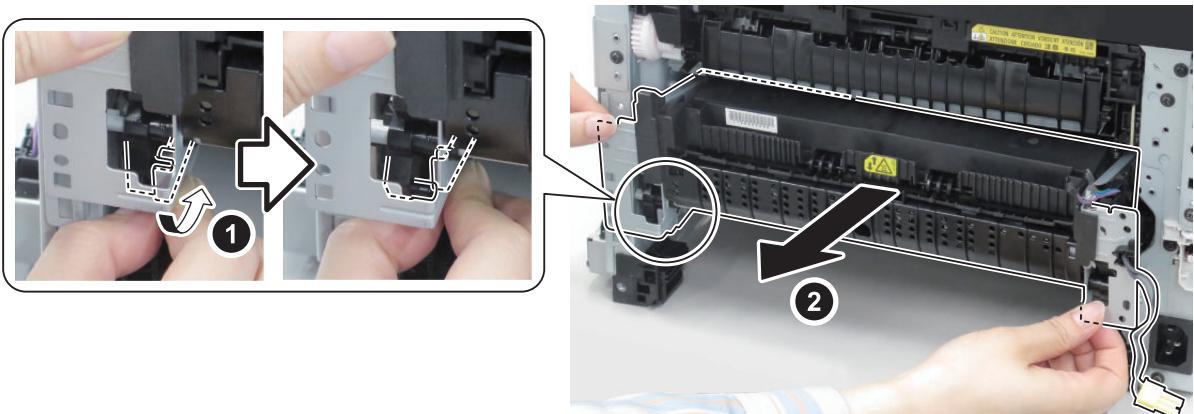
2.



3.

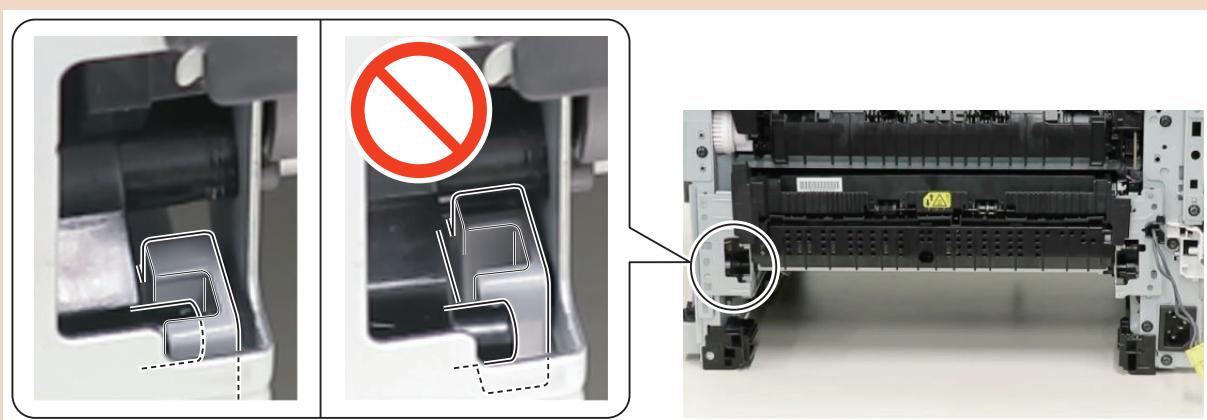


4.

**CAUTION:**

Points to Note when Installing the Link Arm.

Be sure to check that the Link Arm is installed properly, otherwise the Cartridge Cover cannot be closed.



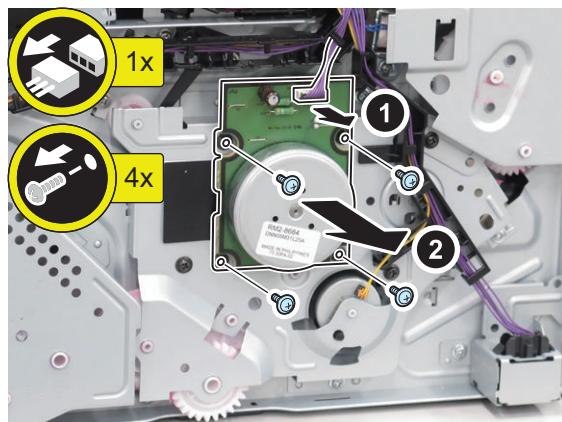
## ➊ Removing the Fixing Motor

### ■ Preparation

1. “Removing the Cartridge” on page 85
2. “Removing the Right Cover” on page 85

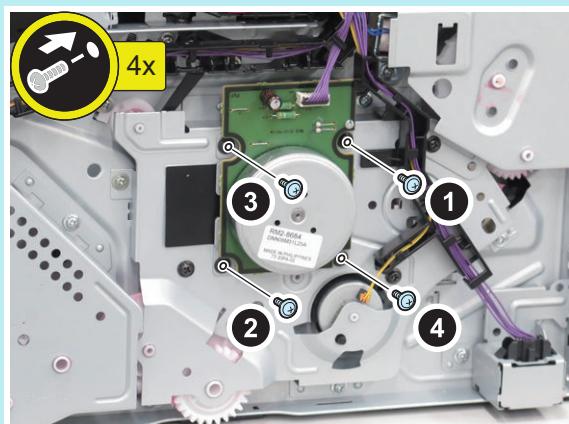
### ■ Procedure

1.



**NOTE:**

When installing it, tighten the screws in the order of numbers in the illustration.



## Pickup Feed Delivery System

### ➊ Removing the Cassette Pickup Roller Unit.

#### ■ Preparation

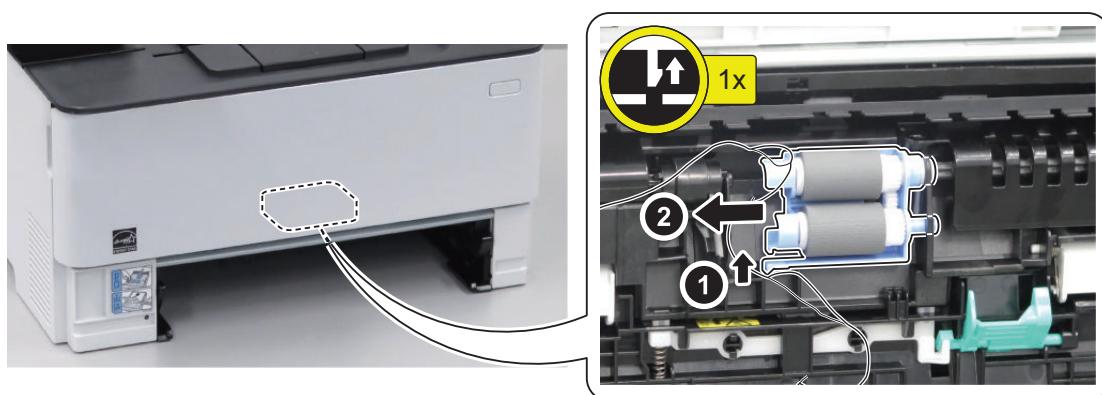
1. Remove the cassette.

#### ■ Procedure

**CAUTION:**

Do not touch the surface of the roller with bare hands, as doing so will attach skin oil on it and decrease feedability.

1.



### ➋ Removing the Cassette Separation Roller Unit

#### ■ Preparation

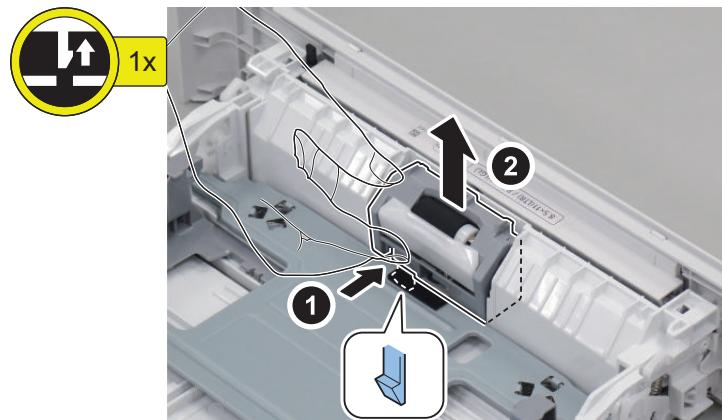
1. Remove the cassette.

## ■ Procedure

**CAUTION:**

Do not touch the surface of the roller with bare hands, as doing so will attach skin oil on it and decrease feedability.

1.



## ● Removing the Multi-purpose Tray Pickup Roller Unit

### ■ Preparation

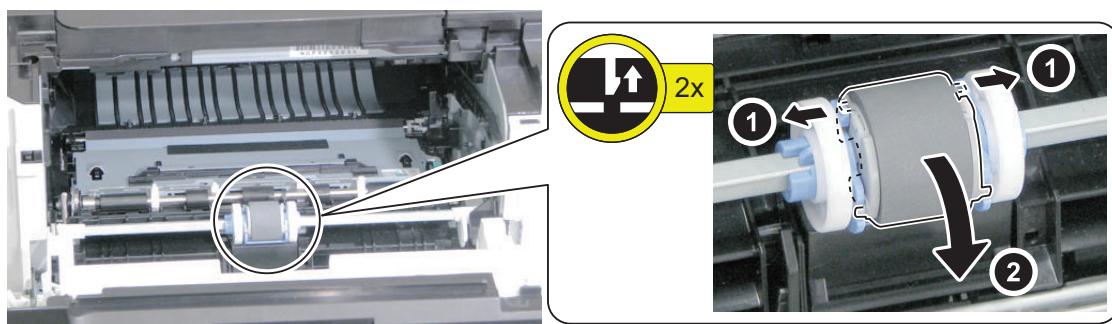
1. Remove the cassette.
2. “Removing the Cartridge” on page 85

### ■ Procedure

**CAUTION:**

Do not touch the surface of the roller with bare hands, as doing so will attach skin oil on it and decrease feedability.

1.



## ● Removing the MP Tray Separation Pad

### ■ Preparation

1. Remove the cassette.
2. “Removing the Cartridge” on page 85

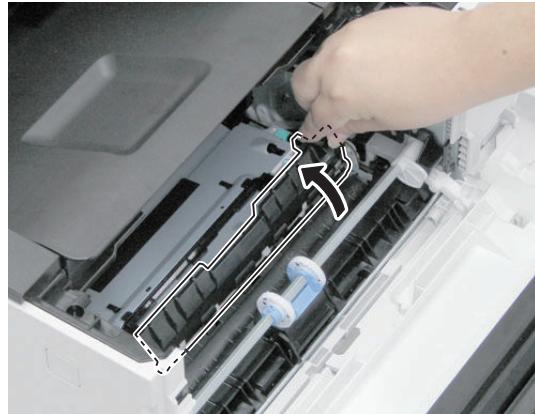
3. "Removing the Multi-purpose Tray Pickup Roller Unit" on page 149

## ■ Procedure

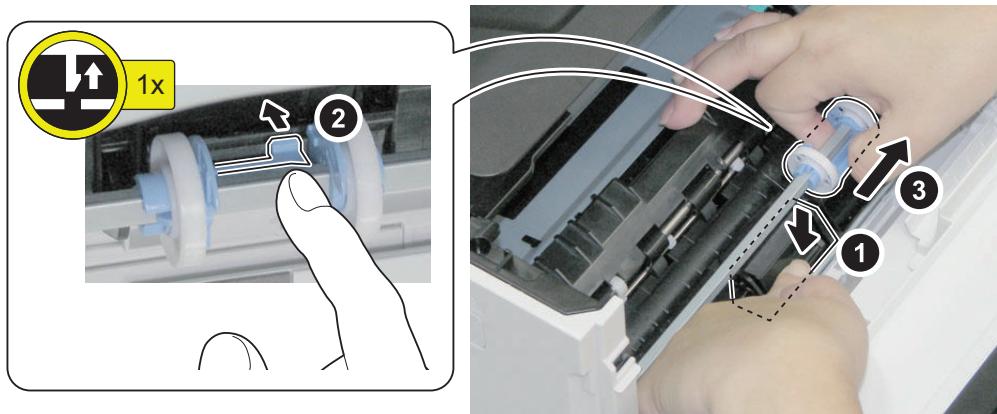
**CAUTION:**

Do not touch the surface of the roller with bare hands, as doing so will attach skin oil on it and decrease feedability.

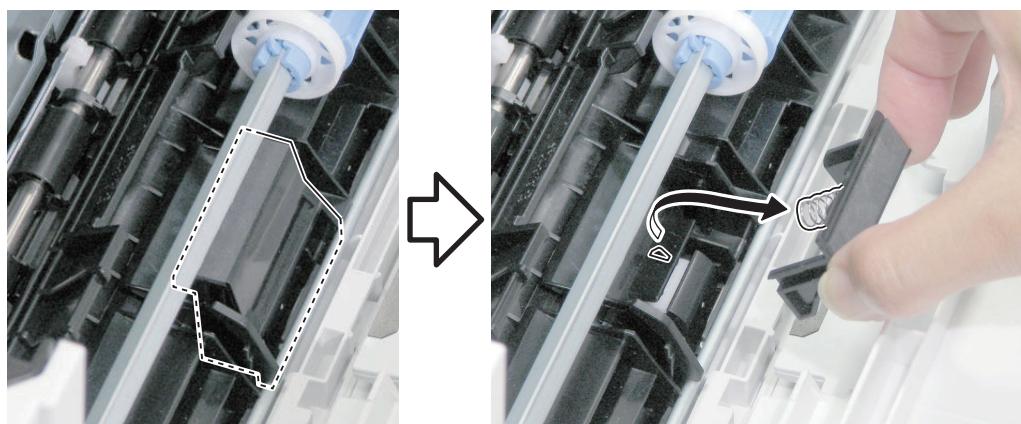
1.



2.



3.



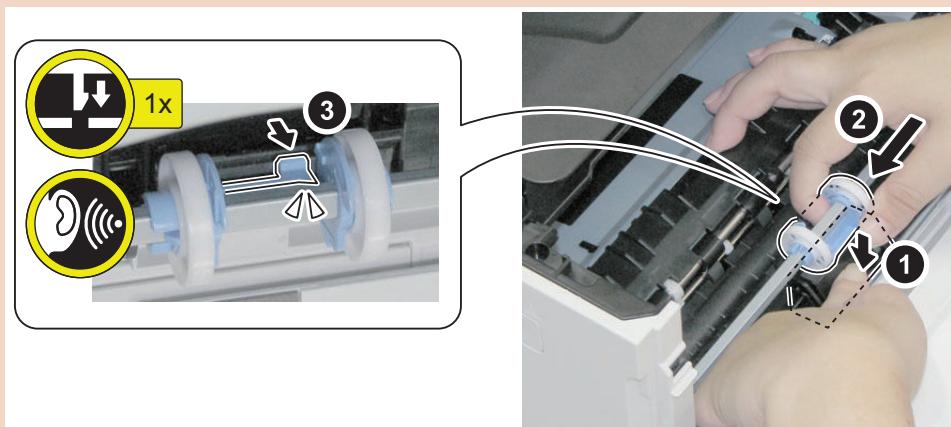
**CAUTION:**

## Points to Note at Installation

- When installing it, be sure that the grooves on the left and right and the spring are fitted correctly.



- Be sure to slide the MP Tray Roller Holder until it clicks.



## ➊ Removing the Registration Unit

### ■ Preparation

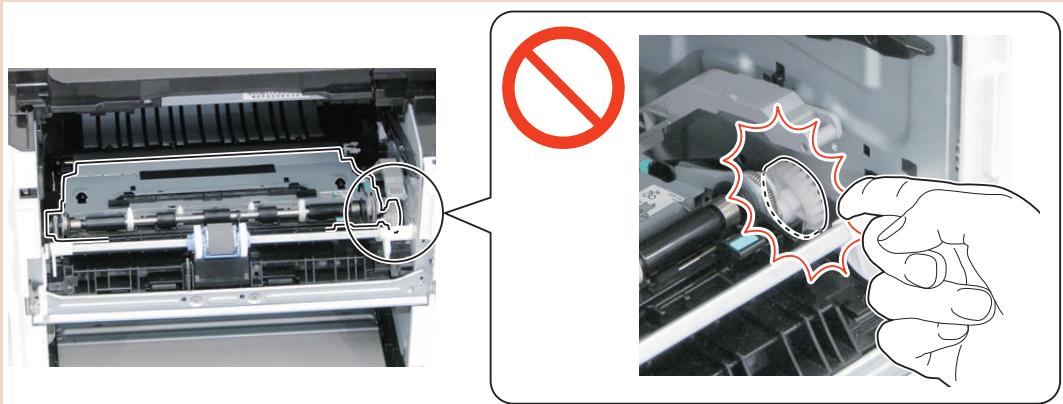
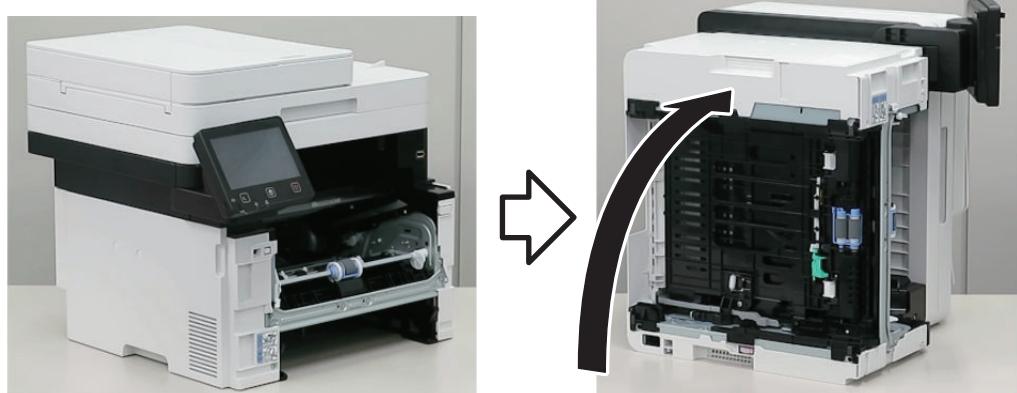
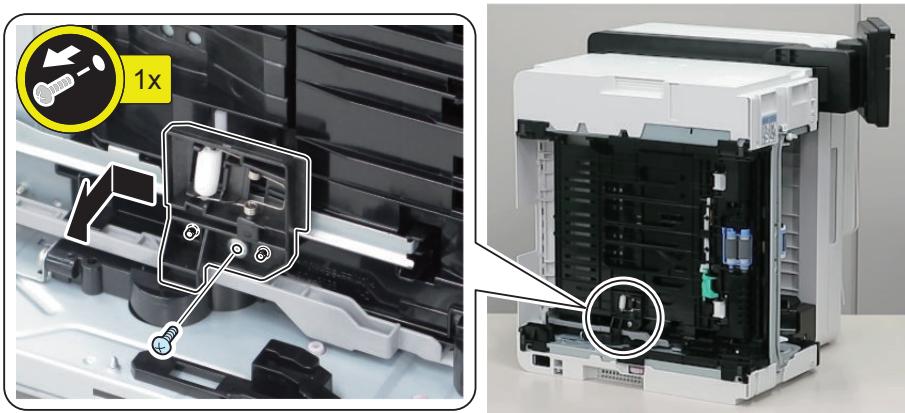
- Remove the cassette.
- "Removing the Cartridge" on page 85
- "Removing the Front Cover" on page 94

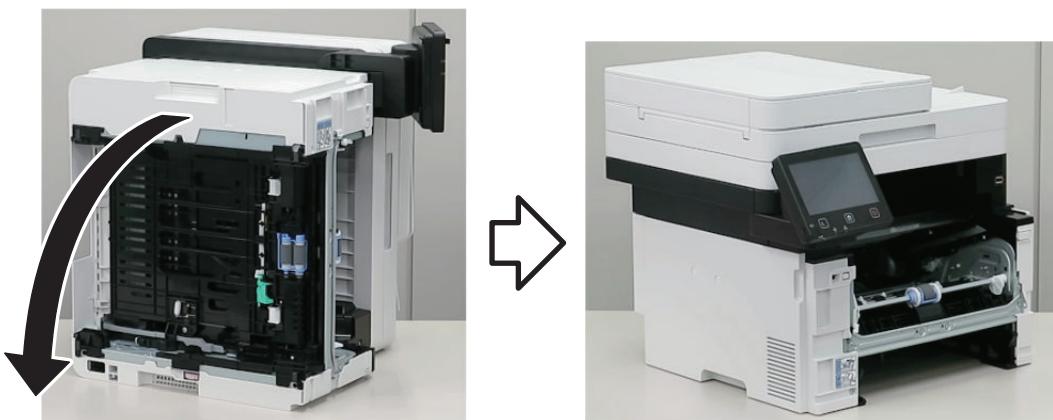
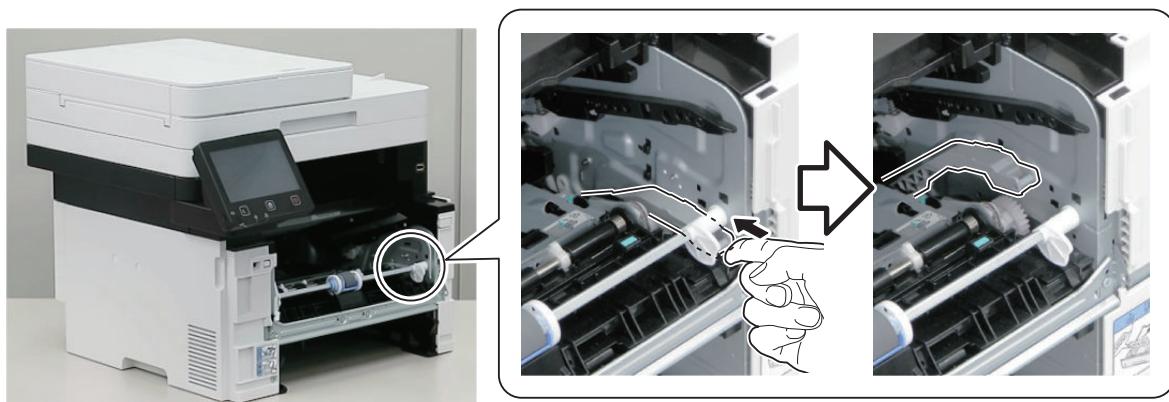
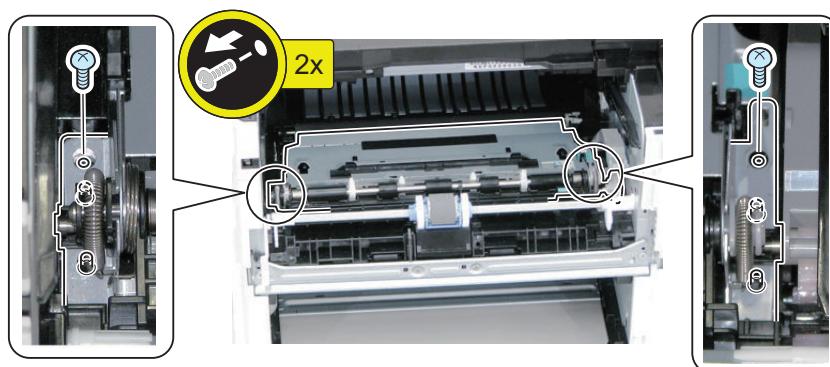
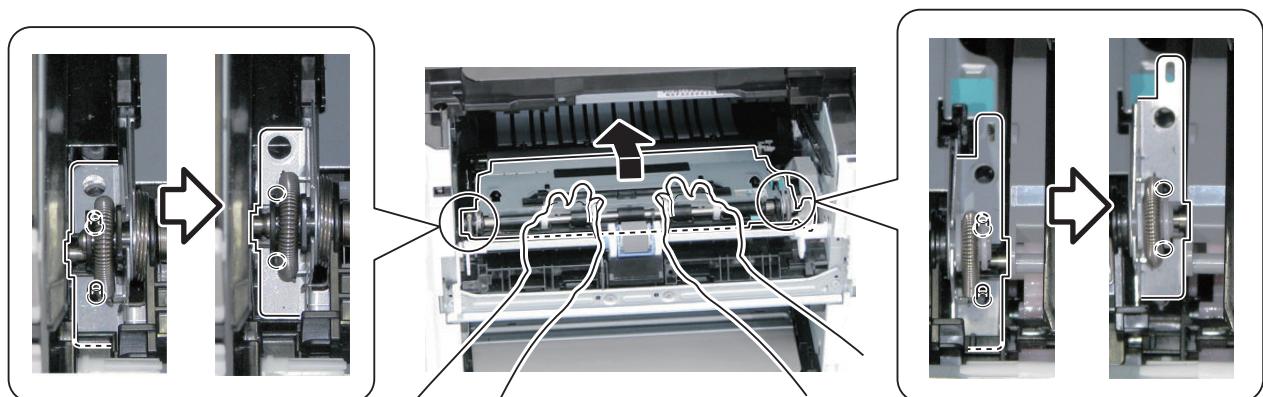
## ■ Procedure

**CAUTION:**

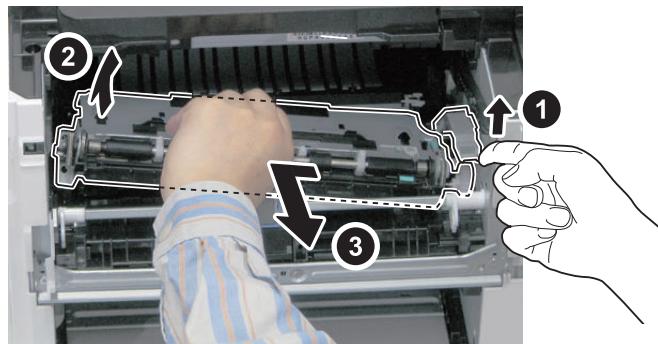
Do not touch the Gear Unit of the Registration Unit.

Grease is applied on the Gear Unit. If you have accidentally touched grease, wipe with lint-free paper so as not to smear other parts with your greasy hand.

**1.****2.**

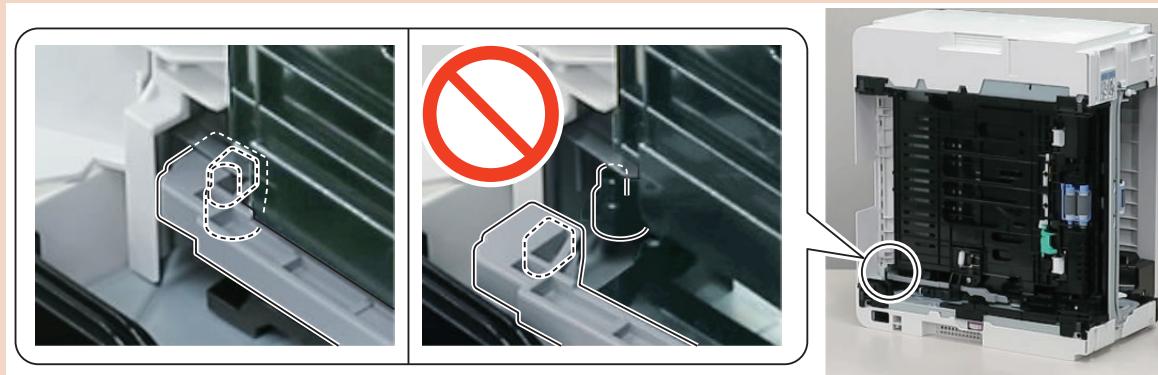
**3.****4.****5.****6.**

7.

**CAUTION:**

Points to Note when Installing the Link Arm.

Be sure to check that the Link Arm is installed properly, otherwise the Cartridge Cover cannot be closed.



# 6

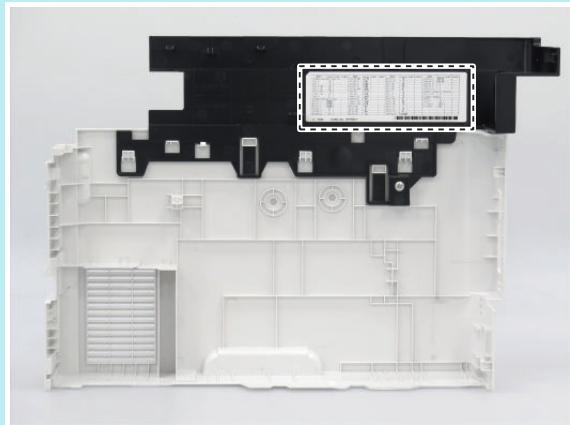
## Adjustment

Checking the Location Where the Service Label Is Affixed .....	156
Actions at Parts Replacement.....	157

## Checking the Location Where the Service Label Is Affixed

**NOTE:**

The service label is affixed on the inside of the Left Cover Unit.



## Actions at Parts Replacement

**NOTE:**

After replacing the Main Controller PCB or DC Controller PCB, upgrade the firmware as necessary. When upgrading the firmware, it has to be executed before restoring the data or entering the value of the service mode.

### After Replacing the Control Panel

1. Execute the following service modes and adjust the coordinate position of the Touch Panel.
  - COPIER > ADJUST > PANEL > TOUCHCHK
2. Check that the value of the following service mode is [1].
  - COPIER > ADJUST > PANEL > TOUCH-R

**CAUTION:**

If the value has not changed to [1], perform the procedure from step 1 again.

### Before Replacing the Main Controller PCB

The following setting values are recorded in the Main Controller PCB. When the Main Controller PCB is replaced, these setting values are all returned to the default unless they are restored.

- User setting values
- Service mode setting values

These setting values can be restored by performing backup by any of the following methods:

Refer to the Backup List for the details of items that are backed up. ["Backup Data List" on page 313](#)

1. Enter the service mode shown below, and change the setting value to [1].
  - COPIER > OPTION > USER > SMD-EXPT

**NOTE:**

The setting [SMD-EXPT] can be configured either from the Control Panel or remote UI.

2. These setting values can be restored by performing backup by any of the following methods:
  - COPIER > FUNCTION > SYSTEM > EXPORT
  - Menu > Management Settings > Data Management > Import/Export > Export
  - RUI > Settings/Registration > Management Settings > Data Management > Import/Export > Export

**CAUTION:**

- Perform backup immediately before replacing the Main Controller PCB.
- When the Main Controller PCB is replaced, the user data, service data, and logs are initialized and the system manager ID and password are changed back to the default values (ID: 7654321 / PWD: 7654321).

### After Replacing the Main Controller PCB

**CAUTION:**

The language displayed changes to English immediately after the replacement of the Main Controller PCB. Be sure to perform the following steps 1 to 5 in order to reflect the language of the country and the country-specific settings that had been configured before the replacement of the Main Controller PCB.

1. Turn ON the power of the host machine.

## 2. Enter service mode.

A Setup Guide screen (in English) for setting the time and date will appear. Forcibly open the service mode screen.

## 3. Location information setting

[Setting value]

- 1: Japan, 2: North America, 3: Korea, 4: China, 5: Taiwan, 6: Europe, 7: Asia, 8: Oceania, 9: Brazil, 10: Latin America  
 • COPIER > OPTION > BODY > LOCALE

## 4. Paper size configuration setting

[Setting value]

- 1: AB configuration, 2: Inch configuration, 3: A configuration, 4: AB/Inch configuration  
 • COPIER > OPTION > BODY > SIZE-LC

## 5. Clear the setting information

- COPIER > FUNCTION > CLEAR > ALL

## ■ Clearing RCON Backup

### 1. Execute the following service mode to clear the backup data of RCON.

- COPIER > FUNCTION > CLEAR > R-CON

## ■ Entering the XYZ Values

Entering the values shown on the service label

### 1. Enter the values shown on the service label in service mode.

- <W-PLT-X>
  - COPIER > ADJUST > CCD > W-PLT-X
- <W-PLT-Y>
  - COPIER > ADJUST > CCD > W-PLT-Y
- <W-PLT-Z>
  - COPIER > ADJUST > CCD > W-PLT-Z

## ■ Calculating the Target Value of B&W Shading

### 1. Turn OFF and then ON the power of the host machine, and then execute the following service mode.

- COPIER > FUNCTION > CCD > BW-TGT

## ■ Entering the Value of the Stream Reading Position

Entering the value shown on the service label

### 1. Enter the value shown on the service label in service mode.

- COPIER > ADJUST > ADJ-XY > STRD-POS

## ■ AGC Adjustment (Paper Front)

### 1. Enter a provisional value.

B&W mode

Change the values of the following service mode settings to 1,000.

- COPIER > ADJUST > CCD > LED-BW-R
- COPIER > ADJUST > CCD > LED-BW-G
- COPIER > ADJUST > CCD > LED-BW-B

Color mode

Change the values of the following service mode settings to 1,100.

- COPIER > ADJUST > CCD > LED-CL-R
- COPIER > ADJUST > CCD > LED-CL-G
- COPIER > ADJUST > CCD > LED-CL-B

## 2. Execute the following service mode.

### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BW-AGC
- COPIER > FUNCTION > CCD > CL-AGC

## 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

B&W mode

Check the following values. If all of them remain at "1,000", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LED-BW-R
- COPIER > ADJUST > CCD > LED-BW-G
- COPIER > ADJUST > CCD > LED-BW-B

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > BW-AGC

Color mode

Check the following values. If all of them remain at "1,100", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LED-CL-R
- COPIER > ADJUST > CCD > LED-CL-G
- COPIER > ADJUST > CCD > LED-CL-B

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > CL-AGC

## 4. If the operation was "successful", this procedure is completed. (There is no need to write down the values on the service label.)

## ■ AGC Adjustment (Paper Back)

### 1. Enter a provisional value.

B&W mode

Change the values of the following service mode settings to 1,000.

- COPIER > ADJUST > CCD > LE-BWRBK
- COPIER > ADJUST > CCD > LE-BWGBK
- COPIER > ADJUST > CCD > LE-BWBBK

Color mode

Change the values of the following service mode settings to 1,100.

- COPIER > ADJUST > CCD > LE-CLRBK
- COPIER > ADJUST > CCD > LE-CLGBK
- COPIER > ADJUST > CCD > LE-CLBBK

### 2. Execute the following service mode.

### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BW-AGC2
- COPIER > FUNCTION > CCD > CL-AGC2

### 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

B&W mode

Check the following values. If all of them remain at "1,000", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LE-BWRBK
- COPIER > ADJUST > CCD > LE-BWGBK
- COPIER > ADJUST > CCD > LE-BWBBK

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > BW-AGC2

Color mode

Check the following values. If all of them remain at "1,100", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LE-CLRBK
- COPIER > ADJUST > CCD > LE-CLGBK
- COPIER > ADJUST > CCD > LE-CLBBK

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > CL-AGC2

### 4. If the operation was "successful", this procedure is completed. (There is no need to write down the values on the service label.)

## ■ Paper Back Shading Initial Measurement

### 1. Execute the following service mode without placing anything on the Stream Reading Glass.

- COPIER > FUNCTION > CCD > BK-SHD1

### 2. Place the Paper Back Shading Adjustment Member (FL1-4365) on the Stream Reading Glass, and execute the following service mode.

#### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BK-SHD2



### 3. Check the following service mode to determine if it was [1] successful or [0] failed.

- COPIER > DISPLAY > CCD > BK-SHDST

4. If it failed, clean the Stream Reading Glass and the Paper Back Shading Adjustment Member (FL1-4365), and perform the procedure from step 1 again.

## ■ DF White Level (DF Shading Target) Adjustment

In the case of entering the values shown on the service label

1. Enter the values shown on the service label in service mode.

- COPIER > ADJUST > CCD > DFTAR-R
- COPIER > ADJUST > CCD > DFTAR-G
- COPIER > ADJUST > CCD > DFTAR-B
- COPIER > ADJUST > CCD > DFTAR-BW
- COPIER > ADJUST > CCD > DFTBK-R
- COPIER > ADJUST > CCD > DFTBK-G
- COPIER > ADJUST > CCD > DFTBK-B
- COPIER > ADJUST > CCD > DFTBK-BW

## ■ Copyboard Color Displacement Offset Adjustment

In the case of entering the values shown on the service label

1. Enter the values shown on the service label in service mode.

**NOTE:**

To reduce the number of label items, the values of 100-xx and 50-xx are the same.

- <100-RG>
  - COPIER > ADJUST > CCD > 50-RG
  - COPIER > ADJUST > CCD > 100-RG
- <100-GB>
  - COPIER > ADJUST > CCD > 50-GB
  - COPIER > ADJUST > CCD > 100-GB

## ■ ADF (Front/Back) Color Displacement Offset Adjustment

1. Enter the values shown on the service label in service mode.

**NOTE:**

To reduce the number of label items, the values of 100DF-xx and 50DF-xx are the same.

- <100-DF-RG>
  - COPIER > ADJUST > CCD > 50DF-RG
  - COPIER > ADJUST > CCD > 100DF-RG
- <100-DF-GB>
  - COPIER > ADJUST > CCD > 50DF-GB
  - COPIER > ADJUST > CCD > 100DF-GB
- <100DF2RG>
  - COPIER > ADJUST > CCD > 50DF2RG
  - COPIER > ADJUST > CCD > 100DF2RG
- <100DF2GB>
  - COPIER > ADJUST > CCD > 50DF2GB
  - COPIER > ADJUST > CCD > 100D2GB

## ■ PASCAL Adjustment

In the case of entering the values shown on the service label

1. Enter the value shown on the service label in service mode.

- COPIER > ADJUST > PASCAL > OFST-P-K

## ■ Copyboard Geometric Adjustment

In the case of entering the values shown on the service label

### 1. Enter the values shown on the service label in service mode.

- COPIER > ADJUST > ADJ-XY > ADJ-X
- COPIER > ADJUST > ADJ-XY > ADJ-Y
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG

## ■ ADF (Front/Back) Geometric Adjustment

In the case of entering the values shown on the service label

### 1. Enter the values shown on the service label in service mode.

- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF
- COPIER > ADJUST > ADJ-XY > ADJY-DF2
- FEEDER > ADJUST > DOCST
- FEEDER > ADJUST > DOCST2
- FEEDER > ADJUST > LA-SPEED
- FEEDER > ADJUST > LA-SPD2

## ■ Entering the MFT Values

### 1. Enter the following values shown on the service label in the following locations in service mode.

#### NOTE:

To reduce the number of label items, the setting values are the same.

- The values of MTF-M1, MTF-M4, and MTF-M7 are the same.
- The values of MTF-M2, MTF-M5, and MTF-M8 are the same.
- The values of MTF-M3, MTF-M6, and MTF-M9 are the same.

<MTF-M1>

- COPIER > ADJUST > CCD > MTF-M1
- COPIER > ADJUST > CCD > MTF-M4
- COPIER > ADJUST > CCD > MTF-M7

<MTF-M2>

- COPIER > ADJUST > CCD > MTF-M2
- COPIER > ADJUST > CCD > MTF-M5
- COPIER > ADJUST > CCD > MTF-M8

<MTF-M3>

- COPIER > ADJUST > CCD > MTF-M3
- COPIER > ADJUST > CCD > MTF-M6
- COPIER > ADJUST > CCD > MTF-M9

**NOTE:**

To reduce the number of label items, the setting values are the same.

- The values of MTF2-M1, MTF2-M4, and MTF2-M7 are the same.
- The values of MTF2-M2, MTF2-M5, and MTF2-M8 are the same.
- The values of MTF2-M3, MTF2-M6, and MTF2-M9 are the same.

&lt;MTF2-M1&gt;

- COPIER > ADJUST > CCD > MTF2-M1
- COPIER > ADJUST > CCD > MTF2-M4
- COPIER > ADJUST > CCD > MTF2-M7

&lt;MTF2-M2&gt;

- COPIER > ADJUST > CCD > MTF2-M2
- COPIER > ADJUST > CCD > MTF2-M5
- COPIER > ADJUST > CCD > MTF2-M8

&lt;MTF2-M3&gt;

- COPIER > ADJUST > CCD > MTF2-M3
- COPIER > ADJUST > CCD > MTF2-M6
- COPIER > ADJUST > CCD > MTF2-M9

**NOTE:**

To reduce the number of label items, the setting values are the same.

- The values of MTF3-M1, MTF3-M4, and MTF3-M7 are the same.
- The values of MTF3-M2, MTF3-M5, and MTF3-M8 are the same.
- The values of MTF3-M3, MTF3-M6, and MTF3-M9 are the same.

&lt;MTF3-M1&gt;

- COPIER > ADJUST > CCD > MTF3-M1
- COPIER > ADJUST > CCD > MTF3-M4
- COPIER > ADJUST > CCD > MTF3-M7

&lt;MTF3-M2&gt;

- COPIER > ADJUST > CCD > MTF3-M2
- COPIER > ADJUST > CCD > MTF3-M5
- COPIER > ADJUST > CCD > MTF3-M8

&lt;MTF3-M3&gt;

- COPIER > ADJUST > CCD > MTF3-M3
- COPIER > ADJUST > CCD > MTF3-M6
- COPIER > ADJUST > CCD > MTF3-M9

**NOTE:**

To reduce the number of label items, the setting values are the same.

- The values of MTF-S1, MTF-S4, and MTF-S7 are the same.
- The values of MTF-S2, MTF-S5, and MTF-S8 are the same.
- The values of MTF-S3, MTF-S6, and MTF-S9 are the same.

&lt;MTF-S1&gt;

- COPIER > ADJUST > CCD > MTF-S1
- COPIER > ADJUST > CCD > MTF-S4
- COPIER > ADJUST > CCD > MTF-S7

&lt;MTF-S2&gt;

- COPIER > ADJUST > CCD > MTF-S2
- COPIER > ADJUST > CCD > MTF-S5
- COPIER > ADJUST > CCD > MTF-S8

&lt;MTF-S3&gt;

- COPIER > ADJUST > CCD > MTF-S3
- COPIER > ADJUST > CCD > MTF-S6
- COPIER > ADJUST > CCD > MTF-S9

**NOTE:**

To reduce the number of label items, the setting values are the same.

- The values of MTF2-S1, MTF2-S4, and MTF2-S7 are the same.
- The values of MTF2-S2, MTF2-S5, and MTF2-S8 are the same.
- The values of MTF2-S3, MTF2-S6, and MTF2-S9 are the same.

&lt;MTF2-S1&gt;

- COPIER > ADJUST > CCD > MTF2-S1
- COPIER > ADJUST > CCD > MTF2-S4
- COPIER > ADJUST > CCD > MTF2-S7

&lt;MTF2-S2&gt;

- COPIER > ADJUST > CCD > MTF2-S2
- COPIER > ADJUST > CCD > MTF2-S5
- COPIER > ADJUST > CCD > MTF2-S8

&lt;MTF2-S3&gt;

- COPIER > ADJUST > CCD > MTF2-S3
- COPIER > ADJUST > CCD > MTF2-S6
- COPIER > ADJUST > CCD > MTF2-S9

**NOTE:**

To reduce the number of label items, the setting values are the same.

- The values of MTF3-S1, MTF3-S4, and MTF3-S7 are the same.
- The values of MTF3-S2, MTF3-S5, and MTF3-S8 are the same.
- The values of MTF3-S3, MTF3-S6, and MTF3-S9 are the same.

&lt;MTF3-S1&gt;

- COPIER > ADJUST > CCD > MTF3-S1
- COPIER > ADJUST > CCD > MTF3-S4
- COPIER > ADJUST > CCD > MTF3-S7

&lt;MTF3-S2&gt;

- COPIER > ADJUST > CCD > MTF3-S2
- COPIER > ADJUST > CCD > MTF3-S5
- COPIER > ADJUST > CCD > MTF3-S8

&lt;MTF3-S3&gt;

- COPIER > ADJUST > CCD > MTF3-S3
- COPIER > ADJUST > CCD > MTF3-S6
- COPIER > ADJUST > CCD > MTF3-S9

## ■ Entering the Linearity Correction Values

### 1. Enter the values shown on the service label in service mode.

- COPIER > ADJUST > CCD > LNR-GA-R
- COPIER > ADJUST > CCD > LNR-GA-G
- COPIER > ADJUST > CCD > LNR-GA-B
- COPIER > ADJUST > CCD > LNR-OF-R
- COPIER > ADJUST > CCD > LNR-OF-G
- COPIER > ADJUST > CCD > LNR-OF-B

## ■ Executing Initial Adjustment

1. To set the wireless LAN function, enter the service mode shown below and change the setting value to [1]. (In the case of the host machine having the wireless LAN function)
  - COPIER > OPTION > ACC > WLAN
2. Setup Guide will be activated by turning OFF and then ON the power of the host machine. Configure the settings according to the instruction on the screen.
3. In the following service mode, adjust the Touch Panel.
  - COPIER > ADJUST > PANEL > TOUCHCHK

## ■ Migrating the User Data and Service Mode Setting Information

### 1. Enter service mode, and set the following item to [1].

- COPIER > OPTION > USER > SMD-EXPT

**NOTE:**

The setting [SMD-EXPT] can be configured either from the Control Panel or remote UI.

### 2. Restore the data in the same way as that of backup.

Refer to the Backup List for the details of items that are restored. "Backup Data List" on page 313

- COPIER > FUNCTION > SYSTEM > IMPORT
- Menu > Management Settings > Data Management > Import/Export > Import
- RUI > Settings/Registration > Management Settings > Data Management > Import/Export > Import

**CAUTION:**

Be sure to restore the data after replacing the Main Controller PCB.

### 3. Enter service mode, and set the following item to [0].

- COPIER > OPTION > USER > SMD-EXPT

**NOTE:**

The setting [SMD-EXPT] can be configured either from the Control Panel or remote UI.

## ■ Reinstalling the Drivers (Only When the MFNP Port Is Used)

**NOTE:**

- In the case of setting the print port in a TCP/IP environment, the drivers do not need to be reinstalled. Refer to "Setting Up the Network Environment" in the User's Guide, and set up the network environment again.
- The print port being used is shown in Control Panel > Hardware and Sound > Devices and Printers > "Printer Properties" of the printer used.

### 1. Uninstall the following drivers on the user's PC.

- Printer driver
- Fax driver
- Scanner driver
- MF Scan Utility

### 2. Refer to the following items in Getting Started and install the drivers that were uninstalled.

- In case of network connection: "To connect via wired LAN"
- In case of USB connection: "To connect via USB"

**NOTE:**

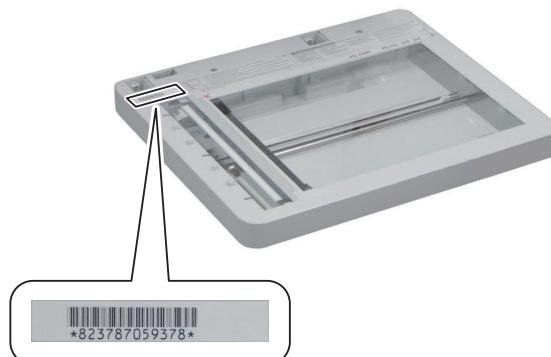
When the MFNP port is used, the MAC address information changes after replacement of the Main Controller PCB. Therefore, when the PC and the machine are connected by the network, the PC will not be able to recognize the machine on the network. When the PC and the machine are connected by USB, the PC will not be able to recognize the machine if the USB ID is changed. That is why the drivers need to be reinstalled.

## After Replacing the Reader Unit

### Entering the XYZ Values

Entering the values shown on the barcode label

- Check the setting value of the Standard White Plate.



- After entering the X, Y, and Z values shown on the barcode on the Copyboard Glass in the following service mode items, and then write the entered values (the X, Y, and Z values shown on the barcode on the Copyboard Glass) on the service label.

**NOTE:**

The value of W-PLT-X: The first four digits of the value on the label

The value of W-PLT-Y: The four digits in the middle of the value on the label

The value of W-PLT-Z: The last four digits of the value on the label

```
<W-PLT-X>
  • COPIER > ADJUST > CCD > W-PLT-X
<W-PLT-Y>
  • COPIER > ADJUST > CCD > W-PLT-Y
<W-PLT-Z>
  • COPIER > ADJUST > CCD > W-PLT-Z
```

### Calculating the Target Value of B&W Shading

- Turn OFF and then ON the power of the host machine, and then execute the following service mode.
  - COPIER > FUNCTION > CCD > BW-TGT

### Entering the Value of the Stream Reading Position

In the case of entering a provisional value

- Enter a provisional value.

Change the value of the following service mode setting to -20.

- COPIER > ADJUST > ADJ-XY > STRD-POS

- Execute the following service mode.

**CAUTION:**

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > INSTALL > STRD-POS

### 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

Check the following value. If it remains at "-20", the operation result is judged to be "failed".

