# Color imageCLASS
# MF628Cw
# MF624Cw

# SERVICE
# MANUAL

# Canon

**August 24, 2015**
**Rev. 2**

# Introduction

## Important Notices

### 🔵 Application

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

### 🔵 Corrections

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

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### 🔵 Caution

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

### 🔵 Explanation of Symbols

The following symbols are used throughout this Service Manual.

| Symbols | Explanation | Symbols | Explanation |
|---|---|---|---|
| | Check. | 1x | Remove the claw. |
| | Check visually. | 1x | Insert the claw. |
| | Check a sound. | | Push the part. |

| Symbols | Explanation | Symbols | Explanation |
|---|---|---|---|
| | 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

# Laser Safety

Since radiation emitted inside the machine is completely confined within protective housings and external covers, the laser beam cannot escape from the machine during any phase of user operation.
Therefore this machine is classified in Class 1 laser products that are regarded as safe during normal use according to International Standard IEC60825-1.

# How to Handle the Laser Scanner Unit

This machine is classified in Class 1 laser products.
However, inside the scanner unit, there is source of Class 3B laser beam and the laser beam is hazardous when entered into an eye. So, be sure not to disassemble the laser scanner unit. No adjustment can be made to the laser scanner unit in this machine in the field.
The label show in the following figure is attached on the laser scanner unit.

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

Diese Maschine ist der Klasse 1 der Laserprodukte zugeordnet.
Innerhalb der Scannereinheit befindet sich jedoch die Laserstrahlquelle der Klasse 3B und es ist gefährlich, wenn dieser Strahl in die Augen gerät. Die Laserscannereinheit darf unter keinen Umständen entfernt werden. Es dürfen in diesem Umfeld der Maschine keine Justagen an der Laserscannereinheit vorgenommen werden.
Das Etikett in folgendem Bild ist auf der Laserscannereinheit angebrachtt.

# Toner Safety

## About Toner

Toner is a nontoxic matter composed of plastic, iron and a trace of pigments.

> **⚠ 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 When Handling a Lithium Battery

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

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

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

> 警告
> 如果更換不正確之電池型式會有爆炸的風險
> 請依製造商說明書處理用過之電池

# Notes on Assembly/Disassembly

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

> **CAUTION:**
> Double pole/neutral fusing
>
> > CAUTION
> >
> > DOUBLE POLE/NEUTRAL FUSING
>
> > ACHTUNG
> >
> > Zweipolige bzw. Neutralleiter-Sicherung

# 1 Product Overview

# Product Lineups

## ⬤ Host Machine

| Function | MF620 Series (COUNTRY / REGION) | | | | |
|---|---|---|---|---|---|
| | MF628Cw (EUR, CHN, AE/ IND, KOR, US/CND/LTN, TWN, JP) | MF626Cn (CHN) | MF624Cw (KOR, US/CND/ LTN) | MF623Cn (EUR, CHN) | MF621Cn (CHN, AE/IND) |
| Appearance | |  | | |  |
| Copy | Yes | Yes | Yes | Yes | Yes |
| Print | Yes | Yes | Yes | Yes | Yes |
| Fax | Yes | Yes | No | No | No |
| USB Scan | Yes | Yes | Yes | Yes | Yes |
| Network Scan | Yes | Yes | Yes | Yes | Yes |
| Wireless LAN | Yes | No | Yes | No | No |
| Direct Mode | Yes | No | Yes | No | No |
| SEND | Yes | Yes | Yes | Yes | No |
| Secure Print | No | No | No | No | No |
| Remote UI | Yes | Yes | Yes | Yes | Yes |
| ADF (1-side) | Yes | Yes | Yes | Yes | No |
| Automatic 2-sided Print | No | No | No | No | No |

# Options



[1]
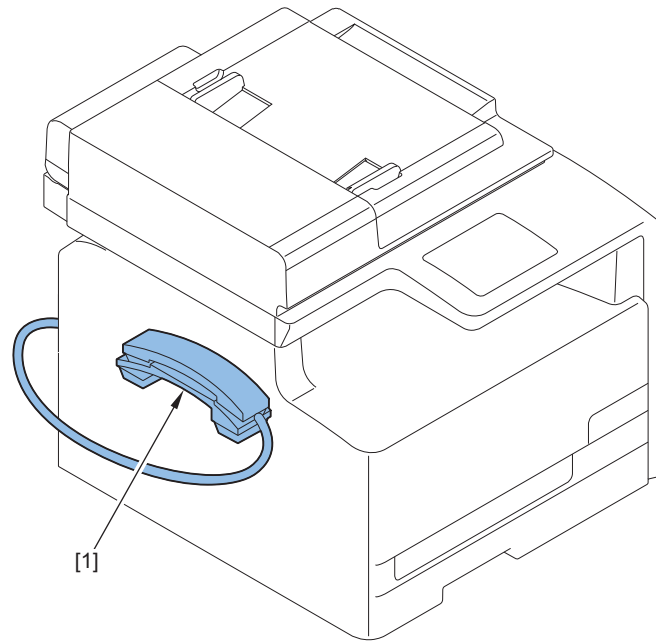
| No. | Name | Description | Remarks |
|-----|------|-------------|---------|
| 1 | TELEPHONE 6 KIT Long cord Cool White | Addition of phone | MF628Cw (EUR) |
|   | HANDSET KIT 3 Long cord Cool White |   | MF628Cw (ASIA)<br>Standard: MF628Cw (CHN/TWN) / MF626Cn |

# Product Features

## ⬤ Features

### ■ Compact Size MFP

A compact body size for A4 color laser MFP has been realized.

| < MF621Cn > | < MF620 Series > |
|:---:|:---:|
| 375 mm / 430 mm | 428.5 mm / 430 mm |
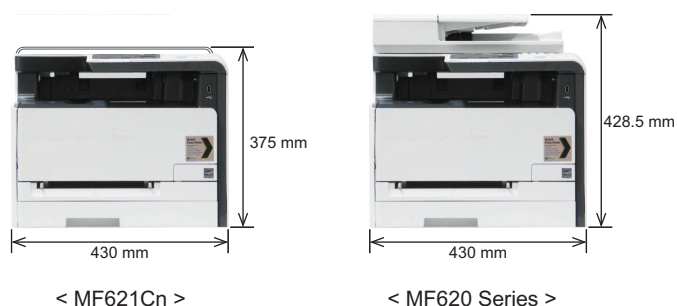
### ■ Improved Control Panel operability

A 3.5-inch color Touch Panel is installed. Support for touch and flick has realized the operability like a smartphone.
In addition, reducing the hard keys and changing them to icons in the display have realized the UI that allows for easy customization while maintaining the level of operability.

### ■ Direct Mode supported (supported models only)

Direct communication between the host machine and smartphone, tablet, PC, etc. has been realized.

### ■ Mobile print supported (Apple Air Print, Google Cloud Print)

Mobile print that enables printing from smartphone, tablet, PC, etc. via an application such as Google Docs[TM] and Gmail[TM] has been realized.

### ■ Wireless LAN supported (supported models only)

Connection between the host machine and PC by wireless communication (radio wave) via wireless LAN router has been realized.

# Specifications

## ● Specifications of Host Machine

| Item | | Specification / Function |
|---|---|---|
| Copyboard | | Fixed |
| Device Installation | | Desktop |
| Light source | | LED (RGB) |
| Photoreceptor | | OPC drum (φ24) |
| Image scanning | | CIS (color) |
| Light exposure method | | Laser beam exposure |
| Charging method | | Roller charging |
| Developing method | | Contact development |
| Transfer method | | Primary transfer: Sequential 4 colors transfer to Intermediate Transfer Belt<br>Secondary transfer: 4-color batch transfer onto the transfer material by the Transfer Roller |
| Separation method | | Curvature separation |
| Cassette paper feed | | Simple separation retard |
| Manual feed slot paper feed | | Separation roller method |
| Drum cleaning method | | Cleaning blade |
| Transfer cleaning method | | Cleaning brush and roller |
| Fixing method | | On-demand fixing |
| Paper delivery method | | Face-down |
| Toner level sensor | | Mounted |
| Toner type | | Non-magnetic one-component toner |
| Toner supply method | | All-in-one cartridge (drum + toner) |
| Toner save mode | | N/A |
| Document types | | Sheet / book |
| Maximum document size | | Copyboard Glass: 216 mm × 297 mm<br>Feeder: 216 mm × 356 mm |
| Document size sensor | | N/A |
| Image size magnification | | AB series: 25.0%, 50.0%, 70.7%, 81.6%, 86.5%, 100.0%, 115.4%, 122.4%, 141.4%, 200.0%, 400.0%<br>INCH series: 25.0%, 50.0%, 64.7%, 78.5%, 100.0%, 129.4%, 200.0%, 400.0%<br>A series: 25.0%, 50.0%, 70.7%, 100.0%, 141.4%, 200.0%, 400.0%<br>AB/INCH series: 25.0%, 50.0%, 70.7%, 81.6%, 86.5%, 100.0%, 115.4%, 122.4%, 141.4%, 200.0%, 400.0%<br>Zoom: 25 to 400% (1% increment) |
| Warm-up Time *1 | | About 23 seconds or less |
| Print area | Cassette | For print jobs (Non-envelope):<br>  • Leading edge: 5.0 +/- 1.5 mm<br>  • Left Side: 5.0 + 1.8 mm / -1.2 mm<br>For print jobs (envelope):<br>  • Leading edge: 10.0 +/- 1.5 mm<br>  • Left Side: 10.0 + 1.8 mm / -1.2 mm<br>For copy jobs:<br>  • Leading edge: 5.0 +/- 1.5 mm<br>  • Left Side: 5.0 + 1.8 mm / -1.2 mm<br>FAX / Report:<br>  • Leading edge: 5.0 +/- 1.5 mm<br>  • Left Side: 5.0 + 1.8 mm / -1.2 mm |

| Item | | Specification / Function |
|---|---|---|
| Print area | Manual feed slot | (Non-envelope)<br>For print jobs:<br>• Leading edge: 5.0 +/- 2.0 mm<br>• Left Side: 5.0 +/- 1.5 mm<br>For copy jobs:<br>• Leading edge: 5.0 +/- 2.0 mm<br>• Left Side: 5.0 +/- 1.5 mm<br>FAX / Report:<br>• Leading edge: 5.0 +/- 2.0 mm<br>• Left Side: 5.0 +/- 1.5 mm<br>(envelope)<br>For print jobs / For copy jobs:<br>• Leading edge: 10.0 +/- 3.0 mm<br>• Left Side: 10.0 +/- 2.5 mm |
| Reading resolution | | Color: 600 x 600 dpi, 300 x 600 dpi, 300 x 300 dpi<br>B&W: 600 x 600 dpi, 300 x 600 dpi |
| Reading Speed | | Fixed (A4/LTR):<br>• N/A<br>Continuous reading, SEND:<br>• Color: 10 images / minute (A4/LTR)<br>• B&W: 20 images / minute (A4)<br>• B&W: 21 images / minute (LTR) |
| Copy resolution | | 600 x 600 dpi |
| Print resolution | | 600 x 600 dpi |
| First copy time | | Fixed (A4/LTR):<br>• Color / B&W: 19.0 seconds or less |
| | | Continuous reading (A4/LTR):<br>• Color / B&W: 19.0 seconds or less |
| First print time | | Color / B&W: 18.0 seconds or less (A4/LTR) |
| Print Speed | | Color / B&W: 14 ppm (A4/LTR) |
| Available paper type for cassette | | Thin paper, Plain paper, Recycled paper, Color paper, Thick paper, Coated paper, Label, Postcard, Envelope<br>(Refer to "Paper types / Paper size" on page 13) |
| Available paper type for manual feed slot | | Thin paper, Plain paper, Recycled paper, Color paper, Thick paper, Coated paper, Transparency, Label, Postcard, Envelope<br>(Refer to "Paper types / Paper size" on page 13) |
| Available paper size in cassette | | A4, B5, A5, LGL, LTR, STMT, EXEC, OFFICIO, B-OFFICIO, M-OFFICIO, GLTR, GLGL, FLS, AFLS, indLGL, K16, Index card, Postcard, Reply Postcard, Envelopes (COM10, Monarch, Nagagata 3, Yougatanaga 3, C5, DL), Custom Paper Size<br>(Refer to "Paper types / Paper size" on page 13) |
| Manual feed slot paper size | | A4, B5, A5, LGL, LTR, STMT, EXEC, OFFICIO, B-OFFICIO, M-OFFICIO, GLTR, GLGL, FLS, AFLS, indLGL, K16, Index card, Postcard, Reply Postcard, Envelopes (COM10, Monarch, Nagagata 3, Yougatanaga 3, C5, DL), Custom Paper Size<br>(Refer to "Paper types / Paper size" on page 13) |
| Cassette capacity | | 150 sheets (60 to 90 g/m$^2$) |
| Manual feed slot capacity | | 1 sheet |
| Delivery tray stacking capacity *2 | | 125 sheets (60 to 90 g/m$^2$) |
| Continuous copying | | 1 to 99 sheets |
| Automatic 2-sided | | N/A |
| Memory capacity | | 512 MB |
| Sleep mode | | Available |
| Allowable environmental temperature | | 10 to 30 deg C |
| Allowable humidity | | 20 to 80% in relative humidity (no condensation) |
| Operational noise | | At stand-by:<br>• 43 dB or lower (acoustic power level)<br>During copy jobs:<br>• Color: 65.2 dB or lower<br>• B&W: 63.9 dB or lower |