- COPIER > ADJUST > ADJ-XY > STRD-POS

### 4. In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > INSTALL > STRD-POS

### 5. If the operation was "successful", write down the following value on the service label.

- COPIER > ADJUST > ADJ-XY > STRD-POS

## ■ AGC Adjustment (Paper Front)

### 1. Enter a provisional value.

B&W mode

Change the values of the following service mode settings to 1,000.

- COPIER > ADJUST > CCD > LED-BW-R
- COPIER > ADJUST > CCD > LED-BW-G
- COPIER > ADJUST > CCD > LED-BW-B

Color mode

Change the values of the following service mode settings to 1,100.

- COPIER > ADJUST > CCD > LED-CL-R
- COPIER > ADJUST > CCD > LED-CL-G
- COPIER > ADJUST > CCD > LED-CL-B

### 2. Execute the following service mode.

#### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BW-AGC
- COPIER > FUNCTION > CCD > CL-AGC

### 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

B&W mode

Check the following values. If all of them remain at "1,000", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LED-BW-R
- COPIER > ADJUST > CCD > LED-BW-G
- COPIER > ADJUST > CCD > LED-BW-B

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > BW-AGC

Color mode

Check the following values. If all of them remain at "1,100", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LED-CL-R
- COPIER > ADJUST > CCD > LED-CL-G
- COPIER > ADJUST > CCD > LED-CL-B

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > CL-AGC

### 4. If the operation was "successful", this procedure is completed. (There is no need to write down the values on the service label.)

## ■ AGC Adjustment (Paper Back)

### 1. Enter a provisional value.

B&W mode

Change the values of the following service mode settings to 1,000.

- COPIER > ADJUST > CCD > LE-BWRBK
- COPIER > ADJUST > CCD > LE-BWGBK
- COPIER > ADJUST > CCD > LE-BWBBK

Color mode

Change the values of the following service mode settings to 1,100.

- COPIER > ADJUST > CCD > LE-CLRBK
- COPIER > ADJUST > CCD > LE-CLGBK
- COPIER > ADJUST > CCD > LE-CLBBK

### 2. Execute the following service mode.

#### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BW-AGC2
- COPIER > FUNCTION > CCD > CL-AGC2

### 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

B&W mode

Check the following values. If all of them remain at "1,000", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LE-BWRBK
- COPIER > ADJUST > CCD > LE-BWGBK
- COPIER > ADJUST > CCD > LE-BWBBK

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > BW-AGC2

Color mode

Check the following values. If all of them remain at "1,100", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LE-CLRBK
- COPIER > ADJUST > CCD > LE-CLGBK
- COPIER > ADJUST > CCD > LE-CLBBK

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > CL-AGC2

### 4. If the operation was "successful", this procedure is completed. (There is no need to write down the values on the service label.)

## ■ Paper Back Shading Initial Measurement

### 1. Execute the following service mode without placing anything on the Stream Reading Glass.

- COPIER > FUNCTION > CCD > BK-SHD1

2. Place the Paper Back Shading Adjustment Member (FL1-4365) on the Stream Reading Glass, and execute the following service mode.

**CAUTION:**

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BK-SHD2



3. Check the following service mode to determine if it was [1] successful or [0] failed.

- COPIER > DISPLAY > CCD > BK-SHDST

4. If it failed, clean the Stream Reading Glass and the Paper Back Shading Adjustment Member (FL1-4365), and perform the procedure from step 1 again.

## ■ DF White Level (DF Shading Target) Adjustment

In the case of entering a provisional value

1. Change the values of the following service mode settings to 299.

- COPIER > ADJUST > CCD > DFTAR-R
- COPIER > ADJUST > CCD > DFTBK-R

Change the values of the following service mode settings to 309.

- COPIER > ADJUST > CCD > DFTAR-G
- COPIER > ADJUST > CCD > DFTBK-G

Change the values of the following service mode settings to 307.

- COPIER > ADJUST > CCD > DFTAR-B
- COPIER > ADJUST > CCD > DFTBK-B

Change the values of the following service mode settings to 315.

- COPIER > ADJUST > CCD > DFTAR-BW
- COPIER > ADJUST > CCD > DFTBK-BW

2. Place an A4 or LTR size paper on the Copyboard Glass and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL1

3. Place an A4 or LTR size paper on the ADF and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2

#### 4. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

Check the following values, and if all the values remain the same as those you entered, the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > DFTBK-R
- COPIER > ADJUST > CCD > DFTBK-G
- COPIER > ADJUST > CCD > DFTBK-B
- COPIER > ADJUST > CCD > DFTBK-BW

#### 5. In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > DF-WLVL1
- COPIER > FUNCTION > CCD > DF-WLVL2

#### 6. If the operation was "successful", write the entered values on the service label.

## ■ Copyboard Color Displacement Offset Adjustment

In the case of entering the values shown on the replacement label

#### 1. Enter the values shown on the replacement label in service mode.

##### NOTE:

To reduce the number of label items, the values of 100-xx and 50-xx are the same.

- <100-RG>
  - COPIER > ADJUST > CCD > 50-RG
  - COPIER > ADJUST > CCD > 100-RG
- <100-GB>
  - COPIER > ADJUST > CCD > 50-GB
  - COPIER > ADJUST > CCD > 100-GB

#### 2. Write the entered values on the service label.

## ■ PASCAL Adjustment

In the case of entering the values shown on the replacement label

#### 1. Enter the values shown on the replacement label in service mode.

- COPIER > ADJUST > PASCAL > OFST-P-K

#### 2. Write the entered values on the service label.

## ■ Copyboard Geometric Adjustment

In the case of manual adjustment

#### 1. On an image copied using the reader, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.

If adjustment is necessary, adjust the values of the following service mode settings.

- COPIER > ADJUST > ADJ-XY > ADJ-X
- COPIER > ADJUST > ADJ-XY > ADJ-Y
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG

#### 2. Write the entered values on the service label.

## ■ ADF (Front/Back) Geometric Adjustment

In the case of manual adjustment

**1. On an image duplex copied using the ADF, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.**

If adjustment is necessary, adjust the values of the following service mode settings.

- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF
- COPIER > ADJUST > ADJ-XY > ADJY-DF2
- FEEDER > ADJUST > DOCST
- FEEDER > ADJUST > DOCST2
- FEEDER > ADJUST > LA-SPEED
- FEEDER > ADJUST > LA-SPD2

**2. Write the entered values on the service label.**

## After Replacing the ADF Unit

### ■ DF White Level (DF Shading Target) Adjustment

In the case of entering a provisional value

**1. Change the values of the following service mode settings to 299.**

- COPIER > ADJUST > CCD > DFTAR-R
- COPIER > ADJUST > CCD > DFTBK-R

Change the values of the following service mode settings to 309.

- COPIER > ADJUST > CCD > DFTAR-G
- COPIER > ADJUST > CCD > DFTBK-G

Change the values of the following service mode settings to 307.

- COPIER > ADJUST > CCD > DFTAR-B
- COPIER > ADJUST > CCD > DFTBK-B

Change the values of the following service mode settings to 315.

- COPIER > ADJUST > CCD > DFTAR-BW
- COPIER > ADJUST > CCD > DFTBK-BW

**2. Place an A4 or LTR size paper on the Copyboard Glass and execute the following service mode.**

- COPIER > FUNCTION > CCD > DF-WLVL1

**3. Place an A4 or LTR size paper on the ADF and execute the following service mode.**

- COPIER > FUNCTION > CCD > DF-WLVL2

**4. How to judge whether the operation was successful or failed**

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

Check the following values, and if all the values remain the same as those you entered, the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > DFTBK-R
- COPIER > ADJUST > CCD > DFTBK-G
- COPIER > ADJUST > CCD > DFTBK-B
- COPIER > ADJUST > CCD > DFTBK-BW

**5. In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.**

- COPIER > FUNCTION > CCD > DF-WLVL1
- COPIER > FUNCTION > CCD > DF-WLVL2

**6. If the operation was "successful", write the entered values on the service label.**

### ■ ADF (Front/Back) Geometric Adjustment

In the case of manual adjustment

**1. On an image duplex copied using the ADF, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.**

If adjustment is necessary, adjust the values of the following service mode settings.

- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF
- COPIER > ADJUST > ADJ-XY > ADJY-DF2
- FEEDER > ADJUST > DOCST
- FEEDER > ADJUST > DOCST2
- FEEDER > ADJUST > LA-SPEED
- FEEDER > ADJUST > LA-SPD2

**2. Write the entered values on the service label.**

## After Replacing the Reader Upper Cover Unit

### Entering the XYZ Values

Entering the values shown on the barcode label

**1. Check the setting value of the Standard White Plate.**



**2. After entering the X, Y, and Z values shown on the barcode on the Copyboard Glass in the following service mode items, and then write the entered values (the X, Y, and Z values shown on the barcode on the Copyboard Glass) on the service label.**

**NOTE:**

The value of W-PLT-X: The first four digits of the value on the label

The value of W-PLT-Y: The four digits in the middle of the value on the label

The value of W-PLT-Z: The last four digits of the value on the label

- <W-PLT-X>
  - COPIER > ADJUST > CCD > W-PLT-X
- <W-PLT-Y>
  - COPIER > ADJUST > CCD > W-PLT-Y
- <W-PLT-Z>
  - COPIER > ADJUST > CCD > W-PLT-Z

### Calculating the Target Value of B&W Shading

**1. Turn OFF and then ON the power of the host machine, and then execute the following service mode.**

- COPIER > FUNCTION > CCD > BW-TGT

### Entering the Value of the Stream Reading Position

In the case of entering a provisional value

**1. Enter a provisional value.**

Change the value of the following service mode setting to -20.

- COPIER > ADJUST > ADJ-XY > STRD-POS

## 2. Execute the following service mode.

### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > INSTALL > STRD-POS

## 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

Check the following value. If it remains at "-20", the operation result is judged to be "failed".

- COPIER > ADJUST > ADJ-XY > STRD-POS

## 4. In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > INSTALL > STRD-POS

## 5. If the operation was "successful", write down the following value on the service label.

- COPIER > ADJUST > ADJ-XY > STRD-POS

## ■ AGC Adjustment (Paper Front)

### 1. Enter a provisional value.

B&W mode

Change the values of the following service mode settings to 1,000.

- COPIER > ADJUST > CCD > LED-BW-R
- COPIER > ADJUST > CCD > LED-BW-G
- COPIER > ADJUST > CCD > LED-BW-B

Color mode

Change the values of the following service mode settings to 1,100.

- COPIER > ADJUST > CCD > LED-CL-R
- COPIER > ADJUST > CCD > LED-CL-G
- COPIER > ADJUST > CCD > LED-CL-B

### 2. Execute the following service mode.

### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BW-AGC
- COPIER > FUNCTION > CCD > CL-AGC

## 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

B&W mode

Check the following values. If all of them remain at "1,000", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LED-BW-R
- COPIER > ADJUST > CCD > LED-BW-G
- COPIER > ADJUST > CCD > LED-BW-B

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > BW-AGC

Color mode

Check the following values. If all of them remain at "1,100", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LED-CL-R
- COPIER > ADJUST > CCD > LED-CL-G
- COPIER > ADJUST > CCD > LED-CL-B

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > CL-AGC

- If the operation was "successful", this procedure is completed. (There is no need to write down the values on the service label.)

## ■ AGC Adjustment (Paper Back)

### 1. Enter a provisional value.

B&W mode

Change the values of the following service mode settings to 1,000.

- COPIER > ADJUST > CCD > LE-BWRBK
- COPIER > ADJUST > CCD > LE-BWGBK
- COPIER > ADJUST > CCD > LE-BWBBK

Color mode

Change the values of the following service mode settings to 1,100.

- COPIER > ADJUST > CCD > LE-CLRBK
- COPIER > ADJUST > CCD > LE-CLGBK
- COPIER > ADJUST > CCD > LE-CLBBK

### 2. Execute the following service mode.

#### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BW-AGC2
- COPIER > FUNCTION > CCD > CL-AGC2

### 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

B&W mode

Check the following values. If all of them remain at "1,000", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LE-BWRBK
- COPIER > ADJUST > CCD > LE-BWGBK
- COPIER > ADJUST > CCD > LE-BWBBK

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > BW-AGC2

Color mode

Check the following values. If all of them remain at "1,100", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LE-CLRBK
- COPIER > ADJUST > CCD > LE-CLGBK
- COPIER > ADJUST > CCD > LE-CLBBK

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > CL-AGC2

- If the operation was "successful", this procedure is completed. (There is no need to write down the values on the service label.)

## ■ Paper Back Shading Initial Measurement

### 1. Execute the following service mode without placing anything on the Stream Reading Glass.

- COPIER > FUNCTION > CCD > BK-SHD1

2. Place the Paper Back Shading Adjustment Member (FL1-4365) on the Stream Reading Glass, and execute the following service mode.

**CAUTION:**

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BK-SHD2



3. Check the following service mode to determine if it was [1] successful or [0] failed.

- COPIER > DISPLAY > CCD > BK-SHDST

4. If it failed, clean the Stream Reading Glass and the Paper Back Shading Adjustment Member (FL1-4365), and perform the procedure from step 1 again.

## ■ DF White Level (DF Shading Target) Adjustment

In the case of entering a provisional value

1. Change the values of the following service mode settings to 299.

- COPIER > ADJUST > CCD > DFTAR-R
- COPIER > ADJUST > CCD > DFTBK-R

Change the values of the following service mode settings to 309.

- COPIER > ADJUST > CCD > DFTAR-G
- COPIER > ADJUST > CCD > DFTBK-G

Change the values of the following service mode settings to 307.

- COPIER > ADJUST > CCD > DFTAR-B
- COPIER > ADJUST > CCD > DFTBK-B

Change the values of the following service mode settings to 315.

- COPIER > ADJUST > CCD > DFTAR-BW
- COPIER > ADJUST > CCD > DFTBK-BW

2. Place an A4 or LTR size paper on the Copyboard Glass and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL1

3. Place an A4 or LTR size paper on the ADF and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2

#### 4. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

Check the following values, and if all the values remain the same as those you entered, the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > DFTBK-R
- COPIER > ADJUST > CCD > DFTBK-G
- COPIER > ADJUST > CCD > DFTBK-B
- COPIER > ADJUST > CCD > DFTBK-BW

#### 5. In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > DF-WLVL1
- COPIER > FUNCTION > CCD > DF-WLVL2

#### 6. If the operation was "successful", write the entered values on the service label.

## ■ Copyboard Geometric Adjustment

In the case of manual adjustment

#### 1. On an image copied using the reader, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.

If adjustment is necessary, adjust the values of the following service mode settings.

- COPIER > ADJUST > ADJ-XY > ADJ-X
- COPIER > ADJUST > ADJ-XY > ADJ-Y
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG

#### 2. Write the entered values on the service label.

## ● After Replacing the Reader CIS Unit

## ■ Entering the Value of the Stream Reading Position

In the case of entering a provisional value

#### 1. Enter a provisional value.

Change the value of the following service mode setting to -20.

- COPIER > ADJUST > ADJ-XY > STRD-POS

#### 2. Execute the following service mode.

### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > INSTALL > STRD-POS

#### 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

Check the following value. If it remains at "-20", the operation result is judged to be "failed".

- COPIER > ADJUST > ADJ-XY > STRD-POS

#### 4. In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > INSTALL > STRD-POS

#### 5. If the operation was "successful", write down the following value on the service label.

- COPIER > ADJUST > ADJ-XY > STRD-POS

## ■ AGC Adjustment (Paper Front)

### 1. Enter a provisional value.

B&W mode

Change the values of the following service mode settings to 1,000.

- COPIER > ADJUST > CCD > LED-BW-R
- COPIER > ADJUST > CCD > LED-BW-G
- COPIER > ADJUST > CCD > LED-BW-B

Color mode

Change the values of the following service mode settings to 1,100.

- COPIER > ADJUST > CCD > LED-CL-R
- COPIER > ADJUST > CCD > LED-CL-G
- COPIER > ADJUST > CCD > LED-CL-B

### 2. Execute the following service mode.

**CAUTION:**

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BW-AGC
- COPIER > FUNCTION > CCD > CL-AGC

### 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

B&W mode

Check the following values. If all of them remain at "1,000", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LED-BW-R
- COPIER > ADJUST > CCD > LED-BW-G
- COPIER > ADJUST > CCD > LED-BW-B

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > BW-AGC

Color mode

Check the following values. If all of them remain at "1,100", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LED-CL-R
- COPIER > ADJUST > CCD > LED-CL-G
- COPIER > ADJUST > CCD > LED-CL-B

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > CL-AGC

### 4. If the operation was "successful", this procedure is completed. (There is no need to write down the values on the service label.)

## ■ DF White Level (DF Shading Target) Adjustment

In the case of entering a provisional value

### 1. Change the values of the following service mode settings to 299.

- COPIER > ADJUST > CCD > DFTAR-R
- COPIER > ADJUST > CCD > DFTBK-R

Change the values of the following service mode settings to 309.

- COPIER > ADJUST > CCD > DFTAR-G
- COPIER > ADJUST > CCD > DFTBK-G

Change the values of the following service mode settings to 307.

- COPIER > ADJUST > CCD > DFTAR-B
- COPIER > ADJUST > CCD > DFTBK-B

Change the values of the following service mode settings to 315.

- COPIER > ADJUST > CCD > DFTAR-BW
- COPIER > ADJUST > CCD > DFTBK-BW

**2. Place an A4 or LTR size paper on the Copyboard Glass and execute the following service mode.**

- COPIER > FUNCTION > CCD > DF-WLVL1

**3. Place an A4 or LTR size paper on the ADF and execute the following service mode.**

- COPIER > FUNCTION > CCD > DF-WLVL2

**4. How to judge whether the operation was successful or failed**

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

Check the following values, and if all the values remain the same as those you entered, the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > DFTBK-R
- COPIER > ADJUST > CCD > DFTBK-G
- COPIER > ADJUST > CCD > DFTBK-B
- COPIER > ADJUST > CCD > DFTBK-BW

**5. In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.**

- COPIER > FUNCTION > CCD > DF-WLVL1
- COPIER > FUNCTION > CCD > DF-WLVL2

**6. If the operation was "successful", write the entered values on the service label.**

## ■ Copyboard Geometric Adjustment

In the case of manual adjustment

**1. On an image copied using the reader, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.**

If adjustment is necessary, adjust the values of the following service mode settings.

- COPIER > ADJUST > ADJ-XY > ADJ-X
- COPIER > ADJUST > ADJ-XY > ADJ-Y
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG

**2. Write the entered values on the service label.**

## ■ ADF (Front/Back) Geometric Adjustment

In the case of manual adjustment

**1. On an image duplex copied using the ADF, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.**

If adjustment is necessary, adjust the values of the following service mode settings.

- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF
- COPIER > ADJUST > ADJ-XY > ADJY-DF2
- FEEDER > ADJUST > DOCST
- FEEDER > ADJUST > DOCST2
- FEEDER > ADJUST > LA-SPEED
- FEEDER > ADJUST > LA-SPD2

**2. Write the entered values on the service label.**

## ● After Replacing the ADF CIS Unit

### ■ Entering the Value of the Stream Reading Position

In the case of entering a provisional value

**1. Enter a provisional value.**

Change the value of the following service mode setting to -20.

- COPIER > ADJUST > ADJ-XY > STRD-POS

## 2. Execute the following service mode.

### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > INSTALL > STRD-POS

## 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

Check the following value. If it remains at "-20", the operation result is judged to be "failed".

- COPIER > ADJUST > ADJ-XY > STRD-POS

## 4. In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > INSTALL > STRD-POS

## 5. If the operation was "successful", write down the following value on the service label.

- COPIER > ADJUST > ADJ-XY > STRD-POS

## ■ AGC Adjustment (Paper Back)

### 1. Enter a provisional value.

B&W mode

Change the values of the following service mode settings to 1,000.

- COPIER > ADJUST > CCD > LE-BWRBK
- COPIER > ADJUST > CCD > LE-BWGBK
- COPIER > ADJUST > CCD > LE-BWBBK

Color mode

Change the values of the following service mode settings to 1,100.

- COPIER > ADJUST > CCD > LE-CLRBK
- COPIER > ADJUST > CCD > LE-CLGBK
- COPIER > ADJUST > CCD > LE-CLBBK

## 2. Execute the following service mode.

### CAUTION:

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BW-AGC2
- COPIER > FUNCTION > CCD > CL-AGC2

## 3. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

B&W mode

Check the following values. If all of them remain at "1,000", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LE-BWRBK
- COPIER > ADJUST > CCD > LE-BWGBK
- COPIER > ADJUST > CCD > LE-BWBBK

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > BW-AGC2

Color mode

Check the following values. If all of them remain at "1,100", the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > LE-CLRBK
- COPIER > ADJUST > CCD > LE-CLGBK
- COPIER > ADJUST > CCD > LE-CLBBK

In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > CL-AGC2

4. If the operation was "successful", this procedure is completed. (There is no need to write down the values on the service label.)

## ■ Paper Back Shading Initial Measurement

1. Execute the following service mode without placing anything on the Stream Reading Glass.
  - COPIER > FUNCTION > CCD > BK-SHD1
2. Place the Paper Back Shading Adjustment Member (FL1-4365) on the Stream Reading Glass, and execute the following service mode.

**CAUTION:**

Be sure to close the ADF before executing the following service mode. Also be sure not to open the ADF while the service mode is being executed.

- COPIER > FUNCTION > CCD > BK-SHD2



3. Check the following service mode to determine if it was [1] successful or [0] failed.
  - COPIER > DISPLAY > CCD > BK-SHDST
4. If it failed, clean the Stream Reading Glass and the Paper Back Shading Adjustment Member (FL1-4365), and perform the procedure from step 1 again.

## ■ DF White Level (DF Shading Target) Adjustment

In the case of entering a provisional value

1. Change the values of the following service mode settings to 299.

- COPIER > ADJUST > CCD > DFTAR-R
- COPIER > ADJUST > CCD > DFTBK-R

Change the values of the following service mode settings to 309.

- COPIER > ADJUST > CCD > DFTAR-G
- COPIER > ADJUST > CCD > DFTBK-G

Change the values of the following service mode settings to 307.

- COPIER > ADJUST > CCD > DFTAR-B
- COPIER > ADJUST > CCD > DFTBK-B

Change the values of the following service mode settings to 315.

- COPIER > ADJUST > CCD > DFTAR-BW
- COPIER > ADJUST > CCD > DFTBK-BW

## 2. Place an A4 or LTR size paper on the Copyboard Glass and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL1

## 3. Place an A4 or LTR size paper on the ADF and execute the following service mode.

- COPIER > FUNCTION > CCD > DF-WLVL2

## 4. How to judge whether the operation was successful or failed

Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation was successful or failed.

Check the following values, and if all the values remain the same as those you entered, the operation result is judged to be "failed".

- COPIER > ADJUST > CCD > DFTBK-R
- COPIER > ADJUST > CCD > DFTBK-G
- COPIER > ADJUST > CCD > DFTBK-B
- COPIER > ADJUST > CCD > DFTBK-BW

## 5. In the case of a failure, turn OFF and then ON the power, and execute the following service mode again.

- COPIER > FUNCTION > CCD > DF-WLVL1
- COPIER > FUNCTION > CCD > DF-WLVL2

## 6. If the operation was "successful", write the entered values on the service label.

## ■ ADF (Front/Back) Color Displacement Offset Adjustment

### 1. Enter the values shown on the service label in service mode.

#### NOTE:

To reduce the number of label items, the values of 100DF-xx and 50DF-xx are the same.

- ```
<100-DF-RG>
  • COPIER > ADJUST > CCD > 50DF-RG
  • COPIER > ADJUST > CCD > 100DF-RG
<100-DF-GB>
  • COPIER > ADJUST > CCD > 50DF-GB
  • COPIER > ADJUST > CCD > 100DF-GB
<100DF2RG>
  • COPIER > ADJUST > CCD > 50DF2RG
  • COPIER > ADJUST > CCD > 100DF2RG
<100DF2GB>
  • COPIER > ADJUST > CCD > 50DF2GB
  • COPIER > ADJUST > CCD > 100D2GB
```

## ■ ADF (Front/Back) Geometric Adjustment

In the case of manual adjustment

### 1. On an image duplex copied using the ADF, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.

If adjustment is necessary, adjust the values of the following service mode settings.

- COPIER > ADJUST > ADJ-XY > ADJ-Y-DF
- COPIER > ADJUST > ADJ-XY > ADJY-DF2
- FEEDER > ADJUST > DOCST
- FEEDER > ADJUST > DOCST2
- FEEDER > ADJUST > LA-SPEED
- FEEDER > ADJUST > LA-SPD2

### 2. Write the entered values on the service label.

# 7

## Troubleshooting

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## Test Print

### Engine Test Print

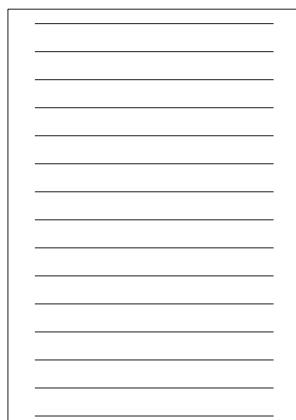
This machine has an engine test print function to check whether the printer engine is operating normally.

**NOTE:**

The engine test print can be performed by using only the DC Controller. Therefore it can be output even when the Main Controller is failed.

There are two types of engine test print: 1-sided print and 2-sided print.

1. Load A4/LTR paper in the cassette.
2. While the machine is in the standby mode, open and close the Cartridge Door for the predetermined number of times in a row.
  - In case of 1-sided print  
4 times
  - In case of 2-sided print  
5 times or more
3. An engine test print is executed, and the test pattern as shown below is printed on one side or both sides of a sheet of paper.



### Controller test print

The following test print types are available with this machine, and you can check for failure of an image with a circle 'Yes' described in the image check items in the table below. When no failure is found in the test print in normal output mode, it can be caused in PDL input or Reader.

The image of the test print is generated by the Main Controller PCB.

| PG-TYPE | TYPE Pattern                 | Image check items |          |                    |            |            |              |                |             |                 |                |
|---------|------------------------------|-------------------|----------|--------------------|------------|------------|--------------|----------------|-------------|-----------------|----------------|
|         |                              | Grada-tion        | Fog-ging | Trans-fer fail-ure | Black line | White line | Uneven pitch | Uneven density | Right angle | Straigh t lines | Magnifi-cation |
| 0       | Grid Pattern                 |                   |          |                    |            |            |              |                | Yes         | Yes             | Yes            |
| 1       | Halftone Pattern             |                   |          | Yes                | Yes        | Yes        | Yes          | Yes            |             |                 |                |
| 2       | Black Pattern                |                   |          | Yes                |            | Yes        | Yes          | Yes            |             |                 |                |
| 3       | White Pattern                |                   | Yes      |                    | Yes        |            |              |                |             |                 |                |
| 4       | Gradation 17 Pattern         | Yes               | Yes      |                    | Yes        | Yes        |              | Yes            |             |                 |                |
| 5       | Thin Horizontal Line Pattern |                   |          |                    | Yes        | Yes        |              |                |             |                 |                |
| 6       | (For R&D use)                |                   |          |                    |            |            |              |                |             |                 |                |
| 7       | (For R&D use)                |                   |          |                    |            |            |              |                |             |                 |                |

Follow the procedure shown below to output the test print.

**1. Select the following service mode.**

TESTMODE > PRINT > PG-TYPE

**2. Enter the PG number using the numeric keypad, and press the [Apply] key.**

**NOTE:**

If necessary, change the settings for test print in the following service mode.

If the settings are not changed, a test print will be executed with the initial values of service mode settings.

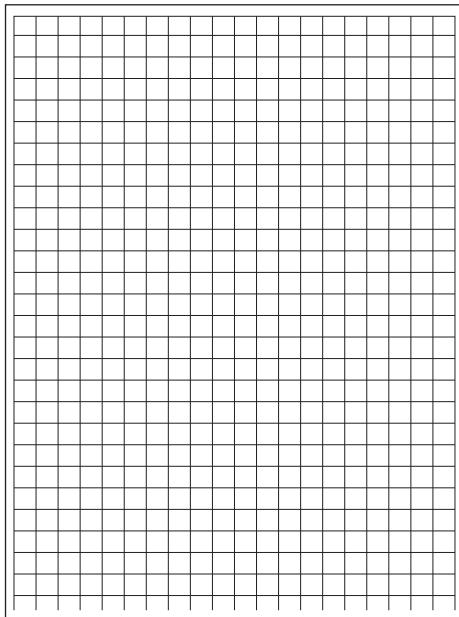
- Setting of the number of output sheets:  
TESTMODE > PRINT > COUNT
- Setting of 1-sided/2-sided printing:  
TESTMODE > PRINT > PHASE
- Setting of the image formation method:  
TESTMODE > PRINT > MODE
- Setting of the image correction table:  
TESTMODE > PRINT > THRU
- Adjustment of test print density:  
TESTMODE > PRINT > DENS
- Setting of toner thinning process:  
TESTMODE > PRINT > MABK
- Setting of the paper source used when outputting a test print:  
TESTMODE > PRINT > FEED

**3. Execute the following service mode to output a test print.**

TESTMODE > PRINT > START

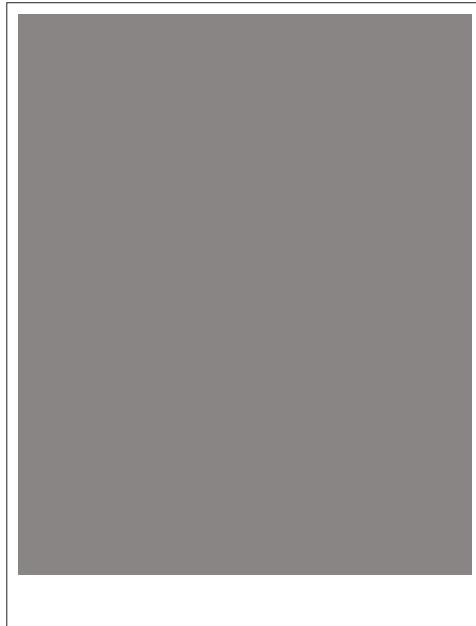
## ■ How to use the test print

### • Grid Pattern (TYPE = 0)



| Check item                     | Checking method                                                                                                                                       | Assumed cause                                                                                      |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Right Angle/<br>Straight Lines | Check that lines in horizontal/vertical scanning directions are paralleled to the paper.<br>Check that these lines are at right angle to one another. | Failure of feed system<br>Failure of Laser Scanner Unit                                            |
| Magnification Ra-<br>tion      | Check that the grid is printed at 9.99 mm intervals. (Check the image on the second side at duplex printing.)                                         | Failure of roller's feed system<br>Failure of Photosensitive Drum<br>Failure of Laser Scanner Unit |

- **Halftone Pattern (TYPE = 1)**



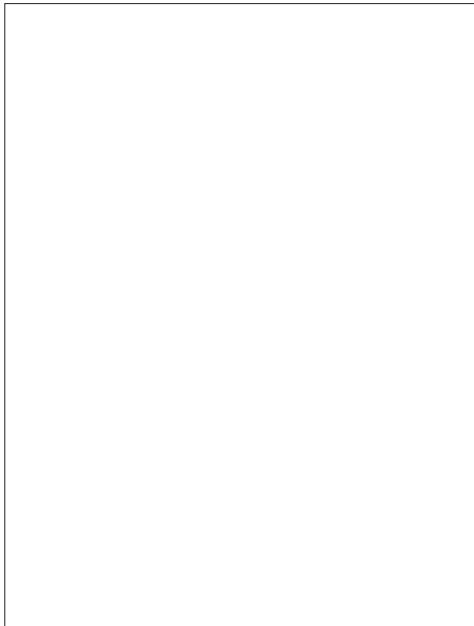
| Check item       | Checking method                                                               | Assumed cause                                                                                                               |
|------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Transfer failure | Check the evenness of density.                                                | Failure of transfer system<br>Failure of Transfer Roller                                                                    |
| Black line       | Check that no black line appears on the image.                                | Failure of developing system<br>Failure of cleaning (drum)<br>Failure of Transfer Roller                                    |
| White line       | Check that no white line appears on the image.                                | Soiling on the laser light path<br>Failure of developing system                                                             |
| Uneven Pitch     | Check that no line appears in the horizontal scanning direction of the image. | Failure of Photosensitive Drum<br>Failure of developing system<br>Failure of laser exposure system<br>Drive-related failure |
| Uneven Density   | Check the evenness of density.                                                | Failure of Photosensitive Drum<br>Failure of developing system<br>Failure of Transfer Roller                                |

- **Black Pattern (TYPE = 2)**



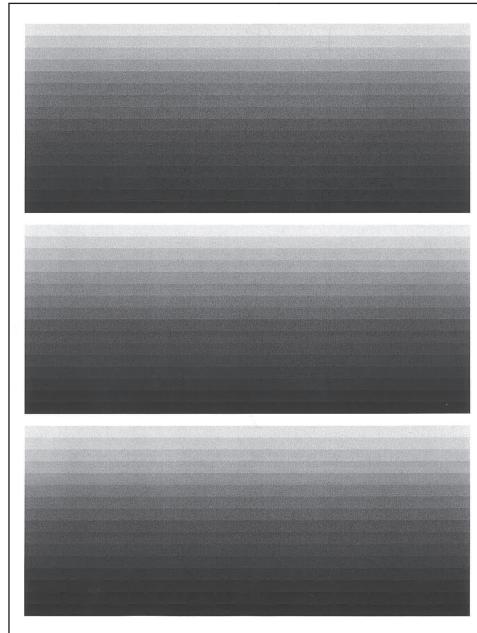
| Check item       | Checking method                                                               | Assumed cause                                                                                                               |
|------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Transfer failure | Check the evenness of density.                                                | Failure of transfer system<br>Failure of Transfer Roller                                                                    |
| White line       | Check that no white line appears on the image.                                | Failure of developing system                                                                                                |
| Uneven Pitch     | Check that no line appears in the horizontal scanning direction of the image. | Failure of Photosensitive Drum<br>Failure of developing system<br>Failure of laser exposure system<br>Drive-related failure |
| Uneven Density   | Check the evenness of density.                                                | Failure of Photosensitive Drum<br>Failure of developing system<br>Failure of Transfer Roller                                |

● White Pattern (TYPE = 3)



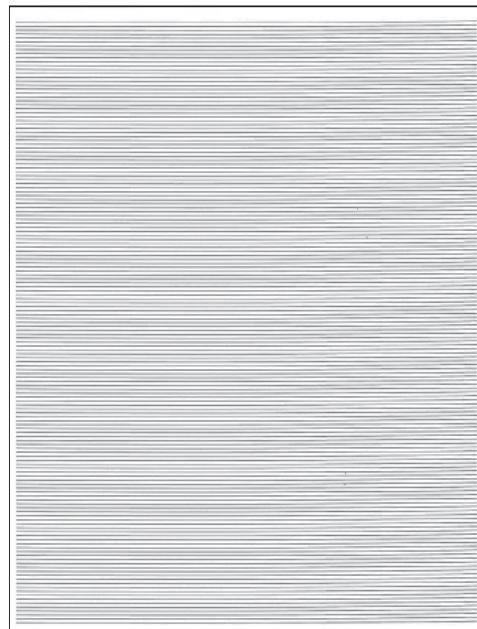
| Check item | Checking method                                | Assumed cause                                                                                      |
|------------|------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Black line | Check that no black line appears on the image. | Failure of developing system<br>Failure of cleaning (drum)<br>Failure of Transfer Roller           |
| Fogging    | Check that no fogging appears on the image.    | Failure of Photosensitive Drum<br>Failure of laser exposure system<br>Failure of developing system |

- **Gradation 17 Pattern (TYPE = 4)**



| Check item     | Checking method                                                             | Assumed cause                                                                                      |
|----------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Gradation      | Check that gradation in density is made appropriately.                      | Failure of Photosensitive Drum<br>Failure of laser exposure system<br>Failure of developing system |
| Fogging        | Check that no fogging appears in the blank area.                            | Failure of Photosensitive Drum<br>Failure of laser exposure system<br>Failure of developing system |
| Black line     | Check that no black line appears on the image.                              | Failure of developing system<br>Failure of cleaning (drum)<br>Failure of Transfer Roller           |
| White line     | Check that no white line appears on the image.                              | Soiling on the laser light path<br>Failure of developing system                                    |
| Uneven Density | Check that there is no density difference between the front and rear sides. | Failure of Photosensitive Drum<br>Failure of developing system<br>Failure of Transfer Roller       |

- **Thin Horizontal Line Pattern (TYPE = 5)**



| Check item | Checking method                                | Assumed cause                                                                            |
|------------|------------------------------------------------|------------------------------------------------------------------------------------------|
| Black line | Check that no black line appears on the image. | Failure of developing system<br>Failure of cleaning (drum)<br>Failure of Transfer Roller |
| White line | Check that no white line appears on the image. | Soiling on the laser light path<br>Failure of developing system                          |

## Cartridge Log Report

Logs such as history of cartridge replacement are output as a report.

There are two types of cartridge log reports; one for users and one for service technicians.

### CAUTION:

Do not provide users with the cartridge log report for service technicians because it contains detailed information that is not disclosed to end users.

| *****                        |            |            |      |                  |           |       |         |         |         |
|------------------------------|------------|------------|------|------------------|-----------|-------|---------|---------|---------|
| *** CARTRIDGE LOG REPORT *** |            |            |      |                  |           |       |         |         |         |
| *****                        |            |            |      |                  |           |       |         |         |         |
| Serial Number [1]            |            |            |      |                  |           |       |         |         |         |
| Black                        | (1)        | (/2)       | (/3) | (4/6)            | (S1/S5)   | (5/7) | (S2/S6) | (S3/S7) | (S4/S8) |
| Serial No.                   | Type       | Cpty.      |      | First/Last Used  | Pg. Count | Left  | Toner   | Drum    | Parts   |
| [REDACTED]                   | [REDACTED] | [REDACTED] |      | 2018 04/17 11:14 | 00000100  | 93%   | 100%    | 93%     | -%      |
|                              | C1         | Std.       |      | 2018 05/07 19:23 | 00000105  | 92%   | 100%    | 92%     | -%      |
| C4: 00000                    | 0000000000 |            |      |                  |           |       |         |         |         |
| C5: 00000                    | 0000000000 |            |      |                  |           |       |         |         |         |
| C6: 00000                    | 0000000000 |            |      |                  |           |       |         |         |         |
| C7: 00000                    | 0000000000 |            |      |                  |           |       |         |         |         |
| C8: 00000                    | 0000000000 |            |      |                  |           |       |         |         |         |

Cartridge Log Report (For service technicians)

| No. | Description                                                                   |
|-----|-------------------------------------------------------------------------------|
| [1] | Replacement logs                                                              |
| [2] | Cartridge type: The number of times a non-genuine cartridge has been detected |
| [3] | Non-genuine cartridge page count                                              |

### NOTE:

In addition to output as a report, cartridge logs can also be displayed on the remote UI service mode screen (for service technicians) or remote UI screen (for users).

- To display cartridge logs (for service technicians):
   
SERVICE REPORT > CRG-LOG
- To display cartridge logs (for users)\*:
   
Status Monitor/Cancel > Cartridge Log

\*: When not displaying the cartridge log to users, set the following service mode to "0" (OFF).

- ON/OFF of [Cartridge Log] display:
   
COPIER > OPTION > DSPLY-SW > CRG-LOG

## Output method

Execute the following service mode to output a cartridge log report for service technicians.

- To output a report on cartridge replacement history:
   
COPIER > FUNCTION > MISC-P > CRG-LOG

### NOTE:

- To output a cartridge log report (for users)\*:
   
Menu > Output Reports > Print List > Cartridge Log Report

\*: When not allowing users to output the cartridge log report, set the following service mode to "0" (OFF).

- ON/OFF of [Cartridge Log Report] display:
   
COPIER > OPTION > DSPLY-SW > CRG-LOG

## Replacement logs

The record of replacement and usage of cartridges will be printed.

### CAUTION:

Just after the cartridge has been replaced with a genuine cartridge or when a non-genuine cartridge is used, accurate information cannot be obtained and a random or approximate value may be printed.

| Item                  | Description                                                              | Remarks                                                                                                                 |
|-----------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| (1) Serial No.        | Serial number of the cartridge                                           |                                                                                                                         |
| (2) Type              | Cartridge type                                                           | <ul style="list-style-type: none"> <li>• C1: Genuine</li> <li>• C2 to C8: Non-genuine</li> <li>• C0: Unknown</li> </ul> |
| (3) Cptcy.            | Cartridge capacity                                                       | Displayed in accordance with the toner fillup amount                                                                    |
| (4/6) First/Last Used | The date and time it was installed/last used                             |                                                                                                                         |
| (S1/S5) Pg. Count *   | Cartridge page count (when it was installed/last used)                   | 00000000 to 99999999                                                                                                    |
| (5/7) Left            | The amount remaining in the cartridge (when it was installed/ last used) | 0 to 100%<br>(New: 100%, Non-genuine: -)                                                                                |
| (S2/S6) Toner *       | The remaining life of the toner (when it was installed/last used)        | -128 to 100 %<br>(New: 100%, Indefinite: -%)                                                                            |
| (S3/S7) Drum *        | The remaining life of the drum (when it was installed/last used)         | -128 to 100 %<br>(New: 100%, Indefinite: -%)                                                                            |
| (S4/S8) Parts *       | Not used                                                                 |                                                                                                                         |

\*: S1 to S8 are printed only on reports for service technicians.

## Number of detections of non-genuine cartridge / Page count of non-genuine cartridge

When a non-genuine cartridge is installed, it is classified as a cartridge type C2 to C8 according to the reason for judging it nongenuine, and the number of detections of each type and the number of pages printed with the cartridge installed are recorded.

| Reason for judging it non-genuine | Cartridge type    |                    | Description                                                                                                                                                               |
|-----------------------------------|-------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | Report for users* | Report for service |                                                                                                                                                                           |
| OEM                               | C3                | C5                 | The number of detections of an OEM cartridge, and the number of pages printed                                                                                             |
| Communication error               | C2                | C4                 | The number of detections of a cartridge without memory and the number of pages printed                                                                                    |
| Refill                            | C3                | C6                 | The number of detections of a cartridge prepared by refilling toner into a genuine cartridge, and the number of pages printed                                             |
| Copied memory                     | C3                | C7                 | The number of detections of a cartridge prepared by refilling toner into a genuine cartridge and copying the contents of a normal memory, and the number of pages printed |
| Authentication failed             | C2                | C8                 | The number of detections of a cartridge that cannot be authenticated, and the number of pages printed                                                                     |

\*: Only C2 and C3 are displayed. The total count of the values of the reasons for judging the cartridge non-genuine is displayed.

### NOTE:

The number of detections of non-genuine cartridge and the page count of non-genuine cartridge can be reset.

- To clear the cartridge replacement log:  
COPIER > FUNCTION > CLEAR > CRGL-CNT

## Troubleshooting Items

### Remedy for Image Failure

When an image failure occurs, perform the remedy by referring to the following material.

- User's Guide > Top > Troubleshooting > When You Cannot Print Properly

**NOTE:**

URL of User's Guide -> <http://canon.com/oip-manual>

### Image Failures Occur at Regular Intervals

#### Overview

Foreign matters or scratches on rollers may cause image failures of the regular intervals in the vertical scanning direction of the image.

#### Field Remedy

Clean or replace the corresponding parts according to the following table.

**CAUTION:**

Since the Primary Charging Roller and Developing Roller are located inside the cartridge and cannot be cleaned, replace the cartridge.

| Cause of failure           | Outer circumference (mm) | Symptom       |             |             |                |
|----------------------------|--------------------------|---------------|-------------|-------------|----------------|
|                            |                          | Soiling       | White spots | Soiled back | Fixing failure |
| Cassette Pickup Roller     | Approx. 50 mm            | Occurs        | -           | -           | -              |
| Cassette Separation Roller | Approx. 44 mm            | -             | -           | Occurs      | -              |
| Cassette Feed Roller       | Approx. 50 mm            | Occurs        | -           | -           | -              |
| Registration Roller        | Approx. 43 mm            | -             | -           | Occurs      | -              |
| Transfer Roller            | Approx. 39 mm            | -             | Occurs      | Occurs      | -              |
| Toner Cartridge            | Primary Charging Roller  | Approx. 28 mm | -           | Occurs      | -              |
|                            | Photosensitive Drum      | Approx. 75 mm | Occurs      | Occurs      | -              |
|                            | Developing Roller        | Approx. 31 mm | -           | Occurs      | -              |
| Fixing Unit                | Fixing Film              | Approx. 57 mm | Occurs      | Occurs      | -              |
|                            | Pressure Roller          | Approx. 63 mm | Occurs      | -           | Occurs         |

**CAUTION:**

The outer circumference may be different from the width of the image failure depending on the factors including processing speed and/or amount of image shrink/expansion.

### Checking the Nip Width of the Fixing Assembly

#### Overview

Although the nip width of the Fixing Assembly cannot be adjusted with this machine, it can be checked.

By checking the nip width when fixing failure occurs, it is possible to judge whether there is a problem with the Fixing Assembly.

#### Field Remedy

Check the nip width of the Fixing Assembly by the following procedure.

1. In the following service mode, print solid black using A4/LTR size paper.
  - TESTMODE > PRINT > PG-TYPE = 2
  - TESTMODE > PRINT > START
2. Load the printed paper with the solid black side facing up in a cassette of the machine.
3. In the following service mode, print solid white.
  - TESTMODE > PRINT > PG-TYPE = 3
  - TESTMODE > PRINT > START
4. When the leading edge of the paper comes out to the Delivery Outlet, open the Front Cover to cause a door open jam and then close the Front Cover immediately.

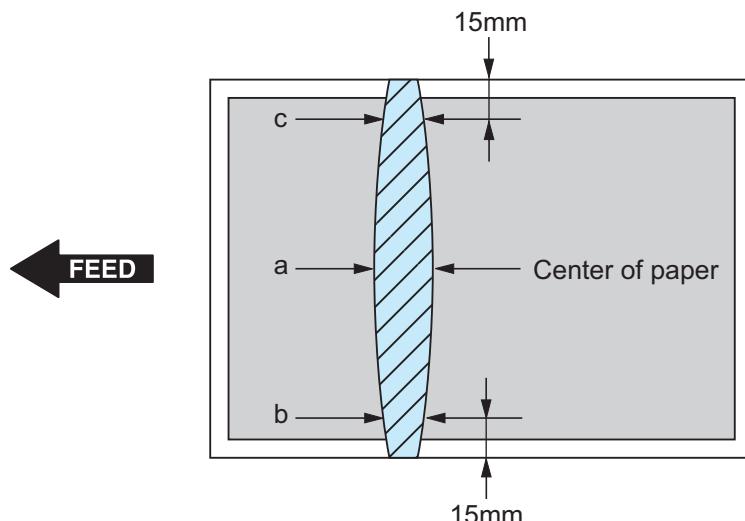
**CAUTION:**

Since pressure is released by opening the Front Cover, accurate fixing nip width cannot be measured while keeping the Front Cover opened.

5. About 20 seconds afterwards, open the Front Cover and remove the jammed paper.
6. Measure the widths of the glossy part of the toner on the printed paper, and check that they are within the range as follows.

(Reference value)

- Center (a): 7.1 +/- 1.0 mm
- Edge (b) and (c): 6.7 +/- 1.0 mm



## Debug Log

### Function Overview

The debug log is a log that analyzes the program behavior of the machine to enable developers to identify problems. This machine is embedded with a function that compiles the log of the behavior of each software module as debug log and outputs it as integrated log for analyzing problems.

Be sure to collect the debug log when the Support Dept. of sales company so instructs.

Note that there is no need for service technicians to check the content of collected debug log.

#### Cases in which collection of debug log is effective

Collection of debug log is effective in the following cases:

- Neither the Support Dept. of sales company nor CINC can reproduce the trouble that occurred at the customer site
- When the error frequency is low
- When the failure is suspected to be due to firmware rather than a mechanical/electrical failure.

**CAUTION:**

If the procedure for reproducing the failure is clear and the Support Dept. of sales company and CINC can reproduce it, collection of debug log is not necessary.

### Conditions for collecting logs

#### Conditions for not being able to collect logs

In the following cases, the procedure for obtaining logs is not required because logs cannot be obtained.

- Service mode screen cannot be accessed
- The machine cannot recognize a USB flash drive
- No USB port is installed in the machine (when the model has only a copy function)

#### What is necessary to collect logs

A USB flash drive that satisfies the following conditions is required to obtain the debug logs of the machine:

- Formatted in FAT 16/FAT32
- There is a free space of approx. 100MB.
- Can be recognized by the machine

### Collection procedure

The following shows the procedure for collecting the debug log from the Control Panel.