| Item | Specification / Function |
|---|---|
| Power rating | Rated input voltage: 100 V (100 V system), 120 to 127 V (120 V system), 220 to 240 V (200 V system)<br>Rated input frequency: 50/60 Hz |
| Maximum power consumption | 100 V: 900 W or lower<br>120 V: 900 W or lower<br>230 V: 900 W or lower |
| Average power at operation | 100 V: 400 W or lower<br>120 V: 400 W or lower<br>230 V: 400 W or lower |
| Average power at standby | 100 V: 20 W<br>120 V: 20 W<br>230 V: 20 W |
| Average power at sleep mode | 100 V: 1 W (wired) / 2 W (wireless)<br>120 V: 1 W (wired) / 2 W (wireless)<br>230 V: 1 W (wired) / 2 W (wireless) |
| Power consumption at Main Power Switch OFF | 0.5 W or lower |
| Ozone emission | Color: 3.0 mg/h<br>B&W: 1.5 mg/h |
| Dimensions (W x D x H) | ADF model: 430 × 484 × 428.5 mm<br>Copyboard model: 430 × 484 × 375 mm |
| Weight | ADF model (including toner cartridges): Approx. 26 kg<br>Copyboard model (including toner cartridges): Approx. 24 kg |
| Accessories | Refer to "Options" on page 6 |

*1 : Warm-up time is an interval between when the machine is turned ON and when the main screen appears on the display. Warm-up time may vary depending on the use conditions and environment of the machine.

*2 : The actual stack capacity varies depending on the site environment and the type of paper used.

## ● ADF Specifications

| Item | Specification / Function |
|---|---|
| Document setting direction | Set the document face up (face-up method) |
| Document setting position | Center reference |
| Document processing mode | 1-sided document: 1-sided copy |
| Document scanning | Continuous reading |
| Loadable sheets | A4/LTR: 50 sheets (80 g/m$^2$), LGL: 30 sheets (80 g/m$^2$) |
| Mixed paper reading | Copyboard Glass: 216 mm × 297 mm<br>Feeder: 216 mm × 356 mm |
| Mixed paper | Available |
| Document AE sensor | N/A |
| Document size sensor | N/A |
| Stamp function | N/A |
| Allowable environment | Same as device |

## ● Wireless LAN Specifications

| Item | Specification / Function |
|---|---|
| Standard | IEEE 802.11g / IEEE 802.11b / IEEE 802.11n * |
| Transmission Scheme | DS-SS System / OFDM System |
| Frequency Range | 2412 to 2472 MHz |

| Item | Specification / Function |
|---|---|
| Data Transmission Rate | IEEE 802.11g:<br>• 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54 Mbps<br>IEEE 802.11b:<br>• 1/2/5.5/11 Mbps<br>IEEE 802.11n:<br>• SGI Invalidated 20 MHz : 6.5 / 13 / 19.5 / 26 / 39 / 52 / 58.5 / 65 Mbps<br>• SGI Validated 20 MHz : 7.2 / 14.4 / 21.7 / 28.9 / 43.3 / 57.8 / 72.2 Mbps<br>• SGI Invalidated 40 MHz : 13.5 / 27 / 40.5 / 81 / 108 / 121.5 / 135 Mbps<br>• SGI Validated 40 MHz : 15 / 30 / 45 / 60 / 90 / 120 / 150 Mbps |
| Communication Mode | • Infrastructure Mode<br>• Direct Mode |
| Security | WEP, WPA-PSK (TKIP/AES-CCMP), WPA2-PSK (TKIP/AES-CCMP) |

*: WPS (Wi-Fi Protected Setup), Connection can be established by manually setting values.

# ⬤ SEND Specifications

| Item | Specification / Function | | | |
|---|---|---|---|---|
| | **File Server Transmission** | **E-mail Sending** | **IFAX** | |
| | | | **Reception** | **Transmission** |
| Communication Protocol | SMB (TCP/IP) , FTP | SMTP | | |
| Data Format | PDF, PDF (Compact), PDF(Compact/OCR), PDF(OCR), JPEG, TIFF | PDF, PDF (Compact), PDF(Compact/OCR), PDF(OCR), JPEG, TIFF | TIFF (BW) | JPEG, TIFF (Profile-S, Profile-F) |
| System Environment | • Windows XP / Vista / 7 / 8 / Server 2003 / Server 2008 / Server 2012<br>• Solaris Version 2.6 or later<br>• Mac OS X<br>  (Mac OS X 10.7 and 10.8 are not supported.)<br>• Red Hat Linux 7.2 or later | • Windows XP / Vista / 7 / 8 / Server 2003 / Server 2008 / Server 2012<br>• Solaris Version 2.6 or later<br>• Mac OS X<br>• Red Hat Linux 7.2 or later | | |
| Interface | 100BASE-TX, 10BASE-T | | | |
| Inputted Image | Text, Text / Photo, Photo | | | |
| Color Mode | Color, Black/White | | | |
| Paper Size | AB configuration: A4, A5, B5<br>Inch configuration: Legal (LGL), Letter (LTR), Statement (STMT) | | | |

*1: Size of recording paper at I-Fax reception is A4 size or larger.

# ● **FAX Specifications**

| Item | Specification / Function |
|---|---|
| Suitable line | Public Switched Telephone Network (PSTN) *<br>Telephone line connection: 1 |
| Communication Protocol | Super G3, G3 |
| Modulation method | Image modulation: V.34 / V.17 / V.29 / V.27ter<br>Transmission procedure: V.21 |
| Transmission speed | 33,600 bps |
| Compression method | JBIG, MMR, MR, MH |
| Error correction method | ECM |
| Minimum receivable input level | V.17 / V.27ter / V.29:<br>• -6 to -43 dBm<br>V.34:<br>• 24.0 k to 28.8 k bps: -43 dBm<br>• 28.8 k to 33.6 k bps: -38 dBm<br>• 33.6 k bps: -9 dBm |
| Modem IC | SiliconLabs Si2435 |
| Scanning line density | Normal: 200 x 100 dpi<br>Fine: 200 x 200 dpi<br>Photo: 200 x 200 dpi<br>Super fine: 200 x 400 dpi<br>Ultra fine: 400 x 400 dpi |
| Half tone | 256 tones |
| Receivable reduction setting | Automatic reduction: 75-100% (1% increment) |
| FAX/TEL switching | Available |
| Answering machine transfer setting | Available |
| Remote reception | Available |
| Auto-dialing | Available |
| Delayed transmission | N/A |
| Broadcast transmission | Destinations: up to 210 |
| Dual access | Up to 10 schedules |
| Image data backup | Available |

*: Up to 33.6Kbps in modem speed is currently available in PSTN. Note that available modem speed is telephone-line dependent.

# 🔵 Paper types / Paper size

| Type | Size | Width direction (mm) | Feeding direction (mm) | Pickup position | |
|---|---|---|---|---|---|
| | | | | Manual feed slot | Cassette |
| Thin paper (60 g/m$^2$)<br>Recycled paper (60 to 74 g/m$^2$)<br>Color paper (60 to 74 g/m$^2$)<br>Plain paper 1 (60 to 74 g/m$^2$)<br>Plain paper 2 (70 to 84 g/m$^2$)<br>Plain paper 3 (75 to 90 g/m$^2$)<br>Thick paper 1 (85 to 120 g/m$^2$)<br>Thick paper 2 (121 to 163 g/m$^2$) | A4 *2 | 210.0 | 297.0 | Yes | Yes |
| | B5 | 182.0 | 257.0 | Yes | Yes |
| | A5 | 148.0 | 210.0 | Yes | Yes |
| | LGL | 215.9 | 355.6 | Yes | Yes |
| | LTR *2 | 215.9 | 279.4 | Yes | Yes |
| | STMT | 139.7 | 215.9 | Yes | Yes |
| | EXEC | 184.0 | 266.7 | Yes | Yes |
| | OFFICIO | 215.9 | 317.5 | Yes | Yes |
| | B-OFFICIO | 215.9 | 355.0 | Yes | Yes |
| | M-OFFICIO | 215.9 | 341.0 | Yes | Yes |
| | GLTR | 203.2 | 266.7 | Yes | Yes |
| | GLGL | 203.2 | 330.2 | Yes | Yes |
| | FLS | 215.9 | 330.2 | Yes | Yes |
| | AFLS | 206.0 | 338.0 | Yes | Yes |
| | indLGL | 215.0 | 345.0 | Yes | Yes |
| | K16 | 195.0 | 270.0 | Yes | Yes |
| | Index card | 76.2 | 127.0 | Yes | Yes |
| | Custom Paper Size | 83.0 to 215.9 | 127.0 to 355.6 | Yes *3 | Yes *4 |
| Coated paper 1 (100 to 110 g/m$^2$)<br>Coated paper 2 (111 to 130 g/m$^2$)<br>Coated paper 3 (131 to 160 g/m$^2$) | A4 | 210.0 | 297.0 | Yes | Yes |
| | LTR | 215.9 | 279.4 | Yes | Yes |
| Coated paper 4 (161 to 220 g/m$^2$) | A4 | 210.0 | 297.0 | Yes | No |
| | LTR | 215.9 | 279.4 | Yes | No |
| Transparency *1 | A4 | 210.0 | 297.0 | Yes | No |
| | LTR | 215.9 | 279.4 | Yes | No |
| Label | A4 | 210.0 | 297.0 | Yes | Yes |
| | LTR | 215.9 | 279.4 | Yes | Yes |
| Postcard | Postcard | 100 | 148 | Yes | Yes |
| | Reply Postcard | 148 | 200 | Yes | Yes |
| Envelopes | Envelopes COM10 | 104.7 | 241.3 | Yes | Yes |
| | Envelopes Monarch | 98.4 | 190.5 | Yes | Yes |
| | Envelopes Nagagata 3 | 120 | 235 | Yes | Yes |
| | Envelopes Yougatanaga 3 | 120 | 235 | Yes | Yes |
| | Envelopes C5 | 162 | 229 | Yes | Yes |
| | Envelopes DL | 110 | 220 | Yes | Yes |
| | Index card | 76.2 | 127.0 | Yes | Yes |
| | Custom Paper Size | 83.0 to 215.9 | 127.0 to 355.6 | Yes *3 | Yes *4 |

*1: Use transparency sheets for laser printers. (Canon's genuine transparency sheets are specially recommended.)