1. **Connect a USB flash drive to the machine. In the case of a model having a USB connector on the front side of the machine, be sure to connect the USB flash drive to the USB connector (main port) on the front side of the machine. In the case of a model having a USB connector only on the rear side, connect the USB flash drive to the USB connector on the rear side.**

**CAUTION:**

In the case of a model having a USB connector on the Control Panel, if the USB flash drive is connected to the USB connector on the rear side, debug logs are not transferred to the USB flash drive.

2. **Execute the following service mode from the Control Panel or Remote UI.**

- COPIER > FUNCTION > SYSTEM > LOGWRITE

"Executing..." is displayed while log collection is executed. When it is completed, the screen shows the service mode screen again.

3. **Execute the following service mode from the Control Panel or Remote UI.**

- COPIER > FUNCTION > SYSTEM > LOG2USB

"Executing..." is displayed while log collection is executed. When it is completed, the screen shows the service mode screen again.

**4. Remove the USB flash drive by the correct procedure.**

Connect the USB flash drive to the PC, and check that the log file shown below has been saved.

- Output by LOGWRITE: SUBLOG.TXT
- Output by LOG2USB: SUBLOG\_yyyymmdd.HHMMSS\_xxx.gz (the file may be divided into multiple files)

# 8

## Error/Jam/Alarm

|                 |     |
|-----------------|-----|
| Overview.....   | 196 |
| Error Code..... | 200 |
| Jam Code.....   | 206 |
| Alarm Code..... | 209 |

## Overview

This chapter describes codes that are displayed when a failure has occurred on the product. These codes are classified in 3 categories.

Each code can be checked by printing the device log list.

| Code type  | Description                                                                                                                                            |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Error Code | This code is displayed when a failure (disabling of host machine's operation) occurs which affects printing.                                           |
| Jam code   | This code is displayed when a jam occurs inside the machine.                                                                                           |
| Alarm code | This code is displayed when a part of functions of machine malfunctioned (disabling of host machine's operation) or the status of consumables changed. |

## Error/Jam/Alarm Log indication

### Error log

SERVICE MODE > COPIER > DISPLAY > ERR

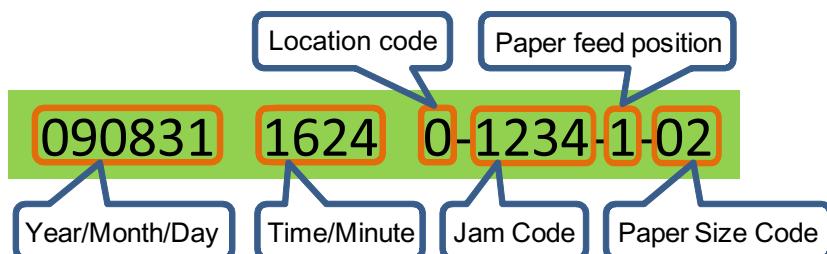


Indication example



### Jam log

SERVICE MODE > COPIER > DISPLAY > JAM

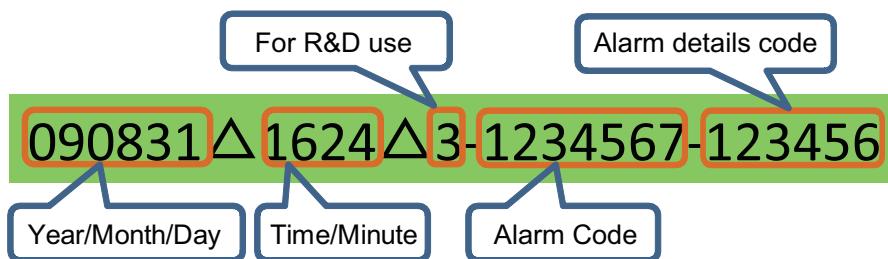


Indication example



## Alarm log

SERVICE MODE > COPIER > DISPLAY > ALARM-2  
 SERVICE MODE > COPIER > DISPLAY > ALARM-3



Indication example



## JAM/ERR LOG REPORT

Output procedure of the JAM/ERR LOG REPORT  
 Service Mode > COPIER > FUNCTION > MISC-P > ERR-LOG

| *****<br>*** JAM/ERR LOG REPORT ***<br>***** |     |       |       |       |   |        |        |        |   |       |       |       |       |  |
|----------------------------------------------|-----|-------|-------|-------|---|--------|--------|--------|---|-------|-------|-------|-------|--|
| JAM                                          | 001 | [1]   |       | [2]   |   | [3]    |        | [4]    |   | [5]   |       | [6]   |       |  |
|                                              |     | 07/19 | 16:02 | 16:02 | 3 | 0      | 7907   | 000033 | 1 | 00002 | 00000 | 00000 | 00000 |  |
| ERROR                                        | 002 | 07/19 | 16:10 | 16:10 | 4 | 1      | 0002   | 000034 | 0 | 00000 | 00000 | 00000 | 00000 |  |
|                                              |     | 03/19 | 07:20 | 07:20 | 3 | 733    | 0000   | 000010 |   |       |       |       |       |  |
| *****                                        |     |       |       |       |   |        |        |        |   |       |       |       |       |  |
| ALARM2                                       |     |       |       |       |   |        |        |        |   |       |       |       |       |  |
| ALARM3                                       | 001 | 03/19 | 06:20 | 06:20 | 3 | 100100 | 000072 | 000033 |   |       |       |       |       |  |
|                                              |     | 03/19 | 06:20 | 06:20 | 3 | 100100 | 000073 | 000033 |   |       |       |       |       |  |
|                                              |     | 03/19 | 06:20 | 06:20 | 3 | 100100 | 000074 | 000033 |   |       |       |       |       |  |
|                                              |     | 03/19 | 06:20 | 06:20 | 3 | 100100 | 000071 | 000033 |   |       |       |       |       |  |

| No. | Item                      |
|-----|---------------------------|
| 1   | Day/Month Hour:Minute     |
| 2   | Location overview         |
| 3   | Location                  |
| 4   | Jam code                  |
| 5   | Total counter             |
| 6   | Paper source location     |
| 7   | Paper size                |
| 8   | Location overview         |
| 9   | Error Code                |
| 10  | Error details code        |
| 11  | Total counter             |
| 12  | Alarm level (for R&D use) |

| No. | Item                             |
|-----|----------------------------------|
| 13  | Alarm Code                       |
| 14  | Alarm details code (for R&D use) |
| 15  | Total counter                    |

## Location Overview Code

The location overview is displayed in a single digit and has the meaning shown below.

| Device       | Location overview code |
|--------------|------------------------|
| Host machine | 3                      |
| ADF *1       | 4                      |

\*1: Jam history only

## Location Code

The jam codes of this machine contain information on the location.

The location information is displayed in a single digit and has the meaning shown below:

| Device       | Location code |
|--------------|---------------|
| Host machine | 0             |
| ADF          | 1             |

## Paper Source Location Code

When jam occurs, the pickup location is indicated with the following paper source location code.

| Paper source location | Paper source location code |
|-----------------------|----------------------------|
| Multi-purpose Tray    | 0                          |
| Pickup Cassette       | 1                          |
| Option cassette       | 2                          |
| At duplex printing    | 7                          |

## Paper Size Code

Paper size is coded and indicated with the size codes as shown below when a paper jam occurs.

Note that the paper size may not be supported by this machine.

| Paper size      | Paper size code    |                       |
|-----------------|--------------------|-----------------------|
|                 | Control Panel (UI) | Jam/Err Log Report *1 |
| A4              | 02                 | 00002                 |
| B5              | 07                 | 00007                 |
| A5              | 03                 | 00003                 |
| A6              | 04                 | 00004                 |
| 16K             | D4                 | 00212                 |
| LGL             | 0C                 | 00012                 |
| LTR             | 0D                 | 00013                 |
| STMT            | 3C                 | 00060                 |
| EXEC            | 0A                 | 00010                 |
| Oficio          | 3E                 | 00062                 |
| Oficio (Brazil) | CC                 | 00204                 |
| Oficio (Mexico) | D2                 | 00210                 |
| F4A             | D6                 | 00214                 |

| Paper size             | Paper size code    |                       |
|------------------------|--------------------|-----------------------|
|                        | Control Panel (UI) | Jam/Err Log Report *1 |
| LTR (Government)       | D0                 | 00208                 |
| LGL (Government)       | D1                 | 00209                 |
| Foolscap/Folio         | 3D                 | 00061                 |
| Foolscap (Australia)   | CA                 | 00202                 |
| LGL (India)            | D7                 | 00215                 |
| 3 x 5 inch             | 40                 | 00064                 |
| Envelope No.10 (COM10) | 16                 | 00022                 |
| Envelope Monarch       | 17                 | 00023                 |
| Envelope C5            | 15                 | 00021                 |
| Envelope DL            | 18                 | 00024                 |

\*1: Size code on the JAM/ERR LOG REPORT.

## Error Code

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>E000-0000--</b>           | <b>Error in temperature rising of Fixing Assembly</b>                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Detection Description</b> | Temperature of the Fixing Assembly did not reach certain temperature within the specified period of time.                                                                                                                                                                                                                                                                                                                                          |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the Fixing Assembly and the Engine Controller PCB (UN1).</li> <li>2. Replace the Fixing Assembly.</li> <li>3. Replace the Low Voltage Power Supply PCB (UN2).</li> <li>4. Replace the Engine Controller PCB (UN1).</li> </ol>                                                                                                                                        |
| <b>E001-0000--</b>           | <b>Abnormal high temperature of Fixing Assembly</b>                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Detection Description</b> | It was detected that the temperature of the Fixing Assembly (Main Thermistor) was abnormally high.                                                                                                                                                                                                                                                                                                                                                 |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the Fixing Assembly and the Engine Controller PCB (UN1).</li> <li>2. Replace the Fixing Assembly.</li> <li>3. Replace the Low Voltage Power Supply PCB (UN2).</li> <li>4. Replace the Engine Controller PCB (UN1).</li> </ol>                                                                                                                                        |
| <b>E003-0000--</b>           | <b>Abnormal low temperature of Fixing Assembly</b>                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Detection Description</b> | It was detected that the temperature of the Fixing Assembly (Main Thermistor) was abnormally low.                                                                                                                                                                                                                                                                                                                                                  |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the Fixing Assembly and the Engine Controller PCB (UN1).</li> <li>2. Replace the Fixing Assembly.</li> <li>3. Replace the Low Voltage Power Supply PCB (UN2).</li> <li>4. Replace the Engine Controller PCB (UN1).</li> </ol>                                                                                                                                        |
| <b>E004-0000--</b>           | <b>Error in fixing power supply drive circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Detection Description</b> | The zero cross signal was not detected for the specified period of time or longer.                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the Engine Controller PCB (UN1) and the Main Thermistor (TH802).</li> <li>2. Check the harness/connector between the Fixing Assembly and the Engine Controller PCB (UN1).</li> <li>3. Replace the Fixing Assembly.</li> <li>4. Replace the Low Voltage Power Supply PCB (UN2).</li> <li>5. Replace the Engine Controller PCB (UN1).</li> </ol>                       |
| <b>E012-0000--</b>           | <b>Error in startup of Main Motor</b>                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Detection Description</b> | The revolution of the Fixing Motor did not reach the specified value.                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the Main Motor (M701) and the Low Voltage Power Supply PCB (UN2).</li> <li>2. Check the harness/connector between the Low Voltage Power Supply PCB (UN2) and the Engine Controller PCB (UN1).</li> <li>3. Replace the Main Motor (M701).</li> <li>4. Replace the Low Voltage Power Supply PCB (UN2).</li> <li>5. Replace the Engine Controller PCB (UN1).</li> </ol> |
| <b>E012-0001--</b>           | <b>Main Motor rotation error</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Detection Description</b> | The revolution of the Main Motor was out of the specified range.                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the Main Motor (M701) and the Low Voltage Power Supply PCB (UN2).</li> <li>2. Check the harness/connector between the Low Voltage Power Supply PCB (UN2) and the Engine Controller PCB (UN1).</li> <li>3. Replace the Main Motor (M701).</li> <li>4. Replace the Low Voltage Power Supply PCB (UN2).</li> <li>5. Replace the Engine Controller PCB (UN1).</li> </ol> |

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| <b>E015-0000--</b>           | <b>Main Motor error</b>                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Detection Description</b> | An error was detected in the Main Motor.                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the Main Motor (M701) and the Low Voltage Power Supply PCB (UN2).</li> <li>2. Check the harness/connector between the Low Voltage Power Supply PCB (UN2) and the Engine Controller PCB (UN1).</li> <li>3. Replace the Main Motor (M701).</li> <li>4. Replace the Low Voltage Power Supply PCB (UN2).</li> <li>5. Replace the Engine Controller PCB (UN1).</li> </ol> |
| <b>E020-0000--</b>           | <b>Error in Color Displacement/Density Sensor</b>                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Detection Description</b> | An error in the Color Displacement/Density Sensor was detected.                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the RD Sensor (UN3) and the Engine Controller PCB (UN1).</li> <li>2. Replace the RD Sensor (UN3).</li> <li>3. Replace the Engine Controller PCB (UN1).</li> </ol>                                                                                                                                                                                                    |
| <b>E052-0000--</b>           | <b>Duplex Feed Unit absent error</b>                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Detection Description</b> | The connection of the Duplex Feed Unit was not correct.                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Replace the Engine Controller PCB (UN1).</li> </ol>                                                                                                                                                                                                                                                                                                                                                      |
| <b>E066-0000--</b>           | <b>Environment Sensor error</b>                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Detection Description</b> | An error in the Environment Sensor was detected.                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connectors between the Environment Sensor (UN10) and the Engine Controller PCB (UN1).</li> <li>2. Replace the Environment Sensor (UN10).</li> <li>3. Replace the Engine Controller PCB (UN1).</li> </ol>                                                                                                                                                                               |
| <b>E110-0000--</b>           | <b>Pseudo BD detection error</b>                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Detection Description</b> | The error is detected when the completion of pseudo BD measurement is not notified within the specified period of time after the pseudo BD generation.                                                                                                                                                                                                                                                                                             |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the Laser Scanner Unit and the Engine Controller PCB (UN1).</li> <li>2. Replace the Laser Scanner Unit.</li> <li>3. Replace the Engine Controller PCB (UN1).</li> </ol>                                                                                                                                                                                              |
| <b>E196-0000--</b>           | <b>DC Controller error</b>                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Detection Description</b> | The update of the DC Controller failed.                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Install the set of controller firmware.</li> <li>2. Replace the Engine Controller PCB (UN1).</li> </ol>                                                                                                                                                                                                                                                                                                  |
| <b>E196-1000--</b>           | <b>ROM writing/reading error (Main ROM)</b>                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Detection Description</b> | Error in writing/reading of main program in the Main Controller PCB (Main ROM).                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Update the firmware.</li> <li>2. Replace the Main Controller PCB (UN30).</li> </ol>                                                                                                                                                                                                                                                                                                                      |
| <b>E196-2000--</b>           | <b>ROM writing/reading error (ROM for storing setting values)</b>                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Detection Description</b> | Error in writing/reading of the setting values storage area in the Main Controller PCB (ROM for storing setting values).                                                                                                                                                                                                                                                                                                                           |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Update the firmware.</li> <li>2. Replace the Main Controller PCB (UN30).</li> </ol>                                                                                                                                                                                                                                                                                                                      |
| <b>E196-3000--</b>           | <b>ROM writing/reading error (eMMC)</b>                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Detection Description</b> | Unable to read/write data from the eMMC.<br>The eMMC failure occurred.                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Update the firmware.</li> <li>2. Replace the Main Controller PCB (UN30).</li> </ol>                                                                                                                                                                                                                                                                                                                      |

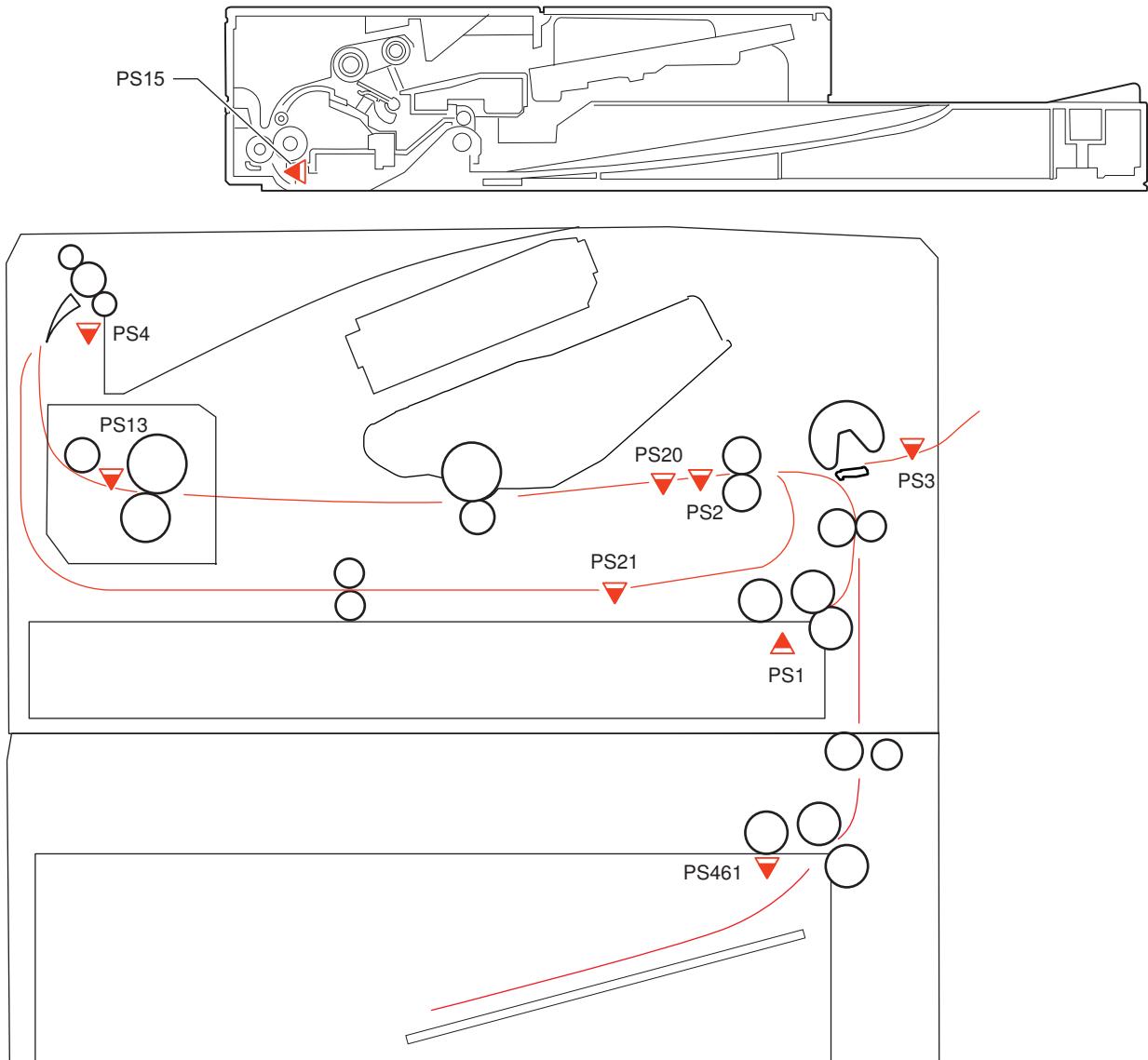
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| <b>E196-3001--</b>           | <b>ROM-ID mismatch (eMMC)</b>                                                                                                                                                                                                                                                                                              |
| <b>Detection Description</b> | The eMMC has been replaced wrongly.<br>The eMMC failure occurred.                                                                                                                                                                                                                                                          |
| <b>Remedy</b>                | 1. Update the firmware.<br>2. Replace the Main Controller PCB (UN30).                                                                                                                                                                                                                                                      |
| <b>E198-0000--</b>           | <b>Engine Controller memory failure</b>                                                                                                                                                                                                                                                                                    |
| <b>Detection Description</b> | An error in the nonvolatile memory on the Engine Controller PCB.                                                                                                                                                                                                                                                           |
| <b>Remedy</b>                | 1. Turn OFF and then ON the power and check if the symptom occurs again.<br>2. Replace the Engine Controller PCB (UN1).                                                                                                                                                                                                    |
| <b>E202-0001--</b>           | <b>CIS Unit HP error (outward)</b>                                                                                                                                                                                                                                                                                         |
| <b>Detection Description</b> | The CIS Unit could not detect the home position when starting a scanning operation.                                                                                                                                                                                                                                        |
| <b>Remedy</b>                | 1. Check the harness/connector connecting from the Main Controller PCB (UN30) to the CIS HP Sensor (SR11) and the Reader Motor (M5).<br>2. Replace the CIS HP Sensor (SR11).<br>3. Replace the Reader Motor (M5).<br>4. Replace the CIS Unit.<br>5. Replace the Reader Unit.<br>6. Replace the Main Controller PCB (UN30). |
| <b>E202-0002--</b>           | <b>CIS Unit HP error (homeward)</b>                                                                                                                                                                                                                                                                                        |
| <b>Detection Description</b> | The CIS Unit could not detect the home position when completing a scanning operation.                                                                                                                                                                                                                                      |
| <b>Remedy</b>                | 1. Check the harness/connector connecting from the Main Controller PCB (UN30) to the CIS HP Sensor (SR11) and the Reader Motor (M5).<br>2. Replace the CIS HP Sensor (SR11).<br>3. Replace the Reader Motor (M5).<br>4. Replace the CIS Unit.<br>5. Replace the Reader Unit.<br>6. Replace the Main Controller PCB (UN30). |
| <b>E246-0000--</b>           | <b>System error</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detection Description</b> | System error                                                                                                                                                                                                                                                                                                               |
| <b>Remedy</b>                | Contact the sales company.                                                                                                                                                                                                                                                                                                 |
| <b>E247-0000--</b>           | <b>System error</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detection Description</b> | System error                                                                                                                                                                                                                                                                                                               |
| <b>Remedy</b>                | Contact the sales company.                                                                                                                                                                                                                                                                                                 |
| <b>E302-0001--</b>           | <b>Shading error</b>                                                                                                                                                                                                                                                                                                       |
| <b>Detection Description</b> | When the light intensity is below the reference level at shading                                                                                                                                                                                                                                                           |
| <b>Remedy</b>                | 1. Turn OFF and then ON the main power.<br>2. Disconnect and then connect the Flat Cable of the Reader Unit.<br>3. Replace the Flat Cable of the Reader Unit.<br>4. Replace the CIS Unit.<br>5. Replace the Main Controller PCB(UN30).                                                                                     |
| <b>E302-0002--</b>           | <b>Shading error</b>                                                                                                                                                                                                                                                                                                       |
| <b>Detection Description</b> | Image sampling for shading was not completed.                                                                                                                                                                                                                                                                              |
| <b>Remedy</b>                | 1. Turn OFF and then ON the main power.<br>2. Check the connection of the harness of the Reader Unit.<br>3. Replace the Main Controller PCB(UN30).<br>4. Replace the Reader Unit.                                                                                                                                          |
| <b>E350-0000--</b>           | <b>System error</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detection Description</b> | System error                                                                                                                                                                                                                                                                                                               |
| <b>Remedy</b>                | Contact the sales company.                                                                                                                                                                                                                                                                                                 |

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| <b>E351-0000--</b>           | <b>Main Controller PCB error (Scanner system)</b>                                                                                                                                                                                                                                                                            |
| <b>Detection Description</b> | System error                                                                                                                                                                                                                                                                                                                 |
| <b>Remedy</b>                | <ul style="list-style-type: none"> <li>1. Update the firmware.</li> <li>2. Replace the Main Controller PCB (UN30).</li> </ul>                                                                                                                                                                                                |
| <b>E354-0000--</b>           | <b>System error</b>                                                                                                                                                                                                                                                                                                          |
| <b>Detection Description</b> | System error                                                                                                                                                                                                                                                                                                                 |
| <b>Remedy</b>                | Contact the sales company.                                                                                                                                                                                                                                                                                                   |
| <b>E355-0000--</b>           | <b>System error</b>                                                                                                                                                                                                                                                                                                          |
| <b>Detection Description</b> | System error                                                                                                                                                                                                                                                                                                                 |
| <b>Remedy</b>                | Contact the sales company.                                                                                                                                                                                                                                                                                                   |
| <b>E355-0004--</b>           | <b>System error</b>                                                                                                                                                                                                                                                                                                          |
| <b>Detection Description</b> | System error                                                                                                                                                                                                                                                                                                                 |
| <b>Remedy</b>                | Contact the sales company.                                                                                                                                                                                                                                                                                                   |
| <b>E355-0005--</b>           | <b>System error</b>                                                                                                                                                                                                                                                                                                          |
| <b>Detection Description</b> | System error                                                                                                                                                                                                                                                                                                                 |
| <b>Remedy</b>                | Contact the sales company.                                                                                                                                                                                                                                                                                                   |
| <b>E719-0000--</b>           | <b>Error in communication with new Card Reader (serial communication)</b>                                                                                                                                                                                                                                                    |
| <b>Detection Description</b> | Unable to communicate with the new Card Reader.                                                                                                                                                                                                                                                                              |
| <b>Remedy</b>                | <ul style="list-style-type: none"> <li>1. Check the connection of the new Card Reader.</li> </ul>                                                                                                                                                                                                                            |
| <b>E732-0001--</b>           | <b>Scanner communication error</b>                                                                                                                                                                                                                                                                                           |
| <b>Detection Description</b> | Scanner communication error.                                                                                                                                                                                                                                                                                                 |
| <b>Remedy</b>                | <ul style="list-style-type: none"> <li>1. Install the set of controller firmware.</li> <li>2. Replace the Main Controller PCB (UN30).</li> </ul>                                                                                                                                                                             |
| <b>E733-0000--</b>           | <b>Printer communication error</b>                                                                                                                                                                                                                                                                                           |
| <b>Detection Description</b> | A communication error between the Engine Controller PCB and the Main Controller PCB occurred.                                                                                                                                                                                                                                |
| <b>Remedy</b>                | <ul style="list-style-type: none"> <li>1. Check the harness/connector between the Engine Controller PCB (UN1) and the Main Controller PCB (UN30).</li> <li>2. Install the set of controller firmware.</li> <li>3. Replace the Main Controller PCB (UN30).</li> <li>4. Replace the Engine Controller PCB (UN1).</li> </ul>    |
| <b>E733-0001--</b>           | <b>Received message parity error</b>                                                                                                                                                                                                                                                                                         |
| <b>Detection Description</b> | Communication error occurred after successful startup.                                                                                                                                                                                                                                                                       |
| <b>Remedy</b>                | <ul style="list-style-type: none"> <li>1. Turn OFF and then ON the main power.</li> <li>2. Replace the Main Controller PCB.</li> </ul>                                                                                                                                                                                       |
| <b>E733-0004--</b>           | <b>Invalid message reception error</b>                                                                                                                                                                                                                                                                                       |
| <b>Detection Description</b> | Communication error occurred after successful startup.                                                                                                                                                                                                                                                                       |
| <b>Remedy</b>                | <ul style="list-style-type: none"> <li>1. Turn OFF and then ON the main power.</li> <li>2. Replace the Main Controller PCB.</li> </ul>                                                                                                                                                                                       |
| <b>E733-0005--</b>           | <b>Message timeout error</b>                                                                                                                                                                                                                                                                                                 |
| <b>Detection Description</b> | Communication error occurred between the Engine Controller PCB and the Main Controller PCB.                                                                                                                                                                                                                                  |
| <b>Remedy</b>                | <ul style="list-style-type: none"> <li>1. Turn OFF and then ON the power.</li> <li>2. Check the harness/connector connection between the Engine Controller PCB (UN1) and the Main Controller PCB (UN30).</li> <li>3. Replace the Main Controller PCB (UN30).</li> <li>4. Replace the Engine Controller PCB (UN1).</li> </ul> |

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| <b>E733-0006--</b>           | <b>Unknown Communication Error</b>                                                                                                                                                                                                                                                                                           |
| <b>Detection Description</b> | Communication error occurred between the Engine Controller PCB and the Main Controller PCB.                                                                                                                                                                                                                                  |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Turn OFF and then ON the power.</li> <li>2. Check the harness/connector connection between the Engine Controller PCB (UN1) and the Main Controller PCB (UN30).</li> <li>3. Replace the Main Controller PCB (UN30).</li> <li>4. Replace the Engine Controller PCB (UN1).</li> </ol> |
| <b>E733-0007--</b>           | <b>SC Level Error</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detection Description</b> | Communication error occurred between the Engine Controller PCB and the Main Controller PCB.                                                                                                                                                                                                                                  |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Turn OFF and then ON the power.</li> <li>2. Check the harness/connector connection between the Engine Controller PCB (UN1) and the Main Controller PCB (UN30).</li> <li>3. Replace the Main Controller PCB (UN30).</li> <li>4. Replace the Engine Controller PCB (UN1).</li> </ol> |
| <b>E736-0000--</b>           | <b>Fax communication error</b>                                                                                                                                                                                                                                                                                               |
| <b>Detection Description</b> | Communication error with the CCU/modem.                                                                                                                                                                                                                                                                                      |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the connection of the NCU PCB (UN38).</li> <li>2. Replace the NCU PCB (UN38).</li> <li>3. Replace the Main Controller PCB (UN30).</li> </ol>                                                                                                                                 |
| <b>E736-0001--</b>           | <b>Error in ROM for backing up fax data</b>                                                                                                                                                                                                                                                                                  |
| <b>Detection Description</b> | An error occurred in the ROM for backing up fax data.                                                                                                                                                                                                                                                                        |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the connection of the NCU PCB (UN38).</li> <li>2. Replace the NCU PCB (UN38).</li> <li>3. Replace the Main Controller PCB (UN30).</li> </ol>                                                                                                                                 |
| <b>E743-0000--</b>           | <b>DDI communication error</b>                                                                                                                                                                                                                                                                                               |
| <b>Detection Description</b> | Software sequence error                                                                                                                                                                                                                                                                                                      |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Turn OFF and then ON the power.</li> </ol>                                                                                                                                                                                                                                         |
| <b>E744-0001--</b>           | <b>Invalid combination of language file versions</b>                                                                                                                                                                                                                                                                         |
| <b>Detection Description</b> | The language file version did not match that of the main program.                                                                                                                                                                                                                                                            |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Update the firmware.</li> </ol>                                                                                                                                                                                                                                                    |
| <b>E744-0002--</b>           | <b>Language file error</b>                                                                                                                                                                                                                                                                                                   |
| <b>Detection Description</b> | The size of the language file exceeded the allowed size.                                                                                                                                                                                                                                                                     |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Update the firmware.</li> </ol>                                                                                                                                                                                                                                                    |
| <b>E744-1001--</b>           | <b>Version mismatch between BOOTABLE and BOOTROM</b>                                                                                                                                                                                                                                                                         |
| <b>Detection Description</b> | A version mismatch between the main program and the start-up program.                                                                                                                                                                                                                                                        |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Update the firmware.</li> </ol>                                                                                                                                                                                                                                                    |
| <b>E744-4000--</b>           | <b>Invalid engine connection error</b>                                                                                                                                                                                                                                                                                       |
| <b>Detection Description</b> | It was detected that an invalid engine was connected.                                                                                                                                                                                                                                                                        |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check whether a proper Engine Controller PCB (UN1) is installed.</li> <li>2. Update the firmware.</li> <li>3. Replace the Engine Controller PCB (UN1).</li> </ol>                                                                                                                  |
| <b>E744-5000--</b>           | <b>Communication error between Control Panel PCB and Main Controller PCB</b>                                                                                                                                                                                                                                                 |
| <b>Detection Description</b> | Communication with the Control Panel PCB could not be established.                                                                                                                                                                                                                                                           |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the Panel PCB (UN31) and the Main Controller PCB (UN30).</li> <li>2. Replace the Control Panel (including the Panel PCB (UN31)).</li> <li>3. Replace the Main Controller PCB (UN30).</li> </ol>                                                |

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| <b>E744-6000--</b>           | <b>Communication error with Wireless LAN PCB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Detection Description</b> | Communication with the Wireless LAN PCB could not be established.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Turn OFF and then ON the main power.</li> <li>2. Check the harness/connector between the Wireless LAN PCB (UN35) and the Main Controller PCB (UN30).</li> <li>3. Install the set of controller firmware.</li> <li>4. Replace the Wireless LAN PCB (UN35).</li> <li>5. Replace the Main Controller PCB (UN30).</li> </ol>                                                                                                                  |
| <b>E744-7000--</b>           | <b>Backup microcomputer error</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Detection Description</b> | An error in the microcomputer that retains fax job information of the Main Controller PCB.                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Update the firmware.</li> <li>2. Replace the Main Controller PCB (UN30).</li> </ol>                                                                                                                                                                                                                                                                                                                                                       |
| <b>E766-8000--</b>           | <b>Firmware error</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Detection Description</b> | Information on digital registration could not be obtained.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Install the Engine Controller firmware.</li> <li>2. Install the set of controller firmware.</li> <li>3. Replace the Engine Controller PCB (UN1).</li> </ol>                                                                                                                                                                                                                                                                               |
| <b>E766-9000--</b>           | <b>Scanner power state error</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Detection Description</b> | Error in the power state of the Laser Scanner Unit (firmware-dependent).                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Update the firmware.</li> <li>2. Replace the Laser Scanner Unit.</li> </ol>                                                                                                                                                                                                                                                                                                                                                               |
| <b>E804-0004--</b>           | <b>Controller FAN Error</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Detection Description</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Verify power to FAN.</li> <li>2. Replace the FAN</li> <li>3. Check if FAN is connected.</li> </ol>                                                                                                                                                                                                                                                                                                                                        |
| <b>E806-0000--</b>           | <b>Main Fan error</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Detection Description</b> | The Main Fan fails to rotate at the specified rotation speed.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the connection of the Main Fan (FM1).</li> <li>2. Replace the Main Fan (FM1).</li> </ol>                                                                                                                                                                                                                                                                                                                                            |
| <b>E840-0000--</b>           | <b>Pressure release mechanism error</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Detection Description</b> | An error in the pressure release mechanism of the Fixing Assembly was detected.                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Check the harness/connector between the Fixing Pressure Release Switch (SW2) and the Engine Controller PCB (UN1).</li> <li>2. Check the harness/connector between the Fixing Motor (M702) and the Engine Controller PCB (UN1).</li> <li>3. Replace the Fixing Motor (M702).</li> <li>4. Replace the Fixing Assembly (including the Fixing Pressure Release Switch (SW2)).</li> <li>5. Replace the Engine Controller PCB (UN1).</li> </ol> |
| <b>E996-0071--</b>           | <b>Error that can be retried</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Detection Description</b> | Retryable soft logic jam occurred.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Remedy</b>                | <ol style="list-style-type: none"> <li>1. Turn OFF and then ON the power.</li> <li>2. Clear the COPIER &gt; OPTION &gt; FNC-SW/JM-ERR-R of Clear.</li> </ol>                                                                                                                                                                                                                                                                                                                        |

## Jam Code



| Location Code | Jam code | Jam Type                    | Sensor Name         | Sensor No. | Residual Paper Area          |
|---------------|----------|-----------------------------|---------------------|------------|------------------------------|
| 1             | 0001     | Delay Jam                   | Document End Sensor | PS15       | ADF Pickup Feed Area         |
| 1             | 0002     | Stationary Jam              | Document End Sensor | PS15       | ADF Pickup Feed Area         |
| 1             | 0021     | Other                       | Document End Sensor | PS15       | ADF Pickup Feed Area         |
| 1             | 0094     | Initial Residual Jam        | Document End Sensor | PS15       | ADF Pickup Feed Area         |
| 1             | 0071     | Sequence Jam (Timing Error) | -                   | -          | -                            |
| 1             | 0096     | Other                       | -                   | -          | -                            |
| 0             | 0901     | Pickup Delay Jam            | TOP Sensor          | PS2        | Host Machine Pickup Cassette |
| 0             | 0902     |                             |                     |            | Multi-purpose Tray           |
| 0             | 0A01     |                             |                     |            | Host Machine Pickup Cassette |
| 0             | 1107     | Pickup Stationary Jam       | TOP Sensor          | PS2        | Registration to Drum Area    |
| 0             | 1108     |                             |                     |            | Drum to Fixing Area          |

| Location Code | Jam code | Jam Type                       | Sensor Name                                                                                                                   | Sensor No.                   | Residual Paper Area          |
|---------------|----------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------|
| 0             | 1109     | Pickup Stationary Jam          | TOP Sensor                                                                                                                    | PS2                          | Fixing to Delivery Area      |
| 0             | 110A     |                                |                                                                                                                               |                              | Delivery Area                |
| 0             | 1907     | Fixing Delivery Delay Jam      | Fixing Delivery Sensor                                                                                                        | PS13                         | Registration to Drum Area    |
| 0             | 1908     |                                |                                                                                                                               |                              | Drum to Fixing Area          |
| 0             | 1909     |                                |                                                                                                                               |                              | Fixing to Delivery Area      |
| 0             | 190A     |                                |                                                                                                                               |                              | Delivery Area                |
| 0             | 2107     | Fixing Delivery Stationary Jam | Fixing Delivery Sensor                                                                                                        | PS13                         | Registration to Drum Area    |
| 0             | 2108     |                                |                                                                                                                               |                              | Drum to Fixing Area          |
| 0             | 2109     |                                |                                                                                                                               |                              | Fixing to Delivery Area      |
| 0             | 210A     |                                |                                                                                                                               |                              | Delivery Area                |
| 0             | 2907     | Delivery Stationary Jam        | Delivery Tray Full Level Sensor                                                                                               | PS4                          | Registration to Drum Area    |
| 0             | 2908     |                                |                                                                                                                               |                              | Drum to Fixing Area          |
| 0             | 2909     |                                |                                                                                                                               |                              | Fixing to Delivery Area      |
| 0             | 290A     |                                |                                                                                                                               |                              | Delivery Area                |
| 0             | 3107     | Delivery Stationary Jam        | Delivery Tray Full Level Sensor                                                                                               | PS4                          | Registration to Drum Area    |
| 0             | 3108     |                                |                                                                                                                               |                              | Drum to Fixing Area          |
| 0             | 3109     |                                |                                                                                                                               |                              | Fixing to Delivery Area      |
| 0             | 310A     |                                |                                                                                                                               |                              | Delivery Area                |
| 0             | 5907     | Duplex Re-pickup Jam           | TOP Sensor                                                                                                                    | PS2                          | Registration to Drum Area    |
| 0             | 5908     |                                |                                                                                                                               |                              | Drum to Fixing Area          |
| 0             | 5909     |                                |                                                                                                                               |                              | Fixing to Delivery Area      |
| 0             | 590A     |                                |                                                                                                                               |                              | Delivery Area                |
| 0             | 590E     |                                |                                                                                                                               |                              | Duplex Pickup Area           |
| 0             | 6107     | Wrapping Jam                   | Fixing Delivery Sensor                                                                                                        | PS13                         | Registration to Drum Area    |
| 0             | 6108     |                                |                                                                                                                               |                              | Drum to Fixing Area          |
| 0             | 6109     |                                |                                                                                                                               |                              | Fixing to Delivery Area      |
| 0             | 610A     |                                |                                                                                                                               |                              | Delivery Area                |
| 0             | 7101     | Internal Residual Jam          | TOP Sensor/Paper Width Sensor/Fixing Delivery Sensor/Delivery Tray Full Level Sensor/Duplex Feed Sensor/Cassette Paper Sensor | PS2/PS20/PS13/PS21/PS4/PS461 | Host Machine Pickup Cassette |
| 0             | 7102     |                                |                                                                                                                               |                              | Multi-purpose Tray           |
| 0             | 7107     |                                |                                                                                                                               |                              | Registration to Drum Area    |
| 0             | 7108     |                                |                                                                                                                               |                              | Drum to Fixing Area          |
| 0             | 7109     |                                |                                                                                                                               |                              | Fixing to Delivery Area      |
| 0             | 710A     |                                |                                                                                                                               |                              | Delivery Area                |
| 0             | 7202     |                                |                                                                                                                               |                              | Multi-purpose Tray           |
| 0             | 7207     |                                |                                                                                                                               |                              | Registration to Drum Area    |
| 0             | 7208     |                                |                                                                                                                               |                              | Drum to Fixing Area          |
| 0             | 7209     |                                |                                                                                                                               |                              | Fixing to Delivery Area      |
| 0             | 720A     |                                |                                                                                                                               |                              | Delivery Area                |
| 0             | 720E     |                                |                                                                                                                               |                              | Duplex Pickup Area           |

| Location Code | Jam code | Jam Type                     | Sensor Name | Sensor No. | Residual Paper Area          |
|---------------|----------|------------------------------|-------------|------------|------------------------------|
| 0             | 7901     | Door Open Jam                | -           | -          | Host Machine Pickup Cassette |
| 0             | 7902     |                              |             |            | Multi-purpose Tray           |
| 0             | 7907     |                              |             |            | Registration to Drum Area    |
| 0             | 7908     |                              |             |            | Drum to Fixing Area          |
| 0             | 7909     |                              |             |            | Fixing to Delivery Area      |
| 0             | 790A     |                              |             |            | Delivery Area                |
| 0             | 790E     |                              |             |            | Duplex Pickup Area           |
| 0             | 8107     | Feed path paper mismatch jam | -           | -          | Registration to Drum Area    |
| 0             | 8108     |                              |             |            | Drum to Fixing Area          |
| 0             | 8109     |                              |             |            | Fixing to Delivery Area      |
| 0             | 810A     |                              |             |            | Delivery Area                |
| 0             | 0CE0     | Unknown Jam                  | -           | -          | -                            |

## Alarm Code

### Alarm Code Details

#### 10-0100 Toner Cartridge replacement notification alarm (K)

**A. Operation / B. Cause /** Detail Code: 0071  
**C. Remedy** When the replacement with a genuine Toner Cartridge was detected.

#### 10-0100 Unidentified Toner Cartridge replacement notification alarm (K)

**A. Operation / B. Cause /** Detail Code: 0181  
**C. Remedy** When the replacement with a non-genuine Toner Cartridge was detected.

#### 10-0404 Toner Cartridge empty alarm (Bk)

**A. Operation / B. Cause /** Alarm to be generated once the Toner Cartridge becomes empty.  
**C. Remedy**

### Alarm Codes Generated by Remote Monitoring Server

Alarm Codes generated by Remote Monitoring Server are not shown in the alarm log of the host machine.

| Alarm Code | Detail Code | Description                                                       |
|------------|-------------|-------------------------------------------------------------------|
| 010001     | 00000000    | Counter reading irretrievable for a period of time                |
| 010002     | FFFFFFF     | Post-error status notification (status retrieval error)           |
| 010002     | 0FFFFFFF    | Post-error status notification (error occurring but code unknown) |
| 010002     | 00000FFF    | Post-error status notification (normal)                           |
| 010002     | 00000xxx    | Post-error status notification (XXX: code of error occurred)      |
| 010004     | 00000000    | Notification of IP address change                                 |
| 040010     | 00000000    | Jam left unsolved                                                 |
| 100001     | 00000000    | Toner level low (Bk)                                              |
| 100002     | 00000000    | Toner level low (C)                                               |
| 100003     | 00000000    | Toner level low (M)                                               |
| 100004     | 00000000    | Toner level low (Y)                                               |

# 9

## Service Mode

|                                                                       |     |
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| COPIER (Service mode for printer)....                                 | 214 |
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## Overview

### Entering Service Mode

For information on how to enter service mode, contact the Support Dept. of the sales company.

### Backing up Service Mode

Because setting values and management data of the host machine are stored in the eMMC of the Main Controller PCB, they need to be backed up before replacing the Main Controller PCB. (Do not remove the eMMC PCB from Main Controller PCB.) Also, restoration of the backup data is necessary after replacing the Main Controller PCB.

#### **Backup: Connect a USB flash drive to the USB memory port.**

COPIER > FUNCTION > SYSTEM > EXPORT

#### **Restore: Restore backup data of the USB flash drive.**

COPIER > FUNCTION > SYSTEM > IMPORT

#### **NOTE:**

As for the user data (the Settings/Registration data, etc.), be sure to back up the user data before replacing the Main Controller PCB and then restore it after replacement by either of the following methods:

#### **Backup**

- Menu > Management Settings > Data Management > Import/Export > Export
- Remote UI > Settings/Registration > Management Settings > Data Management > Import/Export > Export

#### **Restore**

- Menu > Management Settings > Data Management > Import/Export > Import
- Remote UI > Settings/Registration > Management Settings > Data Management > Import/Export > Import

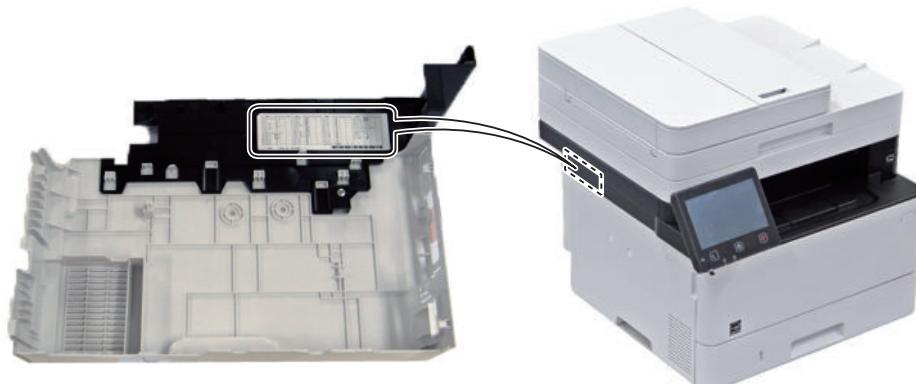
### Service Label

In factory setting, adjustments are made for each machine, and adjustment values are written in the service label.

In the case of the following, adjustment values for ADJUST or OPTION return to default. Therefore, when you made adjustments in the field.

- Changed Main Controller PCB
- Changed Engine Controller PCB
- After RAM clear execution

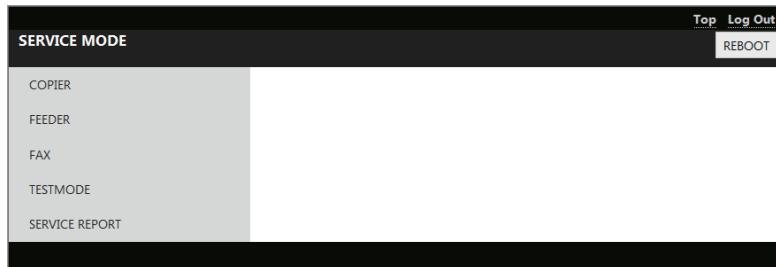
Therefore, when you made adjustments and changed values of the Service Mode in the field, be sure to write down the changed values in the service label. When there is no relevant field in the service label, write down the values in a blank field.



## Remote UI Service Mode

### ■ Function Overview

It is possible to display, configure, and execute various service mode modes as well as restart the host machine by using remote UI.

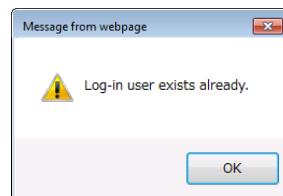


### ■ Operating conditions

In order to operate service mode using Remote UI, the following conditions must be met.

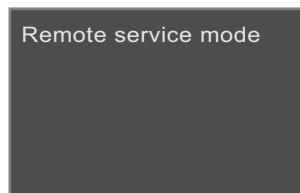
- Service mode is not used on the Control Panel.

If service mode is accessed from the Control Panel of the host machine, "Log-in user exists already." is displayed when service mode is accessed from Remote UI.



- When Remote UI service mode (this function) is not being logged in by other users

When service mode is being accessed from Remote UI, "Remote service mode" is displayed on the UI of the host machine.



- When Remote UI is enabled in the setting on the Control Panel  
[Settings/Registration] > [System Settings] > [Remote UI Settings] > [Use Remote UI] > [ON]
- When the following setting (Remote UI service mode function) is enabled (setting value: 1) in service mode  
COPIER > OPTION > BODY > RMT-SW  
0:OFF(default), 1:ON

### ■ How to Use

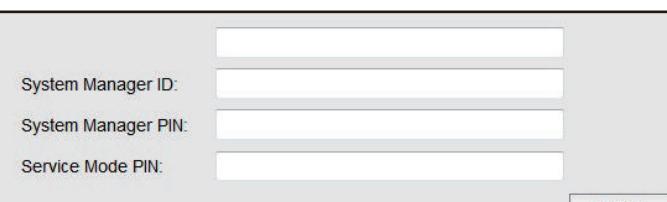
#### 1. Activate the Web browser, and access the following URL:

<http://<Host machine's IP address or host name>/servicemode.html>

**2. Enter the password, and click [LOGIN].**

Password required for authentication differs depending on the following service mode setting: COPIER > OPTION > BODY > PSWD-SW

**Combinations of service mode settings and required passwords**

| PSWD-SW setting value | Password required for authentication                                                                                                                                                                    | Authentication screen                                                              |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 0                     | <ul style="list-style-type: none"> <li>• Password of remote UI service mode</li> </ul>                                                                                                                  |  |
| 1                     | <ul style="list-style-type: none"> <li>• Password of remote UI service mode</li> <li>• Service mode password</li> </ul>                                                                                 |  |
| 2                     | <ul style="list-style-type: none"> <li>• Password of RUI service mode</li> <li>• User's system administrator ID</li> <li>• Password of system administrator</li> <li>• Service mode password</li> </ul> |  |

**NOTE:**

- If you do not know the password of remote UI service mode, contact the Support Dept. of the sales company.
- Password of service mode can be changed in COPIER > OPTION > BODY > SM-PSWD.

**3. If you do not know the password of remote UI service mode, contact the Support Dept. of the sales company. When finishing the operation, click [REBOOT] or [Log Out].**

**NOTE:**

If the user logged in and then closed the browser without logging out, connection status remains as "LOGIN". If the user attempts to log in to service mode under "LOGIN" status, exclusive control is executed so that the user cannot access service mode. In that case, wait for a fixed time (3 minutes) from the last access to let the user be automatically logged out, or turn OFF/ON the power of the machine to be forcibly logged out.

## Service Mode Explanation

The detailed explanation of service mode is indicating the key operation (press the Apply key) for the 5-inch Touch Panel. Note that the key operation is (Press the OK key) for the 5-line LCD model that does not have the Apply key.

## COPIER (Service mode for printer)

### DISPLAY (State display mode)

COPIER (Service mode for printer) > DISPLAY (State display mode)

#### ■ VERSION

COPIER (Service mode for printer) > DISPLAY (State display mode) > VERSION

| MAIN                   | Display of Bootable version                                                                                        |
|------------------------|--------------------------------------------------------------------------------------------------------------------|
| Detail                 | 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  | 00.00 to 99.99                                                                                                     |
| BOOT                   | Display of BootROM version                                                                                         |
| Detail                 | To display the version of Boot ROM (BOOT program).                                                                 |
| Use Case               | When upgrading the firmware                                                                                        |
| Adj/Set/Operate Method | N/A (Display only)                                                                                                 |
| Display/Adj/Set Range  | 00.00 to 99.99                                                                                                     |
| LANG                   | Display of language pack version                                                                                   |
| Detail                 | To display the version of language pack.                                                                           |
| Use Case               | When upgrading the firmware                                                                                        |
| Adj/Set/Operate Method | N/A (Display only)                                                                                                 |
| Display/Adj/Set Range  | 00.00 to 99.99                                                                                                     |
| DEMOPDATA              | Display of demo print data version                                                                                 |
| Detail                 | To display the version of demo print data.<br>For the models not having demo print function, "FF.FF" is displayed. |
| Use Case               | When upgrading the firmware                                                                                        |
| Adj/Set/Operate Method | N/A (Display only)                                                                                                 |
| Display/Adj/Set Range  | 00.00 to 99.99                                                                                                     |
| ECONT                  | Display of DC Controller version                                                                                   |
| Detail                 | To display the version of DC Controller PCB.                                                                       |
| Use Case               | When upgrading the firmware                                                                                        |
| Adj/Set/Operate Method | N/A (Display only)                                                                                                 |
| Display/Adj/Set Range  | 00.00 to 99.99                                                                                                     |
| PANEL                  | Display of firmware version of panel                                                                               |
| Detail                 | To display the firmware version of Control Panel CPU PCB.                                                          |
| Use Case               | When upgrading the firmware                                                                                        |
| Adj/Set/Operate Method | N/A (Display only)                                                                                                 |
| Display/Adj/Set Range  | 00.00 to 99.99                                                                                                     |
| Related Service Mode   | COPIER > FUNCTION > SYSTEM > PANEL-UP                                                                              |

COPIER (Service mode for printer) &gt; DISPLAY (State display mode)

## ■ USER

COPIER (Service mode for printer) &gt; DISPLAY (State display mode) &gt; USER

|                               |                                                                |
|-------------------------------|----------------------------------------------------------------|
| <b>SPDTYPE</b>                | <b>Display of engine speed type</b>                            |
| <b>Detail</b>                 | To display the engine speed type (ppm) of this machine.        |
| <b>Use Case</b>               | When checking the engine speed type                            |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                             |
| <b>Display/Adj/Set Range</b>  | 0 to 99                                                        |
| <b>Default Value</b>          | 0                                                              |
| <b>ERR</b>                    | <b>Error code display screen</b>                               |
| <b>Detail</b>                 | To display the error code and detail code of the system error. |
| <b>Adj/Set/Operate Method</b> | None (display only)                                            |
| <b>Supplement/Memo</b>        | Displays up to 20 items.                                       |
| <b>JAM</b>                    | <b>Jam code display screen</b>                                 |
| <b>Detail</b>                 | To display the location and type of jam.                       |
| <b>Adj/Set/Operate Method</b> | None (display only)                                            |
| <b>Supplement/Memo</b>        | Displays up to 20 items.                                       |
| <b>ALARM-2</b>                | <b>Alarm code 2 display screen</b>                             |
| <b>Detail</b>                 | To display the logs of ALARM-2.                                |
| <b>Adj/Set/Operate Method</b> | None (display only)                                            |
| <b>Supplement/Memo</b>        | Displays up to 20 items.                                       |
| <b>ALARM-3</b>                | <b>Alarm code 3 display screen</b>                             |
| <b>Detail</b>                 | To display the logs of ALARM-3                                 |
| <b>Adj/Set/Operate Method</b> | None (display only)                                            |
| <b>Supplement/Memo</b>        | Displays up to 20 items.                                       |

## ■ CCD

COPIER (Service mode for printer) &gt; DISPLAY (State display mode) &gt; CCD

|                               |                                                                                                                                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TARGET-B</b>               | <b>Display of shading target value (B)</b>                                                                                                           |
| <b>Detail</b>                 | To display the shading target value of Blue.<br>Continuous display of 0 (minimum) or 2048 (maximum) is considered as a failure of the Scanner Unit.  |
| <b>Use Case</b>               | At scanned image failure                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                            |
| <b>Default Value</b>          | 1083                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > ADJUST > CCD > DFTAR-B                                                                                                                      |
| <b>TARGET-G</b>               | <b>Display of shading target value (G)</b>                                                                                                           |
| <b>Detail</b>                 | To display the shading target value of Green.<br>Continuous display of 0 (minimum) or 2048 (maximum) is considered as a failure of the Scanner Unit. |
| <b>Use Case</b>               | At scanned image failure                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                            |
| <b>Default Value</b>          | 1163                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > ADJUST > CCD > DFTAR-G                                                                                                                      |

COPIER (Service mode for printer) &gt; DISPLAY (State display mode)

COPIER (Service mode for printer) &gt; DISPLAY (State display mode) &gt; CCD

|                               |                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TARGET-R</b>               | <b>Display of shading target value (R)</b>                                                                                                                                                                                                                                                                                                                                                    |
| <b>Detail</b>                 | To display the shading target value of Red.<br>Continuous display of 0 (minimum) or 2048 (maximum) is considered as a failure of the Scanner Unit.                                                                                                                                                                                                                                            |
| <b>Use Case</b>               | At scanned image failure                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Default Value</b>          | 1135                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Related Service Mode</b>   | COPIER > ADJUST > CCD > DFTAR-R                                                                                                                                                                                                                                                                                                                                                               |
| <b>TARGETBW</b>               | <b>Display of shading target value (B&amp;W)</b>                                                                                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To display the shading target value at B&W jobs.<br>Continuous display of 0 (minimum) or 2048 (maximum) is considered a failure of the Main Controller PCB.                                                                                                                                                                                                                                   |
| <b>Use Case</b>               | At scanned image failure                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Default Value</b>          | 1072                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Related Service Mode</b>   | COPIER > ADJUST > CCD > DFTAR-BW                                                                                                                                                                                                                                                                                                                                                              |
| <b>BK-SHDST</b>               | <b>Display paper back shading correct result</b>                                                                                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To display the paper back shading correction result.<br>Whether the results of BK-SHD1 and BK-SHD2 are correct is displayed.                                                                                                                                                                                                                                                                  |
| <b>Use Case</b>               | When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: NG<br>1: OK                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BK-SHD1/2                                                                                                                                                                                                                                                                                                                                                           |
| <b>1P-ERR-A</b>               | <b>Display reading result of front/back color difference calibration PG [front side]</b>                                                                                                                                                                                                                                                                                                      |
| <b>Detail</b>                 | To display the result of reading of PG for calibrating color difference between the front and back sides with the Scanner Unit (for front side).<br>If 1 is displayed in both this item and 1P-ERR-B, it means that calibration for color difference on front and back sides has succeeded.                                                                                                   |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Display/Adj/Set Range</b>  | 0 to 8<br>0: Reading is not executed<br>1: Reading is executed<br>2: Reading failed (e.g.: no originals placed, jam)<br>3: Detection of patch edge failed (e.g.: 1st/2nd side of original reversed)<br>4: Failed because the degree of skew of original was too large<br>5: Invalid patch reading value (e.g.: original was upside down)<br>6: Failed due to other causes<br>7 to 8: Not used |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > MISC-R > 1PSCLB-A<br>COPIER > DISPLAY > CCD > 1P-ERR-B                                                                                                                                                                                                                                                                                                                    |

COPIER (Service mode for printer) &gt; DISPLAY (State display mode)

COPIER (Service mode for printer) &gt; DISPLAY (State display mode) &gt; CCD

**1P-ERR-B****Display reading result of front/back color difference calibration PG [back side]**

|                               |                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Detail</b>                 | To display the result of reading of PG for calibrating color difference between the front and back sides with the Scanner Unit (for back side).<br>If 1 is displayed in both this item and 1P-ERR-A, it means that calibration for color difference on front and back sides has succeeded.                                                                                                    |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Display/Adj/Set Range</b>  | 0 to 8<br>0: Reading is not executed<br>1: Reading is executed<br>2: Reading failed (e.g.: no originals placed, jam)<br>3: Detection of patch edge failed (e.g.: 1st/2nd side of original reversed)<br>4: Failed because the degree of skew of original was too large<br>5: Invalid patch reading value (e.g.: original was upside down)<br>6: Failed due to other causes<br>7 to 8: Not used |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > MISC-R > 1PSCLB-B<br>COPIER > DISPLAY > CCD > 1P-ERR-A                                                                                                                                                                                                                                                                                                                    |

## I/O (I/O display mode)

### ■ Reader (R-CON > P001)

| Address | bit | Name                | Symbol | Remarks  |
|---------|-----|---------------------|--------|----------|
| P001    | 7   | -                   | -      | -        |
|         | 6   | -                   | -      | -        |
|         | 5   | -                   | -      | -        |
|         | 4   | -                   | -      | -        |
|         | 3   | -                   | -      | -        |
|         | 2   | CIS HP Sensor       | PS14   | H: HP    |
|         | 1   | Document Sensor     | PS16   | H: Paper |
|         | 0   | Document End Sensor | PS15   | H: Paper |

# ADJUST (Adjustment mode)

## ■ ADJ-XY

COPIER (Service mode for printer) > ADJUST (Adjustment mode) > ADJ-XY

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ADJ-X</b>                  | <b>Adjustment of start position at copyboard reading (vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To adjust the image reading start position (image leading edge position) in the vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB, enter the value of service label.<br>Decrease the value when the non-image width is larger than the standard value.<br>Increase the value when out of original area is copied.<br>As the value is incremented by 1, the image position is moved to the trailing edge side by 0.1 mm. |
| <b>Use Case</b>               | - When replacing the Reader Unit<br>- When replacing the Scanner Unit<br>- When replacing the Main Controller PCB                                                                                                                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | -30 to 30                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ADJ-Y</b>                  | <b>Adjustment of start position at copyboard reading (horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Detail</b>                 | To adjust the image reading start position in the horizontal scanning direction at copyboard reading.<br>When replacing the Main Controller PCB, enter the value of service label.<br>Decrease the value when the non-image width is larger than the standard value.<br>Increase the value when out of original area is copied.<br>As the value is incremented by 1, the image position is moved to the rear side by 0.1 mm.                                      |
| <b>Use Case</b>               | - When replacing the Reader Unit<br>- When replacing the Scanner Unit<br>- When replacing the Main Controller PCB                                                                                                                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | -15 to 15                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ADJ-Y-DF</b>               | <b>Adjustment of start position at stream reading (horizontal scanning direction) [front side]</b>                                                                                                                                                                                                                                                                                                                                                                |
| <b>Detail</b>                 | To adjust the front side image reading start position in horizontal scanning direction at stream reading.<br>When replacing the Main Controller PCB, enter the value of service label.<br>As the value is incremented by 1, the image position is moved to the front side by 0.1 mm.                                                                                                                                                                              |
| <b>Use Case</b>               | - When replacing the DADF<br>- When replacing the Scanner Unit<br>- When replacing the Main Controller PCB                                                                                                                                                                                                                                                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | -15 to 15                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; ADJ-XY

|                               |                                                                                                                                                                                                                                                                                                                            |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ADJY-DF2</b>               | <b>Adjustment of start position at stream reading (horizontal scanning direction) [back side]</b>                                                                                                                                                                                                                          |
| <b>Detail</b>                 | To adjust the back side image reading start position in horizontal scanning direction at stream reading.<br>When replacing the Main Controller PCB, enter the value of service label.<br>As the value is incremented by 1, the image position is moved to the rear side by 0.1 mm.                                         |
| <b>Use Case</b>               | - When replacing the DADF<br>- When replacing the Scanner Unit<br>- When replacing the Main Controller PCB                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                   |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                                                          |
| <b>Display/Adj/Set Range</b>  | -15 to 15                                                                                                                                                                                                                                                                                                                  |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                     |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                          |
| <b>ADJ-X-MG</b>               | <b>Fine adjustment of image magnification ratio at copyboard reading (vertical scanning direction)</b>                                                                                                                                                                                                                     |
| <b>Detail</b>                 | To make a fine adjustment of image magnification ratio in vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>As the value is changed by 1, the image magnification ratio is changed by 0.01 %.<br>+: Enlarge<br>-: Reduce |
| <b>Use Case</b>               | - When replacing the DADF<br>- When replacing the Scanner Unit<br>- When replacing the Main Controller PCB                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                   |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                                                          |
| <b>Display/Adj/Set Range</b>  | -200 to 200                                                                                                                                                                                                                                                                                                                |
| <b>Unit</b>                   | 0.01%                                                                                                                                                                                                                                                                                                                      |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                          |
| <b>STRD-POS</b>               | <b>Adjustment of Scanner Unit position at stream reading (feed direction) [front side]</b>                                                                                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the position of the Scanner Unit on the Reader side in feed direction at stream reading.<br>When replacing the Main Controller PCB, enter the value of service label.<br>The setting is applied to only the image on the front side.                                                                             |
| <b>Use Case</b>               | - When replacing the DADF<br>- When replacing the Scanner Unit<br>- When replacing the Main Controller PCB                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                   |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                                                          |
| <b>Display/Adj/Set Range</b>  | -30 to 20                                                                                                                                                                                                                                                                                                                  |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                     |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                          |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > STRD-POS                                                                                                                                                                                                                                                                                     |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; ADJ-XY

| ADJ-S                         | Adjustment of Reader shading position                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Detail</b>                 | To adjust the position of the Scanner Unit on the Reader side in feed direction when reading the White Plate on the left edge of the Copyboard Glass.<br>When replacing the Scanner Unit, execute RDSHDPOS and write the value of this item in the service label.<br>When clearing the Reader-related RAM data, enter the value of service label.<br>As the value is incremented by 1, the reading position moves to the trailing edge side by 0.1 mm. |
| <b>Use Case</b>               | - When black lines/white lines appear<br>- When replacing the Scanner Unit<br>- When clearing the Reader-related RAM data                                                                                                                                                                                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Display/Adj/Set Range</b>  | -20 to 20                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > RDSHDPOS                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Supplement/Memo</b>        | The shading position can be adjusted automatically by RDSHDPOS.                                                                                                                                                                                                                                                                                                                                                                                        |

## ■ CCD

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

| W-PLT-X                       | Entry of Standard White Plate white level data (X)                                                                                                                                                                                                                            |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Detail</b>                 | To enter the white level data (X) for the Standard White Plate.<br>When replacing the DADF/Reader Unit, Reader Upper Cover Unit or Main Controller PCB, enter "XXXX" of the value (XXXXYYYYZZZZ) shown on the barcode label affixed at the upper left of the Copyboard Glass. |
| <b>Use Case</b>               | - When replacing the DADF/Reader Unit<br>- When replacing the Reader Upper Cover Unit<br>- When replacing the Main Controller PCB                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                            |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                             |
| <b>Display/Adj/Set Range</b>  | 7000 to 9999                                                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 8273                                                                                                                                                                                                                                                                          |
| <b>Related Service Mode</b>   | COPIER > ADJUST > CCD > W-PLT-Y/Z                                                                                                                                                                                                                                             |
| W-PLT-Y                       | Entry of Standard White Plate white level data (Y)                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the white level data (Y) for the Standard White Plate.<br>When replacing the DADF/Reader Unit, Reader Upper Cover Unit or Main Controller PCB, enter "YYYY" of the value (XXXXYYYYZZZZ) shown on the barcode label affixed at the upper left of the Copyboard Glass. |
| <b>Use Case</b>               | - When replacing the DADF/Reader Unit<br>- When replacing the Reader Upper Cover Unit<br>- When replacing the Main Controller PCB                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                            |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                             |
| <b>Display/Adj/Set Range</b>  | 7000 to 9999                                                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 8737                                                                                                                                                                                                                                                                          |
| <b>Related Service Mode</b>   | COPIER > ADJUST > CCD > W-PLT-X/Z                                                                                                                                                                                                                                             |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>W-PLT-Z</b>                | <b>Entry of Standard White Plate white level data (Z)</b>                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Detail</b>                 | To enter the white level data (Z) for the Standard White Plate.<br>When replacing the DADF/Reader Unit, Reader Upper Cover Unit or Main Controller PCB, enter "ZZZZ" of the value (XXXXYYYYZZZZ) shown on the barcode label affixed at the upper left of the Copyboard Glass.                                                                                                                                                                         |
| <b>Use Case</b>               | - When replacing the DADF/Reader Unit<br>- When replacing the Reader Upper Cover Unit<br>- When replacing the Main Controller PCB                                                                                                                                                                                                                                                                                                                     |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Display/Adj/Set Range</b>  | 7000 to 9999                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 9427                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Related Service Mode</b>   | COPIER > ADJUST > CCD > W-PLT-X/Y                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>DFTAR-R</b>                | <b>Shading target VL (R) entry: front side</b>                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the shading target value of Red of the Scanner Unit (for front side) at stream reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>When replacing the DADF/Reader Unit, Scanner Unit, or Reader Upper Cover Unit, execute DF-WLVL1 and DF-WLVL2 and write the value which is automatically set in the service label.<br>The setting is applied to only the image on the front side.   |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing RAM data<br>- When replacing the DADF/Reader Unit<br>- When replacing the Scanner Unit<br>- When replacing the Reader Upper Cover Unit                                                                                                                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Default Value</b>          | 1105                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Related Service Mode</b>   | COPIER > DISPLAY > CCD > TARGET-R<br>COPIER > FUNCTION > CCD > DF-WLVL1/2                                                                                                                                                                                                                                                                                                                                                                             |
| <b>DFTAR-G</b>                | <b>Shading target VL (G) entry: front side</b>                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the shading target value of Green of the Scanner Unit (for front side) at stream reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>When replacing the DADF/Reader Unit, Scanner Unit, or Reader Upper Cover Unit, execute DF-WLVL1 and DF-WLVL2 and write the value which is automatically set in the service label.<br>The setting is applied to only the image on the front side. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing RAM data<br>- When replacing the DADF/Reader Unit<br>- When replacing the Scanner Unit<br>- When replacing the Reader Upper Cover Unit                                                                                                                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Default Value</b>          | 1129                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Related Service Mode</b>   | COPIER > DISPLAY > CCD > TARGET-G<br>COPIER > FUNCTION > CCD > DF-WLVL1/2                                                                                                                                                                                                                                                                                                                                                                             |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DFTAR-B</b>                | <b>Shading target VL (B) entry: front side</b>                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Detail</b>                 | To enter the shading target value of Blue of the Scanner Unit (for front side) at stream reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>When replacing the DADF/Reader Unit, Scanner Unit, or Reader Upper Cover Unit, execute DF-WLVL1 and DF-WLVL2 and write the value which is automatically set in the service label.<br>The setting is applied to only the image on the front side. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing RAM data<br>- When replacing the DADF/Reader Unit<br>- When replacing the Scanner Unit<br>- When replacing the Reader Upper Cover Unit                                                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 1151                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > DISPLAY > CCD > TARGET-B<br>COPIER > FUNCTION > CCD > DF-WLVL1/2                                                                                                                                                                                                                                                                                                                                                                            |
| <b>DFTAR-BW</b>               | <b>Shading target VL (B&amp;W) entry: front</b>                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Detail</b>                 | To enter the B&W shading target value of the Scanner Unit (for front side) at stream reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>When replacing the DADF/Reader Unit, Scanner Unit, or Reader Upper Cover Unit, execute DF-WLVL1 and DF-WLVL2 and write the value which is automatically set in the service label.<br>The setting is applied to only the image on the front side.     |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing RAM data<br>- When replacing the DADF/Reader Unit<br>- When replacing the Scanner Unit<br>- When replacing the Reader Upper Cover Unit                                                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 1072                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > DISPLAY > CCD > TARGETBW<br>COPIER > FUNCTION > CCD > DF-WLVL1/2                                                                                                                                                                                                                                                                                                                                                                            |
| <b>DFTBK-R</b>                | <b>Shading target VL (R) entry: back side</b>                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the shading target value of Red of the Scanner Unit (for back side) at stream reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>When replacing the DADF/Reader Unit, Scanner Unit, or Reader Upper Cover Unit, execute DF-WLVL1 and DF-WLVL2 and write the value which is automatically set in the service label.<br>The setting is applied to only the image on the back side.    |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing RAM data<br>- When replacing the DADF/Reader Unit<br>- When replacing the Scanner Unit<br>- When replacing the Reader Upper Cover Unit                                                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 1105                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > DISPLAY > CCD > TARGET-R<br>COPIER > FUNCTION > CCD > DF-WLVL1/2                                                                                                                                                                                                                                                                                                                                                                            |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DFTBK-G</b>                | <b>Shading target VL (G) entry: back side</b>                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To enter the shading target value of Green of the Scanner Unit (for back side) at stream reading. When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. When replacing the DADF/Reader Unit, Scanner Unit, or Reader Upper Cover Unit, execute DF-WLVL1 and DF-WLVL2 and write the value which is automatically set in the service label. The setting is applied to only the image on the back side. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing RAM data<br>- When replacing the DADF/Reader Unit<br>- When replacing the Scanner Unit<br>- When replacing the Reader Upper Cover Unit                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 1129                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Related Service Mode</b>   | COPIER > DISPLAY > CCD > TARGET-G<br>COPIER > FUNCTION > CCD > DF-WLVL1/2                                                                                                                                                                                                                                                                                                                                                                  |
| <b>DFTBK-B</b>                | <b>Shading target VL (B) entry: back side</b>                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To enter the shading target value of Blue of the Scanner Unit (for back side) at stream reading. When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. When replacing the DADF/Reader Unit, Scanner Unit, or Reader Upper Cover Unit, execute DF-WLVL1 and DF-WLVL2 and write the value which is automatically set in the service label. The setting is applied to only the image on the back side.  |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing RAM data<br>- When replacing the DADF/Reader Unit<br>- When replacing the Scanner Unit<br>- When replacing the Reader Upper Cover Unit                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 1151                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Related Service Mode</b>   | COPIER > DISPLAY > CCD > TARGET-B<br>COPIER > FUNCTION > CCD > DF-WLVL1/2                                                                                                                                                                                                                                                                                                                                                                  |
| <b>DFTBK-BW</b>               | <b>Shading target VL (B&amp;W) entry: back</b>                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Detail</b>                 | To enter the B&W shading target value of the Scanner Unit (for back side) at stream reading. When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. When replacing the DADF/Reader Unit, Scanner Unit, or Reader Upper Cover Unit, execute DF-WLVL1 and DF-WLVL2 and write the value which is automatically set in the service label. The setting is applied to only the image on the back side.      |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing RAM data<br>- When replacing the DADF/Reader Unit<br>- When replacing the Scanner Unit<br>- When replacing the Reader Upper Cover Unit                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>  | 0 to 2048                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 1072                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Related Service Mode</b>   | COPIER > DISPLAY > CCD > TARGETBW<br>COPIER > FUNCTION > CCD > DF-WLVL1/2                                                                                                                                                                                                                                                                                                                                                                  |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                              |  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>50-RG</b>                  | <b>Color displacement correction for R and G lines at 50% copyboard reading</b>                                                                                                                                              |  |
| <b>Detail</b>                 | To correct the color displacement between R and G lines in vertical scanning direction that occurs at 50% copyboard reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                     |  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                     |  |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                            |  |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                  |  |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                   |  |
| <b>Default Value</b>          | -333                                                                                                                                                                                                                         |  |
| <b>Supplement/Memo</b>        | 50% reading: 300 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                               |  |
| <b>50-GB</b>                  | <b>Color displacement correction for G and B lines at 50% copyboard reading</b>                                                                                                                                              |  |
| <b>Detail</b>                 | To correct the color displacement between G and B lines in vertical scanning direction that occurs at 50% copyboard reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                     |  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                     |  |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                            |  |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                  |  |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                   |  |
| <b>Default Value</b>          | 333                                                                                                                                                                                                                          |  |
| <b>Supplement/Memo</b>        | 50% reading: 300 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                               |  |
| <b>100-RG</b>                 | <b>Color displacement correction for R and G lines at 100% copyboard reading</b>                                                                                                                                             |  |
| <b>Detail</b>                 | To correct the color displacement between R and G lines in vertical scanning direction that occurs at 100% copyboard reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                     |  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                     |  |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                            |  |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                  |  |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                   |  |
| <b>Default Value</b>          | -333                                                                                                                                                                                                                         |  |
| <b>Supplement/Memo</b>        | 100 reading: 600 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                               |  |
| <b>100-GB</b>                 | <b>Color displacement correction for G and B lines at 100% copyboard reading</b>                                                                                                                                             |  |
| <b>Detail</b>                 | To correct the color displacement between G and B lines in vertical scanning direction that occurs at 100% copyboard reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                     |  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                     |  |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                            |  |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                  |  |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                   |  |
| <b>Default Value</b>          | 333                                                                                                                                                                                                                          |  |
| <b>Supplement/Memo</b>        | 100 reading: 600 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                               |  |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                                                                                     |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>50DF-RG</b>                | <b>Color displacement correction for R and G lines at 50% DADF reading [front side]</b>                                                                                                                                                                                             |
| <b>Detail</b>                 | To correct the color displacement between R and G lines in vertical scanning direction that occurs at 50% DADF mode.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to only the image on the front side.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                            |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                            |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                                                                         |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | -333                                                                                                                                                                                                                                                                                |
| <b>Supplement/Memo</b>        | 50% reading: 300 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                                                                                      |
| <b>50DF-GB</b>                | <b>Color displacement correction for G and B lines at 50% DADF reading [front side]</b>                                                                                                                                                                                             |
| <b>Detail</b>                 | To correct the color displacement between G and B lines in vertical scanning direction that occurs at 50% DADF mode.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to only the image on the front side.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                            |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                            |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                                                                         |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 333                                                                                                                                                                                                                                                                                 |
| <b>Supplement/Memo</b>        | 50% reading: 300 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                                                                                      |
| <b>100DF-RG</b>               | <b>Color displacement correction for R and G lines at 100% DADF mode [front side]</b>                                                                                                                                                                                               |
| <b>Detail</b>                 | To correct the color displacement between R and G lines in vertical scanning direction that occurs at 100% DADF mode.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to only the image on the front side. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                            |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                            |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                                                                         |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | -333                                                                                                                                                                                                                                                                                |
| <b>Supplement/Memo</b>        | 100 reading: 600 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                                                                                      |
| <b>100DF-GB</b>               | <b>Color displacement correction for G and B lines at 100% DADF mode [front side]</b>                                                                                                                                                                                               |
| <b>Detail</b>                 | To correct the color displacement between G and B lines in vertical scanning direction that occurs at 100% DADF mode.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to only the image on the front side. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                            |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                            |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                                                                         |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 333                                                                                                                                                                                                                                                                                 |
| <b>Supplement/Memo</b>        | 100 reading: 600 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                                                                                      |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                                                                                    |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>50DF2RG</b>                | <b>Color displacement correction for R and G lines at 50% DADF reading [back side]</b>                                                                                                                                                                                             |
| <b>Detail</b>                 | To correct the color displacement between R and G lines in vertical scanning direction that occurs at 50% DADF mode.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to only the image on the back side.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                           |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                                                                        |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                                                                         |
| <b>Default Value</b>          | -333                                                                                                                                                                                                                                                                               |
| <b>Supplement/Memo</b>        | 50% reading: 300 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                                                                                     |
| <b>50DF2GB</b>                | <b>Color displacement correction for G and B lines at 50% DADF reading [back side]</b>                                                                                                                                                                                             |
| <b>Detail</b>                 | To correct the color displacement between G and B lines in vertical scanning direction that occurs at 50% DADF mode.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to only the image on the back side.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                           |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                                                                        |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                                                                         |
| <b>Default Value</b>          | 333                                                                                                                                                                                                                                                                                |
| <b>Supplement/Memo</b>        | 50% reading: 300 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                                                                                     |
| <b>100DF2RG</b>               | <b>Color displacement correction for R and G lines at 100% DADF reading [back side]</b>                                                                                                                                                                                            |
| <b>Detail</b>                 | To correct the color displacement between R and G lines in vertical scanning direction that occurs at 100% DADF mode.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to only the image on the back side. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                           |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                                                                        |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                                                                         |
| <b>Default Value</b>          | -333                                                                                                                                                                                                                                                                               |
| <b>Supplement/Memo</b>        | 100 reading: 600 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                                                                                     |
| <b>100DF2GB</b>               | <b>Color displacement correction for G and B lines at 100% DADF reading [back side]</b>                                                                                                                                                                                            |
| <b>Detail</b>                 | To correct the color displacement between G and B lines in vertical scanning direction that occurs at 100% DADF mode.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to only the image on the back side. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                           |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | -512 to 512                                                                                                                                                                                                                                                                        |
| <b>Unit</b>                   | 0.001 line                                                                                                                                                                                                                                                                         |
| <b>Default Value</b>          | 333                                                                                                                                                                                                                                                                                |
| <b>Supplement/Memo</b>        | 100 reading: 600 dpi in horizontal scanning direction x 600 dpi in vertical scanning direction                                                                                                                                                                                     |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MTF2-M1</b>                | <b>Entry of MTF value 1 (DADF, front side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MTF2-M2</b>                | <b>Entry of MTF value 2 (DADF, front side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MTF2-M3</b>                | <b>Entry of MTF value 3 (DADF, front side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MTF2-M4</b>                | <b>Entry of MTF value 4 (DADF, front side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MTF2-M5</b>                | <b>Entry of MTF value 5 (DADF, front side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MTF2-M6</b>                | <b>Entry of MTF value 6 (DADF, front side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MTF2-M7</b>                | <b>Entry of MTF value 7 (DADF, front side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MTF2-M8</b>                | <b>Entry of MTF value 8 (DADF, front side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MTF2-M9</b>                | <b>Entry of MTF value 9 (DADF, front side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MTF2-S1</b>                | <b>Entry of MTF value 1 (DADF, front side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                           |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit.   |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MTF2-S2</b>                | <b>Entry of MTF value 2 (DADF, front side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                           |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit.   |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>MTF2-S3</b>                | <b>Entry of MTF value 3 (DADF, front side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                           |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit.   |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                   |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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| <b>MTF2-S4</b>                | <b>Entry of MTF value 4 (DADF, front side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF2-S5</b>                | <b>Entry of MTF value 5 (DADF, front side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF2-S6</b>                | <b>Entry of MTF value 6 (DADF, front side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF2-S7</b>                | <b>Entry of MTF value 7 (DADF, front side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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| <b>MTF2-S8</b>                | <b>Entry of MTF value 8 (DADF, front side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF2-S9</b>                | <b>Entry of MTF value 9 (DADF, front side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the front side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF-M1</b>                 | <b>Entry of MTF value 1 (Copyboard, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit.                   |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF-M2</b>                 | <b>Entry of MTF value 2 (Copyboard, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit.                   |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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| <b>MTF-M3</b>                 | <b>Entry of MTF value 3 (Copyboard, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                               |
| <b>MTF-M4</b>                 | <b>Entry of MTF value 4 (Copyboard, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                               |
| <b>MTF-M5</b>                 | <b>Entry of MTF value 5 (Copyboard, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                               |
| <b>MTF-M6</b>                 | <b>Entry of MTF value 6 (Copyboard, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                               |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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| <b>MTF-M7</b>                 | <b>Entry of MTF value 7 (Copyboard, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                               |
| <b>MTF-M8</b>                 | <b>Entry of MTF value 8 (Copyboard, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                               |
| <b>MTF-M9</b>                 | <b>Entry of MTF value 9 (Copyboard, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                               |
| <b>MTF-S1</b>                 | <b>Entry of MTF value 1 (Copyboard, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit.   |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                               |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MTF-S2</b>                 | <b>Entry of MTF value 2 (Copyboard, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                             |
| <b>MTF-S3</b>                 | <b>Entry of MTF value 3 (Copyboard, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                             |
| <b>MTF-S4</b>                 | <b>Entry of MTF value 4 (Copyboard, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                             |
| <b>MTF-S5</b>                 | <b>Entry of MTF value 5 (Copyboard, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                             |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MTF-S6</b>                 | <b>Entry of MTF value 6 (Copyboard, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                             |
| <b>MTF-S7</b>                 | <b>Entry of MTF value 7 (Copyboard, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                             |
| <b>MTF-S8</b>                 | <b>Entry of MTF value 8 (Copyboard, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                             |
| <b>MTF-S9</b>                 | <b>Entry of MTF value 9 (Copyboard, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction at copyboard reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for front side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for front side)                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                             |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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| <b>MTF3-M1</b>                | <b>Entry of MTF value 1 (DADF, back side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF3-M2</b>                | <b>Entry of MTF value 2 (DADF, back side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF3-M3</b>                | <b>Entry of MTF value 3 (DADF, back side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF3-M4</b>                | <b>Entry of MTF value 4 (DADF, back side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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| <b>MTF3-M5</b>                | <b>Entry of MTF value 5 (DADF, back side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF3-M6</b>                | <b>Entry of MTF value 6 (DADF, back side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF3-M7</b>                | <b>Entry of MTF value 7 (DADF, back side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF3-M8</b>                | <b>Entry of MTF value 8 (DADF, back side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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| <b>MTF3-M9</b>                | <b>Entry of MTF value 9 (DADF, back side, horizontal scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in horizontal scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF3-S1</b>                | <b>Entry of MTF value 1 (DADF, back side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                          |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit.   |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF3-S2</b>                | <b>Entry of MTF value 2 (DADF, back side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                          |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit.   |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>MTF3-S3</b>                | <b>Entry of MTF value 3 (DADF, back side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                          |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit.   |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                                 |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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| <b>MTF3-S4</b>                | <b>Entry of MTF value 4 (DADF, back side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                               |
| <b>MTF3-S5</b>                | <b>Entry of MTF value 5 (DADF, back side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                               |
| <b>MTF3-S6</b>                | <b>Entry of MTF value 6 (DADF, back side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                               |
| <b>MTF3-S7</b>                | <b>Entry of MTF value 7 (DADF, back side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                               |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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| <b>MTF3-S8</b>                | <b>Entry of MTF value 8 (DADF, back side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                               |
| <b>MTF3-S9</b>                | <b>Entry of MTF value 9 (DADF, back side, vertical scanning direction)</b>                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To enter the setting value for calculating MTF filter coefficient in vertical scanning direction on the back side at DADF stream reading.<br>When replacing the Main Controller PCB/clearing the Reader-related RAM data, enter the value of the service label on the reader.<br>When replacing the Scanner Unit (for back side), enter the value of service label on a new unit. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB/clearing the Reader-related RAM data<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 100                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 100                                                                                                                                                                                                                                                                                                                                                                               |
| <b>OFST-BW0</b>               | <b>Adjustment of Image Reading Sensor 1 offset (front, B&amp;W, 300dpi)</b>                                                                                                                                                                                                                                                                                                       |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for front side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.                                                                                                                                           |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                                                                                                                                                                                  |
| <b>OFST-BW1</b>               | <b>Adjustment of Image Reading Sensor 2 offset (front, B&amp;W, 300dpi)</b>                                                                                                                                                                                                                                                                                                       |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 2 (Center) of the Scanner Unit (for front side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.                                                                                                                                         |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                                                                                                                                                                                  |
| <b>OFST-BW2</b>               | <b>Adjustment of Image Reading Sensor 3 offset (front, B&amp;W, 300dpi)</b>                                                                                                                                                                                                                                                                                                       |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 3 (Front) of the Scanner Unit (for front side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.                                                                                                                                          |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                                                                                                                                                                                  |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

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| <b>OFST2BW0</b>               | <b>Adjustment of Image Reading Sensor 1 offset (front, B&amp;W, 600dpi)</b>                                                                                                                                                               |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for front side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                                          |
| <b>OFST2BW1</b>               | <b>Adjustment of Image Reading Sensor 2 offset (front, B&amp;W, 600dpi)</b>                                                                                                                                                               |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 2 (Center) of the Scanner Unit (for front side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                                          |
| <b>OFST2BW2</b>               | <b>Adjustment of Image Reading Sensor 3 offset (front, B&amp;W, 600dpi)</b>                                                                                                                                                               |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 3 (Front) of the Scanner Unit (for front side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                                          |
| <b>OF-BW0BK</b>               | <b>Adjustment of Image Reading Sensor 1 offset (back, B&amp;W, 300dpi)</b>                                                                                                                                                                |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for back side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.    |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                                         |
| <b>OF-BW1BK</b>               | <b>Adjustment of Image Reading Sensor 2 offset (back, B&amp;W, 300dpi)</b>                                                                                                                                                                |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 2 (Center) of the Scanner Unit (for back side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                                         |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OF-BW2BK</b>               | <b>Adjustment of Image Reading Sensor 3 offset (back, B&amp;W, 300dpi)</b>                                                                                                                                                               |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 3 (Front) of the Scanner Unit (for back side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                                        |
| <b>OF2BW0BK</b>               | <b>Adjustment of Image Reading Sensor 1 offset (back, B&amp;W, 600dpi)</b>                                                                                                                                                               |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for back side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                                        |
| <b>OF2BW1BK</b>               | <b>Adjustment of Image Reading Sensor 2 offset (back, B&amp;W, 600dpi)</b>                                                                                                                                                               |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 2 (Center) of the Scanner Unit (for back side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                                        |
| <b>OF2BW2BK</b>               | <b>Adjustment of Image Reading Sensor 3 offset (back, B&amp;W, 600dpi)</b>                                                                                                                                                               |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 3 (Front) of the Scanner Unit (for back side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                                        |
| <b>OFST-CL0</b>               | <b>Adjustment of Image Reading Sensor 1 offset (front, Color, 300dpi)</b>                                                                                                                                                                |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for front side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                                         |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                                           |
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| <b>OFST-CL1</b>               | <b>Adjustment of Image Reading Sensor 2 offset (front, Color, 300dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 2 (Center) of the Scanner Unit (for front side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                                          |
| <b>OFST-CL2</b>               | <b>Adjustment of Image Reading Sensor 3 offset (front, Color, 300dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 3 (Front) of the Scanner Unit (for front side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                                          |
| <b>OFST2CL0</b>               | <b>Adjustment of Image Reading Sensor 1 offset (front, Color, 600dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for front side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB / clearing RAM data                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                                          |
| <b>Supplement/Memo</b>        | The offset value is automatically updated by executing CL-AGC.                                                                                                                                                                            |
| <b>OFST2CL1</b>               | <b>Adjustment of Image Reading Sensor 2 offset (front, Color, 600dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 2 (Center) of the Scanner Unit (for front side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB / clearing RAM data                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                                          |
| <b>Supplement/Memo</b>        | The offset value is automatically updated by executing CL-AGC.                                                                                                                                                                            |
| <b>OFST2CL2</b>               | <b>Adjustment of Image Reading Sensor 3 offset (front, Color, 600dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 3 (Front) of the Scanner Unit (for front side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB / clearing RAM data                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                                          |
| <b>Supplement/Memo</b>        | The offset value is automatically updated by executing CL-AGC.                                                                                                                                                                            |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                                          |
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| <b>OF-CL0BK</b>               | <b>Adjustment of Image Reading Sensor 1 offset (back, Color, 300dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for back side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                                        |
| <b>OF-CL1BK</b>               | <b>Adjustment of Image Reading Sensor 2 offset (back, Color, 300dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 2 (Center) of the Scanner Unit (for back side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                                        |
| <b>OF-CL2BK</b>               | <b>Adjustment of Image Reading Sensor 3 offset (back, Color, 300dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 3 (Front) of the Scanner Unit (for back side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                                        |
| <b>OF2CL0BK</b>               | <b>Adjustment of Image Reading Sensor 1 offset (back, Color, 600dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for back side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                                        |
| <b>OF2CL1BK</b>               | <b>Adjustment of Image Reading Sensor 2 offset (back, Color, 600dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 2 (Center) of the Scanner Unit (for back side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                                        |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OF2CL2BK</b>               | <b>Adjustment of Image Reading Sensor 3 offset (back, Color, 600dpi)</b>                                                                                                                                                                |
| <b>Detail</b>                 | To adjust the offset (black level) of the Image Reading Sensor 3 (Front) of the Scanner Unit (for back side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                       |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                                       |
| <b>GAIN-BW0</b>               | <b>Adjustment of Image Reading Sensor 1 gain (front, B&amp;W, 300dpi)</b>                                                                                                                                                               |
| <b>Detail</b>                 | To adjust the gain of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for front side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.                 |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 255                                                                                                                                                                                                                                |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                       |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                                        |
| <b>GAIN2BW0</b>               | <b>Adjustment of Image Reading Sensor 1 gain (front, B&amp;W, 600dpi)</b>                                                                                                                                                               |
| <b>Detail</b>                 | To adjust the gain of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for front side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.                 |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 65535                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 10                                                                                                                                                                                                                                      |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                                        |
| <b>GAIN-CL0</b>               | <b>Adjustment of Image Reading Sensor 1 gain (front, Color, 300dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the gain of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for front side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.                 |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 65535                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 10                                                                                                                                                                                                                                      |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                                        |
| <b>GAIN2CL0</b>               | <b>Adjustment of Image Reading Sensor 2 gain (front, Color, 600dpi)</b>                                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the gain of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for front side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.                 |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 65535                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 10                                                                                                                                                                                                                                      |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                                        |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                        |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GA-BW0BK</b>               | <b>Adjustment of Image Reading Sensor 1 gain (back, B&amp;W, 300dpi)</b>                                                                                                                                               |
| <b>Detail</b>                 | To adjust the gain of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for back side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                     |
| <b>Display/Adj/Set Range</b>  | 0 to 65535                                                                                                                                                                                                             |
| <b>Default Value</b>          | 10                                                                                                                                                                                                                     |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                      |
| <b>GA2BW0BK</b>               | <b>Adjustment of Image Reading Sensor 1 gain (back, B&amp;W, 600dpi)</b>                                                                                                                                               |
| <b>Detail</b>                 | To adjust the gain of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for back side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                     |
| <b>Display/Adj/Set Range</b>  | 0 to 65535                                                                                                                                                                                                             |
| <b>Default Value</b>          | 10                                                                                                                                                                                                                     |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                      |
| <b>GA-CL0BK</b>               | <b>Adjustment of Image Reading Sensor 1 gain (back, Color, 300dpi)</b>                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the gain of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for back side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                     |
| <b>Display/Adj/Set Range</b>  | 0 to 65535                                                                                                                                                                                                             |
| <b>Default Value</b>          | 10                                                                                                                                                                                                                     |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                      |
| <b>GA2CL0BK</b>               | <b>Adjustment of Image Reading Sensor 1 gain (back, Color, 600dpi)</b>                                                                                                                                                 |
| <b>Detail</b>                 | To adjust the gain of the Image Reading Sensor 1 (Rear) of the Scanner Unit (for back side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                     |
| <b>Display/Adj/Set Range</b>  | 0 to 65535                                                                                                                                                                                                             |
| <b>Default Value</b>          | 10                                                                                                                                                                                                                     |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                      |
| <b>LED-BW-R</b>               | <b>Adjustment of Scanner Unit R color LED lighting time (front, B&amp;W, 300dpi)</b>                                                                                                                                   |
| <b>Detail</b>                 | To adjust the lighting time of the red color LED of the Scanner Unit (for front side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.       |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                     |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                              |
| <b>Default Value</b>          | 609                                                                                                                                                                                                                    |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                       |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                    |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LED-BW-G</b>               | <b>Adjustment of Scanner Unit G color LED lighting time (front, B&amp;W, 300dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the green color LED of the Scanner Unit (for front side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                          |
| <b>Default Value</b>          | 609                                                                                                                                                                                                                |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                   |
| <b>LED-BW-B</b>               | <b>Adjustment of Scanner Unit B color LED lighting time (front, B&amp;W, 300dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the blue color LED of the Scanner Unit (for front side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                          |
| <b>Default Value</b>          | 609                                                                                                                                                                                                                |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                   |
| <b>LED2BW-R</b>               | <b>Adjustment of Scanner Unit R color LED lighting time (front, B&amp;W, 600dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the red color LED of the Scanner Unit (for front side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                          |
| <b>Default Value</b>          | 1121                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                   |
| <b>LED2BW-G</b>               | <b>Adjustment of Scanner Unit G color LED lighting time (front, B&amp;W, 600dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the green color LED of the Scanner Unit (for front side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                          |
| <b>Default Value</b>          | 1121                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                   |
| <b>LED2BW-B</b>               | <b>Adjustment of Scanner Unit B color LED lighting time (front, B&amp;W, 600dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the blue color LED of the Scanner Unit (for front side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                          |
| <b>Default Value</b>          | 1121                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC                                                                                                                                                                                   |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                    |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LED-CL-R</b>               | <b>Adjustment of Scanner Unit R color LED lighting time (front, Color, 300dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the red color LED of the Scanner Unit (for front side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                          |
| <b>Default Value</b>          | 865                                                                                                                                                                                                                |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                   |
| <b>LED-CL-G</b>               | <b>Adjustment of Scanner Unit G color LED lighting time (front, Color, 300dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the green color LED of the Scanner Unit (for front side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                          |
| <b>Default Value</b>          | 865                                                                                                                                                                                                                |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                   |
| <b>LED-CL-B</b>               | <b>Adjustment of Scanner Unit B color LED lighting time (front, Color, 300dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the blue color LED of the Scanner Unit (for front side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                          |
| <b>Default Value</b>          | 865                                                                                                                                                                                                                |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                   |
| <b>LED2CL-R</b>               | <b>Adjustment of Scanner Unit R color LED lighting time (front, Color, 600dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the red color LED of the Scanner Unit (for front side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                          |
| <b>Default Value</b>          | 1377                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                   |
| <b>LED2CL-G</b>               | <b>Adjustment of Scanner Unit G color LED lighting time (front, Color, 600dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the green color LED of the Scanner Unit (for front side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                          |
| <b>Default Value</b>          | 1377                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                   |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LED2CL-B</b>               | <b>Adjustment of Scanner Unit B color LED lighting time (front, Color, 600dpi)</b>                                                                                                                                |
| <b>Detail</b>                 | To adjust the lighting time of the blue color LED of the Scanner Unit (for front side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 1377                                                                                                                                                                                                              |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC                                                                                                                                                                                  |
| <b>LE-BWRBK</b>               | <b>Adjustment of Scanner Unit R color LED lighting time (back, B&amp;W, 300dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the red color LED of the Scanner Unit (for back side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 609                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                 |
| <b>LE-BWGBK</b>               | <b>Adjustment of Scanner Unit G color LED lighting time (back, B&amp;W, 300dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the green color LED of the Scanner Unit (for back side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 609                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                 |
| <b>LE-BWBBK</b>               | <b>Adjustment of Scanner Unit B color LED lighting time (back, B&amp;W, 300dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the blue color LED of the Scanner Unit (for back side) in black mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 609                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                 |
| <b>LE2BWRBK</b>               | <b>Adjustment of Scanner Unit R color LED lighting time (back, B&amp;W, 600dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the red color LED of the Scanner Unit (for back side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 1121                                                                                                                                                                                                              |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                 |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LE2BWGBK</b>               | <b>Adjustment of Scanner Unit G color LED lighting time (back, B&amp;W, 600dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the green color LED of the Scanner Unit (for back side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 1121                                                                                                                                                                                                              |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                 |
| <b>LE2BWBBK</b>               | <b>Adjustment of Scanner Unit B color LED lighting time (back, B&amp;W, 600dpi)</b>                                                                                                                               |
| <b>Detail</b>                 | To adjust the lighting time of the blue color LED of the Scanner Unit (for back side) in black mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 1121                                                                                                                                                                                                              |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2                                                                                                                                                                                 |
| <b>LE-CLRBK</b>               | <b>Adjustment of Scanner Unit R color LED lighting time (back, Color, 300dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the red color LED of the Scanner Unit (for back side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 865                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                 |
| <b>LE-CLGBK</b>               | <b>Adjustment of Scanner Unit G color LED lighting time (back, Color, 300dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the green color LED of the Scanner Unit (for back side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 865                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                 |
| <b>LE-CLBBK</b>               | <b>Adjustment of Scanner Unit B color LED lighting time (back, Color, 300dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the blue color LED of the Scanner Unit (for back side) in color mode with 300 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 865                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                 |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                                                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LE2CLRBK</b>               | <b>Adjustment of Scanner Unit R color LED lighting time (back, Color, 600dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the red color LED of the Scanner Unit (for back side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 1377                                                                                                                                                                                                              |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                 |
| <b>LE2CLGBK</b>               | <b>Adjustment of Scanner Unit G color LED lighting time (back, Color, 600dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the green color LED of the Scanner Unit (for back side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 1377                                                                                                                                                                                                              |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                 |
| <b>LE2CLBBK</b>               | <b>Adjustment of Scanner Unit B color LED lighting time (back, Color, 600dpi)</b>                                                                                                                                 |
| <b>Detail</b>                 | To adjust the lighting time of the blue color LED of the Scanner Unit (for back side) in color mode with 600 dpi.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 4096                                                                                                                                                                                                         |
| <b>Default Value</b>          | 1377                                                                                                                                                                                                              |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2                                                                                                                                                                                 |
| <b>LNR-GA-R</b>               | <b>Adjustment of front/back linearity gain correction coefficient (R color)</b>                                                                                                                                   |
| <b>Detail</b>                 | To adjust the red color gain correction coefficient of the front/back side linearity.                                                                                                                             |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 65535                                                                                                                                                                                                        |
| <b>Default Value</b>          | 10000                                                                                                                                                                                                             |
| <b>LNR-GA-G</b>               | <b>Adjustment of front/back linearity gain correction coefficient (G color)</b>                                                                                                                                   |
| <b>Detail</b>                 | To adjust the green color gain correction coefficient of the front/back side linearity.                                                                                                                           |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 65535                                                                                                                                                                                                        |
| <b>Default Value</b>          | 10000                                                                                                                                                                                                             |
| <b>LNR-GA-B</b>               | <b>Adjustment of front/back linearity gain correction coefficient (B color)</b>                                                                                                                                   |
| <b>Detail</b>                 | To adjust the blue color gain correction coefficient of the front/back side linearity.                                                                                                                            |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 65535                                                                                                                                                                                                        |
| <b>Default Value</b>          | 10000                                                                                                                                                                                                             |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; CCD

|                               |                                                                                           |
|-------------------------------|-------------------------------------------------------------------------------------------|
| <b>LNR-OF-R</b>               | <b>Adjustment of front/back linearity offset correction coefficient (R color)</b>         |
| <b>Detail</b>                 | To adjust the red color offset correction coefficient of the front/back side linearity.   |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                        |
| <b>Display/Adj/Set Range</b>  | -128 to 127                                                                               |
| <b>Default Value</b>          | 0                                                                                         |
| <b>LNR-OF-G</b>               | <b>Adjustment of front/back linearity offset correction coefficient (G color)</b>         |
| <b>Detail</b>                 | To adjust the green color offset correction coefficient of the front/back side linearity. |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                        |
| <b>Display/Adj/Set Range</b>  | -128 to 127                                                                               |
| <b>Default Value</b>          | 0                                                                                         |
| <b>LNR-OF-B</b>               | <b>Adjustment of front/back linearity gain correction coefficient (B color)</b>           |
| <b>Detail</b>                 | To adjust the blue color offset correction coefficient of the front/back side linearity.  |
| <b>Use Case</b>               | When replacing the Main Controller PCB/clearing RAM data                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                        |
| <b>Display/Adj/Set Range</b>  | -128 to 127                                                                               |
| <b>Default Value</b>          | 0                                                                                         |