*2: Fax-received documents or reports can be printed. (excluding heavy paper)

*3: Paper of the following custom paper sizes can be loaded.
 • Width 3" to 8 1/2" (76.2 to 215.9 mm); Length 5" to 14"(127 to 355.6 mm)

*4: Paper of the following custom paper sizes can be loaded.
 • Width 4" to 8 1/2" (100 to 215.9 mm); Length 5 7/8" to 14" (148 to 355.6 mm)

# Name of Parts

## ● External View

### ■ Front Side
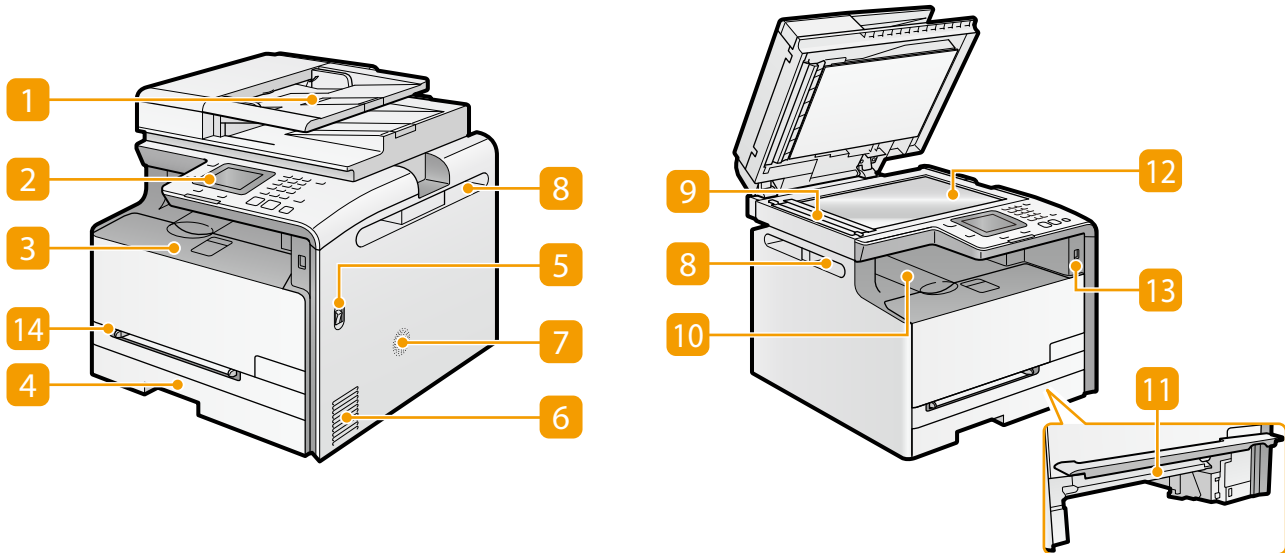


| No. | Name | No. | Name |
|-----|------|-----|------|
| 1 | Feeder | 8 | Grip |
| 2 | Control panel | 9 | Paper scanner for document from feeder |
| 3 | Front cover | 10 | Delivery tray |
| 4 | Paper cassette | 11 | Manual feed guide |
| 5 | Main power switch | 12 | Copyboard glass |
| 6 | Vent-hole | 13 | USB memory port |
| 7 | Speaker | 14 | Manual feed slot |

## ■ Rear Side
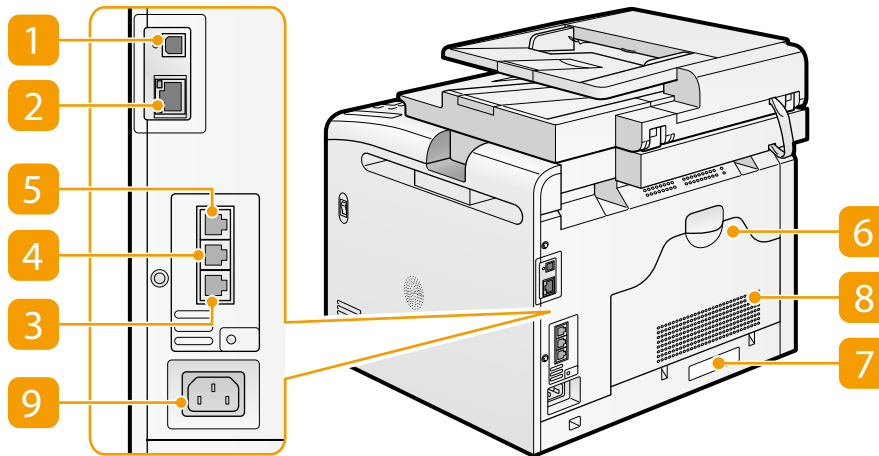
| No. | Name | No. | Name |
|-----|------|-----|------|
| 1 | USB port | 6 | Rear cover |
| 2 | LAN port | 7 | Rating plate |
| 3 | Telephone line terminal | 8 | Vent-hole |
| 4 | External telephone terminal | 9 | Power socket |
| 5 | Handset terminal | | |

## ■ Inside
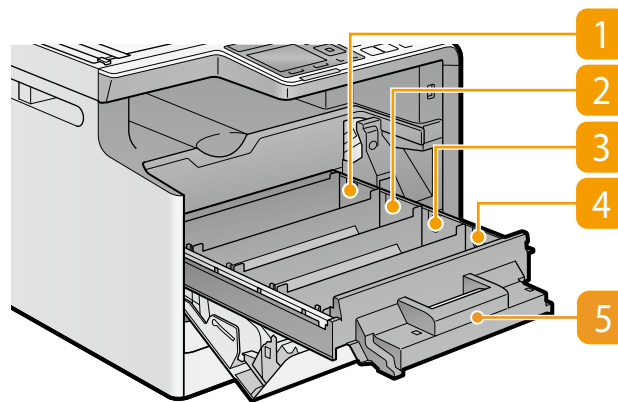
| No. | Name |
|-----|------|
| 1 | Y toner cartridge slot |
| 2 | M toner cartridge slot |
| 3 | C toner cartridge slot |
| 4 | Bk toner cartridge slot |
| 5 | Toner cartridge tray |

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# Cross Section View

## ■ Host Machine
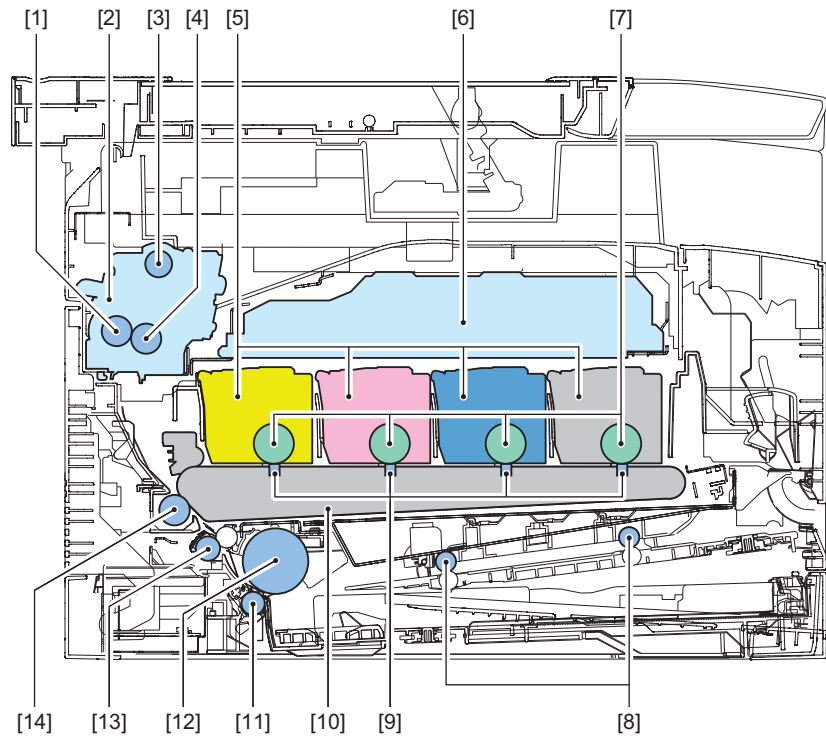


| No. | Name | No. | Name |
|---|---|---|---|
| 1 | Pressure roller | 8 | Manual feed roller |
| 2 | Fixing assembly | 9 | Primary transfer pad |
| 3 | Feed roller | 10 | ITB unit |
| 4 | Fixing film unit | 11 | Cassette separation roller |
| 5 | Toner cartridge | 12 | Cassette pickup roller |
| 6 | Laser scanner unit | 13 | Registration roller |
| 7 | Photosensitive drum | 14 | Secondary transfer external roller |

## ■ Reader / ADF Unit
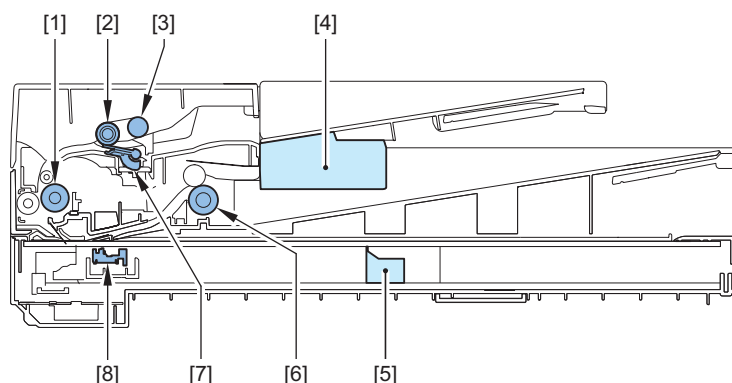


| No. | Name | No. | Name |
|---|---|---|---|
| 1 | ADF registration roller | 5 | Reader unit |
| 2 | ADF separation roller | 6 | ADF delivery roller |
| 3 | ADF pickup roller | 7 | ADF separation pad |
| 4 | ADF unit | 8 | CIS unit |

# ● Control Panel
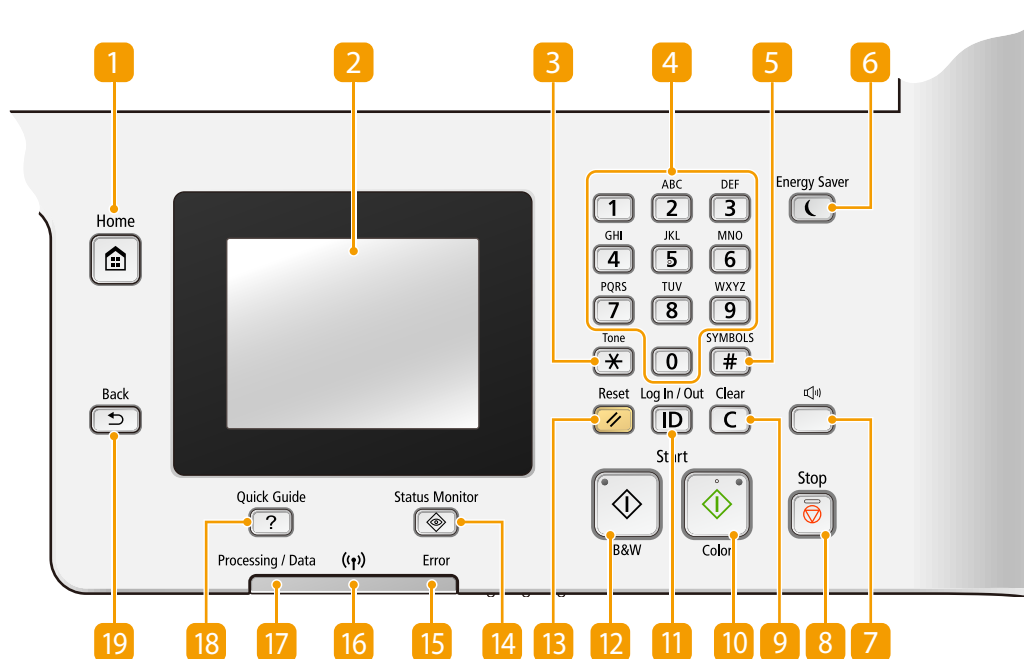


| No. | Name | Explanation |
|---|---|---|
| 1 | [Home] key | Press to display the <Home> Screen. |
| 2 | Display | You can view the progress of copy, fax, and other jobs and error statuses. The display is a touch panel, allowing you to operate the screen by touch to specify settings. |
| 3 | [*] key | • Press to switch the type of text that is entered.<br>• Press to use tone dialing such as when receiving fax information services. |
| 4 | Numeric keys ([0]-[9] keys) | Press to enter numbers and text. |
| 5 | [#] key | Press to enter symbols such as "@" or "/". |
| 6 | [Energy Saver] key | Press to put the machine into sleep mode. The key lights up green when the machine is in sleep mode. Press the key again to exit sleep mode. |
| 7 | [Sound Volume] key | Press to adjust volume. |
| 8 | [Stop] key | Press to cancel copying, faxing, and other operations. |
| 9 | [Clear] key | Press to delete the entered numbers and text. |
| 10 | [Start] (Color) key | Press to scan or copy documents in color. In addition, if you press this key when you start printing images from a USB memory device, printouts are printed in color. |
| 11 | [ID] key | Press after entering the ID and PIN to log on when Department ID Management is enabled. After you finish using the machine, press this key again to log off. |
| 12 | [Start] (B&W) key | Press to scan or copy documents in black and white. In addition, if you press this key when you start printing images from a USB memory device, printouts are printed in black and white. |
| 13 | [Reset] key | Press to cancel the settings and restore the previously specified settings. |
| 14 | [Status Monitor] key | Press to check the status of printing or faxing, to view the usage history, or to view the network settings such as the IP address of the machine. You can also check the status of the machine, such as the remaining amounts of paper and toner, or whether any errors occurred. |
| 15 | [Error] indicator | Blinks or lights up when an error such as a paper jam occurs. |
| 16 | Wi-Fi indicator *1 | Lights up when the machine is connected to wireless LAN. |
| 17 | [Processing/Data] indicator | Blinks while operations such as sending or printing are being performed. Lights up when there are documents waiting to be processed. |
| 18 | [Quick Guide] key | Press to view operation guidance and error causes/solutions. |
| 19 | [Back] key | Press to return to the previous screen. If you press this key when specifying settings, for example, the settings are not applied and the display returns to the previous screen. |

*1 : Models supporting wireless LAN only

# 2 Technical Explanation

## Basic Configuration

### 🔵 Configuration function

This device is roughly composed of the 6 functional blocks as shown in the figure below
- Document exposure/delivery system
- Controller system
- Laser exposure system
- Image formation system
- Fixing system
- Pickup / Feed System
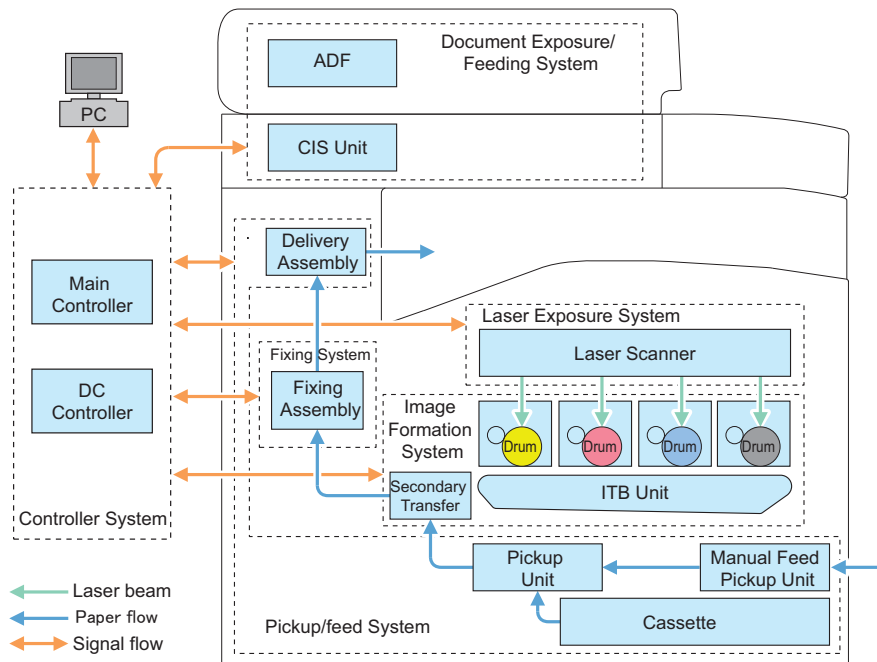


### 🔵 Basic Sequence

#### ■ Basic Operational Sequence

The CPU on the DC controller PCB controls the operational sequence. The table below shows the operation and the purposes in each status from start-up of the device and to last rotation after print job completion.

| Section | Outline | Operation |
|---------|---------|-----------|
| WAIT (Wait) | Interval from power-ON or reactivation from sleep mode upon shutting the door(s) to entering the print-ready status | Activate the printer to be ready for printing. During WAIT time, the following operations are done: pressure is applied to the pressure roller of the fixing assembly; check cartridges and units being in place; move the developing unit to the home position; and, clean the ITB. When needed, color displacement is corrected and the image is stabilized. |
| STBY (STBY) | Interval from the wait time or the last rotation to issuance of a print command from the main controller or power-OFF. | Maintain the print-ready status. The printer enters the sleep mode upon receiving a "sleep" command from the main controller during the stand-by status. The printer executes color displacement correction or image stabilization upon receiving corresponding commands from the main controller. |
| INTR (IINTR) | Interval from issuance of a print command from the main controller during the stand-by status to warming up the fixing assembly to the target temperature. | To make the printer ready for print jobs, activate high-voltage bias PCBs, the laser scanner unit and the fixing assembly. |
| PRINT (Print) | Interval from the initial rotation to completion of last page fixation. | Based on the video signals input from the main controller, form the static latent image on the photosensitive drum to transfer and fix the toner image on paper. When a certain pages are printed after power-ON, the device undergoes color displacement correction and/or image stabilization. |

| Section | Outline | Operation |
|---------|---------|-----------|
| LSTR (Last rotation) | Interval from print job completion to motor deactivation. | The last page of the print job is completely delivered. In this status, the laser scanner unit and high-voltage bias PCBs are inactive. The printer starts the initial rotation upon receiving a print command from the main controller during this status. |

## ■ Print Sequence

See "Appendix" > "Print Sequence" in this manual.

## ⬤ Print Mode

The models of this series switch among 2 print modes to optimize the normal print speed each for color and B&W printing.

| Print mode | Paper feed speed | Paper type | Print speed | Remarks |
|------------|------------------|------------|-------------|---------|
| Normal speed mode | 1/1 speed | ( 60 g/m $^2$ )<br>Plain paper 1 ( 60 to 74 g/m$^2$ )<br>Plain paper 2 ( 70 to 84 g/m$^2$ )<br>Plain paper 3 ( 75 to 90 g/m$^2$ )<br>Recycled paper ( 60 to 74 g/m$^2$ )<br>Color paper ( 60 to 74 g/m$^2$ ) | 14 ppm * | Common to color and B&W printing |
| 3/7 speed mode | 3/7 speed | Thick paper 1 ( 85 to 120 g/m$^2$ )<br>Thick paper 2 ( 121 to 163 g/m$^2$ )<br>Coated paper1 ( 100 to 110 g/m$^2$ )<br>Coated paper2 ( 111 to 130 g/m$^2$ )<br>Coated paper3 ( 131 to 160 g//m$^2$ )<br>Coated paper4 ( 161 to 220 g//m$^2$ )<br>Transparency<br>Labels<br>Postcards<br>Envelopes | 6.0 ppm * | |

* : The fastest print speed in each mode.

# Document Exposure/Feeder System

## ● Document Exposure System

### ■ Overview

Specifications / Control / Function List

| Item | Function / Method |
|---|---|
| Document Exposure | LED |
| Document Scan | Book Mode:<br>  • Scan by the shift of the contact sensor (CIS)<br>ADF:<br>  • Document stream reading by fixed contact sensor (CIS) |
| Scanning Resolution | Color:<br>  • 600 dpi (horizontal scanning) x 600 dpi (vertical scanning)<br>  • 300 dpi (horizontal scanning) x 600 dpi (vertical scanning)<br>  • 300 dpi (horizontal scanning) x 300 dpi (vertical scanning)<br>Black and White:<br>  • 600 dpi (horizontal scanning) x 600 dpi (vertical scanning)<br>  • 300 dpi (horizontal scanning) x 600 dpi (vertical scanning) |
| Number of Gradations | 256 Gradations |
| Magnification | 25% to 400%<br>Horizontal scanning direction: Image processing by the Main Controller PCB<br>Vertical scanning direction: The speed at which the carriage moves and image processing by the Main Controller PCB |
| Lens | CIS/Color |
| CIS | Number of lines: 1 line<br>Number of pixels: 5184 pixels as total pixels (5107 pixels as effective pixels)<br>Maximum document scanning width: 216mm |
| CIS Drive Control | Drive Control by Reader Motor (M720) |
| Document Size Detection | None |
| Dirt Sensor Detection | None |

### ■ Major Components

Followings are the major components for Document Exposure System.
  • The contact sensor to scan document.
  • The Reader motor (M720), the drive pulley, the drive belt, to shift the contact sensor.
In image scanning control, the contact sensor is shifted by rotating the Reader motor based on the drive signal from the Main Controller PCB and scan the original on the copyboard glass. When ADF is in use, image is scanned by feeding the originals by ADF instead of shifting the contact sensor.



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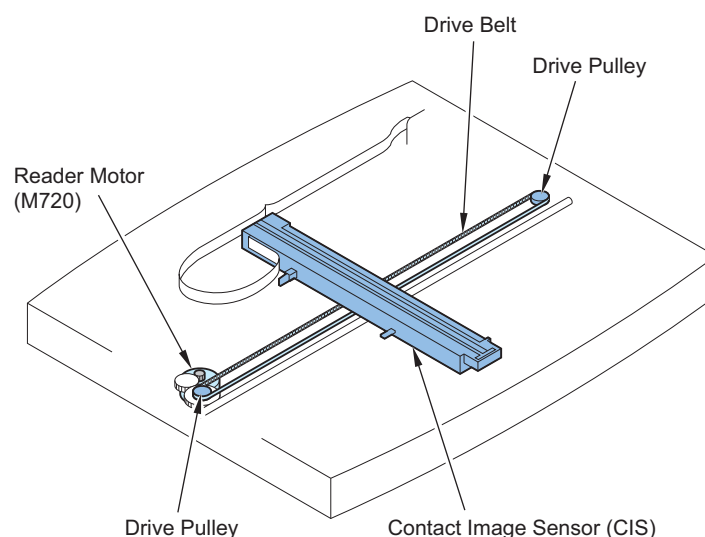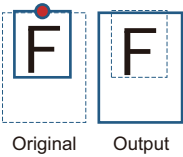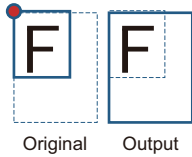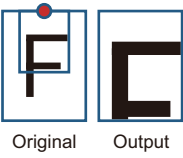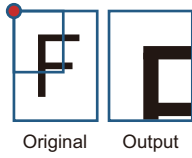
## ■ Reference Position for Reading/Printing

The reference position for reading/printing from the copyboard or ADF is explained below.

### ● Reference Position for Reading
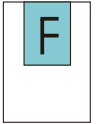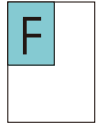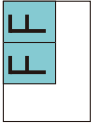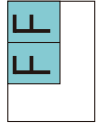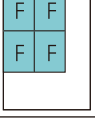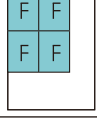
Upper left alignment is applied when the original is read from the copyboard, and center alignment is applied when the original is read from the ADF.
In the case where only a part of the document is read due to the scaling setting, the read area and the output result differ between copyboard reading and ADF reading.

| | ADF (center alignment) | | Copyboard (upper left alignment) | |
|---|---|---|---|---|
| Set scaling (original size < recording paper size) | Original | Output | Original | Output |
| Set scaling (enlargement) | Original | Output | Original | Output |

### ● Reference Position for Printing

Only when the original is read from ADF without reduction layout setting (1 on 1), it is printed in center alignment. In other cases, upper left alignment is applied for printing.

| | ADF (center alignment) | Copyboard (upper left alignment) |
|---|---|---|
| 1 in 1 | F | F |
| 2 in 1 | | |
| 4 in 1 | | |

## ◉ Document Feeder System

## ■ Overview

Pickup/Feed/Delivery Operation
The Auto Document Feeder (ADF) mounted onto this host machine is dedicated to stream-reading.
1 Motor (ADF Motor: M721) is engaged in Pickup/Feeding/Delivery.
At the start of Copy/Fax/Scan, the ADF Motor (M721) is driven by the drive command from the Main Controller PCB to Pickup/Feed the originals set face up on the original tray one by one in order from the top. The original is scanned by the contact sensor when moving through the copyboard glass, and then delivered face down to the original Delivery Assembly.
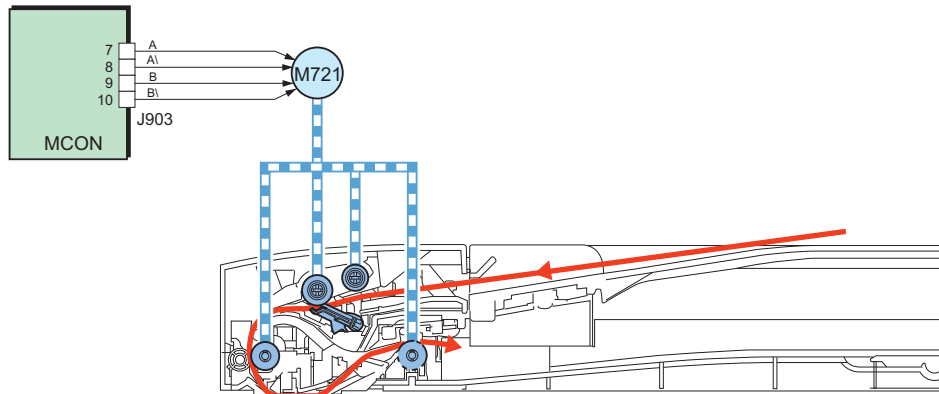
## ■ Various Control

### ● Original Detection

There are two types of Original Detection in this Equipment.