## ■ PASCAL

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; PASCAL

|                               |                                                                                                                                                                                                                                                                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OFST-P-K</b>               | <b>Adjustment of Bk-color density at test print reading</b>                                                                                                                                                                                                                  |
| <b>Detail</b>                 | To adjust the offset of Bk-color test print reading signal at auto gradation adjustment (full adjustment).<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>As the value is larger, the image after adjustment gets darker. |
| <b>Use Case</b>               | - When replacing the Reader Unit<br>- When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                     |
| <b>Caution</b>                | After the setting value is changed, write the changed value in the service label.                                                                                                                                                                                            |
| <b>Display/Adj/Set Range</b>  | -128 to 128                                                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                            |

## ■ FEED-ADJ

COPIER (Service mode for printer) > ADJUST (Adjustment mode) > FEED-ADJ

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ADJ-MFY</b>                   | <b>Adjustment of write start position in feed direction at Multi-purpose Tray pickup (1-sided print/2nd side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                    | To adjust the image write start position in the feed direction at the time of pickup from the Multi-purpose Tray.<br>As the value is changed by 1, the leading edge margin is changed by 0.001 mm.<br>+: Leading edge margin becomes larger. (An image moves to the trailing edge side.)<br>-: Leading edge margin becomes smaller. (An image moves to the leading edge side.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 1-sided print and the 2nd side at 2-sided print. |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>ADJ-MFX</b>                   | <b>Adjustment of write start position in horizontal scanning direction at Multi-purpose Tray pickup (1-sided print/2nd side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                    | To adjust the write start position in the horizontal scanning direction for the image on the 1st side at the time of pickup from the Multi-purpose Tray.<br>As the value is changed by 1, the left margin is changed by 0.001 mm.<br>+: Left margin becomes larger. (An image moves to the right.)<br>-: Left margin becomes smaller. (An image moves to the left.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 1-sided print and the 2nd side at 2-sided print.            |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; FEED-ADJ

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ADJ-MFYR</b>                  | <b>Adjustment of write start position in feed direction at Multi-purpose Tray pickup (1st side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                    | To adjust the write start position in the feed direction for the image on the 2nd side at the time of pickup from the Multi-purpose Tray.<br>As the value is changed by 1, the leading edge margin is changed by 0.001 mm.<br>+: Leading edge margin becomes larger. (An image moves to the trailing edge side.)<br>-: Leading edge margin becomes smaller. (An image moves to the leading edge side.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 2-sided print. |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ADJ-MFXR</b>                  | <b>Adjustment of write start position in horizontal scanning direction at Multi-purpose Tray pickup (1st side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Detail</b>                    | To adjust the write start position in the horizontal scanning direction for the image on the 2nd side at the time of pickup from the Multi-purpose Tray.<br>As the value is changed by 1, the left margin is changed by 0.001 mm.<br>+: Left margin becomes larger. (An image moves to the right.)<br>-: Left margin becomes smaller. (An image moves to the left.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 2-sided print.                                    |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; FEED-ADJ

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>ADJ-C1Y</b>                   | <b>Adjustment of write start position in feed direction at Cassette 1 pickup (1-sided print/2nd side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                    | To adjust the image write start position in the feed direction at the time of pickup from the Cassette 1.<br>As the value is changed by 1, the leading edge margin is changed by 0.001 mm.<br>+: Leading edge margin becomes larger. (An image moves to the trailing edge side.)<br>-: Leading edge margin becomes smaller. (An image moves to the leading edge side.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 1-sided print and the 2nd side at 2-sided print. |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ADJ-C1X</b>                   | <b>Adjustment of write start position in horizontal scanning direction at Cassette 1 pickup (1-sided print/2nd side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                    | To adjust the write start position in the horizontal scanning direction for the image on the 1st side at the time of pickup from the Cassette 1.<br>As the value is changed by 1, the left margin is changed by 0.001 mm.<br>+: Left margin becomes larger. (An image moves to the right.)<br>-: Left margin becomes smaller. (An image moves to the left.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 1-sided print and the 2nd side at 2-sided print.            |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; FEED-ADJ

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ADJ-C1YR</b>                  | <b>Adjustment of write start position in feed direction at Cassette 1 pickup (1st side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                    | To adjust the write start position in the feed direction for the image on the 2nd side at the time of pickup from the Cassette 1.<br>As the value is changed by 1, the leading edge margin is changed by 0.001 mm.<br>+: Leading edge margin becomes larger. (An image moves to the trailing edge side.)<br>-: Leading edge margin becomes smaller. (An image moves to the leading edge side.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 2-sided print. |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ADJ-C1XR</b>                  | <b>Adjustment of write start position in horizontal scanning direction at Cassette 1 pickup (1st side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Detail</b>                    | To adjust the write start position in the horizontal scanning direction for the image on the 2nd side at the time of pickup from the Cassette 1.<br>As the value is changed by 1, the left margin is changed by 0.001 mm.<br>+: Left margin becomes larger. (An image moves to the right.)<br>-: Left margin becomes smaller. (An image moves to the left.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 2-sided print.                                    |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; FEED-ADJ

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>ADJ-C2Y</b>                   | <b>Adjustment of write start position in feed direction at Cassette 2 pickup (1-sided print/2nd side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                    | To adjust the image write start position in the feed direction at the time of pickup from the Cassette 2.<br>As the value is changed by 1, the leading edge margin is changed by 0.001 mm.<br>+: Leading edge margin becomes larger. (An image moves to the trailing edge side.)<br>-: Leading edge margin becomes smaller. (An image moves to the leading edge side.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 1-sided print and the 2nd side at 2-sided print. |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ADJ-C2X</b>                   | <b>Adjustment of write start position in horizontal scanning direction at Cassette 2 pickup (1-sided print/2nd side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                    | To adjust the write start position in the horizontal scanning direction for the image on the 1st side at the time of pickup from the Cassette 2.<br>As the value is changed by 1, the left margin is changed by 0.001 mm.<br>+: Left margin becomes larger. (An image moves to the right.)<br>-: Left margin becomes smaller. (An image moves to the left.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 1-sided print and the 2nd side at 2-sided print.            |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; FEED-ADJ

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ADJ-C2YR</b>                  | <b>Adjustment of write start position in feed direction at Cassette 2 pickup (1st side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                    | To adjust the write start position in the feed direction for the image on the 2nd side at the time of pickup from the Cassette 2.<br>As the value is changed by 1, the leading edge margin is changed by 0.001 mm.<br>+: Leading edge margin becomes larger. (An image moves to the trailing edge side.)<br>-: Leading edge margin becomes smaller. (An image moves to the leading edge side.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 2-sided print. |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ADJ-C2XR</b>                  | <b>Adjustment of write start position in horizontal scanning direction at Cassette 2 pickup (1st side of 2-sided print)</b>                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Detail</b>                    | To adjust the write start position in the horizontal scanning direction for the image on the 2nd side at the time of pickup from the Cassette 2.<br>As the value is changed by 1, the left margin is changed by 0.001 mm.<br>+: Left margin becomes larger. (An image moves to the right.)<br>-: Left margin becomes smaller. (An image moves to the left.)<br>When replacing the DC Controller PCB/clearing RAM data, enter the value of service label.<br>The setting is applied to the 1st side at 2-sided print.                                    |
| <b>Use Case</b>                  | When replacing the DC Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b>    | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Caution</b>                   | This setting is linked with the setting of [Adjust Print Position] in [Settings/Registration].<br>The setting value is not cleared even if COPIER> FUNCTION> CLEAR> SRVC-DAT is executed.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Display/Adj/Set Range</b>     | -5080 to 5080                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Unit</b>                      | 0.001 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Related Service Mode</b>      | COPIER > FUNCTION > CLEAR > SRVC-DAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Additional Functions Mode</b> | Adjustment/Maintenance > Adjust Image Quality > Adjust Print Position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## ■ PANEL

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; PANEL

|                               |                                                                                                                                       |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>TOUCHCHK</b>               | <b>Adjustment of Touch Panel coordinate position</b>                                                                                  |
| <b>Detail</b>                 | To adjust the coordinate position on the Touch Panel of the Control Panel.<br>By making adjustment, the setting of TOUCH-R becomes 1. |
| <b>Use Case</b>               | When replacing the LCD Panel                                                                                                          |
| <b>Adj/Set/Operate Method</b> | 1) Select the item, and then press Yes key.<br>2) Press the nine "+" keys in sequence.                                                |
| <b>Related Service Mode</b>   | COPIER > ADJUST > PANEL > TOUCH-R                                                                                                     |

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; PANEL

| TOUCH-R                | Result of Touch Panel coordinate position adjustment                                                                                                                                          |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Detail                 | To set whether adjustment of the coordinate position on the Touch Panel of the Control Panel is completed.<br>When adjustment with TOUCHCHK is completed, the setting of this item becomes 1. |
| Use Case               | When replacing the LCD Panel                                                                                                                                                                  |
| Adj/Set/Operate Method | Enter the setting value, and then press Apply key.                                                                                                                                            |
| Display/Adj/Set Range  | 0 to 1<br>0: Not completed<br>1: Completed                                                                                                                                                    |
| Default Value          | 0                                                                                                                                                                                             |
| Related Service Mode   | COPIER > ADJUST > PANEL > TOUCHCHK                                                                                                                                                            |

## ■ VIFADJ

COPIER (Service mode for printer) &gt; ADJUST (Adjustment mode) &gt; VIFADJ

| DEV-HV-K               | Adjustment of developing bias setting value (Bk)                                         |
|------------------------|------------------------------------------------------------------------------------------|
| Detail                 | To adjust the setting value of Bk-color developing bias.                                 |
| Use Case               | When an image failure occurs                                                             |
| Adj/Set/Operate Method | Enter the setting value (switch negative/positive by +/- key), and then press Apply key. |
| Display/Adj/Set Range  | -5 to 5                                                                                  |
| Default Value          | 0                                                                                        |
| Related Service Mode   | COPIER > ADJUST > VIFADJ > DEV-HV-Y/M/C                                                  |

| FU-TMP                 | Adjustment of Fixing Film surface temperature setting value                              |
|------------------------|------------------------------------------------------------------------------------------|
| Detail                 | To adjust the setting value of the surface temperature of the Fixing Film.               |
| Use Case               | When an image failure occurs                                                             |
| Adj/Set/Operate Method | Enter the setting value (switch negative/positive by +/- key), and then press Apply key. |
| Display/Adj/Set Range  | -2 to 2                                                                                  |
| Default Value          | 0                                                                                        |

| CRG-HV-K               | Adjustment of primary charging bias setting value (Bk)                                   |
|------------------------|------------------------------------------------------------------------------------------|
| Detail                 | To adjust the setting value of Bk-color primary charging bias.                           |
| Use Case               | When an image failure occurs                                                             |
| Adj/Set/Operate Method | Enter the setting value (switch negative/positive by +/- key), and then press Apply key. |
| Display/Adj/Set Range  | -5 to 5                                                                                  |
| Default Value          | 0                                                                                        |

| LS-PWR-K               | Adjustment of laser light emission setting value (Bk)                                    |
|------------------------|------------------------------------------------------------------------------------------|
| Detail                 | To adjust the laser light emission setting value of Bk-color.                            |
| Use Case               | When an image failure occurs                                                             |
| Adj/Set/Operate Method | Enter the setting value (switch negative/positive by +/- key), and then press Apply key. |
| Display/Adj/Set Range  | -4 to 4                                                                                  |
| Default Value          | 0                                                                                        |

| TR-HV                  | Adjustment of transfer bias setting value                                                |
|------------------------|------------------------------------------------------------------------------------------|
| Detail                 | To adjust the transfer bias setting value when ATVC control is executed.                 |
| Use Case               | When an image failure occurs                                                             |
| Adj/Set/Operate Method | Enter the setting value (switch negative/positive by +/- key), and then press Apply key. |
| Display/Adj/Set Range  | -5 to 5                                                                                  |
| Default Value          | 0                                                                                        |

# FUNCTION (Operation / inspection mode)

## ■ INSTALL

COPIER (Service mode for printer) > FUNCTION (Operation / inspection mode) > INSTALL

|                               |                                                                                                                                                                                                                                       |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>STRD-POS</b>               | <b>Automatic adjustment of reading position at stream reading</b>                                                                                                                                                                     |
| <b>Detail</b>                 | To automatically adjust the Scanner Unit position in feed direction when stream reading original with DADF.<br>The adjustment result is reflected to COPIER> ADJUST> ADJ-XY> STRD-POS.                                                |
| <b>Use Case</b>               | - At DADF installation/uninstallation<br>- When replacing the Scanner Unit/clearing RAM data                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | 1) Close the DADF.<br>2) Select the item, and then press Yes key.<br>The operation automatically stops after the adjustment.<br>3) Write the value displayed by COPIER> ADJUST> ADJ-XY> STRD-POS in the service label.                |
| <b>Caution</b>                | Write the adjusted value in the service label.                                                                                                                                                                                        |
| <b>Required Time</b>          | 10 sec                                                                                                                                                                                                                                |
| <b>Related Service Mode</b>   | COPIER > ADJUST > ADJ-XY > STRD-POS                                                                                                                                                                                                   |
| <b>CARD-NUM</b>               | <b>Card first number setting</b>                                                                                                                                                                                                      |
| <b>Detail</b>                 | To set the card first number to be used for Copy Card Reader.                                                                                                                                                                         |
| <b>Use Case</b>               | At installation of the Card Reader                                                                                                                                                                                                    |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                    |
| <b>Display/Adj/Set Range</b>  | 1 to 2701                                                                                                                                                                                                                             |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                     |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > CARD                                                                                                                                                                                                    |
| <b>CARD</b>                   | <b>Setting of Copy Card Reader management information</b>                                                                                                                                                                             |
| <b>Detail</b>                 | To set the following management information at installation of the Card Reader.<br>- Register numbers of 300 cards from the number set in CARD-NUM to the department ID.<br>- Initialize ID and password of the system administrator. |
| <b>Use Case</b>               | At installation of the Card Reader                                                                                                                                                                                                    |
| <b>Adj/Set/Operate Method</b> | 1) Select the item, and then press Yes key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                  |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > CARD-NUM                                                                                                                                                                                                |
| <b>ERDS</b>                   | <b>ON/OFF of Embedded-RDS</b>                                                                                                                                                                                                         |
| <b>Detail</b>                 | To set whether to use the Embedded-RDS function.                                                                                                                                                                                      |
| <b>Use Case</b>               | When using Embedded-RDS                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                        |
| <b>Caution</b>                | Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set.                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF<br>1: ON                                                                                                                                                                                                             |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > RGW-PORT, COM-TEST, COM-RSLT, COM-LOG                                                                                                                                                                   |
| <b>Supplement/Memo</b>        | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to Remote Monitoring Server via SOAP protocol                                                                                  |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; INSTALL

|                               |                                                                                                                                                                                                                                       |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RGW-PORT</b>               | <b>Setting of Remote Monitoring Server port number when using Embedded-RDS</b>                                                                                                                                                        |
| <b>Detail</b>                 | To set the port number of Remote Monitoring Server to be used for Embedded-RDS.                                                                                                                                                       |
| <b>Use Case</b>               | When using Embedded-RDS                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                        |
| <b>Caution</b>                | Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set.                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 1 to 65535                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 443                                                                                                                                                                                                                                   |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > ERDS, COM-TEST, COM-RSLT, COM-LOG                                                                                                                                                                       |
| <b>Supplement/Memo</b>        | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to the sales company's server via SOAP protocol                                                                                |
| <b>COM-TEST</b>               | <b>Execution of Embedded-RDS communication test</b>                                                                                                                                                                                   |
| <b>Detail</b>                 | To execute Embedded-RDS communication test.<br>If the connection fails, the information is added to the communication error log.                                                                                                      |
| <b>Use Case</b>               | When using E-RDS                                                                                                                                                                                                                      |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                              |
| <b>Caution</b>                | Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set.                                                                                                                                                              |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > ERDS, RGW-PORT, COM-RSLT, COM-LOG                                                                                                                                                                       |
| <b>Supplement/Memo</b>        | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to Remote Monitoring Server via SOAP protocol                                                                                  |
| <b>COM-RSLT</b>               | <b>Display of Embedded-RDS comctn test result</b>                                                                                                                                                                                     |
| <b>Detail</b>                 | To display the Embedded-RDS communication test result.                                                                                                                                                                                |
| <b>Use Case</b>               | When using E-RDS                                                                                                                                                                                                                      |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                                    |
| <b>Caution</b>                | Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set.                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | When not in execution: Unknown<br>When connection is completed: OK<br>When connection is failed: NG                                                                                                                                   |
| <b>Default Value</b>          | Unknown                                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > ERDS, RGW-PORT, COM-TEST, COM-LOG                                                                                                                                                                       |
| <b>Supplement/Memo</b>        | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to Remote Monitoring Server via SOAP protocol                                                                                  |
| <b>COM-LOG</b>                | <b>Display of Embedded-RDS comctn error log</b>                                                                                                                                                                                       |
| <b>Detail</b>                 | To display the Embedded-RDS communication error log.<br>The dates, times, and error codes of the latest 5 errors that occurred are displayed.<br>As for the error detail information, the report can be output by executing ERDS-LOG. |
| <b>Use Case</b>               | When using Embedded-RDS                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                                    |
| <b>Caution</b>                | Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set.                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | Date: 6 digits<br>Time: 4 digits<br>Error code: 8 digits                                                                                                                                                                              |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > ERDS, RGW-PORT, COM-TEST, COM-RSLT<br>COPIER > FUNCTION > MISC-P > ERDS-LOG                                                                                                                             |
| <b>Supplement/Memo</b>        | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to Remote Monitoring Server via SOAP protocol                                                                                  |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; INSTALL

| <b>RGW-ADSW</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Remote Monitoring Server connection destination settings for Embedded-RDS</b> |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>Detail</b>                 | To change the server URL that the Embedded-RDS uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                  |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                  |
| <b>Caution</b>                | Com-TEST needs to be executed to reflect the settings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                  |
| <b>Display/Adj/Set Range</b>  | 1 to 2<br>1 : SHA2<br>2 : D1 Environment (for testing)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                  |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                  |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > COM-TEST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                  |
| <b>Supplement/Memo</b>        | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to Remote Monitoring Server via SOAP protocol                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                  |
| <b>CDS-CTL</b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Set country/area when using CDS</b>                                           |
| <b>Detail</b>                 | To set country/area to enable CDS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                  |
| <b>Use Case</b>               | When enabling CDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                  |
| <b>Adj/Set/Operate Method</b> | 1) Select the item, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                  |
| <b>Caution</b>                | If the setting value is not configured to be the same as the country/region of the vice-company of sales, the necessary firmware may not be able to be downloaded.                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 9999<br>Japan: 392, USA: 840, Great Britain: 826, France: 250, Germany: 276, Italy: 380, Australia: 36, Singapore: 702, Netherlands: 528, Korea: 410, China: 156, Taiwan: 158, Spain: 724, Sweden: 752, Portugal: 620, Norway: 578, Denmark: 208, Finland: 246, Poland: 616, Hungary: 348, Czech Republic: 203, Slovenia: 705, Greece: 300, Estonia: 233, Russia: 643, Slovakia: 703, Romania: 642, Croatia: 191, Bulgaria: 100, Turkey: 792, Thailand: 764, Vietnam: 704, Argentina: 32, India: 356, Canada: 124, Hong Kong: 344, Ukraine: 804, Latin America: 1001 |                                                                                  |
| <b>Default Value</b>          | It differs according to the location.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                  |
| <b>Supplement/Memo</b>        | If a country code that is not in the setting is input, it is set as a default destination.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                  |
| <b>CDS-CTL-VIEW</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Display of input results of CDS-CTL</b>                                       |
| <b>Detail</b>                 | Display of input results of CDS-CTL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                  |
| <b>Adj/Set/Operate Method</b> | Display only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                  |
| <b>Display/Adj/Set Range</b>  | JP: Japan, US: USA, GB: Great Britain, FR: France, DE: Germany, IT: Italy, 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 Republic, SI: Slovenia, GR: Greece, EE: Estonia, RU: Russia, SK: Slovakia, RO: Romania, HR: Croatia, BG: Bulgaria, TR: Turkey, TH: Thailand, VN: Vietnam, AR: Argentina, IN: India, CA: Canada, LA: Latin America, HK: Hong Kong, UA: Ukraine                                                   |                                                                                  |
| <b>Default Value</b>          | It differs according to the location.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                  |
| <b>CDS-COM-TEST</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>CDS communication test execution</b>                                          |
| <b>Detail</b>                 | To execute Content Delivery System communication test.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                  |
| <b>Use Case</b>               | When enabling CDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                  |
| <b>Adj/Set/Operate Method</b> | 1) Select the item and then press Yes key.<br>2) Check the result from CDS-COM-RSLT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                  |
| <b>CDS-COM-RSLT</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>COM-TEST execution result display</b>                                         |
| <b>Detail</b>                 | To display the execution result of CDS-COM-TEST by the simple display.<br>The execution result is kept even when the main power is turned OFF/ON.                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                  |
| <b>Use Case</b>               | When checking the execution result of Content Delivery System communication test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                  |
| <b>Adj/Set/Operate Method</b> | Display only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                  |
| <b>Display/Adj/Set Range</b>  | OK, NG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                  |

## ■ CCD

COPIER (Service mode for printer) > FUNCTION (Operation / inspection mode) > CCD

|                               |                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DF-WLVL1</b>               | <b>White level adjustment at copyboard reading (Color)</b>                                                                                                                                                                                                                                                                                                                          |
| <b>Detail</b>                 | To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass.                                                                                                                                                                                                                                       |
| <b>Use Case</b>               | <ul style="list-style-type: none"> <li>- When replacing the Copyboard Glass</li> <li>- When replacing the Scanner Unit</li> <li>- When replacing the Main Controller PCB/clearing RAM data</li> </ul>                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | <ol style="list-style-type: none"> <li>1) Set a paper on the Copyboard Glass.</li> <li>2) Select the item, and then press Yes key.</li> </ol>                                                                                                                                                                                                                                       |
| <b>Caution</b>                | Be sure to execute DF-WLVL2 in a row.                                                                                                                                                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > DF-WLVL2                                                                                                                                                                                                                                                                                                                                                  |
| <b>Supplement/Memo</b>        | The Scanner Unit (for front side) calculates the white level correction coefficient based on the luminance at copyboard reading detected with DF-WLVL1, the luminance at stream reading detected with DF-WLVL2, and the luminance at stream reading that the Scanner Unit (for back side) detected with DF-WLVL2.                                                                   |
| <b>CL-AGC</b>                 | <b>Adjustment of Scanner Unit (front) B&amp;W reference at stream reading (Color)</b>                                                                                                                                                                                                                                                                                               |
| <b>Detail</b>                 | <p>To automatically adjust the black/white reference level of the Scanner Unit (for front side) at stream reading in color mode.</p> <p>To make the adjustment with both resolutions 300 dpi and 600 dpi.</p> <p>When this item is executed, the values of OFST-CL0/CL1/CL2, GAIN-CL0, LED-CL-R/G/B, OFST2CL0/CL1/CL2, GAIN2CL0, and LED2CL-R/G/B are automatically calculated.</p> |
| <b>Use Case</b>               | <ul style="list-style-type: none"> <li>- When replacing the Reader Unit</li> <li>- When replacing the Scanner Unit</li> </ul>                                                                                                                                                                                                                                                       |
| <b>Adj/Set/Operate Method</b> | <ol style="list-style-type: none"> <li>1) Set paper on the DADF.</li> <li>2) Select the item, and then press Yes key.</li> </ol>                                                                                                                                                                                                                                                    |
| <b>Related Service Mode</b>   | <p>COPIER &gt; FUNCTION &gt; CCD &gt; BW-AGC</p> <p>COPIER &gt; ADJUST &gt; CCD &gt; OFST-CL0/CL1/CL2, GAIN-CL0, LED-CL-R/G/B, OFST2CL0/CL1/CL2, GAIN2CL0, LED2CL-R/G/B</p>                                                                                                                                                                                                         |
| <b>Supplement/Memo</b>        | AGC: Automatic Gain Control                                                                                                                                                                                                                                                                                                                                                         |
| <b>BW-AGC</b>                 | <b>Adjustment of Scanner Unit (front) B&amp;W reference at stream reading (B&amp;W)</b>                                                                                                                                                                                                                                                                                             |
| <b>Detail</b>                 | <p>To automatically adjust the black/white reference level of the Scanner Unit (for front side) at stream reading in black mode.</p> <p>To make the adjustment with both resolutions 300 dpi and 600 dpi.</p> <p>When this item is executed, the values of OFST-BW0/BW1/BW2, GAIN-BW0, LED-BW-R/G/B, OFST2BW0/BW1/BW2, GAIN2BW0, and LED2BW-R/G/B are automatically calculated.</p> |
| <b>Use Case</b>               | <ul style="list-style-type: none"> <li>- When replacing the Reader Unit</li> <li>- When replacing the Scanner Unit</li> </ul>                                                                                                                                                                                                                                                       |
| <b>Adj/Set/Operate Method</b> | <ol style="list-style-type: none"> <li>1) Set paper on the DADF.</li> <li>2) Select the item, and then press Yes key.</li> </ol>                                                                                                                                                                                                                                                    |
| <b>Related Service Mode</b>   | <p>COPIER &gt; FUNCTION &gt; CCD &gt; CL-AGC</p> <p>COPIER &gt; ADJUST &gt; CCD &gt; OFST-BW0/BW1/BW2, GAIN-BW0, LED-BW-R/G/B, OFST2BW0/BW1/BW2, GAIN2BW0, LED2BW-R/G/B</p>                                                                                                                                                                                                         |
| <b>Supplement/Memo</b>        | AGC: Automatic Gain Control                                                                                                                                                                                                                                                                                                                                                         |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; CCD

|                               |                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CL-AGC2</b>                | <b>Adjustment of Scanner Unit (back) B&amp;W reference at stream reading (Color)</b>                                                                                                                                                                                                                                                                                                |
| <b>Detail</b>                 | To automatically adjust the black/white reference level of the Scanner Unit (for back side) at stream reading in color mode.<br>To make the adjustment with both resolutions 300 dpi and 600 dpi.<br>When this item is executed, the values of OF-CL0BK/CL1BK/CL2BK, GA-CL0BK, LE-CLRBK/GBK/BBK, OF2CL0BK/CL1BK/CL2BK, GA2CL0BK, and LE2CLRBK/GBK/BBK are automatically calculated. |
| <b>Use Case</b>               | - When replacing the Reader Unit<br>- When replacing the Scanner Unit                                                                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | 1) Set paper on the DADF.<br>2) Select the item, and then press Yes key.                                                                                                                                                                                                                                                                                                            |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BW-AGC2<br>COPIER > ADJUST > CCD > OF-CL0BK/CL1BK/CL2BK, GA-CL0BK, LE-CLRBK/GBK/BBK, OF2CL0BK/CL1BK/CL2BK, GA2CL0BK, LE2CLRBK/GBK/BBK                                                                                                                                                                                                                     |
| <b>Supplement/Memo</b>        | AGC: Automatic Gain Control                                                                                                                                                                                                                                                                                                                                                         |
| <b>BW-AGC2</b>                | <b>Adjustment of Scanner Unit (back) B&amp;W reference at stream reading (B&amp;W)</b>                                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To automatically adjust the black/white reference level of the Scanner Unit (for back side) at stream reading in black mode.<br>To make the adjustment with both resolutions 300 dpi and 600 dpi.<br>When this item is executed, the values of OF-BW0BK/BW1BK/BW2BK, GA-BW0BK, LE-BWRBK/GBK/BBK, OF2BW0BK/BW1BK/BW2BK, GA2BW0BK, and LE2BWRBK/GBK/BBK are automatically calculated. |
| <b>Use Case</b>               | - When replacing the Reader Unit<br>- When replacing the Scanner Unit                                                                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | 1) Set paper on the DADF.<br>2) Select the item, and then press Yes key.                                                                                                                                                                                                                                                                                                            |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > CL-AGC2<br>COPIER > ADJUST > CCD > OF-BW0BK/BW1BK/BW2BK, GA-BW0BK, LE-BWRBK/GBK/BBK, OF2BW0BK/BW1BK/BW2BK, GA2BW0BK, LE2BWRBK/GBK/BBK                                                                                                                                                                                                                     |
| <b>Supplement/Memo</b>        | AGC: Automatic Gain Control                                                                                                                                                                                                                                                                                                                                                         |
| <b>BW-TGT</b>                 | <b>Set of B&amp;W shading target value</b>                                                                                                                                                                                                                                                                                                                                          |
| <b>Detail</b>                 | After the white level data (X/Y/Z) for the Standard White Plate is set, read the Standard White Plate and set the black and white shading target value.                                                                                                                                                                                                                             |
| <b>Use Case</b>               | When replacing the Copyboard Glass/Scanner Unit                                                                                                                                                                                                                                                                                                                                     |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Apply key.                                                                                                                                                                                                                                                                                                                                          |
| <b>Caution</b>                | Be sure to execute this item after execution of W-PLT-X/Y/Z.                                                                                                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > ADJUST > CCD > W-PLT-X/Y/Z<br>COPIER > DISPLAY > CCD > TARGETBW                                                                                                                                                                                                                                                                                                            |
| <b>BK-SHD1</b>                | <b>Paper back shading correction 1</b>                                                                                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To generate the paper back shading correction data by scanning the Standard White Plate of the Paper Back Reading Glass with the Scanner Unit (for back side).                                                                                                                                                                                                                      |
| <b>Use Case</b>               | - When replacing the SATA Flash PCB<br>- When replacing the Scanner Unit (for back side)                                                                                                                                                                                                                                                                                            |
| <b>Adj/Set/Operate Method</b> | 1) Clean the glass of the Scanner Unit (for back side) and the Reading Glass.<br>2) Close the DADF.<br>3) Select the item, and then press Apply key.                                                                                                                                                                                                                                |
| <b>Caution</b>                | Execute BK-SHD1 and then BK-SHD2 in that order.                                                                                                                                                                                                                                                                                                                                     |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BK-SHD2<br>COPIER > DISPLAY > CCD > BK-SHDST                                                                                                                                                                                                                                                                                                              |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; CCD

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| <b>BK-SHD2</b>                | <b>Paper back shading correction 2</b>                                                                                                                         |
| <b>Detail</b>                 | To generate the paper back shading correction data by scanning the Standard White Plate of the Paper Back Reading Glass with the Scanner Unit (for back side). |
| <b>Use Case</b>               | - When replacing the SATA Flash PCB<br>- When replacing the Scanner Unit (for back side)                                                                       |
| <b>Adj/Set/Operate Method</b> | 1) Clean the glass of the Scanner Unit (for back side) and the Reading Glass.<br>2) Close the DADF.<br>3) Select the item, and then press Apply key.           |
| <b>Caution</b>                | Execute BK-SHD1 and then BK-SHD2 in that order.                                                                                                                |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CCD > BK-SHD1<br>COPIER > DISPLAY > CCD > BK-SHDST                                                                                         |

## ■ CLEAR

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; CLEAR

|                               |                                                                                                                                                                                                                                                                           |
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| <b>R-CON</b>                  | <b>Initialization of Reader/DADF</b>                                                                                                                                                                                                                                      |
| <b>Detail</b>                 | To initialize the factory adjustment values of the Reader/DADF.                                                                                                                                                                                                           |
| <b>Use Case</b>               | When clearing RAM data of the Reader/DADF                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                                  |
| <b>Caution</b>                | RAM data is cleared after the main power switch is turned OFF/ON.                                                                                                                                                                                                         |
| <b>SRVC-DAT</b>               | <b>Clearing of service mode setting values</b>                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To clear the service mode setting values.<br>The user mode setting values are not cleared.<br>The factory adjustment values of the Reader/DADF are not initialized.                                                                                                       |
| <b>Adj/Set/Operate Method</b> | 1) Select the item, and then press Yes key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                      |
| <b>COUNTER</b>                | <b>Clearing of service counter</b>                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To clear the counter by maintenance/part.<br>The numerator printed on a system dump list becomes 0.                                                                                                                                                                       |
| <b>Adj/Set/Operate Method</b> | 1) Select the item, and then press Yes key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                      |
| <b>HIST</b>                   | <b>Clearing of logs</b>                                                                                                                                                                                                                                                   |
| <b>Detail</b>                 | To clear the communication management/print/jam/error log.                                                                                                                                                                                                                |
| <b>Use Case</b>               | When clearing logs                                                                                                                                                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | 1) Select the item, and then press Yes key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                      |
| <b>CARD</b>                   | <b>Clearing Card Reader connection information</b>                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To clear the information on connection of the Copy Card Reader.<br>The data related to the card ID (department) is cleared, and the ID and password of the system administrator are initialized.                                                                          |
| <b>Use Case</b>               | When removing the Copy Card Reader                                                                                                                                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | 1) Select the item, and then press Yes key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                      |
| <b>Caution</b>                | Execute this item after disabling the department ID management.                                                                                                                                                                                                           |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CLEAR > E719-CLR                                                                                                                                                                                                                                      |
| <b>Supplement/Memo</b>        | Procedure to remove the Copy Card Reader<br>1) Disable the department ID management.<br>2) Select the item, and then press Yes key.<br>3) Execute E719-CLR.<br>4) Turn OFF the main power switch.<br>5) Remove the Copy Card Reader.<br>6) Turn ON the main power switch. |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; CLEAR

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| <b>E719-CLR</b>               | <b>Clearing of E719 error</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Detail</b>                 | To clear E719 error (communication error with the Copy Card Reader).<br>The information on connection of the Copy Card Reader is also cleared.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Use Case</b>               | When removing the Copy Card Reader                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | 1) Select the item, and then press Yes key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CLEAR > CARD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Supplement/Memo</b>        | Procedure to remove the Copy Card Reader<br>1) Disable the department ID management.<br>2) Execute CARD.<br>3) Select the item, and then press Yes key.<br>4) Turn OFF the main power switch.<br>5) Remove the Copy Card Reader.<br>6) Turn ON the main power switch.                                                                                                                                                                                                                                                                                                                                                     |
| <b>ALL</b>                    | <b>Clearing of setting information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Detail</b>                 | To clear/initialize the following setting information according to the location set in LOCALE and SIZE-LC.<br><ul style="list-style-type: none"><li>- User mode setting values</li><li>- Service mode setting values (excluding the service counter)</li><li>- ID and password of the system administrator</li><li>- Communication management/print/jam/alarm/error log</li><li>- E719 error (counter meter-installed models only)</li></ul> The following items are not cleared/initialized.<br><ul style="list-style-type: none"><li>- Service counter</li><li>- Factory adjustment values of the Reader/DADF</li></ul> |
| <b>Use Case</b>               | At installation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | 1) Select the item, and then press Yes key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Related Service Mode</b>   | COPIER > OPTION > BODY > LOCALE, SIZE-LC<br>COPIER > FUNCTION > CLEAR > E719-CLR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>ERDS-DAT</b>               | <b>Initialize of Embedded-RDS setting value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Detail</b>                 | To initialize the Embedded-RDS setting values.<br>ON/OFF of Embedded-RDS, Remote Monitoring Server port number and communication error log set in ERDS, RGW-PORT, and COM-LOG are cleared.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Use Case</b>               | When upgrading the Bootable in the Embedded-RDS environment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Caution</b>                | Use of the SRAM in Embedded-RDS differs depending on the Bootable version. Therefore, unless initialization is executed at the time of version upgrade, data inconsistency occurs.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > ERDS, RGW-PORT, COM-LOG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Supplement/Memo</b>        | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to Remote Monitoring Server via SOAP protocol                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>PLPW-CLR</b>               | <b>Clear security policy setting password</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Detail</b>                 | To clear the password of the security administrator set in the security policy settings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Use Case</b>               | When clearing the password of the security administrator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>CRGL-CNT</b>               | <b>Clearing of cartridge replacement log</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To clear the cartridge replacement log.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > MISC-P > CRG-LOG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## ■ MISC-R

COPIER (Service mode for printer) > FUNCTION (Operation / inspection mode) > MISC-R

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>SCANLAMP</b>               | <b>Lighting check of CIS Unit LED: front</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Detail</b>                 | To light up the Scanning LED of the Scanner Unit (for front side).                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Use Case</b>               | When replacing the CIS Unit LED                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>SCAN-ON</b>                | <b>Execution of copyboard reading operation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Detail</b>                 | To execute reading of the original on the Copyboard Glass.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | <ol style="list-style-type: none"> <li>1) Place paper on the Copyboard Glass.</li> <li>2) Select the item, and then press Yes key.</li> </ol>                                                                                                                                                                                                                                                                                                                                                     |
| <b>SCANLMP2</b>               | <b>Lighting check of CIS Unit LED: back</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Detail</b>                 | To light up the Scanning LED of the Scanner Unit (for back side).                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Use Case</b>               | When replacing the CIS Unit LED                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>1PSCLB-A</b>               | <b>Execution of front/back color difference calibration (front)</b>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Detail</b>                 | <p>To read the PG for calibrating color difference between the front and back sides with the Scanner Unit (for front side) in order to correct the color difference between the front and back sides at duplex stream reading.</p> <p>A significant color difference may occur between the images on the front and back sides scanned with the DADF caused by variations in the LED and changes in durability. Such a color difference is corrected by executing 1PSCLB-B following 1PSCLB-A.</p> |
| <b>Use Case</b>               | When a significant color difference occurs between the front and back side at DADF duplex reading                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | <ol style="list-style-type: none"> <li>1) Place the paper on which PG is printed on the DADF.</li> <li>2) Select the item, and then press OK key.</li> </ol>                                                                                                                                                                                                                                                                                                                                      |
| <b>Caution</b>                | <ul style="list-style-type: none"> <li>- Do not turn OFF/ON the main power switch during execution of 1PSCLB-A and then 1PSCLB-B.</li> <li>- Until 1 is displayed in both 1P-ERR-A and 1P-ERR-B, calibration of color difference between the front and back sides is not completed.</li> </ul>                                                                                                                                                                                                    |
| <b>Related Service Mode</b>   | <p>COPIER &gt; FUNCTION &gt; MISC-R &gt; 1PSCLB-B</p> <p>COPIER &gt; DISPLAY &gt; CCD &gt; 1P-ERR-A/B</p>                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Supplement/Memo</b>        | The execution result of this item is displayed in 1P-ERR-A.                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>1PSCLB-B</b>               | <b>Execution of front/back color difference calibration (back)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Detail</b>                 | <p>To read the PG for calibrating color difference between the front and back sides with the Scanner Unit (for back side) in order to correct the color difference between the front and back sides at duplex stream reading.</p> <p>A significant color difference may occur between the images on the front and back sides scanned with the DADF caused by variations in the LED and changes in durability. Such a color difference is corrected by executing 1PSCLB-B following 1PSCLB-A.</p>  |
| <b>Use Case</b>               | When a significant color difference occurs between the front and back side at DADF duplex reading                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | <ol style="list-style-type: none"> <li>1) Place the paper used by 1PSCLB-A on the DADF so that the front side is faced down and the cyan image is placed at the left rear side.</li> <li>2) Select the item, and then press OK key.</li> </ol>                                                                                                                                                                                                                                                    |
| <b>Caution</b>                | <ul style="list-style-type: none"> <li>- Do not turn OFF/ON the main power switch during execution of 1PSCLB-A and then 1PSCLB-B.</li> <li>- Until 1 is displayed in both 1P-ERR-A and 1P-ERR-B, calibration of color difference between the front and back sides is not completed.</li> </ul>                                                                                                                                                                                                    |
| <b>Related Service Mode</b>   | <p>COPIER &gt; FUNCTION &gt; MISC-R &gt; 1PSCLB-A</p> <p>COPIER &gt; DISPLAY &gt; CCD &gt; 1P-ERR-A/B</p>                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Supplement/Memo</b>        | The execution result of this item is displayed in 1P-ERR-B.                                                                                                                                                                                                                                                                                                                                                                                                                                       |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; MISC-R

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| <b>1PCLBUDR</b>               | <b>ON/OFF of lower limit setting of front/back color difference calibration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To set whether to set the lower limit of the target color difference for correction when correcting color difference between the front and back sides at duplex stream reading.<br>In some cases, colors which do not need to be corrected are also corrected by performing color difference correction at duplex stream reading.<br>When 1 is set, the correction level is adjusted to weaken the effect of correction. Unnecessary correction is not executed, but an expected effect may not be obtained for other colors.<br>The result is reflected when color difference correction is executed again after the setting is made. |
| <b>Use Case</b>               | When color difference occurs on the colors which did not have any difference before correction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Caution</b>                | Expected correction result may not be obtained.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF<br>1: ON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > MISC-R > 1PSCLB-A/B, 1PCLBOVR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>1PCLBOVR</b>               | <b>ON/OFF of upper limit setting of front/back color difference calibration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To set whether to set the upper limit of the target color difference for correction when correcting color difference between the front and back sides at duplex stream reading.<br>Excessive correction is sometimes made when correcting color difference at duplex stream reading.<br>When 1 or 2 is set, the correction level is adjusted to weaken the effect of correction. Excessive correction is not executed, but an expected effect may not be obtained for other colors.<br>The result is reflected when color difference correction is executed again after the setting is made.                                           |
| <b>Use Case</b>               | When color difference occurs on the colors which did not have any difference before correction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Caution</b>                | Expected correction result may not be obtained.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 2<br>0: No control<br>1: Weak control<br>2: Strong control                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > MISC-R > 1PSCLB-A/B, 1PCLBUDR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>1PCLBRST</b>               | <b>Initialization of front/back color difference calibration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Detail</b>                 | To initialize the correction result of calibration of color difference between the front and back sides.<br>Execute this item when color difference is not corrected appropriately even though 1PSCLB-A/B is executed.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Use Case</b>               | When the calibration result is not appropriate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > MISC-R > 1PSCLB-A/B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## ■ MISC-P

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; MISC-P

|                               |                                                                                                                                                                                                                                                                                                                             |
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| <b>SRVC-DAT</b>               | <b>Output system data list/system dump list</b>                                                                                                                                                                                                                                                                             |
| <b>Detail</b>                 | To output the system data list and the system dump list in the form of a report.<br>System data list: The service software switches and parameters used in FAX function<br>System dump list: The number of sends/receives, the number of pages sent/received, the number of sheets printed/read, the number of errors, etc. |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                                                                                    |
| <b>Supplement/Memo</b>        | FAX model only                                                                                                                                                                                                                                                                                                              |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; MISC-P