1. Original Presence / Absence Detection

   Setting the original onto the original tray pushes up the actuator, activating (light shielded =>light transmitted) the Document Sensor (SR703), and resulting in detection of the presence of original.

2. Detection of the End of the Original

   The leading edge of the original that is fed pushes up the actuator, activating the Document End Sensor (SR702) (light shielded =>light transmitted) and resulting in detection of the reach of the leading edge of original. Furthermore, when the trailing edge of the original passes the actuator position, the actuator returns to the original position, inactivating the Document End Sensor (SR702) (light transmitted => light shielded). The trailing edge of the original is detected by this mechanism. The original length that can be scanned with this equipment is less than 400 mm. Passing of the original longer than this results in jam stop. The original length is calculated by the time it takes from detection of the leading edge of the original to detection of the trailing edge of the original.

> **NOTE:**
> There is no function to detect the original size (original width, length) in this equipment.
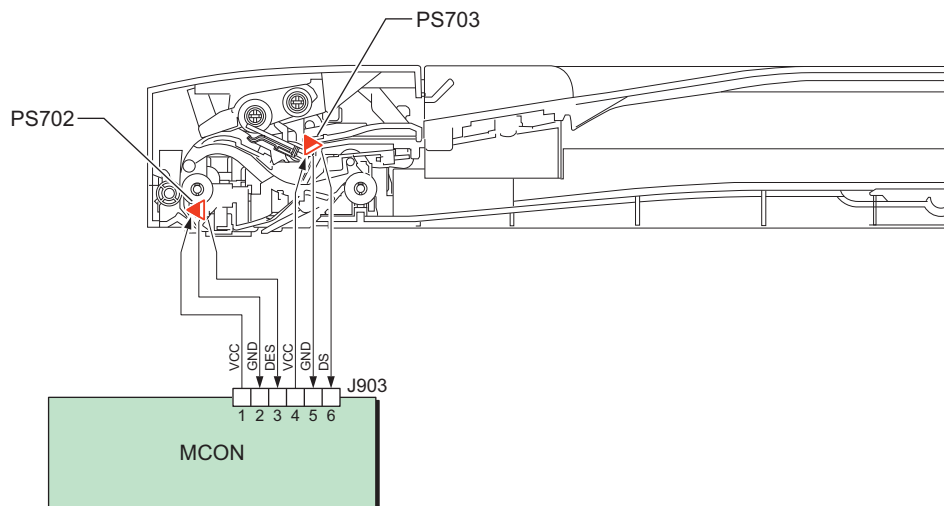


### ● Jam Detection

The following cases are judged as jam.

1. In case of delay in reaching DS/DES or stationary during scanning of original
2. In case DS/DES is detected as ON at power-on (residual paper jam)
3. In case of detecting original of which length is 400 mm or longer

**Operation after Detection of Jam**

The host machine stops scanning operation and displays "CHECK DOCUMENT" on the control panel. No jam code is displayed. In case of the model equipped with fax function (with built-in speaker), the warning beep occurs at the detection of jam.

**How to release Jam.**

Remove the jammed paper and open / close the ADF upper cover

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# Controller System

## ⬤ Overview

This product is mainly controlled by the main and DC controllers.
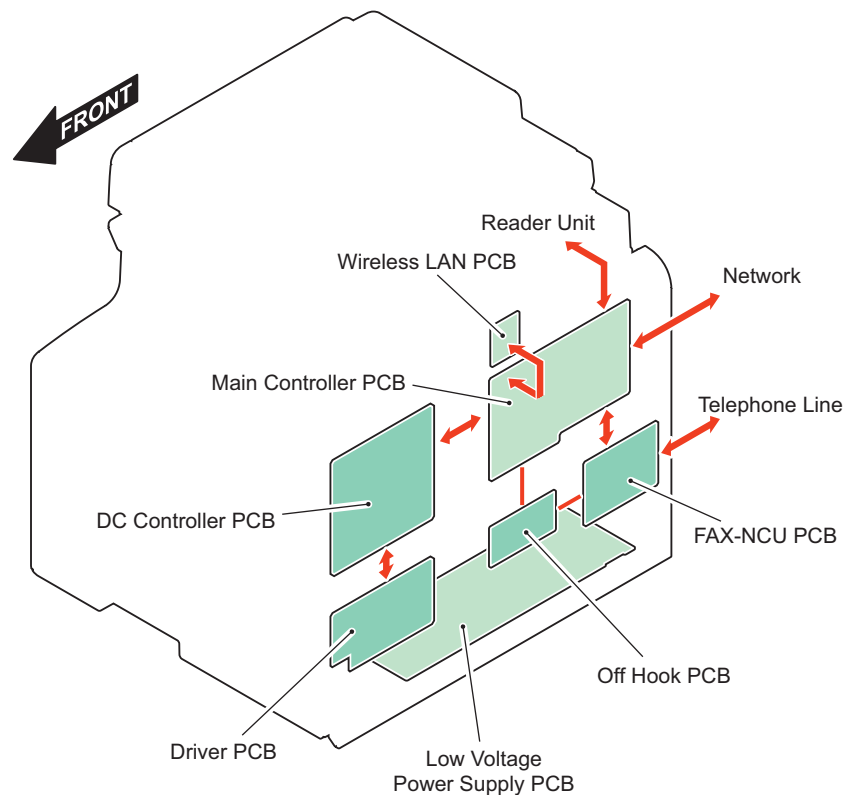


| Parts name | Role |
|---|---|
| Main Controller PCB | Provides controls on the system, image processing, reader / ADF, FAX and network and maintain various setting values. |
| DC Controller PCB | Provides controls on printer, laser, high-voltage PCBs, I/O, etc. and maintain setting values. |

## ⬤ Controls

### ■ Motor Controls

This product uses 3 motors for paper feed and image formation.
The tables below show motor specifications used in this product.

| Name | Symbol | Driving parts | Type | Failure detection |
|---|---|---|---|---|
| Drum Motor | M701 | Photosensitive Drum, Developing Cylinder, ITB | DC Motor | Available |
| Pickup Motor | M702 | Pickup Roller, Feed Roller, Registration Roller | Stepping Motor | Not Available |
| Fixing Motor | M703 | Pressure Roller, Delivery Roller | Stepping Motor | Not Available |

### ■ Open door detection

This product detects door opening by the door open sensor.

| Sensor Name | Function |
|---|---|
| Front Cover Sensor (SR612) | Detect open the Front Cover. |
| Rear Cover Sensor (SR613) | Detect open the Rear Cover. |

When this sensor detects door opening, the DC controller stops driving motors and solenoids.

## ■ Low-Voltage Power Supply Control

This circuit converts AC voltage input from the power supply receptacle through the fixing power supply into DC power supply and supplies it to each load.
See the figures below for low-voltage / fixing power supply block diagrams.
  • Low-voltage power supply: generates DC power supply required in the printer.
  • Fixing power supply: supplies AC power supply to the low-voltage power supply and control the fixing heater temperatures.
The low-voltage power supply is actuated when the AC power supply is attached to the inlet and the power switch is turned on.
The AC power supply supplied through the fixing power supply is converted to + 24V and + 3.3V of the DC power supply in the low-voltage power supply before supplied to the printer engine.
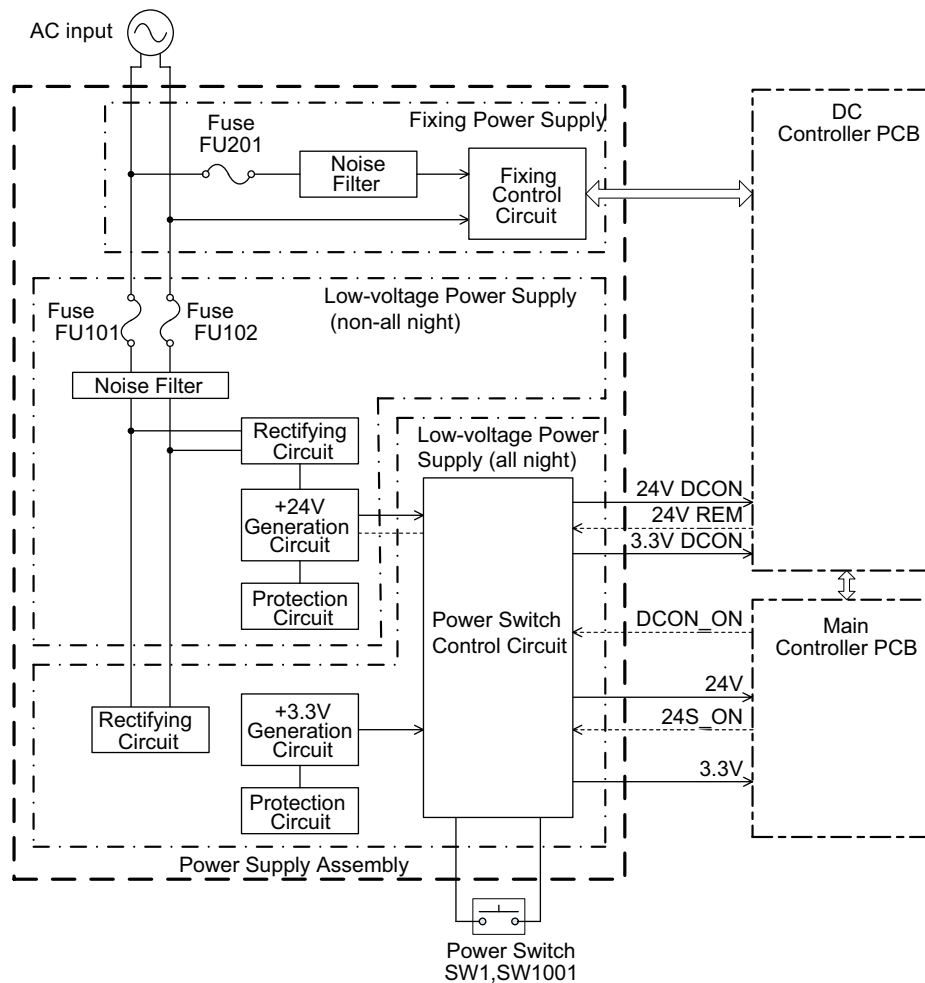


## ■ Protective control

The low-voltage power supply has protective controls against excessive current and voltage, which automatically detect excessive current or abnormal voltage to shut off the output voltage for avoiding the power supply circuit failures.
In case the DC voltage output is not detected from the low-voltage power supply, the protective control may be activated. Turn off the power switch and remove the AC power supply from the inlet to settle load troubles. Once these are settled, turn on the power switch again.
Another protective control is provided by 2 power fuses on the fixing power supply. These are open when excessive current is detected to shut off power supply to low-voltage power supply.