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| <b>SYS-DAT</b>                | <b>Output of system data list</b>                                                                                                                                                                     |
| <b>Detail</b>                 | To output the system data list in the form of a report.<br>The service software switches and parameters used in FAX function are output.                                                              |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                              |
| <b>Supplement/Memo</b>        | FAX model only                                                                                                                                                                                        |
| <b>SYS-DMP</b>                | <b>Output of system dump list</b>                                                                                                                                                                     |
| <b>Detail</b>                 | To output the system dump list in the form of a report.<br>The number of sends/receives, the number of pages sent/received, the number of sheets printed/read, the number of errors, etc. are output. |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                              |
| <b>Supplement/Memo</b>        | FAX model only                                                                                                                                                                                        |
| <b>CNTR</b>                   | <b>Output of counter report</b>                                                                                                                                                                       |
| <b>Detail</b>                 | To output the counter values in the form of a report.<br>The usage of functions (reading, recording, communication and copy) is output.                                                               |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                              |
| <b>ERR-LOG</b>                | <b>Output of error log report</b>                                                                                                                                                                     |
| <b>Detail</b>                 | To output the error log in the form of a report.                                                                                                                                                      |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                              |
| <b>SPEC</b>                   | <b>Output of spec report</b>                                                                                                                                                                          |
| <b>Detail</b>                 | To output the specifications in the form of a report.<br>The current device specifications such as the location, model information, and ROM version are output.                                       |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                              |
| <b>ERDS-LOG</b>               | <b>Output of Embedded-RDS log report</b>                                                                                                                                                              |
| <b>Detail</b>                 | To output the log relating to Embedded-RDS in the form of a report.<br>The date, time, and code (8 digits) of each error that occurred are output.                                                    |
| <b>Use Case</b>               | When using Embedded-RDS                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                              |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > INSTALL > COM-LOG                                                                                                                                                                 |
| <b>Supplement/Memo</b>        | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to Remote Monitoring Server via SOAP protocol                                                  |
| <b>CRG-LOG</b>                | <b>Output cartridge replacement log report</b>                                                                                                                                                        |
| <b>Detail</b>                 | To output the cartridge replacement log in the form of a report.                                                                                                                                      |
| <b>Use Case</b>               | When checking the cartridge replacement log                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                              |

## ■ SYSTEM

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; SYSTEM

|                               |                                                                                                                                                                  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DOWNLOAD</b>               | <b>Upgrading of machine firmware: difference</b>                                                                                                                 |
| <b>Detail</b>                 | To upgrade the machine firmware using a USB flash drive.<br>Compare the versions of firmware in the machine and the USB flash drive, and update the differences. |
| <b>Use Case</b>               | At upgrade                                                                                                                                                       |
| <b>Adj/Set/Operate Method</b> | 1) Connect the USB flash drive.<br>2) Select the item, and then press Yes key.<br>The machine restarts in download mode.                                         |
| <b>Caution</b>                | Do not turn OFF/ON the power before "Executing..." disappears.                                                                                                   |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SYSTEM > DL-FORCE                                                                                                                            |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; SYSTEM

|                               |                                                                                                                                                                                                                                                                          |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PANEL-UP</b>               | <b>Upgrading of Control Panel CPU PCB firm</b>                                                                                                                                                                                                                           |
| <b>Detail</b>                 | To upgrade the firmware of the Control Panel CPU PCB using a USB flash drive.<br>Upgrading is performed when PANEL exists in the root directory of the USB flash drive.                                                                                                  |
| <b>Use Case</b>               | At upgrade                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | 1. Connect the USB flash drive.<br>2. Select the item, and then press Yes.<br>3. Turn OFF/ON the main power.                                                                                                                                                             |
| <b>Caution</b>                | Do not turn OFF/ON the power before "Executing..." disappears.                                                                                                                                                                                                           |
| <b>Related Service Mode</b>   | COPIER > DISPLAY > VERSION > PANEL                                                                                                                                                                                                                                       |
| <b>LOGWRITE</b>               | <b>Writing debug log to USB flash drive</b>                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To write debuglog that includes the following information to the USB flash drive.<br>- Job list (job names, user names, and destinations)<br>- Communications log (destinations and user names)<br>- Job log (user names and job names)                                  |
| <b>Use Case</b>               | When analyzing the cause of a problem                                                                                                                                                                                                                                    |
| <b>Adj/Set/Operate Method</b> | 1. Connect the USB flash drive.<br>2. Select the item, and then press Yes.<br>3. Turn OFF/ON the main power.                                                                                                                                                             |
| <b>Caution</b>                | Do not turn OFF/ON the power before "Executing..." disappears.                                                                                                                                                                                                           |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SYSTEM > LOG2USB                                                                                                                                                                                                                                     |
| <b>IMPORT</b>                 | <b>Read s-mode set VL from USB flash drive</b>                                                                                                                                                                                                                           |
| <b>Detail</b>                 | To read the service mode setting information (excluding those related to Reader/DADF) from the USB flash drive.                                                                                                                                                          |
| <b>Use Case</b>               | When replacing the Main Controller PCB                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | 1. Connect the USB flash drive.<br>2. Select the item, and then press Yes.<br>3. Turn OFF/ON the main power.                                                                                                                                                             |
| <b>Caution</b>                | Do not turn OFF/ON the power before "Executing..." disappears.                                                                                                                                                                                                           |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SYSTEM > EXPORT                                                                                                                                                                                                                                      |
| <b>EXPORT</b>                 | <b>Writing of service mode setting value to USB memory</b>                                                                                                                                                                                                               |
| <b>Detail</b>                 | To write the service mode setting information (excluding those related to Reader/DADF) to the USB flash drive.                                                                                                                                                           |
| <b>Use Case</b>               | When replacing the Main Controller PCB                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | 1) Connect the USB flash drive.<br>2) Select the item, and then press Yes key.<br>"Executing..." disappears when writing is completed.                                                                                                                                   |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SYSTEM > IMPORT                                                                                                                                                                                                                                      |
| <b>SAVE-SM</b>                | <b>Backup of service mode setting info</b>                                                                                                                                                                                                                               |
| <b>Detail</b>                 | To back up the service mode setting information (excluding those related to Reader/DADF, but including those related to Finisher) as a file to the USB flash drive using DCM function.<br>The setting information which has been backed up can be restored with RSTR-SM. |
| <b>Use Case</b>               | When saving the setting information before changing the service mode settings                                                                                                                                                                                            |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SYSTEM > RSTR-SM                                                                                                                                                                                                                                     |
| <b>Supplement/Memo</b>        | DCM (Device Configuration Management): A function to export/import the machine's setting information as a file.                                                                                                                                                          |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; SYSTEM

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|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RSTR-SM</b>                | <b>Restore of service mode setting info</b>                                                                                                                                                                          |
| <b>Detail</b>                 | To restore the service mode setting information (excluding those related to Reader/DADF, but including those related to Finisher) which has been backed up with SAVE-SM from the USB flash drive using DCM function. |
| <b>Use Case</b>               | When changing the service mode settings back to those before the change                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                             |
| <b>Caution</b>                | It is necessary to back up the setting information using SAVE-SM in order to restore the information with RSTR-SM.                                                                                                   |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SYSTEM > SAVE-SM                                                                                                                                                                                 |
| <b>Supplement/Memo</b>        | DCM (Device Configuration Management): A function to export/import the machine's setting information as a file.                                                                                                      |
| <b>LOG2USB</b>                | <b>Writing of debug log to USB flash drive</b>                                                                                                                                                                       |
| <b>Detail</b>                 | To write the debug log stored in the eMMC to the USB flash drive.                                                                                                                                                    |
| <b>Use Case</b>               | When analyzing the cause of a problem                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | 1) Connect the USB flash drive.<br>2) Select the item, and then press Yes key.                                                                                                                                       |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SYSTEM > LOGWRITE                                                                                                                                                                                |
| <b>LOG-DEL</b>                | <b>Deletion of debug log</b>                                                                                                                                                                                         |
| <b>Detail</b>                 | To delete the debug log stored in the eMMC.                                                                                                                                                                          |
| <b>Use Case</b>               | When the debug log is no longer needed                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                             |
| <b>DL-FORCE</b>               | <b>Install machine firmware: overwriting</b>                                                                                                                                                                         |
| <b>Detail</b>                 | To forcibly overwrite the machine firmware with the firmware stored in the USB flash drive.                                                                                                                          |
| <b>Use Case</b>               | At upgrade/downgrade                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | 1) Connect the USB flash drive.<br>2) Select the item, and then press Yes key.                                                                                                                                       |
| <b>Caution</b>                | Do not turn OFF/ON the power before "Executing..." disappears.                                                                                                                                                       |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SYSTEM > DOWNLOAD                                                                                                                                                                                |

## ■ SPLMAN

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; SPLMAN

|                               |                                                                                                                                                                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SPL14159</b>               | <b>ON/OFF of USB device ID fixing</b>                                                                                                                                                                                                                                                      |
| <b>Detail</b>                 | To set whether to fix the USB device ID to "000000000000".<br>A PC attempts to install the driver every time it is connected to a machine. However, by fixing the USB device ID, it recognizes that the same machine is connected so that it does not attempt to install the driver again. |
| <b>Use Case</b>               | When saving the trouble of selecting a device used for printing from the candidate devices because the driver is installed every time a USB is connected                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                             |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF, 1: ON                                                                                                                                                                                                                                                                    |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                          |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; SPLMAN

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|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SPL65677</b>               | <b>Increase of paper leading edge margin</b>                                                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To increase the margin on the leading edge of paper.<br>As the value is incremented by 1, the margin is increased by 0.1 mm.<br>Actually, a value where the setting value of SPL68676 is subtracted from the setting value of this item is applied.<br>The margin settings which are job-specific or based on the printable area are applied regardless of the setting of this item. |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 20                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SPLMAN > SPL68676                                                                                                                                                                                                                                                                                                                                                |
| <b>SPL68676</b>               | <b>Decrease of paper leading edge margin</b>                                                                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To decrease the margin on the leading edge of paper.<br>As the value is incremented by 1, the margin is decreased by 0.1 mm.<br>Actually, a value where the setting value of this item is subtracted from the setting value of SPL65677 is applied.<br>The margin settings which are job-specific or based on the printable area are applied regardless of the setting of this item. |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 20                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SPLMAN > SPL65677                                                                                                                                                                                                                                                                                                                                                |
| <b>SPL68677</b>               | <b>Increase of the left edge margin of paper</b>                                                                                                                                                                                                                                                                                                                                     |
| <b>Detail</b>                 | To increase the margins on the left edge of paper.<br>As the value is incremented by 1, the margin is increased by 0.1 mm.<br>Actually, a value where the setting value of SPL25607 is subtracted from the setting value of this item is applied.<br>The margin settings which are job-specific or based on the printable area are applied regardless of the setting of this item.   |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 20                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SPLMAN > SPL25607                                                                                                                                                                                                                                                                                                                                                |
| <b>SPL25607</b>               | <b>Decrease of the left edge margin of paper</b>                                                                                                                                                                                                                                                                                                                                     |
| <b>Detail</b>                 | To decrease the margins on the left edge of paper.<br>As the value is incremented by 1, the margin is decreased by 0.1 mm.<br>Actually, a value where the setting value of this item is subtracted from the setting value of SPL68677 is applied.<br>The margin settings which are job-specific or based on the printable area are applied regardless of the setting of this item.   |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 20                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SPLMAN > SPL68677                                                                                                                                                                                                                                                                                                                                                |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; SPLMAN

|                               |                                                                                                                                                                    |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SPL93822</b>               | <b>Setting of department ID count all clear</b>                                                                                                                    |
| <b>Detail</b>                 | To set whether to disable clearing of all department ID counts.                                                                                                    |
| <b>Use Case</b>               | When prohibiting clearing of all department ID counts                                                                                                              |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                     |
| <b>Caution</b>                | Be sure to perform this mode after consulting with the system administrator at user's site.                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Disabled<br>1: Enabled                                                                                                                                |
| <b>Default Value</b>          | 0                                                                                                                                                                  |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SPLMAN > SPL78788                                                                                                                              |
| <b>SPL78788</b>               | <b>Setting of department ID count clear</b>                                                                                                                        |
| <b>Detail</b>                 | To set whether to disable clearing of department ID count.                                                                                                         |
| <b>Use Case</b>               | When prohibiting clearing of department ID count                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                     |
| <b>Caution</b>                | Be sure to perform this mode after consulting with the system administrator at user's site.                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Disabled<br>1: Enabled                                                                                                                                |
| <b>Default Value</b>          | 0                                                                                                                                                                  |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SPLMAN > SPL93822                                                                                                                              |
| <b>SPL71100</b>               | <b>Setting of the duty of Off-hook PCB</b>                                                                                                                         |
| <b>Detail</b>                 | This is the mode to make handsets of particular manufacturers to ring when fax reception mode is set to "Fax / Tel (Auto Switch)".                                 |
| <b>Use Case</b>               | When making the handsets of particular manufacturers to ring at the time of switching Fax/Tel                                                                      |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                     |
| <b>Display/Adj/Set Range</b>  | 1 to 99                                                                                                                                                            |
| <b>Default Value</b>          | 50                                                                                                                                                                 |
| <b>Supplement/Memo</b>        | FAX model only                                                                                                                                                     |
| <b>SPL00171</b>               | <b>Set auto sleep shift time maximum value</b>                                                                                                                     |
| <b>Detail</b>                 | To set the maximum auto sleep shift time displayed in [Auto Sleep Time] in [Settings/Registration]. When 0 is set, the time that can be set is 60 minutes maximum. |
| <b>Use Case</b>               | When changing the setting time to shift to auto sleep mode                                                                                                         |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                     |
| <b>Display/Adj/Set Range</b>  | 0 to 2<br>0: 60 minutes<br>1: 240 minutes<br>2: 120 minutes                                                                                                        |
| <b>Default Value</b>          | 0 (Europe model or machine of less than 30 ppm's print speed except for Europe model)/2 (Others)                                                                   |
| <b>Additional Functions</b>   | Timer Settings> Auto Sleep Time                                                                                                                                    |
| <b>Mode</b>                   |                                                                                                                                                                    |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; SPLMAN

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|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SPL80100</b>               | <b>ON/OFF image left edge mask: book mode</b>                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To set whether to mask the left edge of the image at copyboard reading.<br>When 0 is set, mask with the width based on the specification is applied for each job.<br>When 1 is set, mask is canceled.                                                                                                                 |
| <b>Use Case</b>               | Upon user's request (to print the left edge of the image)                                                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: ON, 1: OFF                                                                                                                                                                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                     |
| <b>SPL27354</b>               | <b>PC-less update/RMDS preferences</b>                                                                                                                                                                                                                                                                                |
| <b>Detail</b>                 | To set RMDS preferences of PC-less update.                                                                                                                                                                                                                                                                            |
| <b>Display/Adj/Set Range</b>  | 0 to 5<br>0: Production environment/release environment<br>1: Product environment/staging environment<br>2: Maintenance environment 1/release environment<br>3: Maintenance environment 1/staging environment<br>4: Maintenance environment 2/release environment<br>5: Maintenance environment 2/staging environment |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                     |
| <b>SPL84194</b>               | <b>ON/OFF of Embedded-RDS</b>                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To set ON/OFF of Embedded-RDS function.                                                                                                                                                                                                                                                                               |
| <b>Use Case</b>               | When using Embedded-RDS                                                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                        |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: ON, 1: OFF                                                                                                                                                                                                                                                                                               |
| <b>Default Value</b>          | It differs according to the location.                                                                                                                                                                                                                                                                                 |
| <b>Supplement/Memo</b>        | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to Remote Monitoring Server via SOAP protocol                                                                                                                                                                  |
| <b>SPL32620</b>               | <b>ON/OFF of PC-less update function</b>                                                                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To set whether to disable the PC-less update function.                                                                                                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF / ON the main power switch.                                                                                                                                                                                                                      |
| <b>Caution</b>                | When LCDSFLG is 1, the setting of this item is disabled (the PC-less update function is turned OFF).                                                                                                                                                                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF, 1: ON                                                                                                                                                                                                                                                                                               |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                                                                                                     |
| <b>Related Service Mode</b>   | COPIER > OPTION > FNC-SW > LCDSFLG                                                                                                                                                                                                                                                                                    |
| <b>Supplement/Memo</b>        | PC-less update: A function to directly download the firmware from the GDLS server and update it.                                                                                                                                                                                                                      |
| <b>SPL37886</b>               | <b>PC-less update: RMDS communication settings</b>                                                                                                                                                                                                                                                                    |
| <b>Detail</b>                 | Set whether to use HTTPS to communicate with the RMDS server.<br>Communication with the GDLS server is not affected.                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF / ON the main power switch.                                                                                                                                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Do not use HTTPS. Use HTTP Communication.<br>1: Use HTTPS.                                                                                                                                                                                                                                               |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                                                                                                     |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; SPLMAN

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| <b>SPL71700</b>               | <b>Writing debug log to USB flash drive</b>                                                                                                                                                                                                                          |
| <b>Detail</b>                 | To write the debug log stored in the eMMC to the USB flash drive.                                                                                                                                                                                                    |
| <b>Use Case</b>               | When analyzing the cause of a problem                                                                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                             |
| <b>SPL01734</b>               | <b>ON/OFF of remote UI service mode</b>                                                                                                                                                                                                                              |
| <b>Detail</b>                 | To set whether to allow using service mode on remote UI.                                                                                                                                                                                                             |
| <b>Use Case</b>               | When using service mode on remote UI                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                       |
| <b>Caution</b>                | The setting value is linked with that of RMT-SW.                                                                                                                                                                                                                     |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF, 1: ON                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                                                    |
| <b>Related Service Mode</b>   | COPIER > OPTION > BODY > RMT-SW                                                                                                                                                                                                                                      |
| <b>SPL78148</b>               | <b>ON/OFF of gradation characteristics compatible mode</b>                                                                                                                                                                                                           |
| <b>Detail</b>                 | To set whether to make the density gradation characteristics of halftone the same as those of conventional machines.<br>When set to "0", respective characteristic changes as follows.<br>Resolution Upward-convex<br>Gradation Linier<br>Color Tone Downward-convex |
| <b>Use Case</b>               | When making the density gradation characteristics the same as those of conventional machines                                                                                                                                                                         |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: ON<br>1: OFF                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                                                    |
| <b>SPL39533</b>               | <b>ON/OFF of department ID management</b>                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To set whether to disable the department ID management.                                                                                                                                                                                                              |
| <b>Use Case</b>               | When disabling the department ID management                                                                                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                             |
| <b>SPL43810</b>               | <b>Clear of system administrator settings</b>                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To completely delete the following setting information.<br>- System Manager ID<br>- PIN<br>After clearing of the information, it is necessary to set the system manager ID/PIN again.                                                                                |
| <b>Use Case</b>               | When the system manager ID/PIN has been forgotten                                                                                                                                                                                                                    |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                                                                                                             |
| <b>Caution</b>                | Do not forget to set the system manager ID/PIN after clearing of the information.                                                                                                                                                                                    |
| <b>SPL08159</b>               | <b>ON/OFF of fax image backup data clear</b>                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To set whether to clear the fax image data which has been backed up.<br>When 1 is set, it is cleared at next startup.                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF, 1: ON                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                    |
| <b>Supplement/Memo</b>        | Supported by models with FAX only                                                                                                                                                                                                                                    |

COPIER (Service mode for printer) &gt; FUNCTION (Operation / inspection mode) &gt; SPLMAN

|                               |                                                                                                                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>SPL97097</b>               | <b>ON/OFF of user setting backup data clear</b>                                                                              |
| <b>Detail</b>                 | To set whether to clear all the user setting data which has been backed up.<br>When 1 is set, it is cleared at next startup. |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                           |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF, 1: ON                                                                                                      |
| <b>Default Value</b>          | 1                                                                                                                            |
| <b>SPL09876</b>               | <b>ON/OFF of Aladdin application debug log console function</b>                                                              |
| <b>Detail</b>                 | To set whether to enable the Aladdin application debug log console function.                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 9999                                                                                                                    |
| <b>Default Value</b>          | 0                                                                                                                            |
| <b>SPL07041</b>               | <b>ON/OFF of remote shutdown with fax line</b>                                                                               |
| <b>Detail</b>                 | To set whether to allow remote shut down when a FAX line is connected.                                                       |
| <b>Display/Adj/Set Range</b>  | 0/1<br>0: Do Not Allow<br>1: Allow                                                                                           |
| <b>Default Value</b>          | 1                                                                                                                            |
| <b>Supplement/Memo</b>        | Supported by models with FAX only                                                                                            |
| <b>SPL50444</b>               | <b>Select paper source for PCL5</b>                                                                                          |
| <b>Detail</b>                 | To select a paper source for PCL5..                                                                                          |
| <b>Display/Adj/Set Range</b>  | 0 to 3<br>0: HP compatible<br>1: Lexmark compatible<br>2: Zoran PCL compatible<br>3: Not used                                |
| <b>Default Value</b>          | 0                                                                                                                            |
| <b>SPL98765</b>               | <b>Execution of disabling function of all Aladdin application</b>                                                            |
| <b>Detail</b>                 | To set whether to execute disabling function of all Aladdin applications.                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                |
| <b>Default Value</b>          | 0                                                                                                                            |
| <b>Supplement/Memo</b>        | Executed with entering the system administrator's password.                                                                  |
| <b>SPL05378</b>               | <b>Display/hide of uniFLOW Online Setup icon</b>                                                                             |
| <b>Detail</b>                 | To set whether to display or hide the uniFLOW Online Setup icon                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Hide<br>1: Display                                                                                              |
| <b>Default Value</b>          | 0 (except for Dealer model)<br>1 (Dealer model)                                                                              |
| <b>SPL81031</b>               | <b>ON/OFF of CDS update function</b>                                                                                         |
| <b>Detail</b>                 | To set whether to disable the CDS function.                                                                                  |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF / ON the main power switch.                             |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF, 1: ON                                                                                                      |
| <b>Default Value</b>          | 0                                                                                                                            |

# OPTION (Specification setting mode)

## BODY

COPIER (Service mode for printer) > OPTION (Specification setting mode) > BODY

| DFDST-L1 Adjustment of image correction level at stream reading           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Detail</b>                                                             | To set whether to perform image correction between originals in the Scanner Unit at stream reading based on the result of dust detection.<br><br>Increase the value when black lines appear. As the value is larger, the image is more likely to be corrected because the machine is more likely to respond to small dust.<br><br>Decrease the value if a fine image portion is unclear as a result of dust detection correction control. As the value is smaller, the image is less likely to be corrected because the machine is less likely to respond to dust. |
| <b>Use Case</b>                                                           | - When black line occurs due to dust<br>- Upon user's request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Adj/Set/Operate Method</b>                                             | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Caution</b>                                                            | - If the value is too large, a fine image portion may be unclear. If the value is too small, black lines may appear on the image.<br>- When the value of DFDST-L1 is changed to any value other than 0 while the values of DFDST-L1 and DFDST-L2 are 0, the value of DFDST-L2 is returned to the previous value (a value before setting 0).<br>- When setting 0 for DFDST-L2, the value of DFDST-L1 also become 0 automatically (image correction is not performed).                                                                                               |
| <b>Display/Adj/Set Range</b>                                              | 0 to 255<br>0: OFF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Default Value</b>                                                      | 200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Related Service Mode</b>                                               | COPIER > OPTION > BODY > DFDST-L2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Supplement/Memo</b>                                                    | Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.                                                                                                                                                                                                                                                                                                                                                                                                 |
| DF2DSTL1 Adjustment of dust detection level at stream reading [back side] |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Detail</b>                                                             | To adjust the level of dust detection that is executed between originals in the Scanner Unit (for back side) at stream reading.<br><br>Reduce the value in the case of frequent display of cleaning instruction at the time of dust detection. As the value is smaller, dust is less likely to be detected.<br><br>Increase the value when black lines appear. As the value is larger, the small dust is more likely to be detected.                                                                                                                               |
| <b>Use Case</b>                                                           | Upon user's request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b>                                             | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Caution</b>                                                            | If the value is too large, the cleaning instruction screen may appear too often since even small dust that will not appear on the image can be detected.<br>If the value is too small, black lines may appear.                                                                                                                                                                                                                                                                                                                                                     |
| <b>Display/Adj/Set Range</b>                                              | 1 to 255<br>1 to 84: Weakest<br>85 to 169: Weak<br>170 to 254: Moderate<br>255: Strong                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Default Value</b>                                                      | 200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Supplement/Memo</b>                                                    | Black lines may appear on the image if there is dust. With dust detection correction control, the image is corrected to prevent black lines once dust is detected.                                                                                                                                                                                                                                                                                                                                                                                                 |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; BODY

| LOCALE                        | Setting of location                                                                                                                                                                                      |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Detail</b>                 | To set the location.<br>Set the location in this item and the paper size configuration in SIZE-LC, and then clear the setting information in ALL.                                                        |
| <b>Use Case</b>               | - When replacing the Main Controller PCB<br>- When changing the location information                                                                                                                     |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value in this item, and then press Apply key.<br>2) Set the paper size configuration in SIZE-LC.<br>3) Execute ALL.<br>4) Turn OFF/ON the main power switch.                        |
| <b>Caution</b>                | The setting information such as user mode and service mode is initialized by executing ALL. The settings of this item and SIZE-LC are not initialized.                                                   |
| <b>Display/Adj/Set Range</b>  | 1 to 10<br>1: Japan<br>2: North America<br>3: Korea<br>4: China<br>5: Taiwan<br>6: Europe<br>7: Asia<br>8: Oceania<br>9: Brazil<br>10: Latin                                                             |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CLEAR > ALL<br>COPIER > OPTION > BODY > SIZE-LC                                                                                                                                      |
| SIZE-LC                       | Setting of paper size configuration                                                                                                                                                                      |
| <b>Detail</b>                 | To set the paper size configuration.<br>When replacing the Main Controller PCB, set the location in LOCALE and the paper size configuration in this item, and then clear the setting information in ALL. |
| <b>Use Case</b>               | - When replacing the Main Controller PCB<br>- Upon user's request                                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | 1) Set the location in LOCALE.<br>2) Enter the setting value in this item, and then press Apply key.<br>3) Execute ALL.<br>4) Turn OFF/ON the main power switch.                                         |
| <b>Caution</b>                | The setting information such as user mode and service mode is initialized by executing ALL. The settings of this item and LOCALE are not initialized.                                                    |
| <b>Display/Adj/Set Range</b>  | 1 to 4<br>1: AB configuration<br>2: Inch configuration<br>3: A configuration<br>4: AB/Inch configuration                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > CLEAR > ALL<br>COPIER > OPTION > BODY > LOCALE                                                                                                                                       |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; BODY

|                               |                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MIBCOUNT</b>               | <b>Set of charge counter MIB scope range</b>                                                                                                                                                                                                                                                                                                                     |
| <b>Detail</b>                 | To set the range of counter information that can be obtained as MIB (Management Information Base).                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 2<br>0: All charge counters are obtained<br>1: Only displayed counter* is obtained<br>2: All charge counters are not obtained<br>* : Counter specified by COUNTER 1 to 6                                                                                                                                                                                    |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                |
| <b>Related Service Mode</b>   | COPIER > OPTION > USER > COUNTER1 - 6                                                                                                                                                                                                                                                                                                                            |
| <b>Supplement/Memo</b>        | Counter meter-installed models only                                                                                                                                                                                                                                                                                                                              |
| <b>NS-CMD5</b>                | <b>Restriction on use of CRAM-MD5 authentication method at SMTP authentication</b>                                                                                                                                                                                                                                                                               |
| <b>Detail</b>                 | To restrict use of CRAM-MD5 authentication method at the time of SMTP authentication.                                                                                                                                                                                                                                                                            |
| <b>Use Case</b>               | Upon user's request                                                                                                                                                                                                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: SMTP server-dependent<br>1: Not used                                                                                                                                                                                                                                                                                                                |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                |
| <b>Supplement/Memo</b>        | 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. |
| <b>NS-PLN</b>                 | <b>Restriction on use of plaintext authentication at SMTP authentication in unencrypted environment</b>                                                                                                                                                                                                                                                          |
| <b>Detail</b>                 | To restrict use of PLAIN/LOGIN authentication, which is plaintext, at the time of SMTP authentication under the environment where the communication packet is not encrypted.                                                                                                                                                                                     |
| <b>Use Case</b>               | Upon user's request                                                                                                                                                                                                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: SMTP server-dependent<br>1: Not used                                                                                                                                                                                                                                                                                                                |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                |
| <b>Supplement/Memo</b>        | 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 (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; BODY

| <b>NS-LGN</b>                 |                                                                                                                                                                                                                                                                                                                                                                  | <b>Restriction on the use of LOGIN authentication at SMTP authentication</b> |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <b>Detail</b>                 | To restrict use of LOGIN authentication at the time of SMTP authentication.                                                                                                                                                                                                                                                                                      |                                                                              |
| <b>Use Case</b>               | Upon user's request                                                                                                                                                                                                                                                                                                                                              |                                                                              |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                   |                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: SMTP server-dependent<br>1: Not used                                                                                                                                                                                                                                                                                                                |                                                                              |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                |                                                                              |
| <b>Supplement/Memo</b>        | 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. |                                                                              |
| <b>SLPMODE</b>                |                                                                                                                                                                                                                                                                                                                                                                  | <b>Setting of shift to sleep mode</b>                                        |
| <b>Detail</b>                 | To restrict shift to sleep mode.<br>When 1 is set, the machine does not shift to sleep mode.                                                                                                                                                                                                                                                                     |                                                                              |
| <b>Use Case</b>               | When sleep failure occurs                                                                                                                                                                                                                                                                                                                                        |                                                                              |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                   |                                                                              |
| <b>Caution</b>                | When 1 is set, the shift to the sleep mode except the mode (that is the Energy saver mode) that the operation panel becomes off is prohibited. When the Auto Sleep time has passed, the machine shift to the energy saver mode that the operation panel becomes off.<br>The machine cannot prohibit the shift to the mode that the operation panel becomes off.  |                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0 : Shift is available.<br>1 : Shift is not available.                                                                                                                                                                                                                                                                                                 |                                                                              |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                |                                                                              |
| <b>SDTM-DSP</b>               |                                                                                                                                                                                                                                                                                                                                                                  | <b>ON/OFF of Auto Shutdown Time display</b>                                  |
| <b>Detail</b>                 | To set whether to display [Auto Shutdown Time] in [Menu].<br>The setting is enabled only for the model with automatic shutdown function.                                                                                                                                                                                                                         |                                                                              |
| <b>Use Case</b>               | When switching to display or hide the items related to auto shutdown                                                                                                                                                                                                                                                                                             |                                                                              |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                               |                                                                              |
| <b>Caution</b>                | For the model without automatic shutdown function, the setting is disabled even if it is configured.                                                                                                                                                                                                                                                             |                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF<br>1: ON                                                                                                                                                                                                                                                                                                                                        |                                                                              |
| <b>Additional Functions</b>   | Preferences> Timer/Energy Settings> Auto Shutdown Time                                                                                                                                                                                                                                                                                                           |                                                                              |
| <b>Mode</b>                   |                                                                                                                                                                                                                                                                                                                                                                  |                                                                              |
| <b>RMT-SW</b>                 |                                                                                                                                                                                                                                                                                                                                                                  | <b>ON/OFF of remote UI service mode</b>                                      |
| <b>Detail</b>                 | To set whether to allow using service mode on remote UI.                                                                                                                                                                                                                                                                                                         |                                                                              |
| <b>Use Case</b>               | When using service mode on remote UI                                                                                                                                                                                                                                                                                                                             |                                                                              |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                   |                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF, 1: ON                                                                                                                                                                                                                                                                                                                                          |                                                                              |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                |                                                                              |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; BODY

|                               |                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PSWD-SW</b>                | <b>Set password type to enter service mode</b>                                                                                                                                                                                                                                                                                                                                                 |
| <b>Detail</b>                 | To set the type of password that is required to enter when getting into service mode.<br>2 types are available: one for "service technician" and the other for "system administrator + service technician".<br>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. |
| <b>Use Case</b>               | Upon request from the user who concerns security                                                                                                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 2<br>0: No password<br>1: Service technician<br>2: System administrator + service technician                                                                                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>SM-PSWD</b>                | <b>Password setting for service technician</b>                                                                                                                                                                                                                                                                                                                                                 |
| <b>Detail</b>                 | To set password for service technician that is used when getting into service mode.                                                                                                                                                                                                                                                                                                            |
| <b>Use Case</b>               | When password is required to get into service mode                                                                                                                                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                                 |
| <b>Caution</b>                | Be sure to select 1 or 2 with PSWD-SW in advance.                                                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 11111111 to 99999999                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Default Value</b>          | 11111111                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Related Service Mode</b>   | COPIER > OPTION > BODY > PSWD-SW                                                                                                                                                                                                                                                                                                                                                               |

## ■ FNC-SW

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; FNC-SW

|                               |                                                                                                                                                                                                          |
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| <b>LCDSFLG</b>                | <b>Enabling of local CDS server</b>                                                                                                                                                                      |
| <b>Detail</b>                 | To set whether to use the local CDS server.                                                                                                                                                              |
| <b>Use Case</b>               | When using the local CDS server                                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Disabled<br>1: Enabled                                                                                                                                                                      |
| <b>Default Value</b>          | 0                                                                                                                                                                                                        |
| <b>Related Service Mode</b>   | COPIER > FUNCTION > SPLMAN > SPL32620                                                                                                                                                                    |
| <b>Supplement/Memo</b>        | When local CDS is used, iW EMC/MC device firmware update plug-in is required.                                                                                                                            |
| <b>CDS-UGW</b>                | <b>Set to allow firmware update from Remote Monitoring Server</b>                                                                                                                                        |
| <b>Detail</b>                 | To set whether to permit update of the firmware from the Remote Monitoring Server.<br>When "1: Enabled" is set, Updater accepts the operation from the Remote Monitoring Server in cooperation with CDS. |
| <b>Use Case</b>               | When allowing update of the firmware from the Remote Monitoring Server                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                           |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Disabled, 1: Enabled                                                                                                                                                                        |
| <b>Default Value</b>          | It differs according to the location.                                                                                                                                                                    |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; FNC-SW

|                               |                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CDS-FIRM</b>               | <b>Set to allow firmware update by admin</b>                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To set whether to allow the user (administrator) to perform firmware update linked with CDS and collection of log files.                                                                                                                                                                                                                |
| <b>Use Case</b>               | When allowing the administrator to update the firmware                                                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                          |
| <b>Caution</b>                | Do not use it for purposes other than collecting log files.<br>Be sure to return the value to 0 after use.                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Disabled, 1: Enabled                                                                                                                                                                                                                                                                                                       |
| <b>Default Value</b>          | It differs according to the location.                                                                                                                                                                                                                                                                                                   |
| <b>CDS-LVUP</b>               | <b>Set to allow CDS periodical update</b>                                                                                                                                                                                                                                                                                               |
| <b>Detail</b>                 | To set whether to allow the user (administrator) to perform periodical update linked with CDS. When 1 is set, setting of periodical update can be made in via remote UI.                                                                                                                                                                |
| <b>Use Case</b>               | When allowing the user/service technician to perform periodical update                                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                          |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Disabled periodical update<br>1: Enabled periodical update                                                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | It differs according to the location.                                                                                                                                                                                                                                                                                                   |
| <b>CRG-PROC</b>               | <b>Setting of behavior at end of cartridge lifetime</b>                                                                                                                                                                                                                                                                                 |
| <b>Detail</b>                 | To set the operation of the machine when the parts counter of the cartridge reaches the estimated life value.                                                                                                                                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 2<br>0: Not stopped<br>1: Stopped once<br>2: Completely stopped                                                                                                                                                                                                                                                                    |
| <b>Default Value</b>          | 0 (B/W model)<br>1 (Color model)<br>2 (Dealer model)                                                                                                                                                                                                                                                                                    |
| <b>CRGLF-K</b>                | <b>Setting of replacement reference values of Photosensitive Drum, Developing Assembly and Waste Toner (Bk)</b>                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To set the reference values for judging replacement of the component other than toner (Photosensitive Drum, Developing Assembly, and waste toner) included in the life of Bk-color cartridge. These values are used as the basis for calculation of component other than toner when deriving the estimated life value of the cartridge. |
| <b>Use Case</b>               | When toner consumption is low (when the life of the Photosensitive Drum or the Developing Assembly decreases faster than that of toner)                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 100 to 200                                                                                                                                                                                                                                                                                                                              |
| <b>Unit</b>                   | 0.01                                                                                                                                                                                                                                                                                                                                    |
| <b>Default Value</b>          | 100<br>Dealer model differs according to the model.                                                                                                                                                                                                                                                                                     |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; FNC-SW

|                               |                                                                                                                                                                                                            |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RPT2SIDE</b>               | <b>Set of report 1-sided/2-sided output</b>                                                                                                                                                                |
| <b>Detail</b>                 | To set whether to use 1-sided or 2-sided for report output of service mode.                                                                                                                                |
| <b>Use Case</b>               | When making 1-sided report output                                                                                                                                                                          |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                             |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: 1-sided<br>1: 2-sided                                                                                                                                                                         |
| <b>Default Value</b>          | 1                                                                                                                                                                                                          |
| <b>EDB-ADSW</b>               | <b>Setting for using a test environment when constructing an automatic ordering system</b>                                                                                                                 |
| <b>Detail</b>                 | To set whether to use a test environment when constructing an automatic ordering system.                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                             |
| <b>Display/Adj/Set Range</b>  | 0 to 2<br>0: Field (product) environment<br>1: Environment to test external collaboration of the version before release<br>2: Environment to test collaboration of the same version as product environment |
| <b>Default Value</b>          | 0                                                                                                                                                                                                          |

## ■ DSPLY-SW

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; DSPLY-SW

|                               |                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CRGLW-LV</b>               | <b>ON/OFF of cartridge preparation threshold value setting screen display</b>                                                                                                                                                                                                                                                                                      |
| <b>Detail</b>                 | To set whether to display the screen to set the threshold value for the toner level to prompt preparation of a cartridge.<br><br>When 1 is set, [Custom] is displayed in [Display Timing for Cartridge Prep. Notif.] so that the user can set the toner level (1 to 99%).<br><br>When 0 is set, the item is not displayed, so the user cannot set the toner level. |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF, 1: ON                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Additional Functions</b>   | Preferences > Display Settings > Display Timing for Cartridge Prep. Notif.                                                                                                                                                                                                                                                                                         |
| <b>Mode</b>                   |                                                                                                                                                                                                                                                                                                                                                                    |
| <b>CRG-LOG</b>                | <b>Output cartridge replacement log report</b>                                                                                                                                                                                                                                                                                                                     |
| <b>Detail</b>                 | To output the cartridge replacement log in the form of a report.                                                                                                                                                                                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF<br>1: ON                                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                                                                                                                                                  |
| <b>GEN-CRG</b>                | <b>ON/OFF of Canon Genuine Mode display</b>                                                                                                                                                                                                                                                                                                                        |
| <b>Detail</b>                 | To set whether to display Canon Genuine Mode.                                                                                                                                                                                                                                                                                                                      |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                 |
| <b>Display/Adj/Set Range</b>  | 0/1<br>0: Hide<br>1: Display                                                                                                                                                                                                                                                                                                                                       |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Supplement/Memo</b>        | Enabled only for Cartridge model.<br>Not supported by Dealer model.                                                                                                                                                                                                                                                                                                |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; DSPLY-SW

|                               |                                                                                                                                                                      |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RMT-CNCT</b>               | <b>Sw mssg dspl on machine w/o Remote Monitoring Server connect</b>                                                                                                  |
| <b>Detail</b>                 | To set whether to display the message "Contact your service representative." to the customer who uses the machine without having Remote Monitoring Server connected. |
| <b>Use Case</b>               | When switching to display or hide the message depending on whether Remote Monitoring Server is connected or not                                                      |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                                      |
| <b>Caution</b>                | This applies only to the messages displayed in the event of a toner memory detection error. (Alarm code: 10-0091/-0092/-0093/-0094)                                  |
| <b>Display/Adj/Set Range</b>  | 0/1<br>0: Hide<br>1: Display                                                                                                                                         |
| <b>Default Value</b>          | 0                                                                                                                                                                    |
| <b>UFOS-DSP</b>               | <b>Display/hide of uniFLOW Online Setup icon</b>                                                                                                                     |
| <b>Detail</b>                 | To set whether to display or hide the uniFLOW Online Setup icon                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Hide<br>1: Display                                                                                                                                      |
| <b>Default Value</b>          | 0 (except for Dealer model)<br>1 (Dealer model)                                                                                                                      |

## ■ IMG-MCON

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; IMG-MCON

|                               |                                                                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>REGM-SEL</b>               | <b>Adjustment of fine density correction</b>                                                                          |
| <b>Detail</b>                 | To adjust density of fine lines and texts at 1200pdi.<br>The larger the value, the darker the lines and texts become. |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key) and press Apply key.                                    |
| <b>Display/Adj/Set Range</b>  | -1 to 1                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                     |

## ■ USER

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; USER

|                               |                                                                                                |
|-------------------------------|------------------------------------------------------------------------------------------------|
| <b>COUNTER1</b>               | <b>Display of software counter 1</b>                                                           |
| <b>Detail</b>                 | To display counter type for software counter 1 on the Counter Check screen.                    |
| <b>Use Case</b>               | Upon user/dealer's request                                                                     |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                             |
| <b>Caution</b>                | Display only. No change is available.                                                          |
| <b>Display/Adj/Set Range</b>  | 0 to 999<br>0: No registration                                                                 |
| <b>Default Value</b>          | It differs according to the location.                                                          |
| <b>COUNTER2</b>               | <b>Setting of software counter 2</b>                                                           |
| <b>Detail</b>                 | To set counter type for software counter 2 on the Counter Check screen.                        |
| <b>Use Case</b>               | Upon user/dealer's request                                                                     |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch. |
| <b>Display/Adj/Set Range</b>  | 0 to 999<br>0: No registration                                                                 |
| <b>Default Value</b>          | It differs according to the location.                                                          |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; USER

| <b>COUNTER3</b>               |                                                                                                                                           | <b>Setting of software counter 3</b>               |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>Detail</b>                 | To set counter type for software counter 3 on the Counter Check screen.                                                                   |                                                    |
| <b>Use Case</b>               | Upon user/dealer's request                                                                                                                |                                                    |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                            |                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 999<br>0: No registration                                                                                                            |                                                    |
| <b>Default Value</b>          | It differs according to the location.                                                                                                     |                                                    |
| <b>COUNTER4</b>               |                                                                                                                                           | <b>Setting of software counter 4</b>               |
| <b>Detail</b>                 | To set counter type for software counter 4 on the Counter Check screen.                                                                   |                                                    |
| <b>Use Case</b>               | Upon user/dealer's request                                                                                                                |                                                    |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                            |                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 999<br>0: No registration                                                                                                            |                                                    |
| <b>Default Value</b>          | It differs according to the location.                                                                                                     |                                                    |
| <b>COUNTER5</b>               |                                                                                                                                           | <b>Setting of software counter 5</b>               |
| <b>Detail</b>                 | To set counter type for software counter 5 on the Counter Check screen.                                                                   |                                                    |
| <b>Use Case</b>               | Upon user/dealer's request                                                                                                                |                                                    |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                            |                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 999<br>0: No registration                                                                                                            |                                                    |
| <b>Default Value</b>          | It differs according to the location.                                                                                                     |                                                    |
| <b>COUNTER6</b>               |                                                                                                                                           | <b>Setting of software counter 6</b>               |
| <b>Detail</b>                 | To set counter type for software counter 6 on the Counter Check screen.                                                                   |                                                    |
| <b>Use Case</b>               | Upon user/dealer's request                                                                                                                |                                                    |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                            |                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 999<br>0: No registration                                                                                                            |                                                    |
| <b>Default Value</b>          | It differs according to the location.                                                                                                     |                                                    |
| <b>CNT-SW</b>                 |                                                                                                                                           | <b>Set default Display items on charge counter</b> |
| <b>Detail</b>                 | To set default display items of the charge counter on the Counter Check screen.<br>For details of each type, refer to the Service Manual. |                                                    |
| <b>Use Case</b>               | Upon user's request                                                                                                                       |                                                    |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                            |                                                    |
| <b>Display/Adj/Set Range</b>  | 0 to 3<br>0: Type1<br>1: Type2<br>2: Type3<br>3: Type4                                                                                    |                                                    |
| <b>Default Value</b>          | 0                                                                                                                                         |                                                    |
| <b>Supplement/Memo</b>        | Counter meter-installed models only                                                                                                       |                                                    |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; USER

|                                  |                                                                                                                                                                                                                                                                      |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CONTROL</b>                   | <b>Charge setting of PDL job</b>                                                                                                                                                                                                                                     |
| <b>Detail</b>                    | To set charge count transmission of PDL job to the connecting charging management device (Coin Manager or non-Canon-made control card).                                                                                                                              |
| <b>Use Case</b>                  | Upon user's request                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b>    | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>     | 0 to 2<br>0: Output is available without control card. Not counted.<br>1: Output is available at insertion of the card. Counted.<br>2: Output is available at insertion of the card. Not counted.                                                                    |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                    |
| <b>CTCHKDSP</b>                  | <b>ON/OFF of charge counter list output</b>                                                                                                                                                                                                                          |
| <b>Detail</b>                    | To set whether to print the charge counter in the system management data list.                                                                                                                                                                                       |
| <b>Use Case</b>                  | Upon user's request                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b>    | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>     | 0 to 1<br>0: ON, 1: OFF                                                                                                                                                                                                                                              |
| <b>Default Value</b>             | 1                                                                                                                                                                                                                                                                    |
| <b>Additional Functions Mode</b> | Output Report > Print List > System Manager Data List                                                                                                                                                                                                                |
| <b>Supplement/Memo</b>           | Counter meter-installed models only                                                                                                                                                                                                                                  |
| <b>TNRB-SW</b>                   | <b>ON/OFF of toner replacement counter display</b>                                                                                                                                                                                                                   |
| <b>Detail</b>                    | To set whether to display the toner replacement counter on the Counter Check screen.<br>When 1 is set, the user can check the toner replacement counter.                                                                                                             |
| <b>Use Case</b>                  | Upon user's request                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b>    | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>     | 0 to 3<br>0: Hide<br>1: Display (Toner replacement counters in the 190s)<br>2 to 3: Not used                                                                                                                                                                         |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                    |
| <b>PS-MODE</b>                   | <b>Setting of compatible mode at PS usage</b>                                                                                                                                                                                                                        |
| <b>Detail</b>                    | To set the image processing at PS print.<br>Set 8 when line width differs depending on the drawing position although the same line width is set.<br>Setting of a value other than the setting values means that multiple settings are combined.<br>(Example: 12=4+8) |
| <b>Use Case</b>                  | Upon user's request                                                                                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b>    | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                       |
| <b>Display/Adj/Set Range</b>     | 0 to 63<br>4: Compatible with EFI at PS 2-sided delivery<br>8: strokeadjustment is enabled<br>Any value other than those mentioned above: Not used                                                                                                                   |
| <b>Default Value</b>             | 0                                                                                                                                                                                                                                                                    |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; USER

|                               |                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SMD-EXPT</b>               | <b>Set of service mode set VL export target</b>                                                                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To set whether to export "service mode data" from remote UI.<br>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.                                                                                                                             |
| <b>Use Case</b>               | When installing more than 1 machine at the same time                                                                                                                                                                                                                                                                                                                                       |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                                                                                                                                                                                                             |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Not targeted<br>1: Targeted                                                                                                                                                                                                                                                                                                                                                   |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Supplement/Memo</b>        | 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.                                                                                                                                                                                                                                                 |
| <b>ACC-SLP</b>                | <b>Set shift to sleep3: Card Reader connect</b>                                                                                                                                                                                                                                                                                                                                            |
| <b>Detail</b>                 | To set whether to shift to sleep mode 3 when the Card Reader is connected.                                                                                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Not shifted<br>1: Shifted                                                                                                                                                                                                                                                                                                                                                     |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>RPL-IMP</b>                | <b>ON/OFF of replacement mode</b>                                                                                                                                                                                                                                                                                                                                                          |
| <b>Detail</b>                 | To set whether to import the setting information of a machine which has been exported to a different one of the same model using DCM function.<br>When 0 is set, the setting information which has been exported can be imported only to the same machine.<br>When 1 is set, the machine-specific setting information such as IPv4 address setting can be imported to a different machine. |
| <b>Use Case</b>               | When migrating the setting of a machine to a different machine of the same series that has been replaced                                                                                                                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF, 1: ON                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Supplement/Memo</b>        | DCM (Device Configuration Management): A function to export/import the machine's setting information as a file.                                                                                                                                                                                                                                                                            |

## ■ ACC

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; ACC

|                               |                                                                                                                                                                                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CARD-SW</b>                | <b>Setting of screen display when Coin Manager is connected</b>                                                                                                                                      |
| <b>Detail</b>                 | To set coin or card that the user is prompted to insert on the Control Panel when the Coin Manager is connected.<br>When 1 is set, authentication operation using the Coin Manager is also required. |
| <b>Use Case</b>               | Upon user's request                                                                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch.                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 0 to 3<br>0 and 3: Card<br>1: Card + authentication<br>2: Coin/Card                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                    |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; ACC

| CC-SPSW                       | Setting of Control Interface Kit                                                               |
|-------------------------------|------------------------------------------------------------------------------------------------|
| <b>Detail</b>                 | To set whether to support the Control Interface Kit.                                           |
| <b>Use Case</b>               | At installation of Coin Manager                                                                |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch. |
| <b>Caution</b>                | Parallel use with Card Reader is not available.                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Not supported<br>1: Supported                                                     |
| <b>Default Value</b>          | 0                                                                                              |
| WLAN                          | Setting of wireless LAN function                                                               |
| <b>Detail</b>                 | To set whether to enable the wireless LAN function.                                            |
| <b>Use Case</b>               | Upon user's request                                                                            |
| <b>Adj/Set/Operate Method</b> | 1) Enter the setting value, and then press Apply key.<br>2) Turn OFF/ON the main power switch. |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Disabled<br>1: Enabled                                                            |
| <b>Default Value</b>          | It differs according to the model.                                                             |