## ■ Power-Saving Mode

This is the function to save power consumed by the printer.
The table below lists various power-saving modes.

| Power-Saving Mode | Status |
| --- | --- |
| Stand-by | at power-OFF on the reader |
| Power-saving | at power-OFF on the reader and the display (LCD) |

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| Power-Saving Mode | | Status |
|---|---|---|
| Sleep | Sleep 1 | at power-OFF on the reader, engine and the display (LCD) |
| | Sleep 2 | at power-OFF on the reader and the engine. |
| | Sleep 3 (3W sleep) | at power-off on the reader, the engine and the display (LCD) The main controller enters the power-saving mode. |
| Automatic shutdown* | | The Main Power Switch is turned OFF when a specified period of time has passed (default: 4 hours) after the machine has entered sleep mode (excluding sleep 2). |

*: In the case of a model without fax for EUR (MF623Cn)
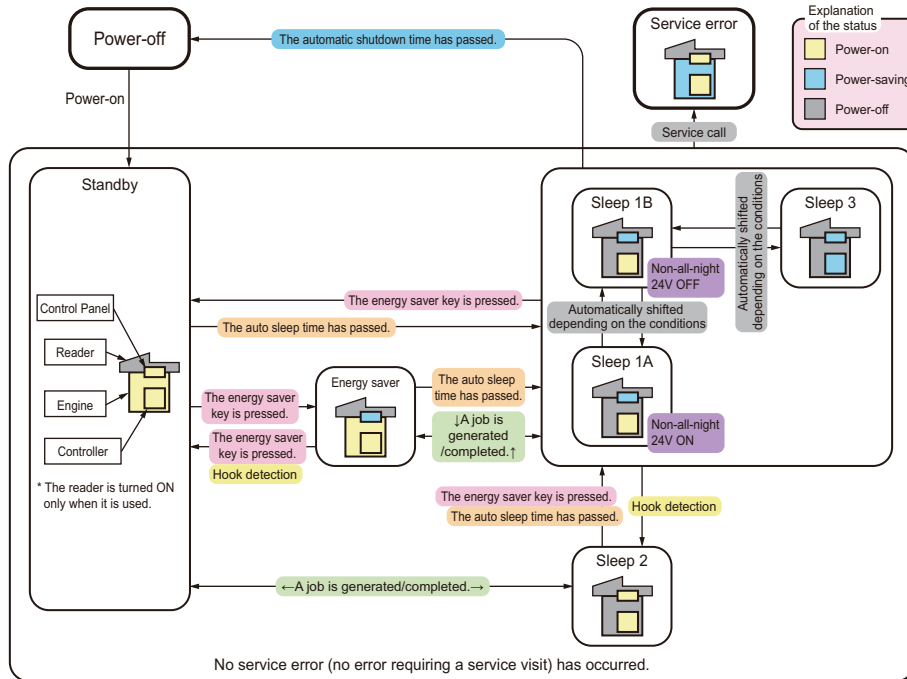
# Laser Control System

## ● Overview

The Laser Scanner system is to form a static latent image on the photosensitive drum based on the video signal sent from the Main Controller.
The Laser Scanner Unit is composed of the laser driver, the Scanner Motor Unit and other components, which are controlled based on signals input by the DC Controller.
The figure below shows the Laser Scanner Unit schematically.
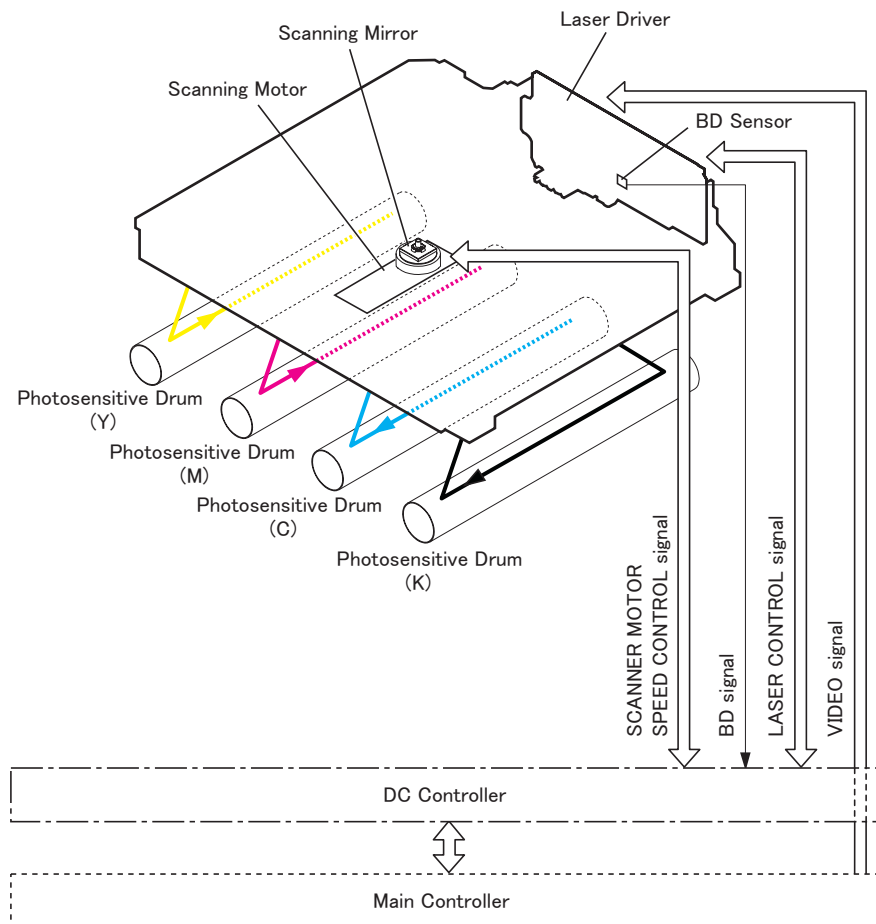


## ● Controls

### ■ Failure detection

1. Scanner Motor failures
   - The rotation does not reach the pre-defined value after a certain time elapsed from the Scanner Motor actuated.
   - The rotation failed to meet the tolerable range consecutively within a certain time during the Scanner Motor in drive.
     Error Code: E110-0000
2. BD failures
   - When out-of-range BD cycle is detected during printing.

# Image Formation System

## ◉ Overview

The image formation system holds the core function of this product to form toner images on paper.

To form toner images, the DC controller controls various high-voltage power supply PCBs.

This product is a compact and high-speed color printing device that employs the 4-drum and intermediate transfer method.

The image formation system is composed of the following components.

- 4 cartridges
- ITB unit
- Secondary transfer external roller

The figure below shows the image formation system schematically.
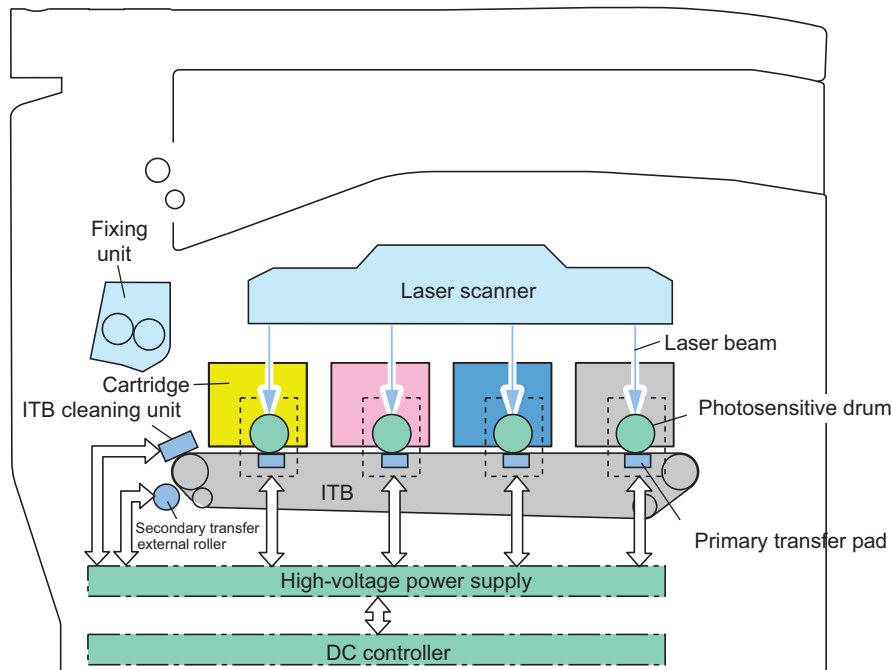
## ◉ Parts
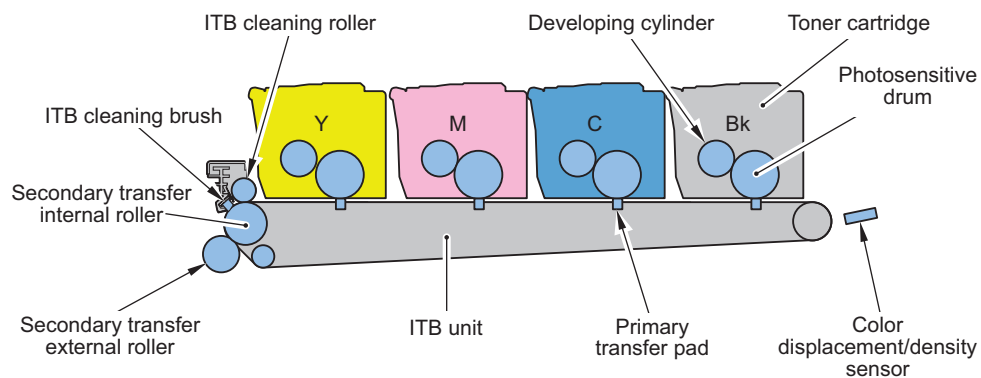
## ◉ Image Forming Process

### ■ Overview

The image forming process of this product is composed roughly of 6 blocks and 9 steps.

| | Block | | Step | Description |
|---|---|---|---|---|
| 1 | Static latent image forming | 1 | Primary charging | Charge the photosensitive drum surface negatively. |
| | | 2 | Laser beam exposure | Form a static latent image on the photosensitive drum. |
| 2 | Development | 3 | Development | Deposit toner to visualize the static latent image. |
| 3 | Transfer | 4 | Primary transfer | Transfer the toner image on the photosensitive drum to the ITB. |
| | | 5 | Secondary transfer | Transfer the toner image on the ITB to the paper. |
| | | 6 | Separation | Separate the paper from the ITB. |
| 4 | Fixing | 7 | Fixing | Fix the toner image on the paper. |
| 5 | ITB cleaning | 8 | ITB cleaning | Clean the residual toner on the ITB. |
| 6 | Drum cleaning | 9 | Drum cleaning | Clean the residual toner on the photosensitive drum. |
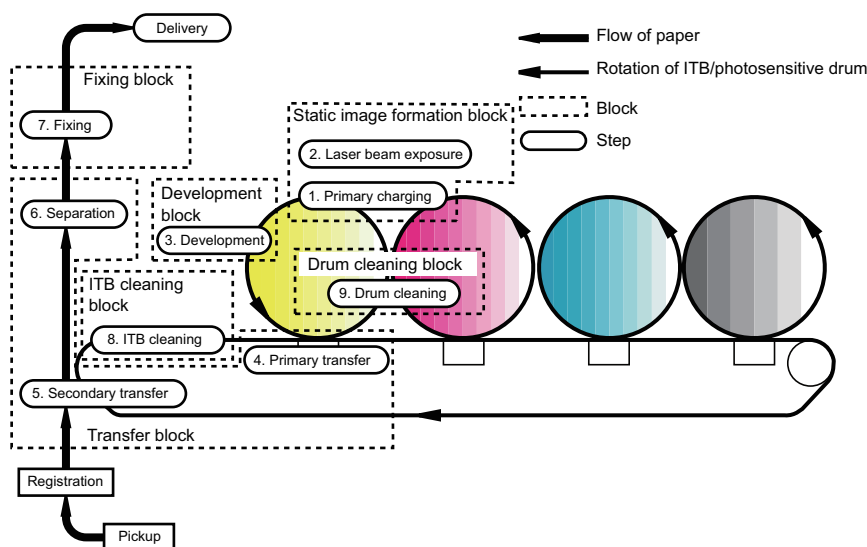


# ■ Block 1 : Static latent image forming block

This block consists of 2 steps to form a static latent image on the photosensitive drum.

## ● Step 1: Primary charging

Before forming a static latent image, the photosensitive drum surface should be charged negatively.
This product employs the method to charge the photosensitive drum directly from the primary charging roller, applying the DC negative bias in order to negatively charge the photosensitive drum surface.
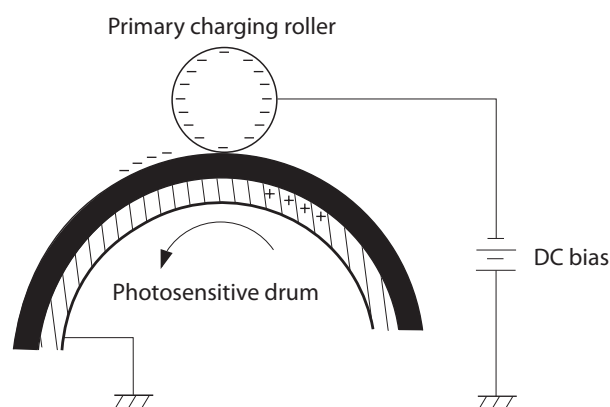


## ● Step 2: Laser beam exposure

Expose the photosensitive drum with laser beams to form a static latent image.
The static latent image is formed by laser beam scanning that neutralizes or strips negative potentials on the scanned parts.

Laser beam

Unexposed area | Exposed area
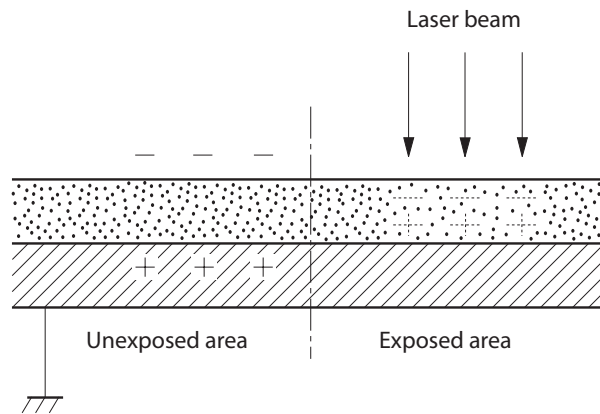
## ■ Block 2 : Development

The static latent image formed on the photosensitive drum is visualized by toner deposited in this block.