## ■ LCNS-TR

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; LCNS-TR

| ST-BRDIM                      | Install state Display of BarDIMM function                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Detail</b>                 | To display installation state of Barcode Printing for PCL when disabling and then transferring the license.                                                 |
| <b>Use Case</b>               | When checking whether Barcode Printing for PCL is installed                                                                                                 |
| <b>Adj/Set/Operate Method</b> | 1) Select ST-BRDIM.<br>2) Enter 0, and then press Apply key.<br>When installation has been completed, the transfer license key is displayed under TR-BRDIM. |
| <b>Default Value</b>          | According to the setting at shipment                                                                                                                        |
| TR-BRDIM                      | Transfer license key display of BarDIMM (outside Japan)                                                                                                     |
| <b>Detail</b>                 | To display transfer license key to use Barcode Printing for PCL when disabling and then transferring the license.                                           |
| <b>Use Case</b>               | When replacing the device                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | 1) Select ST-BRDIM.<br>2) Enter 0, and then press Apply key.<br>The transfer license key is displayed under TR-BRDIM.                                       |
| <b>Display/Adj/Set Range</b>  | 24 digits                                                                                                                                                   |
| ST-ENPDF                      | Installation state display of encrypted PDF transmission function                                                                                           |
| <b>Detail</b>                 | To display installation state of Encryption PDF when disabling and then transferring the license.                                                           |
| <b>Use Case</b>               | When checking whether Encryption PDF is installed                                                                                                           |
| <b>Adj/Set/Operate Method</b> | 1) Select ST-ENPDF.<br>2) Enter 0, and then press Apply key.<br>When installation has been completed, the transfer license key is displayed under TR-ENPDF. |
| <b>Default Value</b>          | According to the setting at shipment                                                                                                                        |

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; LCNS-TR

|                               |                                                                                                                                                             |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TR-ENPDF</b>               | <b>Transfer license key display of encrypted PDF transmission function</b>                                                                                  |
| <b>Detail</b>                 | To display transfer license key to use Encryption PDF when disabling and then transferring the license.                                                     |
| <b>Use Case</b>               | When replacing the device                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | 1) Select ST-ENPDF.<br>2) Enter 0, and then press Apply key.<br>The transfer license key is displayed under TR-ENPDF.                                       |
| <b>Caution</b>                | This mode is enabled when SEND function is installed.                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 24 digits                                                                                                                                                   |
| <b>ST-DVPDF</b>               | <b>Installation state display of device signature added PDF transmission function</b>                                                                       |
| <b>Detail</b>                 | To display installation state of Device Signature PDF when disabling and then transferring the license.                                                     |
| <b>Use Case</b>               | When checking whether Device Signature PDF is installed                                                                                                     |
| <b>Adj/Set/Operate Method</b> | 1) Select ST-DVPDF.<br>2) Enter 0, and then press Apply key.<br>When installation has been completed, the transfer license key is displayed under TR-DVPDF. |
| <b>Default Value</b>          | According to the setting at shipment                                                                                                                        |
| <b>TR-DVPDF</b>               | <b>Transfer license key display of device signature added PDF transmission function</b>                                                                     |
| <b>Detail</b>                 | To display transfer license key to use Device Signature PDF when disabling and then transferring the license.                                               |
| <b>Use Case</b>               | When replacing the device                                                                                                                                   |
| <b>Adj/Set/Operate Method</b> | 1) Select ST-DVPDF.<br>2) Enter 0, and then press Apply key.<br>The transfer license key is displayed under TR-DVPDF.                                       |
| <b>Caution</b>                | This mode is enabled when SEND function is installed.                                                                                                       |
| <b>Display/Adj/Set Range</b>  | 24 digits                                                                                                                                                   |

## ■ LCNS-OF

COPIER (Service mode for printer) &gt; OPTION (Specification setting mode) &gt; LCNS-OF

|                 |                |
|-----------------|----------------|
| <b>ST-BRDIM</b> | <b>Not use</b> |
| <b>ST-ENPDF</b> | <b>Not use</b> |
| <b>ST-DVPDF</b> | <b>Not use</b> |

## ● COUNTER (Counter mode)

### ■ TOTAL

COPIER (Service mode for printer) &gt; COUNTER (Counter mode) &gt; TOTAL

|                               |                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>SERVICE1</b>               | <b>Service-purposed total counter 1</b>                                                                                          |
| <b>Detail</b>                 | To count up when the printout is delivered outside the machine.<br>Large size: 1, Small size: 1<br>A blank sheet is not counted. |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                               |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                    |
| <b>Unit</b>                   | 1 sheet                                                                                                                          |
| <b>Default Value</b>          | 0                                                                                                                                |

COPIER (Service mode for printer) &gt; COUNTER (Counter mode) &gt; TOTAL

|                               |                                                                                                                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SERVICE2</b>               | <b>Service-purposed total counter 2</b>                                                                                                                                                                           |
| <b>Detail</b>                 | To count up when the printout is delivered outside the machine.<br>Large size: 2, Small size: 1<br>A blank sheet is not counted.                                                                                  |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                                                                     |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                                                                           |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                 |
| <b>TTL</b>                    | <b>Total counter</b>                                                                                                                                                                                              |
| <b>Detail</b>                 | To display the total of counters of COPY, PDL-PRT, FAX-PRT, RPT-PRT, and MD-PRT.                                                                                                                                  |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                                                                     |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                                                                           |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > COUNTER > TOTAL > COPY, PDL-PRT, FAX-PRT, RPT-PRT, MD-PRT                                                                                                                                                |
| <b>COPY</b>                   | <b>Total copy counter</b>                                                                                                                                                                                         |
| <b>Detail</b>                 | To count up when the printout is delivered outside the machine.<br>Large size: 1, Small size: 1<br>A blank sheet is not counted.                                                                                  |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                                                                     |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                                                                           |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                 |
| <b>PDL-PRT</b>                | <b>PDL print counter</b>                                                                                                                                                                                          |
| <b>Detail</b>                 | To count up when the printout is delivered outside the machine/2-sided printout is stacked at PDL print.<br>Large size: 1, Small size: 1<br>A blank sheet is not counted.                                         |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                                                                     |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                                                                           |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                 |
| <b>FAX-PRT</b>                | <b>FAX reception print counter</b>                                                                                                                                                                                |
| <b>Detail</b>                 | To count up when the FAX reception print is delivered outside the machine/2-sided printout is stacked.<br>Large size: 1, Small size: 1<br>The counter is not advanced by blank paper or delivery in service mode. |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                                |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                                                                     |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                                                                           |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                 |
| <b>Related Service Mode</b>   | COPIER > COUNTER > TOTAL > TTL                                                                                                                                                                                    |
| <b>Supplement/Memo</b>        | FAX model only                                                                                                                                                                                                    |

COPIER (Service mode for printer) &gt; COUNTER (Counter mode) &gt; TOTAL

|                               |                                                                                                                                                                                                            |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RPT-PRT</b>                | <b>Report print counter</b>                                                                                                                                                                                |
| <b>Detail</b>                 | To count up when the report print is delivered outside the machine/2-sided printout is stacked.<br>Large size: 1, Small size: 1<br>The counter is not advanced by blank paper or delivery in service mode. |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                                                              |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                                                                    |
| <b>Default Value</b>          | 0                                                                                                                                                                                                          |
| <b>Related Service Mode</b>   | COPIER > COUNTER > TOTAL > TTL                                                                                                                                                                             |
| <b>MD-PRT</b>                 | <b>Media print counter</b>                                                                                                                                                                                 |
| <b>Detail</b>                 | To count up when the media print is delivered outside the machine.<br>Large size: 1, Small size: 1<br>The counter is not advanced by blank paper or delivery in service mode.                              |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                                                              |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                                                                    |
| <b>Default Value</b>          | 0                                                                                                                                                                                                          |
| <b>Related Service Mode</b>   | COPIER > COUNTER > TOTAL > TTL                                                                                                                                                                             |
| <b>2-SIDE</b>                 | <b>2-sided copy/print counter</b>                                                                                                                                                                          |
| <b>Detail</b>                 | To count up the number of 2-sided copies/prints when the copy/printout is delivered outside the machine/2-sided copy/printout is stacked.<br>Large size: 1, Small size: 1<br>A blank sheet is not counted. |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                                                              |
| <b>Unit</b>                   | 1 time                                                                                                                                                                                                     |
| <b>Default Value</b>          | 0                                                                                                                                                                                                          |
| <b>SCAN</b>                   | <b>Scan counter</b>                                                                                                                                                                                        |
| <b>Detail</b>                 | To count the number of scan operations when the scanning operation is complete.<br>Large size: 1, Small size: 1                                                                                            |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                                                              |
| <b>Unit</b>                   | 1 time                                                                                                                                                                                                     |
| <b>Default Value</b>          | 0                                                                                                                                                                                                          |

## ■ PICK-UP

COPIER (Service mode for printer) &gt; COUNTER (Counter mode) &gt; PICK-UP

|                               |                                                                                                                                                         |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C1</b>                     | <b>Cassette 1 pickup total counter</b>                                                                                                                  |
| <b>Detail</b>                 | To count up the number of sheets picked up from the Cassette 1.<br>Large size: 1, Small size: 1<br>The counter is advanced by printout in service mode. |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                           |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                       |

COPIER (Service mode for printer) &gt; COUNTER (Counter mode) &gt; PICK-UP

|                               |                                                                                                                                                                             |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C2</b>                     | <b>Cassette 2 pickup total counter</b>                                                                                                                                      |
| <b>Detail</b>                 | To count up the number of sheets picked up from the Cassette 2.<br>Large size: 1, Small size: 1<br>The counter is advanced by printout in service mode.                     |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                          |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                               |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                                     |
| <b>Default Value</b>          | 0                                                                                                                                                                           |
| <b>MF</b>                     | <b>Multi-purpose Tray pickup total counter</b>                                                                                                                              |
| <b>Detail</b>                 | To count up the number of sheets picked up from the Multi-purpose Tray Pickup Unit.<br>Large size: 1, Small size: 1<br>The counter is advanced by printout in service mode. |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                          |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                               |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                                     |
| <b>Default Value</b>          | 0                                                                                                                                                                           |
| <b>2-SIDE</b>                 | <b>2-sided pickup total counter</b>                                                                                                                                         |
| <b>Detail</b>                 | To count up the number of sheets picked up in duplex mode.<br>Large size: 1, Small size: 1<br>The counter is advanced by printout in service mode.                          |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                                          |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                                               |
| <b>Unit</b>                   | 1 sheet                                                                                                                                                                     |
| <b>Default Value</b>          | 0                                                                                                                                                                           |

## ■ FEEDER

COPIER (Service mode for printer) &gt; COUNTER (Counter mode) &gt; FEEDER

|                               |                                                                                     |
|-------------------------------|-------------------------------------------------------------------------------------|
| <b>FEED</b>                   | <b>DADF original pickup total counter</b>                                           |
| <b>Detail</b>                 | To count up the number of originals picked up from the DADF regardless of the size. |
| <b>Use Case</b>               | When checking the total counter of original pickup by DADF                          |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                  |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                       |
| <b>Unit</b>                   | 1 sheet                                                                             |
| <b>Default Value</b>          | 0                                                                                   |

## ■ JAM

COPIER (Service mode for printer) &gt; COUNTER (Counter mode) &gt; JAM

|                               |                                                  |
|-------------------------------|--------------------------------------------------|
| <b>TOTAL</b>                  | <b>Total jam counter</b>                         |
| <b>Detail</b>                 | To count up the number of total jam occurrences. |
| <b>Use Case</b>               | When checking the jam counter                    |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                               |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                    |
| <b>Unit</b>                   | 1 time                                           |
| <b>Default Value</b>          | 0                                                |

COPIER (Service mode for printer) &gt; COUNTER (Counter mode) &gt; JAM

|                               |                                                                                                                                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>FEEDER</b>                 | <b>DADF jam counter</b>                                                                                                                              |
| <b>Detail</b>                 | To count up the number of jam occurrences in the DADF.                                                                                               |
| <b>Use Case</b>               | When checking the jam counter                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                        |
| <b>Unit</b>                   | 1 time                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                    |
| <b>2-SIDE</b>                 | <b>Duplex Unit jam counter</b>                                                                                                                       |
| <b>Detail</b>                 | To count up the number of jam occurrences in the Duplex Unit.                                                                                        |
| <b>Use Case</b>               | When checking the jam counter                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                        |
| <b>Unit</b>                   | 1 time                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                    |
| <b>MF</b>                     | <b>Multi-purpose Tray jam counter</b>                                                                                                                |
| <b>Detail</b>                 | To count up the number of jam occurrences in the Multi-purpose Tray.<br>The counter is advanced even in the case of paper size mismatch or misprint. |
| <b>Use Case</b>               | When checking the jam counter                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                        |
| <b>Unit</b>                   | 1 time                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                    |
| <b>C1</b>                     | <b>Cassette 1 jam counter</b>                                                                                                                        |
| <b>Detail</b>                 | To count up the number of jam occurrences in the Cassette 1.<br>The counter is advanced even in the case of paper size mismatch or misprint.         |
| <b>Use Case</b>               | When checking the jam counter                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                        |
| <b>Unit</b>                   | 1 time                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                    |
| <b>C2</b>                     | <b>Cassette 2 jam counter</b>                                                                                                                        |
| <b>Detail</b>                 | To count up the number of jam occurrences in the Cassette 2.<br>The counter is advanced even in the case of paper size mismatch or misprint.         |
| <b>Use Case</b>               | When checking the jam counter                                                                                                                        |
| <b>Adj/Set/Operate Method</b> | N/A (Display only)                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 99999999                                                                                                                                        |
| <b>Unit</b>                   | 1 time                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                    |

## FEEDER (ADF service mode)

### ADJUST (Adjustment mode)

FEEDER (ADF service mode) > ADJUST (Adjustment mode)

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DOCST</b>                  | <b>Adjustment of image leading edge margin at stream reading [front side]</b>                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Detail</b>                 | To adjust the leading edge margin of the image on the front side at stream reading.<br>Execute this item when the output image after DADF installation is displaced.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>As the value is incremented by 1, the margin is reduced by 0.1 mm. (The image moves upward.)<br>The setting is applied to the image on the front side.                          |
| <b>Use Case</b>               | - When installing the DADF<br>- When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Display/Adj/Set Range</b>  | -30 to 30                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>LA-SPEED</b>               | <b>Fine adjustment of image magnification ratio in vertical scanning direction at stream reading [front side]</b>                                                                                                                                                                                                                                                                                                                                      |
| <b>Detail</b>                 | To make a fine adjustment of the image magnification ratio in vertical scanning direction on the front side at stream reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>As the value is incremented by 1, the image is reduced by 0.01% in vertical scanning direction.<br>(The feeding speed increases, and the image is reduced.)<br>The setting is applied to the image on the front side. |
| <b>Use Case</b>               | - When installing the DADF<br>- When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Display/Adj/Set Range</b>  | -200 to 200                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Unit</b>                   | 0.01%                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>DOCST2</b>                 | <b>Adjustment of image leading edge margin at stream reading [back side]</b>                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Detail</b>                 | To adjust the leading edge margin of the image on the back side at stream reading.<br>Execute this item when the output image after DADF installation is displaced.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>As the value is incremented by 1, the margin is reduced by 0.1 mm. (The image moves upward.)<br>The setting is applied to the image on the back side.                            |
| <b>Use Case</b>               | - When installing the DADF<br>- When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                               |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                                                                                                                                               |
| <b>Display/Adj/Set Range</b>  | -30 to 30                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Unit</b>                   | 0.1 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

FEEDER (ADF service mode) &gt; ADJUST (Adjustment mode)

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>LA-SPD2</b>                | <b>Fine adjustment of image magnification ratio in vertical scanning direction at stream reading [back side]</b>                                                                                                                                                                                                                                                                                                                                     |
| <b>Detail</b>                 | To make a fine adjustment of the image magnification ratio in vertical scanning direction on the back side at stream reading.<br>When replacing the Main Controller PCB/clearing RAM data, enter the value of service label.<br>As the value is incremented by 1, the image is reduced by 0.01% in vertical scanning direction.<br>(The feeding speed increases, and the image is reduced.)<br>The setting is applied to the image on the back side. |
| <b>Use Case</b>               | - When installing the DADF<br>- When replacing the Main Controller PCB/clearing RAM data                                                                                                                                                                                                                                                                                                                                                             |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                                                                                                                                             |
| <b>Display/Adj/Set Range</b>  | -200 to 200                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Unit</b>                   | 0.01%                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## FUNCTION (Operation / inspection mode)

FEEDER (ADF service mode) &gt; FUNCTION (Operation / inspection mode)

|                               |                                                                                                                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MTR-ON</b>                 | <b>Operation check of ADF Motor</b>                                                                                                                                             |
| <b>Detail</b>                 | To start operation check of ADF Motor (M702).                                                                                                                                   |
| <b>Use Case</b>               | At operation check                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | 1) Select the item, and then press Yes key.<br>It is driven for approximately 5 seconds and is automatically stopped.<br>2) Press Yes key.<br>The operation check is completed. |
| <b>Required Time</b>          | 5 seconds                                                                                                                                                                       |
| <b>FEED-ON</b>                | <b>Operation check of DADF individual feed</b>                                                                                                                                  |
| <b>Detail</b>                 | To start operation check of the feed mode specified by FEED-CHK.                                                                                                                |
| <b>Use Case</b>               | At operation check                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                                                                                                                                        |
| <b>Related Service Mode</b>   | FEEDER > FUNCTION > FEED-CHK                                                                                                                                                    |
| <b>FEED-CHK</b>               | <b>Specify DADF individual feed operation</b>                                                                                                                                   |
| <b>Detail</b>                 | To specify the feed mode for DADF.<br>Feed operation is activated by FEED-ON.                                                                                                   |
| <b>Use Case</b>               | At operation check                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: 1-sided<br>1: 2-sided                                                                                                                                              |
| <b>Default Value</b>          | 0                                                                                                                                                                               |
| <b>Related Service Mode</b>   | FEEDER > FUNCTION > FEED-ON                                                                                                                                                     |
| <b>Supplement/Memo</b>        | In the case of DADF (1-path model), operation is the same when either value is set.                                                                                             |

## FAX (FAX service mode)

### SSSW (Bit switch registration mode)

| SSSW No. | Bit No.        | Function                                                        |
|----------|----------------|-----------------------------------------------------------------|
| SW 01    |                | (Switch relating to error and copy)                             |
|          | Bit 0          | Output of error code for service technician                     |
|          | Bit 1          | Error memory dump                                               |
|          | Bit 2 to Bit 7 | Not in use                                                      |
| SW 02    |                | (Switch relating to settings for network connection condition)  |
|          | Bit 0 to Bit 6 | Not in use                                                      |
|          | Bit 7          | Connect the terminal as F network type 2                        |
| SW 03    |                | (Switch relating to echo prevention)                            |
|          | Bit 0          | TCF EQM check                                                   |
|          | Bit 1 to Bit 6 | Not in use                                                      |
|          | Bit 7          | Output 1080Hz before CED                                        |
| SW 04    |                | (Switch relating to prevention of communication problems)       |
|          | Bit 0          | Not in use                                                      |
|          | Bit 1          | Frequency check of CI signal                                    |
|          | Bit 2          | Not in use                                                      |
|          | Bit 3          | Prohibit T.30 node F kept by both parties                       |
|          | Bit 4          | T.30 node F echo timer                                          |
|          | Bit 5          | Frequency check of CI signal at PBX settings                    |
|          | Bit 6          | No CNG transmission at the time of manual transmission          |
|          | Bit 7          | No CED transmission at the time of manual transmission          |
| SW 05    |                | (Switch relating to standard functions and DIS signal settings) |
|          | Bit 0 to Bit 1 | Not in use                                                      |
|          | Bit 2          | mm/inch conversion (text/photo mode / photo mode)               |
|          | Bit 3          | Prohibition of bit transmission after DIS bit 33                |
|          | Bit 4          | Declaration of cut paper                                        |
|          | Bit 5 to Bit 7 | Not in use                                                      |
| SW 06    |                | (Switch relating to settings for reading condition)             |
|          | Bit 0 to Bit 3 | Not in use                                                      |
|          | Bit 4          | Scan width (0: A4, 1: LTR)                                      |
|          | Bit 5 to Bit 7 | Not in use                                                      |
| SW 07    | Bit 0 to Bit 7 | Not in use                                                      |
| SW 08    | Bit 0 to Bit 7 | Not in use                                                      |
| SW 09    | Bit 0 to Bit 7 | Not in use                                                      |
| SW 10    | Bit 0 to Bit 7 | Not in use                                                      |
| SW 11    | Bit 0 to Bit 7 | Not in use                                                      |
| SW 12    |                | (Switch relating to settings for page timer)                    |
|          | Bit 0          | Timeout period for 1 page (transmission)                        |
|          | Bit 1          |                                                                 |
|          | Bit 2          | Timeout period for 1 page (Halftone transmission)               |
|          | Bit 3          |                                                                 |
|          | Bit 4          | Timeout period for 1 page (Reception)                           |
|          | Bit 5          |                                                                 |
|          | Bit 6          | Not in use                                                      |
|          | Bit 7          | Timeout period for 1 page                                       |
| SW 13    | Bit 0 to Bit 1 | Not in use                                                      |
|          | Bit 2          | Execution of mm/inch conversion when sending the received image |
|          | Bit 3 to Bit 7 | Not in use                                                      |
| SW 14    | Bit 0 to Bit 1 | Not in use                                                      |

| SSSW No. | Bit No.        | Function                                                                                                                               |
|----------|----------------|----------------------------------------------------------------------------------------------------------------------------------------|
| SW 14    | Bit 2          | Setting whether to execute inch to mm conversion in horizontal and vertical scanning directions or in vertical scanning direction only |
|          | Bit 3          | Not in use                                                                                                                             |
|          | Bit 4          | Declaration of inch-configuration resolution                                                                                           |
|          | Bit 5 to Bit 7 | Not in use                                                                                                                             |
| SW 15    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 16    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 17    | Bit 0          | Not in use                                                                                                                             |
|          | Bit 1          | Range of selection of transmission level of modem (0: 8 to 15, 1: 0 to 15)                                                             |
|          | Bit 2 to Bit 7 | Not in use                                                                                                                             |
| SW 18    | Bit 0          | Detection of carrier disconnection between DCS and TCF                                                                                 |
|          | Bit 1          | Time to wait for carrier disconnection between DCS and TCF                                                                             |
|          | Bit 2          | Prohibition of communication control for IP network                                                                                    |
|          | Bit 3          | Number of command retransmission (V1.7 or earlier) (0: 3 times, 1: 6 times)                                                            |
|          | Bit 4          | Retransmission request of all frames after frame loss at JBIG reception (0: Not requested, 1: Requested)                               |
|          | Bit 5 to Bit 7 | Not in use                                                                                                                             |
| SW 19    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 20    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 21    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 22    | Bit 0 to Bit 2 | Not in use                                                                                                                             |
|          | Bit 3          | Prohibition of manual polling operation                                                                                                |
|          | Bit 4 to Bit 7 | Not in use                                                                                                                             |
| SW 23    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 24    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 25    |                | (Setting for report display function)                                                                                                  |
|          | Bit 0          | Prioritize the received abbreviated name to the dialed abbreviated name                                                                |
|          | Bit 1 to Bit 7 | Not in use                                                                                                                             |
| SW 26    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 27    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 28    | Bit 0          | Prohibit calling party for V8 procedure                                                                                                |
|          | Bit 1          | Prohibit called party from V8 procedure                                                                                                |
|          | Bit 2          | Prohibit calling party from V8 late-start                                                                                              |
|          | Bit 3          | Prohibit called party from V8 late-start                                                                                               |
|          | Bit 4          | Prohibit V.34 called party from starting fallback                                                                                      |
|          | Bit 5          | Prohibit V.34 calling party from starting fallback                                                                                     |
|          | Bit 6 to Bit 7 | Not in use                                                                                                                             |
| SW 29    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 30    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 31    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 32    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 33    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 34    | Bit 0 to Bit 7 | Not in use                                                                                                                             |
| SW 35    | Bit 0 to Bit 7 | Not in use                                                                                                                             |

## MENU (Menu switch registration mode)

| No. | Parameter  | Selection |
|-----|------------|-----------|
| 1   | Not in use | -         |
| 2   | Not in use | -         |
| 3   | Not in use | -         |
| 4   | Not in use | -         |
| 5   | Not in use | -         |

| No. | Parameter                            | Selection                                                                                                                                                                                                                               |
|-----|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6   | Telephone line monitor               | 0 to 3<br>0: DIAL<br>1: SERVICE TECHNICIAN 1<br>2: SERVICE TECHNICIAN 2<br>3: OFF                                                                                                                                                       |
| 7   | Transmission level (ATT)             | 8 to 15                                                                                                                                                                                                                                 |
| 8   | Upper limit of V.34 modulation speed | 0 to 5<br>0: 3,429 BAUD<br>1: 3,200 BAUD<br>2: 3,000 BAUD<br>3: 2,800 BAUD<br>4: 2,743 BAUD<br>5: 2,400 BAUD                                                                                                                            |
| 9   | Upper limit of V.34 data speed       | 0 to 13<br>0: 33.6 kbps<br>1: 31.2 kbps<br>2: 28.8 kbps<br>3: 26.4 kbps<br>4: 24.0 kbps<br>5: 21.6 kbps<br>6: 19.2 kbps<br>7: 16.8 kbps<br>8: 14.4 kbps<br>9: 12.0 kbps<br>10: 9.6 kbps<br>11: 7.2 kbps<br>12: 4.8 kbps<br>13: 2.4 kbps |
| 10  | OFF Hook signal frequency            | 0 to 2<br>0: 50 Hz<br>1: 25 Hz<br>2: 17 Hz                                                                                                                                                                                              |

## NUM (Numeric parameter setting mode)

| No. | Parameter                                                          | Allowable setting range                      |
|-----|--------------------------------------------------------------------|----------------------------------------------|
| 001 | Not in use                                                         | -                                            |
| 002 | RTN transmission criteria X                                        | 1 to 99%                                     |
| 003 | RTN transmission criteria n                                        | 2 to 99times                                 |
| 004 | RTN transmission criteria m                                        | 1 to 99lines                                 |
| 005 | NCC pause (before ID code)                                         | 1 to 60 sec                                  |
| 006 | NCC pause (after ID code)                                          | 1 to 60 sec                                  |
| 007 | Not in use                                                         | -                                            |
| 008 | STORED_DIAL_MODE wait timer                                        | 0 to 65 sec                                  |
| 009 | Not in use                                                         | -                                            |
| 010 | T.30 T0 timer                                                      | 0 to 9,999<br>(55 sec principally: 5,500)    |
| 011 | T.30 T1 timer (for incoming transmission)                          | 0 to 9,999<br>(France: 3,500, Others: 3,000) |
| 012 | Maximum incoming lines                                             | 0 to 65,535 lines<br>(0: without limitation) |
| 013 | T.30 EOL timer                                                     | 500 to 3,000<br>(default 13 sec: 1,300)      |
| 014 | Not in use                                                         | -                                            |
| 015 | Threshold between hokking nad on-hook                              | 0 to 999                                     |
| 016 | Lead time to the first response when switching between FAX and TEL | 0 to 9                                       |
| 017 | Duration to activate pseudo-RBT cadence                            | 0 to 999                                     |
| 018 | Duration to deactivate pseudo-RBT cadence (short)                  | 0 to 999                                     |

| No. | Parameter                                                                                           | Allowable setting range    |
|-----|-----------------------------------------------------------------------------------------------------|----------------------------|
| 019 | Duration to deactivate pseudo-RBT cadence (long)                                                    | 0 to 999                   |
| 020 | Duration to activate pseudo-ring cadence                                                            | 0 to 999                   |
| 021 | Duration to deactivate OFF Hook cadence (short)                                                     | 0 to 999                   |
| 022 | Duration to deactivate OFF Hook cadence (long)                                                      | 0 to 999                   |
| 023 | Not in use                                                                                          | -                          |
| 024 | Not in use                                                                                          | -                          |
| 025 | CNG monitor duration while the answering device is activated                                        | 0 to 999                   |
| 026 | Not in use                                                                                          | -                          |
| 027 | Not in use                                                                                          | -                          |
| 028 | Not in use                                                                                          | -                          |
| 029 | Off-hook PCB duty settings (For NAC, setting can be made with SPL71100 in special management mode.) | 1 to 99                    |
| 030 | Not in use                                                                                          | -                          |
| 031 | Not in use                                                                                          | -                          |
| 032 | Not in use                                                                                          | -                          |
| 033 | Not in use                                                                                          | -                          |
| 034 | Not in use                                                                                          | -                          |
| 035 | Not in use                                                                                          | -                          |
| 036 | Not in use                                                                                          | -                          |
| 037 | Not in use                                                                                          | -                          |
| 038 | Not in use                                                                                          | -                          |
| 039 | Not in use                                                                                          | -                          |
| 040 | Not in use                                                                                          | -                          |
| 041 | Not in use                                                                                          | -                          |
| 042 | Not in use                                                                                          | -                          |
| 043 | Not in use                                                                                          | -                          |
| 044 | Not in use                                                                                          | -                          |
| 045 | Not in use                                                                                          | -                          |
| 046 | Not in use                                                                                          | -                          |
| 047 | Not in use                                                                                          | -                          |
| 048 | Not in use                                                                                          | -                          |
| 049 | NSX MODEL ID                                                                                        | 0 to 4,095                 |
| 050 | Not in use                                                                                          | -                          |
| 051 | Threshold to detect hook                                                                            | 0 to 9,999                 |
| 052 | Not in use                                                                                          | -                          |
| 053 | Set DTMF calling counts when receiving FAX remotely                                                 | 0 to 9,999<br>(default: 2) |
| 054 | Not in use                                                                                          | -                          |

## NCU (NCU parameter setting mode)

### TONE

| Parameter No. | Function                        | Setting range    |
|---------------|---------------------------------|------------------|
| 001           | Tone signal sending time (PSTN) | 10 to 9,999 msec |
| 002           | Minimum pause time (PSTN)       | 10 to 9,999 msec |

### PULSE

| Item/Parameter No. | Function           | Setting range                            |
|--------------------|--------------------|------------------------------------------|
| FORM               | Pulse digit format | 0: DP (N)<br>1: DP (N+1)<br>2: DP (10-N) |

| Item/Parameter No. | Function              | Setting range    |
|--------------------|-----------------------|------------------|
| 001                | Not in use            | -                |
| 002                | Not in use            | -                |
| 003                | Pulse dial make ratio | 10 to 90%        |
| 004                | Minimum pause time    | 10 to 9,999 msec |

## ■ DIAL TONE

### Bit Switch

| Bit No. | Function                        | 1                          | 0                                               |
|---------|---------------------------------|----------------------------|-------------------------------------------------|
| Bit 0   | -                               | -                          | -                                               |
| Bit 1   | Cadence pattern check           | Not detected               | Detected                                        |
| Bit 2   | Signal frequency                | Changed                    | Not changed                                     |
| Bit 3   | -                               | -                          | -                                               |
| Bit 4   | Judgment of intermittent signal | start from valid ON signal | start from either valid ON signal or OFF signal |
| Bit 5   | -                               | -                          | -                                               |
| Bit 6   | Signal form                     | Continuous                 | Intermittent                                    |
| Bit 7   | Signal detection                | Detected                   | Not detected                                    |

### Numeric value parameter

| Parameter No. | Function                   | Setting range          |
|---------------|----------------------------|------------------------|
| 001           | T0 timer                   | 0 to 9,999 (x 10 msec) |
| 002           | T1 timer                   | 0 to 9,999 (x 10 msec) |
| 003           | T2 timer                   | 0 to 9,999 (x 10 msec) |
| 004           | T3 timer                   | 0 to 9,999 (x 10 msec) |
| 005           | T4 timer                   | 0 to 9,999 (x 10 msec) |
| 006           | Signal detection table     | 0 to 16                |
| 007           | Signal detection level     | 0 to 7                 |
| 008           | Number of signal frequency | 0 to 9,999             |

## ■ 2ND DLTN (2nd DIAL TONE)

Not in use

## ■ BUSY TONE 0

### Bit Switch

| Bit No. | Function         | 1        | 0            |
|---------|------------------|----------|--------------|
| Bit 0   | -                | -        | -            |
| Bit 1   | -                | -        | -            |
| Bit 2   | -                | -        | -            |
| Bit 3   | -                | -        | -            |
| Bit 4   | -                | -        | -            |
| Bit 5   | -                | -        | -            |
| Bit 6   | -                | -        | -            |
| Bit 7   | Signal detection | Detected | Not detected |

### Numeric value parameter

Not in use

## ■ BUSY TONE 1

### Bit Switch

| Bit No. | Function         | 1        | 0            |
|---------|------------------|----------|--------------|
| Bit 0   | -                | -        | -            |
| Bit 1   | -                | -        | -            |
| Bit 2   | -                | -        | -            |
| Bit 3   | -                | -        | -            |
| Bit 4   | -                | -        | -            |
| Bit 5   | -                | -        | -            |
| Bit 6   | -                | -        | -            |
| Bit 7   | Signal detection | Detected | Not detected |

### Numeric value parameter

| Parameter No. | Function                   | Setting range          |
|---------------|----------------------------|------------------------|
| 001           | -                          | -                      |
| 002           | T1 timer                   | 0 to 9,999 (x 10 msec) |
| 003           | T2 timer                   | 0 to 9,999 (x 10 msec) |
| 004           | T3 timer                   | 0 to 9,999 (x 10 msec) |
| 005           | T4 timer                   | 0 to 9,999 (x 10 msec) |
| 006           | Signal detection table     | 0 to 16                |
| 007           | Signal detection level     | 0 to 7                 |
| 008           | Number of signal frequency | 0 to 9,999             |

## ■ REORDER TONE

### Bit Switch

| Bit No. | Function         | 1        | 0            |
|---------|------------------|----------|--------------|
| Bit 0   | -                | -        | -            |
| Bit 1   | -                | -        | -            |
| Bit 2   | -                | -        | -            |
| Bit 3   | -                | -        | -            |
| Bit 4   | -                | -        | -            |
| Bit 5   | -                | -        | -            |
| Bit 6   | -                | -        | -            |
| Bit 7   | Signal detection | Detected | Not detected |

### Numeric value parameter

| Parameter No. | Function                   | Setting range          |
|---------------|----------------------------|------------------------|
| 001           | -                          | -                      |
| 002           | T1 timer                   | 0 to 9,999 (x 10 msec) |
| 003           | T2 timer                   | 0 to 9,999 (x 10 msec) |
| 004           | T3 timer                   | 0 to 9,999 (x 10 msec) |
| 005           | T4 timer                   | 0 to 9,999 (x 10 msec) |
| 006           | Signal detection table     | 0 to 21                |
| 007           | Signal detection level     | 0 to 7                 |
| 008           | Number of signal frequency | 0 to 9,999             |

## ■ AUTO RX

### Numeric value parameter

| Parameter No. | Function                 | Setting range          |
|---------------|--------------------------|------------------------|
| 001           | CI ON time               | 0 to 9,999 (x 10 msec) |
| 002           | CI LONG ON time          | 0 to 9,999 (x 10 msec) |
| 003           | CI OFF time              | 0 to 9,999 (x 10 msec) |
| 004           | CI LONG OFF time         | 0 to 9,999 (x 10 msec) |
| 005           | CI MAX OFF time          | 0 to 9,999 (x 10 msec) |
| 006           | CI WAIT time             | 0 to 9,999 (x 10 msec) |
| 007           | CI frequency             | 0 to 9,999 cycle       |
| 008           | CI frequency lower limit | 0 to 9,999 Hz          |
| 009           | CI frequency upper limit | 0 to 9,999 Hz          |

## ■ CNG DETECT

### Numeric value parameter

| Parameter No. | Description                             |                                              | Setting range          |
|---------------|-----------------------------------------|----------------------------------------------|------------------------|
| 001           | At F/T switching                        | CNG MIN ON time                              | 0 to 9,999 (x 10 msec) |
| 002           |                                         | CNG MAX ON time                              | 0 to 9,999 (x 10 msec) |
| 003           |                                         | Not in use                                   | -                      |
| 004           |                                         | Not in use                                   | -                      |
| 005           |                                         | Not in use                                   | -                      |
| 006           |                                         | -                                            | -                      |
| 007           | At direct connecting to answering phone | CNG MIN ON time                              | 0 to 9,999 (x 10 msec) |
| 008           |                                         | CNG MAX ON time                              | 0 to 9,999 (x 10 msec) |
| 009           |                                         | Tolerable time of instantaneous interruption | 0 to 9,999 (x 10 msec) |
| 010           |                                         | Not in use                                   | -                      |
| 011           |                                         | Number of detection                          | 0 to 9,999 times       |
| 012           |                                         | Hit ratio                                    | 0 to 9,999%            |

## ■ SPECIALB

Not in use

## ■ SPECIALN

Not in use

## ■ RKEY

### Numeric value parameter

| Parameter No. | Function                          | Setting range          |
|---------------|-----------------------------------|------------------------|
| 001           | Connection time of flash          | 0 to 9,999 (x 10 msec) |
| 002           | Connection time of grounding wire | 0 to 9,999 (x 10 msec) |

## ■ PBXDIALT (PBX DIAL TONE)

Not in use

## ■ PBXBUSYT (PBX BUSY TONE)

Not in use

## TESTMODE (Service mode for test print, operation check, etc.)

### PRINT (Print test mode)

TESTMODE (Service mode for test print, operation check, etc.) > PRINT (Print test mode)

| PG-TYPE                | Setting of PG number                                                                                                                                                     |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Detail                 | To set the PG number of the test print.                                                                                                                                  |
| Use Case               | At trouble analysis                                                                                                                                                      |
| Adj/Set/Operate Method | Enter the setting value, and then press Apply key.                                                                                                                       |
| Display/Adj/Set Range  | 0 to 7<br>0: Grid<br>1: Halftone<br>2: Solid black<br>3: Solid white<br>4: 17 gradations<br>5: Thin Horizontal Line Pattern<br>6: Pascal Correction Chart<br>7: Chart128 |
| Default Value          | 0                                                                                                                                                                        |
| COUNT                  | Setting of PG output quantity                                                                                                                                            |
| Detail                 | 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 Apply key.                                                                                                                       |
| Display/Adj/Set Range  | 1 to 99                                                                                                                                                                  |
| Unit                   | 1 sheet                                                                                                                                                                  |
| Default Value          | 1                                                                                                                                                                        |
| PHASE                  | Set 1-sided/2-sided print for PG output                                                                                                                                  |
| Detail                 | To set 1-sided/2-sided print for PG output.<br>Even if 1 is set for a machine supporting 1-sided print, the setting is disabled.                                         |
| Use Case               | At trouble analysis                                                                                                                                                      |
| Adj/Set/Operate Method | Enter the setting value, and then press Apply key.                                                                                                                       |
| Display/Adj/Set Range  | 0 to 1<br>0: 1-sided<br>1: 2-sided                                                                                                                                       |
| Default Value          | 0                                                                                                                                                                        |
| MODE                   | Setting of test print image formation method                                                                                                                             |
| Detail                 | To set the image formation method for the test print.<br>If PG-TYPE is 0 or 1, this setting is disabled because a specific image formation method is applied.            |
| Use Case               | At trouble analysis                                                                                                                                                      |
| Adj/Set/Operate Method | Enter the setting value, and then press Apply key.                                                                                                                       |
| Display/Adj/Set Range  | 0 to 4<br>0: TBIC<br>1: Resolution Dither<br>2: Gradation Dither<br>3: Tone Dither<br>4: Hi Resolution Dither                                                            |
| Default Value          | 0                                                                                                                                                                        |
| Related Service Mode   | TESTMODE > PRINT > PG-TYPE                                                                                                                                               |

TESTMODE (Service mode for test print, operation check, etc.) &gt; PRINT (Print test mode)

|                               |                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>THRU</b>                   | <b>Setting of image correction table at test print</b>                                                                                                                                                                                                                                                                           |
| <b>Detail</b>                 | To set the image correction table that is used at the time of test print output.<br>When 0 is set, normal gamma LUT is used so that the density characteristics by the density correction process can be checked.<br>When 1 is set, linear gamma LUT is used so that the density characteristics of this machine can be checked. |
| <b>Use Case</b>               | At trouble analysis                                                                                                                                                                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                               |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: Normal gamma LUT<br>1: Through (linear) gamma LUT                                                                                                                                                                                                                                                                   |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                |
| <b>Supplement/Memo</b>        | Gamma LUT: Density gradation characteristic table                                                                                                                                                                                                                                                                                |
| <b>DENS</b>                   | <b>Adjustment of test print engine F value</b>                                                                                                                                                                                                                                                                                   |
| <b>Detail</b>                 | To adjust the test print engine F value.<br>The larger the value, the darker the image becomes.                                                                                                                                                                                                                                  |
| <b>Use Case</b>               | At problem analysis                                                                                                                                                                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | Enter the setting value (switch negative/positive by +/- key), and then press Apply key.                                                                                                                                                                                                                                         |
| <b>Display/Adj/Set Range</b>  | -4 to 4                                                                                                                                                                                                                                                                                                                          |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                |
| <b>Supplement/Memo</b>        | F value: Used as an index to indicate lens brightness.                                                                                                                                                                                                                                                                           |
| <b>MABK</b>                   | <b>Setting of toner thinning process</b>                                                                                                                                                                                                                                                                                         |
| <b>Detail</b>                 | To set toner thinning process.<br>The larger the value, the greater the toner thinning amount at test print becomes.                                                                                                                                                                                                             |
| <b>Use Case</b>               | When color displacement occurs during test print                                                                                                                                                                                                                                                                                 |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                               |
| <b>Display/Adj/Set Range</b>  | 0 to 4<br>0: OFF<br>1: Mode 1<br>2: Mode 2<br>3: Mode 3<br>4: Mode 4                                                                                                                                                                                                                                                             |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                |
| <b>FEED</b>                   | <b>Setting of paper source at test print</b>                                                                                                                                                                                                                                                                                     |
| <b>Detail</b>                 | To set the paper source at the time of test print output.<br>If this mode is set when there is no Cassette 2 (option Pickup Cassette), the output is made from Cassette 1 (standard Pickup Cassette).                                                                                                                            |
| <b>Use Case</b>               | At trouble analysis                                                                                                                                                                                                                                                                                                              |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press Apply key.                                                                                                                                                                                                                                                                               |
| <b>Caution</b>                | In case of using the Multi-purpose Tray, be sure to place paper on the tray before executing this item.                                                                                                                                                                                                                          |
| <b>Display/Adj/Set Range</b>  | 0 to 4<br>0: Multi-purpose Tray<br>1: Cassette 1<br>2: Cassette 2<br>3: Cassette 3<br>4: Cassette 4                                                                                                                                                                                                                              |
| <b>Default Value</b>          | 1                                                                                                                                                                                                                                                                                                                                |

TESTMODE (Service mode for test print, operation check, etc.) &gt; PRINT (Print test mode)

|                               |                                                                       |
|-------------------------------|-----------------------------------------------------------------------|
| <b>START</b>                  | <b>Output of test print</b>                                           |
| <b>Detail</b>                 | To output a test print with the PG pattern set in PG-TYPE, MODE, etc. |
| <b>Use Case</b>               | At trouble analysis                                                   |
| <b>Adj/Set/Operate Method</b> | Select the item, and then press Yes key.                              |
| <b>Related Service Mode</b>   | TESTMODE > PRINT                                                      |

## FAX (FAX test mode)

### ■ MODEM

TESTMODE (Service mode for test print, operation check, etc.) &gt; FAX (FAX test mode) &gt; MODEM

|                               |                                                                                                                                                         |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>RELAY-1</b>                | <b>NCU relay test 1</b>                                                                                                                                 |
| <b>Detail</b>                 | To test ON/OFF of relay and port switch of NCU.<br>This mode is disabled for an NCU with no relay and port switch.                                      |
| <b>Use Case</b>               | At problem analysis                                                                                                                                     |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                         |
| <b>Caution</b>                | Be sure to set the value back to 0 after the test.                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 6<br>0: All OFF<br>1: CML ON/OFF<br>2: P ON/OFF<br>3: S ON/OFF<br>4: H ON/OFF<br>5: HD ON/OFF<br>6: R ON/OFF                                       |
| <b>Default Value</b>          | 0                                                                                                                                                       |
| <b>Related Service Mode</b>   | TESTMODE > FAX > MODEM > RELAY-2                                                                                                                        |
| <b>Supplement/Memo</b>        | Available only with the machine with fax installed.                                                                                                     |
| <b>RELAY-2</b>                | <b>NCU relay test 2</b>                                                                                                                                 |
| <b>Detail</b>                 | To test ON/OFF of relay and port switch of NCU.<br>This mode is disabled for an NCU with no relay and port switch.                                      |
| <b>Use Case</b>               | At problem analysis                                                                                                                                     |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                         |
| <b>Caution</b>                | Be sure to set the value back to 0 after the test.                                                                                                      |
| <b>Display/Adj/Set Range</b>  | 0 to 7<br>0: All OFF<br>1: CIST2 ON/OFF<br>2: C1 ON/OFF<br>3: NORG ON/OFF<br>4: DCSEL ON/OFF<br>5: DCLIM ON/OFF<br>6: IPSEL1 ON/OFF<br>7: IPSEL2 ON/OFF |
| <b>Default Value</b>          | 0                                                                                                                                                       |
| <b>Related Service Mode</b>   | TESTMODE > FAX > MODEM > RELAY-1                                                                                                                        |
| <b>Supplement/Memo</b>        | Available only with the machine with fax installed.                                                                                                     |

TESTMODE (Service mode for test print, operation check, etc.) &gt; FAX (FAX test mode) &gt; MODEM

| FREQ                          | Frequency test                                                                                                                                                                                                                                                                                               |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Detail</b>                 | To test whether the specified frequency is oscillated.<br>By closing or opening the DC circuit in accordance with the setting value, the specified frequency is oscillated by the tone transmission function of the modem.<br>Check this with the speaker.                                                   |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                                                                                                                                                                              |
| <b>Caution</b>                | Be sure to set the value back to 0 after the test.                                                                                                                                                                                                                                                           |
| <b>Display/Adj/Set Range</b>  | 0 to 7<br>0: OFF<br>1: 462 Hz<br>2: 1100 Hz<br>3: 1300 Hz<br>4: 1500 Hz<br>5: 1650 Hz<br>6: 1850 Hz<br>7: 2100 Hz                                                                                                                                                                                            |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                            |
| <b>Supplement/Memo</b>        | Available only with the machine with fax installed.                                                                                                                                                                                                                                                          |
| G3TX                          | G3 signal transmission test                                                                                                                                                                                                                                                                                  |
| <b>Detail</b>                 | To test whether the specified G3 signal is transmitted.<br>By closing or opening the DC circuit in accordance with the setting value, the specific G3 signal pattern is transmitted at the specified transmission speed by the G3 signal transmission function of the modem.<br>Check this with the speaker. |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                                                                                                                                                                              |
| <b>Caution</b>                | Be sure to set the value back to 0 after the test.                                                                                                                                                                                                                                                           |
| <b>Display/Adj/Set Range</b>  | 0 to 9<br>0: OFF<br>1: 300 bps<br>2: 2400 bps<br>3: 4800 bps<br>4: 7200 bps<br>5: 9600 bps<br>6: TC7200 bps<br>7: TC9600 bps<br>8: 12000 bps<br>9: 14400 bps                                                                                                                                                 |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                            |
| <b>Supplement/Memo</b>        | Available only with the machine with fax installed.                                                                                                                                                                                                                                                          |