### ● Step 3: Development

Toner is deposited on the static latent image formed on the photosensitive drum.
Toner is then charged negatively through friction between the developing cylinder and the developing blade surface. The DC bias is applied to the developing cylinder to generate potential difference from the photosensitive drum. When the negatively charged toner contacts the photosensitive drum, it is deposited on the static latent image due to potential difference between the drum and the developing cylinder.



Developing blade

Developing cylinder

DC negative bias

Exposed area

Unexposed area

Unexposed area

Exposed area

Photosensitive drum
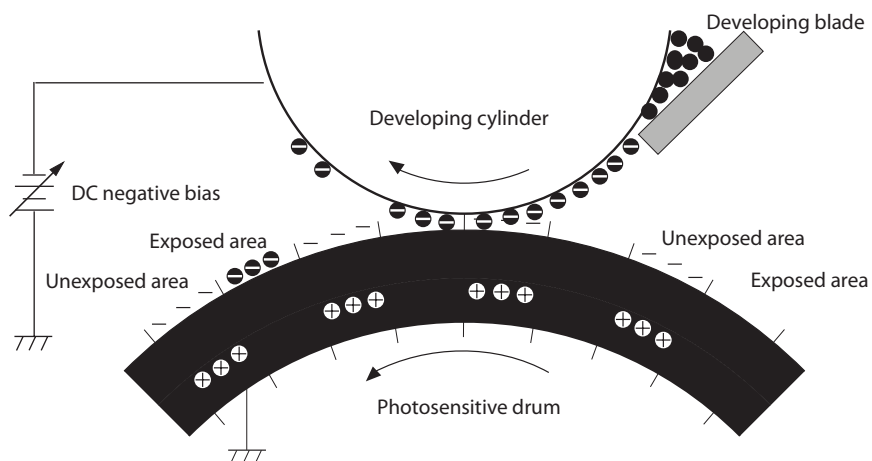
## ■ Block 3 : Transfer

The toner image on the photosensitive drum is transferred to paper through 3 steps in this block.

### ● Step 4: Primary transfer

Transfer the toner image on the photosensitive drum to the ITB.
The DC positive bias is applied to the primary transfer pad to charge the ITB positively. By this, the negatively charged toner on the photosensitive drum is transferred to the ITB.
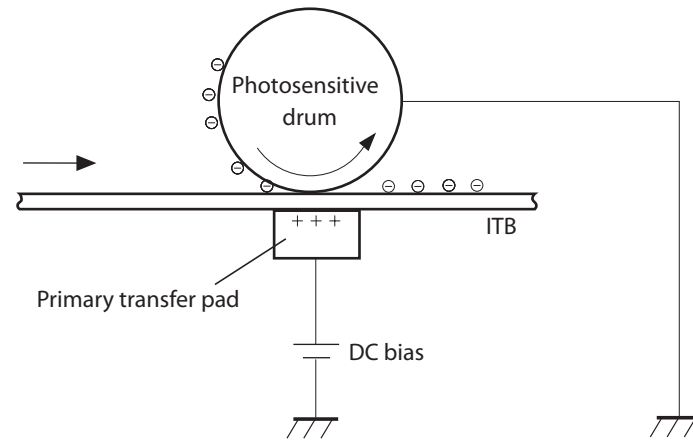
## ● Step 5: Secondary transfer

Transfer the toner image on the ITB to paper.
The DC positive bias is applied to the secondary transfer external roller to charge the paper positively. By this, the negatively charged toner image on the ITB is transferred to the paper.
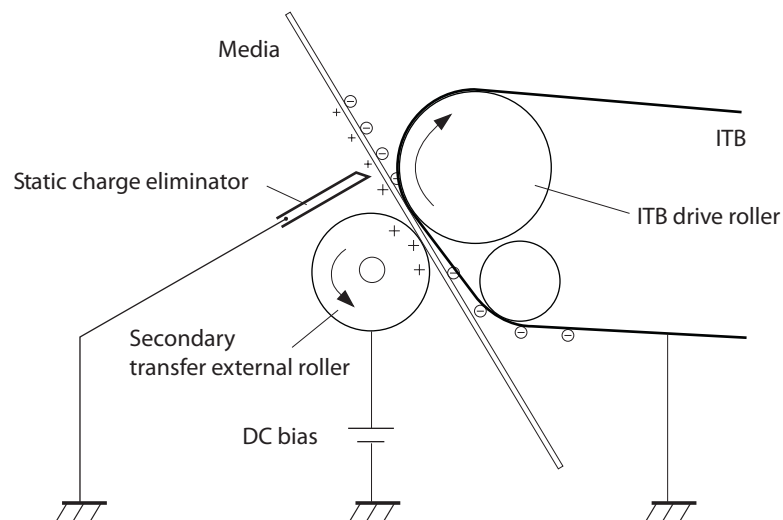


## ● Step 6: Separation

Separate the paper from the ITB using paper elasticity and curvature of the ITB drive motor. To stabilize the paper delivery and image quality, use the static eliminator to decay the potential on the back of the paper after image transfer.
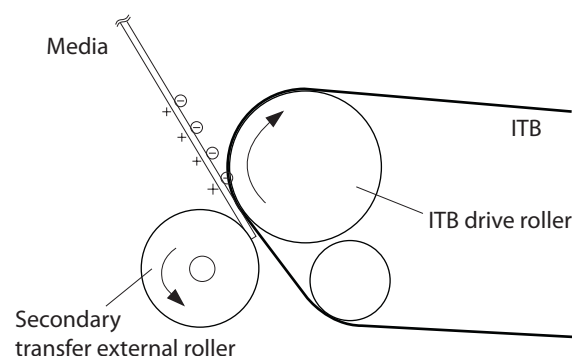


# ■ Block 4 : Fixing

The toner image is fixed on the paper in this block.

## ● Step 7: Fixing

This product employs the on-demand fixing method.
By applying pressure and heat on the paper and the toner image on it, the toner is fused to develop the permanent image.

Pressure roller / Fixing film / Fixing heater / Toner / Media
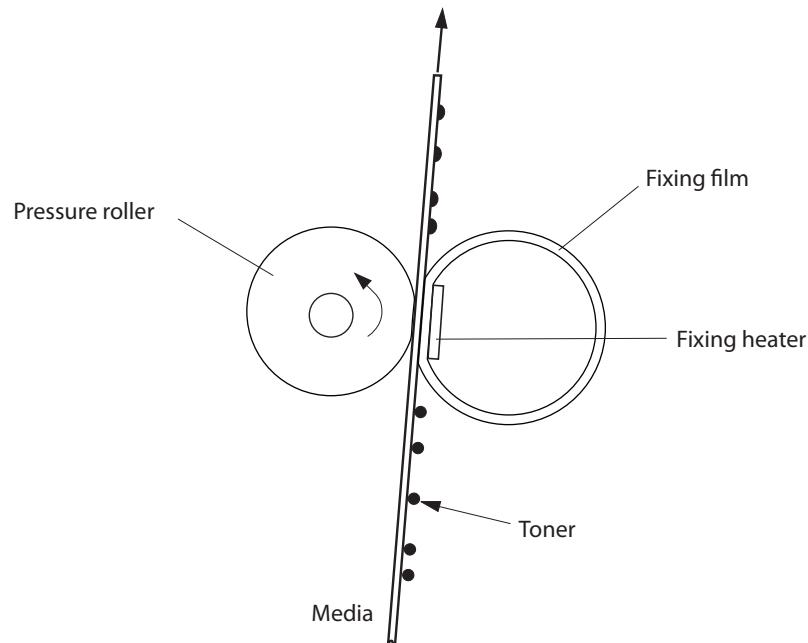
## ■ Block 5 : ITB Cleaning

The residual toner on the ITB surface is cleaned in this step.

### ● Step 8: ITB cleaning

The DC positive bias is applied to the ITB cleaning roller and the ITB cleaning brush to charge the collected toner positively. The positively charged collected toner is reversely transferred from the ITB to the photosensitive drum by the primary transfer pad.



- ○ Positive potential waste toner
- ◉ Negative potential waste toner

Cartridge / Photosensitive drum / ITB cleaning roller / Partition sheet / ITB cleaning brush / Sweeper strip / ITB / DC bias / DC bias
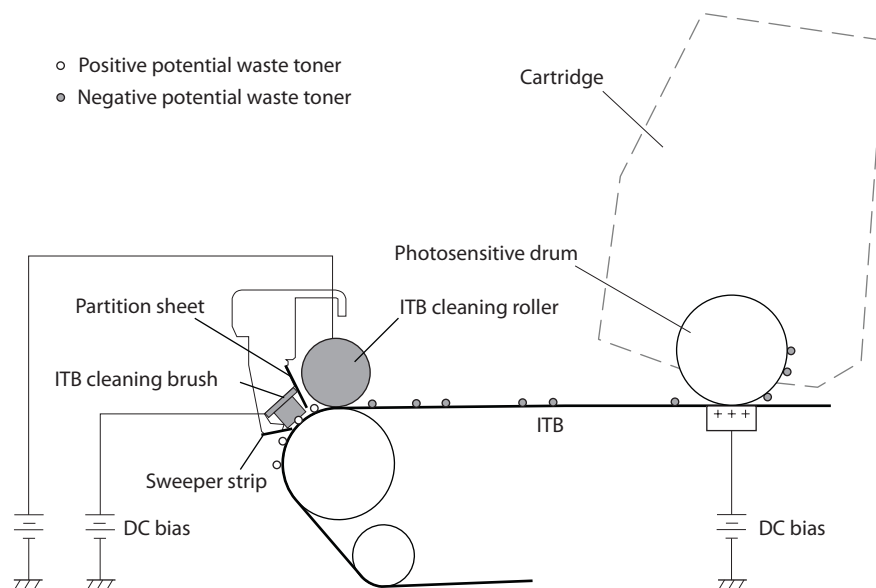
## ■ Block 6 : Drum Cleaning

The residual toner on the photosensitive drum is cleaned in this block.

### ● Step 9: Drum cleaning

The cleaning blade scrapes off the residual toner on the photosensitive drum to collect into the cleaner container. Now the photosensitive drum is cleaned.

Cleaning blade

Photosensitive drum

Waste toner container

Sweeper strip
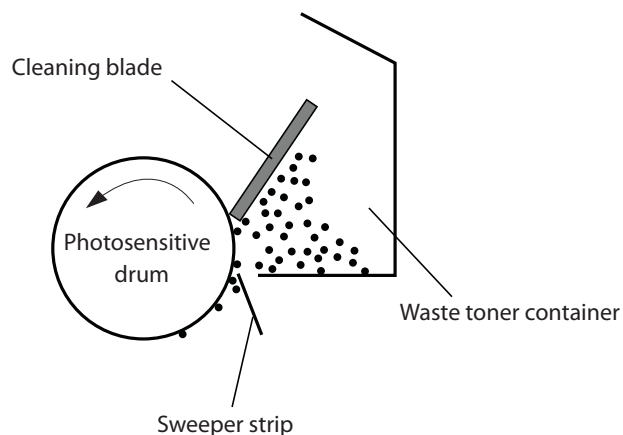
# Controls

## ■ High-voltage power supply control

### ● Overview

The high-voltage power supply PCBs are to apply high-voltage bias to the primary charging roller, the primary transfer pad, the secondary transfer external roller, and the ITB cleaning unit. Such high-voltage bias is generated through control by the DC controller on the high-voltage power supply PCBs.