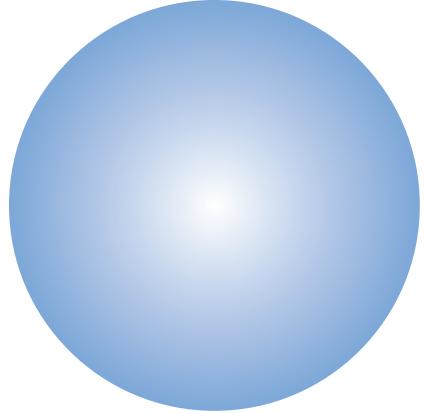
TESTMODE (Service mode for test print, operation check, etc.) &gt; FAX (FAX test mode) &gt; MODEM

| DTMF TX                       | DTMF transmission test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Detail</b>                 | To test whether the specified DTMF signal is transmitted.<br>By closing or opening the DC circuit in accordance with the setting value, the specified DTMF signal is transmitted by the DTMF transmission function of the modem.<br>Check this with the speaker.                                                                                                                                                                                                                                                                                |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Caution</b>                | Be sure to set the value back to 0 after the test.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 12<br>0: OFF<br>1: 1<br>2: 2<br>3: 3<br>4: 4<br>5: 5<br>6: 6<br>7: 7<br>8: 8<br>9: 9<br>10: 0<br>11: *<br>12: #                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Supplement/Memo</b>        | DTMF (Dual Tone Multi Frequency) : Signal method combining two specific frequencies like a push-tone phone.<br>Available only with the machine with fax installed.                                                                                                                                                                                                                                                                                                                                                                              |
| V.34 G3 TX                    | V.34 G3 signal transmission test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Detail</b>                 | To test whether the specified V.34 G3 signal is transmitted.<br>By closing or opening the DC circuit in accordance with the setting value, the specific G3 signal pattern is transmitted at the specified transmission speed and modulation speed by the G3 signal transmission function (V.34) of the modem.<br>Check this with the speaker.<br>A setting value other than 0 is indicated as a 3-digit integer (1st digit: modulation speed, last 2 digits: transmission speed) . A value other than the specified numerical value is invalid. |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Caution</b>                | Be sure to set the value back to 0 after the test.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Display/Adj/Set Range</b>  | 0 to 614<br>0: OFF<br>- First digit (Modulation speed/baud rate)<br>1: 2400 baud, 2: 2743 baud, 3: 2800 baud, 4: 3000 baud, 5: 3200 baud, 6: 3429 baud<br>- Last 2 digits (Transmission speed)<br>01: 2400 bps, 02: 4800 bps, 03: 7200 bps, 04: 9600 bps, 05: 12000 bps, 06: 14400 bps, 07: 16800 bps, 08: 19200 bps, 09: 21600 bps, 10: 24000 bps, 11: 26400 bps, 12: 28800 bps, 13: 31200 bps, 14: 33600 bps                                                                                                                                  |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Supplement/Memo</b>        | Available only with the machine with fax installed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## ■ FACULTY

TESTMODE (Service mode for test print, operation check, etc.) > FAX (FAX test mode) > FACULTY

|                               |                                                                                                                                                                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>G34800TX</b>               | <b>G3 4800 bps signal transmission test</b>                                                                                                                                                                                          |
| <b>Detail</b>                 | To test whether the G3 signal is transmitted at 4800 bps.<br>By closing or opening the DC circuit, the specific G3 signal pattern is transmitted at 4800 bps by the G3 signal transmission function.<br>Check this with the speaker. |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                                                                                                      |
| <b>Caution</b>                | Be sure to set the value back to 0 after the test.                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0 to 1<br>0: OFF<br>1: ON                                                                                                                                                                                                            |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                    |
| <b>Supplement/Memo</b>        | Available only with the machine with fax installed.                                                                                                                                                                                  |
| <b>DETECT1</b>                | <b>Ring detection</b>                                                                                                                                                                                                                |
| <b>Detail</b>                 | To check the ON/OFF state of CI, FC, and hook from the line.<br>The detection results are displayed on the console (UART).                                                                                                           |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                                                                                                      |
| <b>Caution</b>                | Be sure to set the value back to 0 after the test.                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0/1<br>0: OFF<br>1: ON                                                                                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                    |
| <b>Supplement/Memo</b>        | CI (Calling Identification) : Ring signal<br>UART (Universal Asynchronous Receiver Transmitter) : Console<br>Available only with the machine with fax installed.                                                                     |
| <b>DETECT2</b>                | <b>Calling tone detection test 1</b>                                                                                                                                                                                                 |
| <b>Detail</b>                 | To check calling tone signal and FED.<br>Set the CML relay to ON and detect the calling tone.<br>The detection results are displayed on the console (UART).                                                                          |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                                                                                                      |
| <b>Caution</b>                | Be sure to set the value back to 0 after the test.                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0/1<br>0: OFF<br>1: ON                                                                                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                    |
| <b>Supplement/Memo</b>        | CML (Connect Modem to Line) relay: Relay installed at the NCU (Network Control Unit) Board to switch between the telephone and fax.<br>Available only with the machine with fax installed.                                           |
| <b>DETECT3</b>                | <b>Calling tone detection test 2</b>                                                                                                                                                                                                 |
| <b>Detail</b>                 | To check calling tone signal and FED.<br>Set the CML relay to OFF and detect the calling tone.<br>The detection results are displayed on the console (UART).                                                                         |
| <b>Adj/Set/Operate Method</b> | Enter the setting value, and then press OK key.                                                                                                                                                                                      |
| <b>Caution</b>                | Be sure to set the value back to 0 after the test.                                                                                                                                                                                   |
| <b>Display/Adj/Set Range</b>  | 0/1<br>0: OFF<br>1: ON                                                                                                                                                                                                               |
| <b>Default Value</b>          | 0                                                                                                                                                                                                                                    |
| <b>Supplement/Memo</b>        | CML (Connect Modem to Line) relay: Relay installed at the NCU (Network Control Unit) Board to switch between the telephone and fax.<br>Available only with the machine with fax installed.                                           |



# APPENDICES

|                                           |     |
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| Backup Data List.....                     | 313 |
| Soft counter specifications.....          | 316 |
| List of Items Which Can Be Imported ..... | 318 |

## Service Tools

### Special Tools

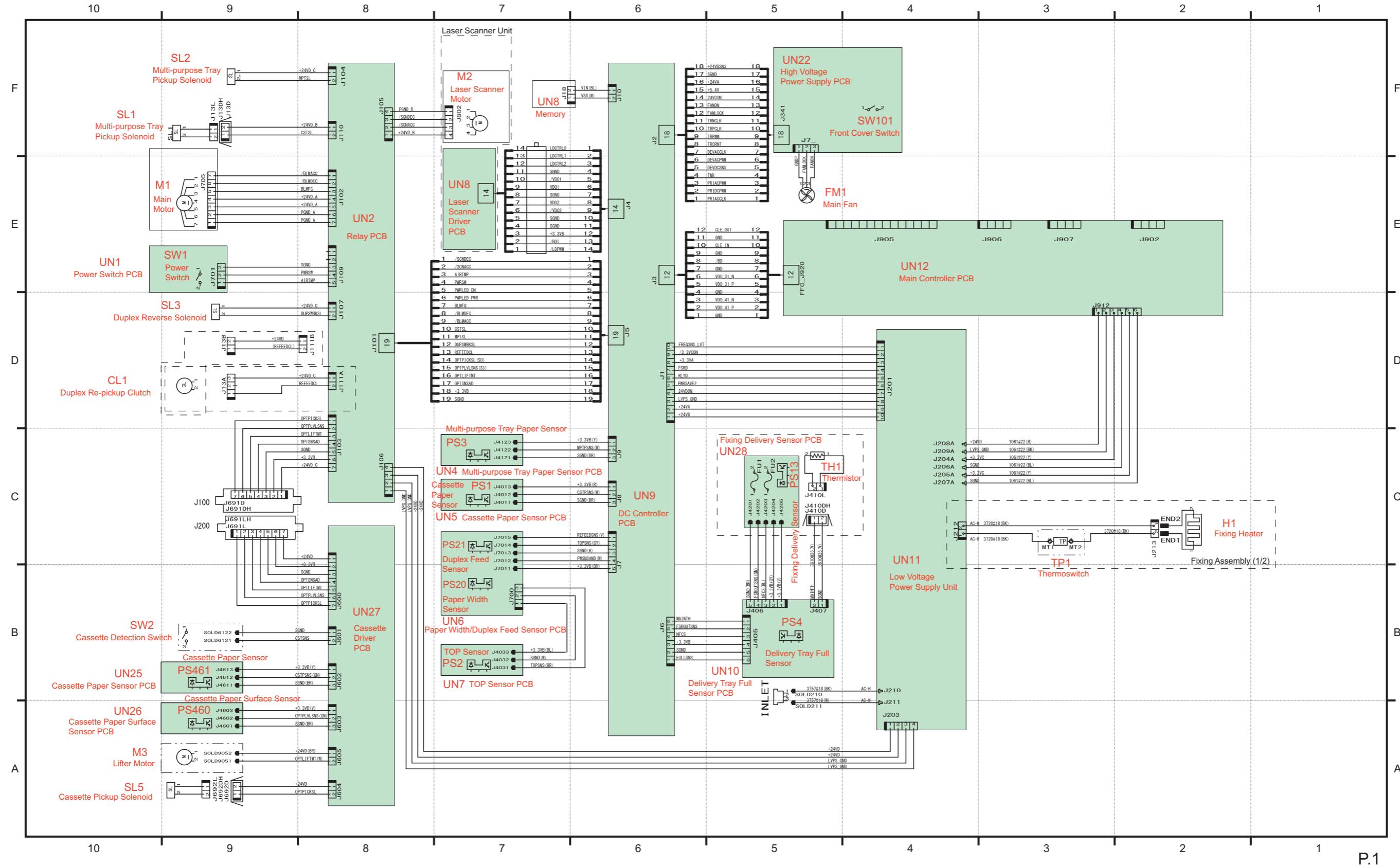
- No special tools are required when servicing the machine.

### Solvents and Oil List

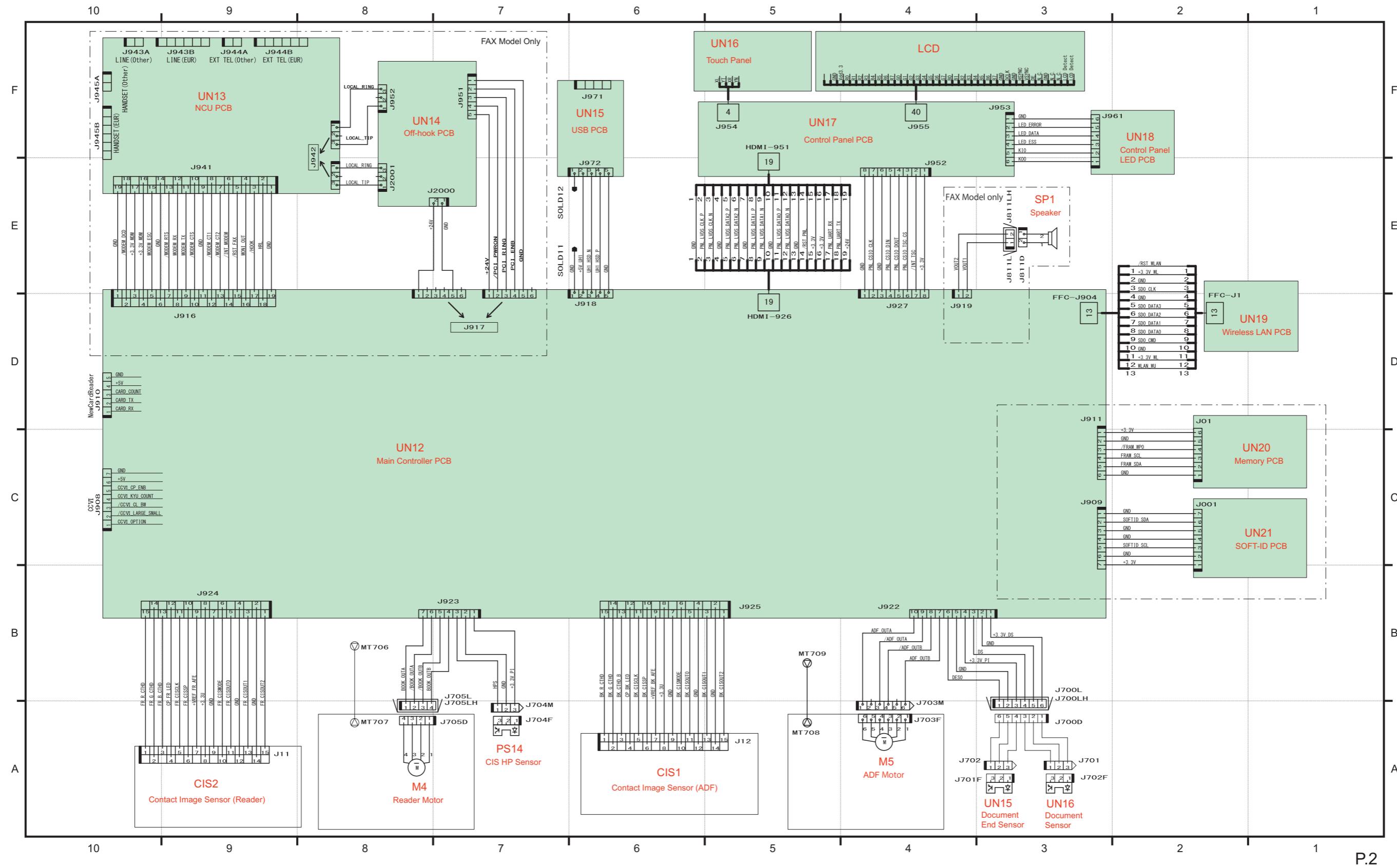
| No. | Type          | Purpose                                             | Remark                                       |
|-----|---------------|-----------------------------------------------------|----------------------------------------------|
| 1   | Ethyl alcohol | • Cleaning:<br>metal part, oil stains, toner stains | • Purchase locally<br>• Keep away from flame |

## General Circuit Diagram

## General Circuit Diagram (1/2)



## General Circuit Diagram (2/2)



## Backup Data List

| Data                            | Loca-tion            | Replace | Menu > Preferen-ces | Deletion                   |                                   |                                  |                           |                 |                     |                  |                       |                           |          |            |          |                           |       |          |          | Service Mode                  |      |          |           |                               | Backup by User      |                        |        |        |                       |
|---------------------------------|----------------------|---------|---------------------|----------------------------|-----------------------------------|----------------------------------|---------------------------|-----------------|---------------------|------------------|-----------------------|---------------------------|----------|------------|----------|---------------------------|-------|----------|----------|-------------------------------|------|----------|-----------|-------------------------------|---------------------|------------------------|--------|--------|-----------------------|
|                                 |                      |         |                     | Menu > Management Settings |                                   |                                  |                           |                 |                     |                  |                       | COPIER > FUNCTION > CLEAR |          |            |          |                           |       |          |          | COP-IER > FUNC-TION > SPLMA-N |      |          |           |                               |                     |                        |        |        |                       |
|                                 |                      |         |                     | Network                    | Initial-ize All Da-ta / Set-tings | Initial-ize Key and Certifi-cate | Initial-ize Ad-dress Book | Data Management |                     |                  |                       | Initialize Menu           |          |            |          | COPIER > FUNCTION > CLEAR |       |          |          |                               |      |          |           | COP-IER > FUNC-TION > SPLMA-N |                     |                        |        |        |                       |
|                                 |                      |         |                     |                            |                                   |                                  |                           | Prefer-ences    | Func-tion Set-tings | Set Desti-nation | Manage-ment Set-tings | Initialze All             | R-CON *1 | SRVC-DAT*2 | COUN-TER | HIST *3                   | ALL   | ERDS-DAT | PLPW-CLR | CRGL-CNT                      | CARD | E719-CLR | SPL43 810 | Yes/No                        | Method              | Loca-tion to be stored | Yes/No | Method | Location to be stored |
| Ad-dress Book                   | Main Con-troller PCB | -       | Clear               | -                          | Clear                             | -                                | Clear                     | -               | -                   | -                | -                     | -                         | -        | -          | -        | Clear                     | -     | -        | -        | -                             | -    | -        | -         | Yes                           | Remote UI *6 LUI *7 | PC, USB memory         | No     | -      | -                     |
| Menu                            |                      |         |                     |                            |                                   |                                  |                           |                 |                     |                  |                       |                           |          |            |          |                           |       |          |          |                               |      |          |           |                               |                     |                        |        |        |                       |
| Prefer-ences                    | Main Con-troller PCB | -       | Clear               | Clear*10                   | Clear                             | -                                | -                         | Clear*9         | -                   | -                | -                     | Clear                     | -        | -          | -        | -                         | Clear | -        | -        | -                             | -    | -        | -         | Yes                           | Remote UI *6 LUI *7 | PC, USB memory         | No     | -      | -                     |
| Func-tion Set-tings             | Main Con-troller PCB | -       | Clear               | -                          | Clear                             | -                                | -                         | -               | Clear               | -                | -                     | Clear                     | -        | -          | -        | -                         | Clear | -        | -        | -                             | -    | -        | -         | Yes                           | Remote UI *6 LUI *7 | PC, USB memory         | No     | -      | -                     |
| Set Desti-nation                | Main Con-troller PCB | -       | Clear               | -                          | Clear                             | -                                | -                         | -               | Clear               | -                | Clear                 | -                         | -        | -          | -        | Clear                     | -     | -        | -        | -                             | -    | -        | -         | Yes                           | Remote UI *6 LUI *7 | PC, USB memory         | No     | -      | -                     |
| Man-age-ment Set-tings          | Main Con-troller PCB | -       | Clear               | -                          | Clear                             | -                                | -                         | -               | -                   | -                | Clear                 | Clear                     | -        | -          | -        | -                         | Clear | -        | -        | -                             | -    | -        | -         | Yes                           | Remote UI *6 LUI *7 | PC, USB memory         | No     | -      | -                     |
| Status Monitor                  |                      |         |                     |                            |                                   |                                  |                           |                 |                     |                  |                       |                           |          |            |          |                           |       |          |          |                               |      |          |           |                               |                     |                        |        |        |                       |
| Job Log                         | Main Con-troller PCB | -       | Clear               | -                          | Clear                             | -                                | -                         | -               | -                   | -                | -                     | -                         | -        | -          | -        | Clear                     | Clear | -        | -        | -                             | -    | -        | -         | No                            | -                   | -                      | No     | -      | -                     |
| Counter                         |                      |         |                     |                            |                                   |                                  |                           |                 |                     |                  |                       |                           |          |            |          |                           |       |          |          |                               |      |          |           |                               |                     |                        |        |        |                       |
| Part counter (Main Con-troller) | Main Con-troller PCB | -       | Clear               | -                          | Clear                             | -                                | -                         | -               | -                   | -                | -                     | -                         | -        | -          | -        | Clear                     | -     | -        | -        | -                             | -    | -        | -         | No                            | -                   | -                      | No     | -      | -                     |
| Part counter (DC Con-troller)   | DC Con-troller PCB   | Clear   | -                   | -                          | -                                 | -                                | -                         | -               | -                   | -                | -                     | -                         | -        | -          | -        | -                         | -     | -        | -        | -                             | -    | -        | -         | No                            | -                   | -                      | No     | -      | -                     |

| Data                                           | Loca-tion            | Replace |       | Menu > Preferen-ces | Deletion                   |                      |                                   |                                  |                           |                  |                       | Service Mode              |                 |            |          |         |       |          | COP-IER > FUNC-TION > SPLMA-N | Backup by User |                |          | Backup by Service |                     |                |                        |                |             |                       |
|------------------------------------------------|----------------------|---------|-------|---------------------|----------------------------|----------------------|-----------------------------------|----------------------------------|---------------------------|------------------|-----------------------|---------------------------|-----------------|------------|----------|---------|-------|----------|-------------------------------|----------------|----------------|----------|-------------------|---------------------|----------------|------------------------|----------------|-------------|-----------------------|
|                                                |                      |         |       |                     | Menu > Management Settings |                      |                                   |                                  |                           |                  |                       | COPIER > FUNCTION > CLEAR |                 |            |          |         |       |          |                               |                | Backup by User |          |                   | Backup by Service   |                |                        |                |             |                       |
|                                                |                      |         |       |                     | Network                    |                      | Initial-ize All Da-ta / Set-tings | Initial-ize Key and Certifi-cate | Initial-ize Ad-dress Book | Data Management  |                       |                           | Initialize Menu |            |          |         |       |          |                               |                |                |          |                   |                     |                |                        |                |             |                       |
|                                                |                      |         |       |                     | DC Con-troller PCB         | Main Con-troller PCB | Initialize Network Settings       | Prefer-ences                     | Func-tion Set-tings       | Set Desti-nation | Manage-ment Set-tings | Initialize All            | R-CON *1        | SRVC-DAT*2 | COUN-TER | HIST *3 | ALL   | ERDS-DAT | PLPW-CLR                      | CRGL-CNT       | CARD           | E719-CLR | SPL43 810         | Yes/No              | Method         | Loca-tion to be stored | Yes/No         | Method      | Location to be stored |
| Re-place-ment logs of nonge-nuine car-tridge   | Main Con-troller PCB | -       | -     | -                   | -                          | -                    | -                                 | -                                | -                         | -                | -                     | -                         | -               | -          | -        | Clear   | -     | -        | -                             | Clear          | -              | -        | -                 | -                   | -              | -                      | -              | -           | -                     |
| Other                                          |                      |         |       |                     |                            |                      |                                   |                                  |                           |                  |                       |                           |                 |            |          |         |       |          |                               |                |                |          |                   |                     |                |                        |                |             |                       |
| Key and Certifi-cate Set-tings                 | Main Con-troller PCB | -       | Clear | -                   | Clear                      | Clear                | -                                 | -                                | -                         | -                | -                     | -                         | -               | -          | -        | Clear   | -     | -        | -                             | -              | -              | -        | No                | -                   | -              | No                     | -              | -           |                       |
| E-RDS Set-tings*13                             | Main Con-troller PCB | -       | -     | -                   | -                          | -                    | -                                 | -                                | -                         | -                | -                     | -                         | -               | -          | -        | Clear   | Clear | -        | -                             | -              | -              | -        | -                 | -                   | -              | -                      | -              | -           |                       |
| Card Reader Con-nection Infor-mation           | Main Con-troller PCB | -       | -     | -                   | -                          | -                    | -                                 | -                                | -                         | -                | -                     | -                         | -               | -          | -        | Clear   | -     | -        | -                             | Clear          | Clear          | -        | -                 | -                   | -              | -                      | -              | -           |                       |
| E719Er-ror                                     | Main Con-troller PCB | -       | -     | -                   | -                          | -                    | -                                 | -                                | -                         | -                | -                     | -                         | -               | -          | -        | Clear   | -     | -        | -                             | -              | -              | -        | -                 | -                   | -              | -                      | -              | -           |                       |
| Service mode                                   |                      |         |       |                     |                            |                      |                                   |                                  |                           |                  |                       |                           |                 |            |          |         |       |          |                               |                |                |          |                   |                     |                |                        |                |             |                       |
| Service mode setting values (Read-er)          | Main Con-troller PCB | -       | Clear | -                   | -                          | -                    | -                                 | -                                | -                         | -                | -                     | -                         | Clear           | -          | -        | -       | -     | -        | -                             | -              | -              | -        | No                | -                   | -              | No                     | -              | -           |                       |
| Service mode setting values (Main Con-troller) | Main Con-troller PCB | -       | Clear | -                   | -                          | -                    | -                                 | -                                | -                         | -                | -                     | -                         | Clear           | -          | -        | Clear   | -     | -        | -                             | -              | -              | -        | Yes               | Remote UI *6 LUI *7 | PC, USB memory | Yes                    | Service mode*5 | USB mem-ory |                       |

| Data                                        | Loca-tion           | Replace |         | Menu > Prefer-ences | Deletion                   |                                   |                                  |                           |              |                     |                  |                       | Service Mode              |          |            |          |         |     |          |          | Backup by User                |      |          |           | Backup by Service |        |                        |                |        |                       |                              |
|---------------------------------------------|---------------------|---------|---------|---------------------|----------------------------|-----------------------------------|----------------------------------|---------------------------|--------------|---------------------|------------------|-----------------------|---------------------------|----------|------------|----------|---------|-----|----------|----------|-------------------------------|------|----------|-----------|-------------------|--------|------------------------|----------------|--------|-----------------------|------------------------------|
|                                             |                     |         |         |                     | Menu > Management Settings |                                   |                                  |                           |              |                     |                  |                       | COPIER > FUNCTION > CLEAR |          |            |          |         |     |          |          |                               |      |          |           |                   |        |                        |                |        |                       |                              |
|                                             |                     |         |         |                     | Data Management            |                                   | Initialize Menu                  |                           |              |                     |                  |                       |                           |          |            |          |         |     |          |          | COP-IER > FUNC-TION > SPLMA-N |      |          |           |                   |        |                        |                |        |                       |                              |
|                                             |                     |         |         |                     | Network                    | Initial-ize All Da-ta / Set-tings | Initial-ize Key and Certifi-cate | Initial-ize Ad-dress Book | Prefer-ences | Func-tion Set-tings | Set Desti-nation | Manage-ment Set-tings | Initialize All            | R-CON *1 | SRVC-DAT*2 | COUN-TER | HIST *3 | ALL | ERDS-DAT | PLPW-CLR | CRGL-CNT                      | CARD | E719-CLR | SPL43 810 | Yes/No            | Method | Loca-tion to be stored | Yes/No         | Method | Location to be stored |                              |
| Service mode setting values (DC Controller) | DC Controller PCB   | Clear   | -       | -                   | -                          | -                                 | -                                | -                         | -            | -                   | -                | -                     | -                         | -        | -          | -        | -       | -   | -        | -        | Clear                         | -    | -        | -         | -                 | Yes    | Remote UI *6 LUI *7    | PC, USB memory | Yes    | Service mode*5 *8     | USB memory / Main controller |
| Password                                    |                     |         |         |                     |                            |                                   |                                  |                           |              |                     |                  |                       |                           |          |            |          |         |     |          |          |                               |      |          |           |                   |        |                        |                |        |                       |                              |
| System Administrator password               | Main Controller PCB | -       | Clear*4 | -                   | Clear*4                    | -                                 | -                                | -                         | -            | -                   | -                | -                     | Clear*4                   | Clear*4  | -          | -        | -       | -   | Clear*4  | -        | -                             | -    | -        | Clear*1 1 | No                | -      | -                      | No             | -      | -                     |                              |
| Security Policy Administrator password      | Main Controller PCB | -       | Clear   | -                   | Clear                      | -                                 | -                                | -                         | -            | -                   | -                | -                     | Clear                     | Clear    | -          | -        | -       | -   | Clear    | Clear    | Clear                         | -    | -        | -         | -                 | No     | -                      | -              | No     | -                     | -                            |
| Service Mode password*12                    | Main Controller PCB | -       | Clear   | -                   | -                          | -                                 | -                                | -                         | -            | -                   | -                | -                     | -                         | -        | -          | -        | -       | -   | -        | -        | -                             | -    | -        | -         | No                | -      | -                      | No             | -      | -                     |                              |

\*1. The factory adjustment values of the Reader and ADF are initialized.

\*2. Service Data (Except COPIER > COUNTER, COPIER > ADJUST > FEED-ADJ) are cleared. The factory adjustment values of the Reader and ADF are not initialized.

\*3. The logs(Communication management, Print, Jam, Error, Alarm) are initialized.

\*4. The user data and service data and each history and the settings of the system administrator are cleared. (The system manager ID and password are changed back to the default values ID: 7654321/PWD: 7654321). The factory adjustment values of the Reader and ADF are not initialized.

\*5. COPIER > FUNCTION > SYSTEM > IMPORT / COPIER > FUNCTION > SYSTEM > EXPORT

\*6. Settings/Registration >Management Settings >Data Management > Import/Export

\*7. Settings Manu > Management Settings > Data Management > Import/Export

\*8. COPIER > FUNCTION > VIFFNC > STOR-DCN

\*9. Except "Preferences > Network Settings".

\*10. Clear only an item of the "Preferences > Network Settings".

\*11. Because the settings of the "System Manager ID and PIN" are cleared, set "System Manager ID and PIN" again.

\*12. COPIER > OPTION > BODY > SM-PSWD(Setup password by SM-PSWD)

\*13. COPIER > FUNCTION > INSTALL > ERDS / COPIER > FUNCTION > INSTALL > RGW-PORTCOPIER > FUNCTION > INSTALL > COM-LOG

# Soft counter specifications

The numbers entered for software counters are classified as follows:

| No.        | Counter Details | No.        | Counter Details           |
|------------|-----------------|------------|---------------------------|
| 100 to 199 | Total           | 600 to 699 | Memory Media Print        |
| 200 to 299 | Copy            | 700 to 799 | Receive Print             |
| 300 to 399 | Print           | 800 to 899 | Report Print              |
| 400 to 499 | Copy + Print    | 900 to 999 | Transmission/Remote/Media |
| 500 to 599 | Scan            |            |                           |

## 100 to 199

| No. | Counter Name                | No. | Counter Name                  |
|-----|-----------------------------|-----|-------------------------------|
| 101 | Total 1                     | 137 | Total A (Black & White/Small) |
| 102 | Total 2                     | 138 | Total A1 (2-Sided)            |
| 104 | Total (Small)               | 139 | Total A2 (2-Sided)            |
| 108 | Total (Black & White 1)     | 141 | Small A (2-Sided)             |
| 109 | Total (Black & White 2)     | 150 | Total B1                      |
| 113 | Total (Black & White/Small) | 151 | Total B2                      |
| 114 | Total 1 (2-Sided)           | 153 | Total B (Small)               |
| 115 | Total 2 (2-Sided)           | 156 | Total B (Black & White 1)     |
| 117 | Small (2-Sided)             | 157 | Total B (Black & White 2)     |
| 126 | Total A1                    | 161 | Total B (Black & White/Small) |
| 127 | Total A2                    | 162 | Total B1 (2-Sided)            |
| 129 | Total A (Small)             | 163 | Total B2 (2-Sided)            |
| 132 | Total A (Black & White 1)   | 165 | Small B (2-Sided)             |
| 133 | Total A (Black & White 2)   | 194 | Cartridge Replacement (Black) |

## 200 to 299

| No. | Counter Name           | No. | Counter Name                             |
|-----|------------------------|-----|------------------------------------------|
| 201 | Copy (Total 1)         | 228 | Copy (Black & White/Small)               |
| 202 | Copy (Total 2)         | 238 | Copy (Black & White/Small/2-Sided)       |
| 204 | Copy (Small)           | 249 | Copy A (Black & White 1)                 |
| 205 | Copy A (Total 1)       | 250 | Copy A (Black & White 2)                 |
| 206 | Copy A (Total 2)       | 256 | Copy A (Black & White/Small)             |
| 208 | Copy A (Small)         | 266 | Copy A (Black & White/Small/2-Sided)     |
| 209 | Local Copy (Total 1)   | 277 | Local Copy (Black & White 1)             |
| 210 | Local Copy (Total 2)   | 278 | Local Copy (Black & White 2)             |
| 212 | Local Copy (Small)     | 284 | Local Copy (Black & White/Small)         |
| 221 | Copy (Black & White 1) | 294 | Local Copy (Black & White/Small/2-Sided) |
| 222 | Copy (Black & White 2) |     |                                          |

## 300 to 399

| No. | Counter Name                | No. | Counter Name                                       |
|-----|-----------------------------|-----|----------------------------------------------------|
| 301 | Print (Total 1)             | 330 | Print (Black & White/Small/2-Sided)                |
| 302 | Print (Total 2)             | 331 | Printer Driver Print (Total 1)                     |
| 304 | Print (Small)               | 332 | Printer Driver Print (Total 2)                     |
| 305 | Print A (Total 1)           | 334 | Printer Driver Print (Small)                       |
| 306 | Print A (Total 2)           | 339 | Printer Driver Print (Black & White 1)             |
| 308 | Print A (Small)             | 340 | Printer Driver Print (Black & White 2)             |
| 313 | Print (Black & White 1)     | 346 | Printer Driver Print (Black & White/Small)         |
| 314 | Print (Black & White 2)     | 356 | Printer Driver Print (Black & White/Small/2-Sided) |
| 320 | Print (Black & White/Small) |     |                                                    |

## 400 to 499

| No. | Counter Name                       | No. | Counter Name                               |
|-----|------------------------------------|-----|--------------------------------------------|
| 404 | Copy + Print (Black & White/Small) | 413 | Copy + Print (2)                           |
| 405 | Copy + Print (Black & White 2)     | 414 | Copy + Print (1)                           |
| 406 | Copy + Print (Black & White 1)     | 422 | Copy + Print (Black & White/Small/2-Sided) |
| 412 | Copy + Print (Small)               |     |                                            |

## 500 to 599

| No. | Counter Name                 | No. | Counter Name               |
|-----|------------------------------|-----|----------------------------|
| 501 | Scan (Total 1)               | 508 | Black & White Scan (Small) |
| 502 | Scan (Total 2)               | 509 | Color Scan (Total 1)       |
| 504 | Scan (Small)                 | 510 | Color Scan (Total 2)       |
| 505 | Black & White Scan (Total 1) | 512 | Color Scan (Small)         |
| 506 | Black & White Scan (Total 2) |     |                            |

## 600 to 699

| No. | Counter Name                         | No. | Counter Name                                     |
|-----|--------------------------------------|-----|--------------------------------------------------|
| 631 | Memory Media Print (Total 1)         | 640 | Memory Media Print (Black & White 2)             |
| 632 | Memory Media Print (Total 2)         | 646 | Memory Media Print (Black & White/Small)         |
| 634 | Memory Media Print (Small)           | 656 | Memory Media Print (Black & White/Small/2-Sided) |
| 639 | Memory Media Print (Black & White 1) |     |                                                  |

## 700 to 799

| No. | Counter Name                    | No. | Counter Name                                |
|-----|---------------------------------|-----|---------------------------------------------|
| 701 | Receive Print (Total 1)         | 710 | Receive Print (Black & White 2)             |
| 702 | Receive Print (Total 2)         | 716 | Receive Print (Black & White/Small)         |
| 704 | Receive Print (Small)           | 726 | Receive Print (Black & White/Small/2-Sided) |
| 709 | Receive Print (Black & White 1) |     |                                             |

## 800 to 899

| No. | Counter Name                   | No. | Counter Name                               |
|-----|--------------------------------|-----|--------------------------------------------|
| 801 | Report Print (Total 1)         | 810 | Report Print (Black & White 2)             |
| 802 | Report Print (Total 2)         | 816 | Report Print (Black & White/Small)         |
| 804 | Report Print (Small)           | 826 | Report Print (Black & White/Small/2-Sided) |
| 809 | Report Print (Black & White 1) |     |                                            |

## 900 to 999

| No. | Counter Name                    | No. | Counter Name                      |
|-----|---------------------------------|-----|-----------------------------------|
| 921 | TX Scan Total 5 (Color)         | 945 | TX Scan/E-Mail (Color)            |
| 922 | TX Scan Total 5 (Black & White) | 946 | TX Scan/E-Mail (Black & White)    |
| 939 | Remote Scan (Color)             | 959 | Memory Media Scan (Color)         |
| 940 | Remote Scan (Black & White)     | 960 | Memory Media Scan (Black & White) |

## List of Items Which Can Be Imported

The following shows items to be imported for this function.

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 using service mode)
- Not included in the import coverage (Cases A to C)
- There are no options and functions related to setting values

The import coverage shown in the table below is as shown below. Those that are not described here cannot be imported.

| Import coverage          | Description                                                             |
|--------------------------|-------------------------------------------------------------------------|
| Case A: The same machine | Import to the same machine (for backup and restoration, etc.)           |
| 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) |

**NOTE:**

This list is the common list for this function.

Therefore, this list may contain some items that are not supported by this function.

## Service Mode Settings

| Initial screen | Main item | Intermediate item | Sub item | Case A | Case B | Case C |
|----------------|-----------|-------------------|----------|--------|--------|--------|
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-MFY  | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-MFX  | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-MFYR | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-MFXR | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-C1Y  | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-C1X  | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-C1YR | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-C1XR | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-C2Y  | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-C2X  | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-C2YR | Yes    | -      | -      |
| COPIER         | ADJUST    | FEED-ADJ          | ADJ-C2XR | Yes    | -      | -      |
| COPIER         | ADJUST    | VIFADJ            | DEV-HV-K | Yes    | -      | -      |
| COPIER         | ADJUST    | VIFADJ            | FU-TMP   | Yes    | -      | -      |
| COPIER         | ADJUST    | VIFADJ            | CRG-HV-K | Yes    | -      | -      |
| COPIER         | ADJUST    | VIFADJ            | LS-PWR-K | Yes    | -      | -      |
| COPIER         | ADJUST    | VIFADJ            | TR-HV    | Yes    | -      | -      |
| COPIER         | FUNCTION  | SPLMAN            | SPL14159 | Yes    | Yes    | Yes    |
| COPIER         | FUNCTION  | SPLMAN            | SPL65677 | Yes    | -      | -      |
| COPIER         | FUNCTION  | SPLMAN            | SPL68676 | Yes    | -      | -      |
| COPIER         | FUNCTION  | SPLMAN            | SPL68677 | Yes    | -      | -      |
| COPIER         | FUNCTION  | SPLMAN            | SPL25607 | Yes    | -      | -      |
| COPIER         | FUNCTION  | SPLMAN            | SPL93822 | Yes    | Yes    | Yes    |
| COPIER         | FUNCTION  | SPLMAN            | SPL78788 | Yes    | Yes    | Yes    |
| COPIER         | FUNCTION  | SPLMAN            | SPL71100 | Yes *1 | -      | -      |
| COPIER         | FUNCTION  | SPLMAN            | SPL00171 | Yes    | Yes    | Yes    |
| COPIER         | FUNCTION  | SPLMAN            | SPL80100 | Yes    | Yes    | Yes    |
| COPIER         | FUNCTION  | SPLMAN            | SPL84194 | Yes    | Yes    | Yes    |
| COPIER         | FUNCTION  | SPLMAN            | SPL78148 | Yes    | -      | -      |

\*1. FAX model only

| Initial screen | Main item | Intermediate item | Sub item | Case A | Case B | Case C |
|----------------|-----------|-------------------|----------|--------|--------|--------|
| COPIER         | FUNCTION  | INSTALL           | ERDS     | Yes    | Yes    | Yes    |
| COPIER         | FUNCTION  | INSTALL           | RGW-PORT | Yes    | Yes    | Yes    |
| COPIER         | OPTION    | BODY              | MIBCOUNT | Yes    | Yes    | Yes    |
| COPIER         | OPTION    | BODY              | NS-CMD5  | Yes    | -      | -      |
| COPIER         | OPTION    | BODY              | NS-PLN   | Yes    | -      | -      |
| COPIER         | OPTION    | BODY              | NS-LGN   | Yes    | -      | -      |
| COPIER         | OPTION    | BODY              | SLPMODE  | Yes    | Yes    | Yes    |
| COPIER         | OPTION    | BODY              | SDTM-DSP | Yes    | Yes    | Yes    |
| COPIER         | OPTION    | FNC-SW            | LCDSFLG  | Yes    | Yes    | Yes    |
| COPIER         | OPTION    | FNC-SW            | CRG-PROC | Yes    | Yes    | -      |
| COPIER         | OPTION    | FNC-SW            | CRGLF-K  | Yes    | Yes    | -      |
| COPIER         | OPTION    | FNC-SW            | RPT2SIDE | Yes    | Yes    | Yes    |
| COPIER         | OPTION    | DSPLY-SW          | CRGLW-LV | Yes    | Yes    | Yes    |
| COPIER         | OPTION    | DSPLY-SW          | CRG-LOG  | Yes    | Yes    | -      |
| COPIER         | OPTION    | IMG-MCON          | REGM-SEL | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | COUNTER1 | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | COUNTER2 | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | COUNTER3 | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | COUNTER4 | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | COUNTER5 | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | COUNTER6 | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | CNT-SW   | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | CONTROL  | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | CTCHKDSP | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | TNRB-SW  | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | SMD-EXPT | Yes    | -      | -      |
| COPIER         | OPTION    | USER              | ACC-SLP  | Yes    | Yes    | Yes    |
| COPIER         | OPTION    | ACC               | CARD-SW  | Yes    | -      | -      |
| COPIER         | OPTION    | ACC               | CC-SPSW  | Yes    | -      | -      |
| FAX            | SSSW      | SW01              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW02              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW03              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW04              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW05              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW06              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW07              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW08              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW09              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW10              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW11              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW12              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW13              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW14              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW15              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW16              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW17              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW18              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW19              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW20              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW21              |          | Yes *1 | -      | -      |

\*1. FAX model only

| Initial screen | Main item | Intermediate item | Sub item | Case A | Case B | Case C |
|----------------|-----------|-------------------|----------|--------|--------|--------|
| FAX            | SSSW      | SW22              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW23              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW24              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW25              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW26              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW27              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW28              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW29              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW30              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW31              |          | Yes *1 | -      | -      |
| FAX            | SSSW      | SW32              |          | Yes *1 | -      | -      |
| FAX            | MENU      | 005               |          | Yes *1 | -      | -      |
| FAX            | MENU      | 006               |          | Yes *1 | -      | -      |
| FAX            | MENU      | 007               |          | Yes *1 | -      | -      |
| FAX            | MENU      | 008               |          | Yes *1 | -      | -      |
| FAX            | MENU      | 009               |          | Yes *1 | -      | -      |
| FAX            | MENU      | 010               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 002               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 003               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 004               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 005               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 006               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 008               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 010               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 011               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 012               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 013               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 015               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 016               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 017               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 018               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 019               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 020               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 021               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 022               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 023               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 024               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 025               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 026               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 027               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 029               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 049               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 051               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 053               |          | Yes *1 | -      | -      |
| FAX            | NUM       | 054               |          | Yes *1 | -      | -      |
| FAX            | NCU       | TONE              | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | TONE              | 002      | Yes *1 | -      | -      |

\*1. FAX model only

| Initial screen | Main item | Intermediate item | Sub item | Case A | Case B | Case C |
|----------------|-----------|-------------------|----------|--------|--------|--------|
| FAX            | NCU       | PULSE             | FORM     | Yes *1 | -      | -      |
| FAX            | NCU       | PULSE             | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | PULSE             | 002      | Yes *1 | -      | -      |
| FAX            | NCU       | PULSE             | 003      | Yes *1 | -      | -      |
| FAX            | NCU       | PULSE             | 004      | Yes *1 | -      | -      |
| FAX            | NCU       | DIALTONE          | BIT      | Yes *1 | -      | -      |
| FAX            | NCU       | DIALTONE          | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | DIALTONE          | 002      | Yes *1 | -      | -      |
| FAX            | NCU       | DIALTONE          | 003      | Yes *1 | -      | -      |
| FAX            | NCU       | DIALTONE          | 004      | Yes *1 | -      | -      |
| FAX            | NCU       | DIALTONE          | 005      | Yes *1 | -      | -      |
| FAX            | NCU       | DIALTONE          | 006      | Yes *1 | -      | -      |
| FAX            | NCU       | DIALTONE          | 007      | Yes *1 | -      | -      |
| FAX            | NCU       | DIALTONE          | 008      | Yes *1 | -      | -      |
| FAX            | NCU       | 2ND DLTN          | BIT      | Yes *1 | -      | -      |
| FAX            | NCU       | 2ND DLTN          | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | 2ND DLTN          | 002      | Yes *1 | -      | -      |
| FAX            | NCU       | 2ND DLTN          | 003      | Yes *1 | -      | -      |
| FAX            | NCU       | 2ND DLTN          | 004      | Yes *1 | -      | -      |
| FAX            | NCU       | 2ND DLTN          | 005      | Yes *1 | -      | -      |
| FAX            | NCU       | 2ND DLTN          | 006      | Yes *1 | -      | -      |
| FAX            | NCU       | 2ND DLTN          | 007      | Yes *1 | -      | -      |
| FAX            | NCU       | 2ND DLTN          | 008      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE0          | BIT      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE0          | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE0          | 002      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE0          | 003      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE0          | 004      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE0          | 005      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE0          | 006      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE0          | 007      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE0          | 008      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE1          | BIT      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE1          | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE1          | 002      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE1          | 003      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE1          | 004      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE1          | 005      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE1          | 006      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE1          | 007      | Yes *1 | -      | -      |
| FAX            | NCU       | BUSTONE1          | 008      | Yes *1 | -      | -      |
| FAX            | NCU       | REORDRTN          | BIT      | Yes *1 | -      | -      |
| FAX            | NCU       | REORDRTN          | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | REORDRTN          | 002      | Yes *1 | -      | -      |
| FAX            | NCU       | REORDRTN          | 003      | Yes *1 | -      | -      |
| FAX            | NCU       | REORDRTN          | 004      | Yes *1 | -      | -      |
| FAX            | NCU       | REORDRTN          | 005      | Yes *1 | -      | -      |

\*1. FAX model only

| Initial screen | Main item | Intermediate item | Sub item | Case A | Case B | Case C |
|----------------|-----------|-------------------|----------|--------|--------|--------|
| FAX            | NCU       | REORDRTN          | 006      | Yes *1 | -      | -      |
| FAX            | NCU       | REORDRTN          | 007      | Yes *1 | -      | -      |
| FAX            | NCU       | REORDRTN          | 008      | Yes *1 | -      | -      |
| FAX            | NCU       | AUTO RX           | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | AUTO RX           | 002      | Yes *1 | -      | -      |
| FAX            | NCU       | AUTO RX           | 003      | Yes *1 | -      | -      |
| FAX            | NCU       | AUTO RX           | 004      | Yes *1 | -      | -      |
| FAX            | NCU       | AUTO RX           | 005      | Yes *1 | -      | -      |
| FAX            | NCU       | AUTO RX           | 006      | Yes *1 | -      | -      |
| FAX            | NCU       | AUTO RX           | 007      | Yes *1 | -      | -      |
| FAX            | NCU       | AUTO RX           | 008      | Yes *1 | -      | -      |
| FAX            | NCU       | AUTO RX           | 009      | Yes *1 | -      | -      |
| FAX            | NCU       | CNGDTCT           | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | CNGDTCT           | 002      | Yes *1 | -      | -      |
| FAX            | NCU       | CNGDTCT           | 006      | Yes *1 | -      | -      |
| FAX            | NCU       | CNGDTCT           | 007      | Yes *1 | -      | -      |
| FAX            | NCU       | CNGDTCT           | 008      | Yes *1 | -      | -      |
| FAX            | NCU       | CNGDTCT           | 009      | Yes *1 | -      | -      |
| FAX            | NCU       | CNGDTCT           | 011      | Yes *1 | -      | -      |
| FAX            | NCU       | CNGDTCT           | 012      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW01     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW02     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW03     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW04     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW05     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW06     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW07     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW08     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW09     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW10     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW11     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW12     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW13     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW14     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW15     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW16     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW17     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW18     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW19     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW20     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW21     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW22     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW23     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW24     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW25     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW26     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW27     | Yes *1 | -      | -      |

\*1. FAX model only

| Initial screen | Main item | Intermediate item | Sub item | Case A | Case B | Case C |
|----------------|-----------|-------------------|----------|--------|--------|--------|
| FAX            | NCU       | SPECIALB          | SW28     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW29     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALB          | SW30     | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 004      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 005      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 006      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 007      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 008      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 009      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 011      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 012      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 013      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 014      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 015      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 016      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 017      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 019      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 020      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 024      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 025      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 026      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 027      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 030      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 040      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 041      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 042      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 044      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 045      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 046      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 047      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 048      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 065      | Yes *1 | -      | -      |
| FAX            | NCU       | SPECIALN          | 066      | Yes *1 | -      | -      |
| FAX            | NCU       | RKEY              | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | RKEY              | 002      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXDIALT          | BIT      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXDIALT          | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXDIALT          | 002      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXDIALT          | 003      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXDIALT          | 004      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXDIALT          | 005      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXDIALT          | 006      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXDIALT          | 007      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXDIALT          | 008      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXBUSYT          | BIT      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXBUSYT          | 001      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXBUSYT          | 002      | Yes *1 | -      | -      |

\*1. FAX model only

| Initial screen | Main item | Intermediate item | Sub item | Case A | Case B | Case C |
|----------------|-----------|-------------------|----------|--------|--------|--------|
| FAX            | NCU       | PBXBUSYT          | 003      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXBUSYT          | 004      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXBUSYT          | 005      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXBUSYT          | 006      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXBUSYT          | 007      | Yes *1 | -      | -      |
| FAX            | NCU       | PBXBUSYT          | 008      | Yes *1 | -      | -      |

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\*1. FAX model only