The figure below shows the high-voltage power source schematically.

| Type | Bias applied | Purpose | Applied to |
|---|---|---|---|
| Primary charging bias | DC negative | Charge the photosensitive drum surface negatively. | Primary charging roller (cartridge) |
| Developing bias | DC negative | Deposit toner on the static latent image formed on the photosensitive drum. | Developing cylinder (cartridge) |
| Blade bias | DC negative | Adjust the charged toner amount on the developing cylinder. | Developing blade (cartridge) |
| Primary transfer bias | DC negative | Transfer the toner image on the photosensitive drum to the ITB. | Developing blade (cartridge) |
| Secondary transfer bias | DC positive | Transfer the toner image on the ITB to the paper. | Secondary transfer external roller |
| | DC negative | Clean the secondary transfer external roller. | |
| ITB cleaning brush bias | DC positive | Charge the toner on the ITB positively. | ITB cleaning brush |
| ITB cleaning roller bias | DC positive | Charge the toner on the ITB positively. | ITB cleaning roller |
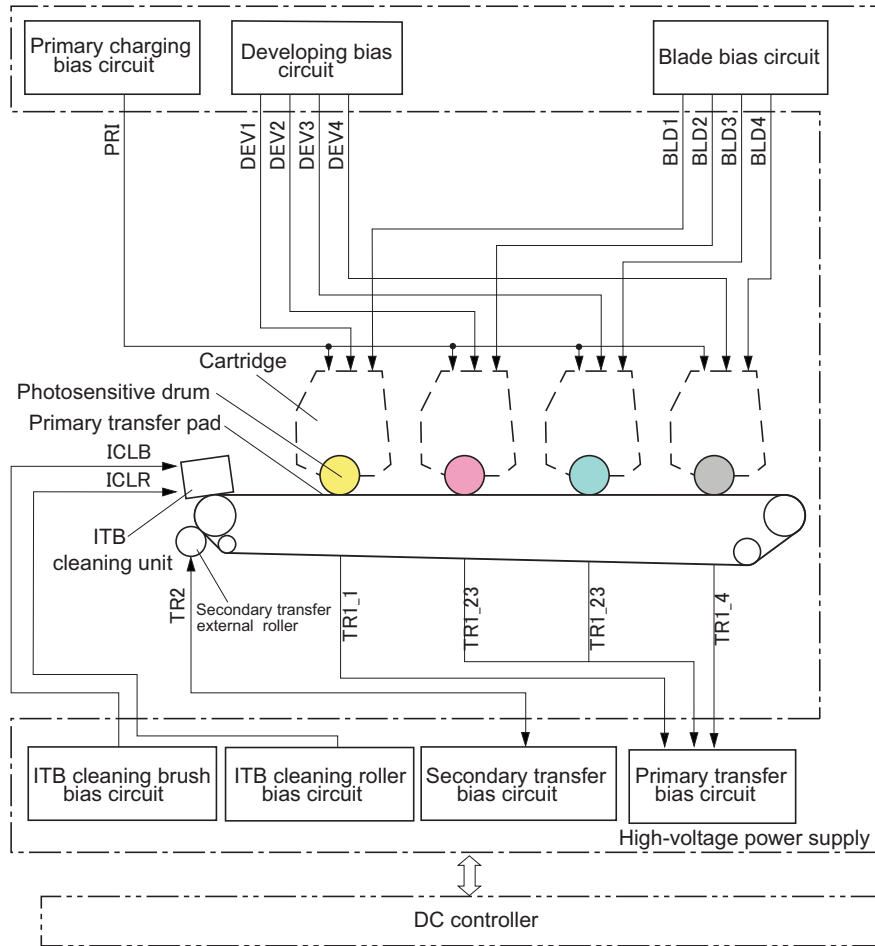
## ■ Image stabilization control

### ● Overview

This product controls image stabilization to avoid faulty images due to environmental changes, deteriorated photosensitive drum or toner, etc. The controls listed in the table below are executed when needed to stabilize image quality.

| Control | Description |
|---|---|
| D-max control | Correct values of the primary charging bias and/or developing bias based on signals from the environment sensor. |
| D-half control | Correct the gradation data in the main controller PCB based on signals from the color displacement / density sensor. |
| Color displacement correction control | Correct the video signal output timing based on signals from the color displacement / density sensor. |
| Auto-gradation correction control | To stabilize the image gradation density characteristics, users execute full or quick correction, or copy image correction. |
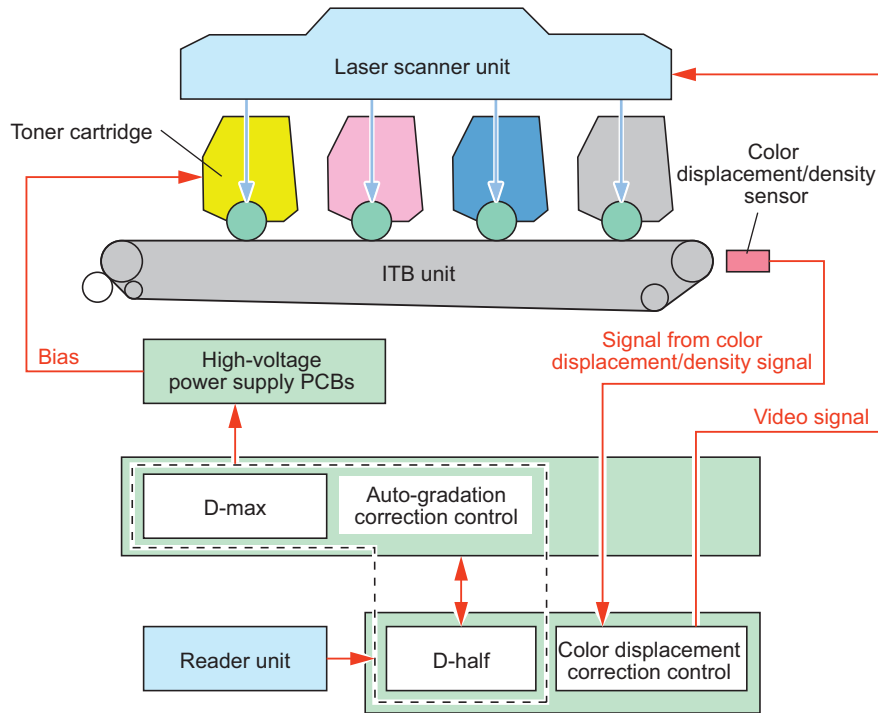
## ● Execution timing

The table below lists the execution timing and duration of each control.

| No. | Execution timing | Duration | D-max | D-half | Color displacement correction | Remarks |
|---|---|---|---|---|---|---|
| 1 | Power-ON | Approx.120 seconds | Yes | Yes | Yes | Executed at initial rotation |
| 2 | Toner cartridge replacement | Approx.120 seconds | Yes | Yes | Yes | Executed at initial rotation |
| 3 | Environmental changes | Approx.120 seconds | Yes | Yes | Yes | Executed after job completion detected by the environment sensor |
| 4 | After the pre-defined counts printed | Approx.120 seconds | Yes | Yes | Yes | Executed after job completion |
| 5 | After the pre-defined time elapsed | Approx.120 seconds | Yes | Yes | Yes | Executed after job completion |
| 6 | Resumed from sleep (after 8 hours or more) | Approx.60 seconds | Yes | Yes | - | Executed after job completion upon resumed |
| 7 | Full correction | Approx.60 seconds | Yes | Yes | - | Executed by users |
| 8 | Quick correction | Approx.60 seconds | Yes | Yes | - | |
| 9 | Copy image correction | Approx.60 seconds | Yes | Yes | - | |

## ● Image density correction control (D-max control)

This control is to stabilize the print image density.
The DC controller PCB triggers D-max control under the pre-defined conditions.
1. Measure the density detection patterns for each color on the ITB.

2. To optimize the density of the measured patterns, control the primary charging bias and the developing bias.
   The image density correction control is triggered under the conditions below.
   - In the case of Menu > Adjustment/Cleaning > Auto Adjustment Settings > Auto Adjustment Image Regularly: OFF (default)
     1. At power ON (When the environmental change is great compared with the condition before turning OFF the power (more than +/-10 degC))
     2. When replacing the Toner Cartridge
     3. When the environmental change is great while not getting into the sleep state (more than +/-5 degC)
     4. After printing the specified number of sheet (every 500 sheets)
     5. After printing or after 300 min. since the execution of the image density correction
     6. At recovery from the sleep state (When the environmental change is great compared with the condition before getting into the sleep state (more than +/-10 degC))
     7. When the user commands execution of the calibration
   - In the case of Menu > Adjustment/Cleaning > Auto Adjustment Settings > Auto Adjustment Image Regularly: ON, the operation of (1) and (6) mentioned in the above conditions will be as follow:
     1'. Must execute at power ON
     6'. Must execute at recovery from the 8-hour (or longer) sleep state

## ● Image gradation correction control (D-half control)

This control is to correct the gradation by the main controller PCB based on the half-tone density measured by the DC controller PCB.

Upon D-max control completed, the DC controller PCB and the main controller PCB enter the following steps of D-half control.
1. The DC controller PCB measures the density detection patterns on the ITB by applying the primary charging bias and the developing bias optimized through D-max control to send the density data to the main controller PCB.
2. The main controller PCB corrects gradation based on the density data to reproduce the ideal half-tone images.

## ● Color displacement control

This control is to correct color displacement due to variability of the laser units or toner cartridges.
The following displacements are corrected through this control.
  - Horizontal scanning start position
  - Horizontal scanning magnification
  - Vertical scanning start position
The DC controller PCB controls the color displacement/density sensor and the color displacement sensor under the conditions below.

In the case of Menu > Adjustment/Cleaning > Auto Adjustment Settings > Correct Color Mismatch when turned ON: OFF (default)
1. When completing the first job after power ON
2. When replacing the Toner Cartridge
3. After printing the specified number of sheet (every 150 sheets)
4. After the specified time has passed(only twice :100 min, and 300 min)
5. When completing the first job after recovering from the 8-hour (or longer) sleep state
6. When the user commands execution of the color displacement correction

In the case of Menu > Adjustment/Cleaning > Auto Adjustment Settings > Correct Color Mismatch when turned ON:
ON, the operation of (1) and (5) mentioned in the above conditions will be as follow:
  1'. At power ON, execute before executing a job
  5'. At recovery from the 8-hour (or longer) sleep state, execute before executing a job

## ● Auto-gradation correction control

This control is to stabilize the image gradation density characteristic.
To execute this control, go to "Adjustment / Cleaning > Auto-gradation correction" in User mode.
This control is performed in the following 3 approaches.

| Item | Description | Test pattern | |
| --- | --- | --- | --- |
| | | Output sheets | Type |
| Full correction (PAS-CAL) | Gradation is corrected based on the gradation density read on output test patterns by the reader. | 2 sheets | 1: for error diffusion process 2: for screen |
| Quick correction | Gradation is corrected by D-half control not using output test patterns. | - | - |

| Item | Description | Test pattern | |
|---|---|---|---|
| | | **Output sheets** | **Type** |
| Copy image correction | Gradation of copy images is corrected based on the gradation density read on output test pattern by the reader. | 1 sheet | for error diffusion process |

**Operational flow**

Gradation is corrected either in the 3 approaches above in the following flow.
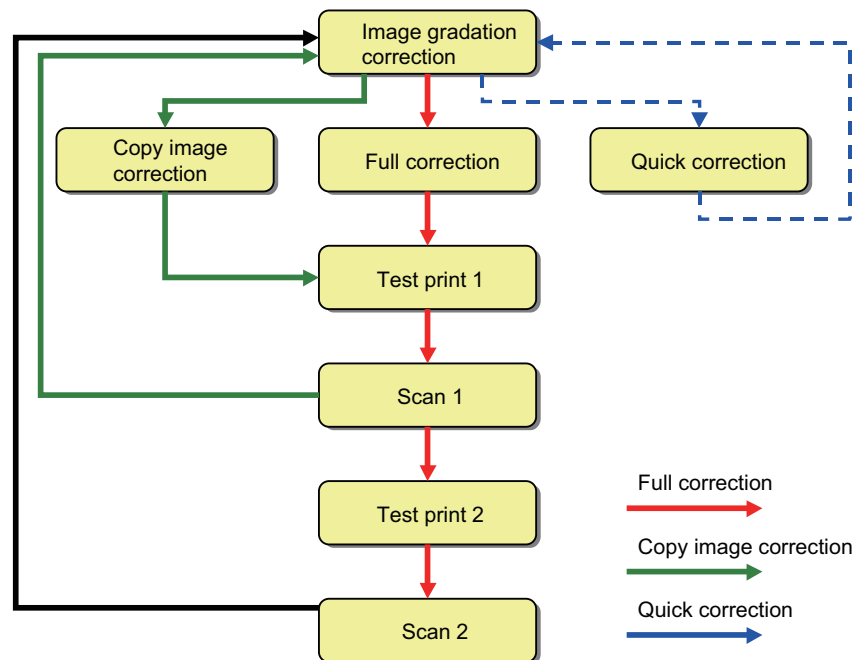


## ■ Toner cartridges

### ● Developing cylinder contact control

The control makes the developing cylinder engagement / disengagement to the photosensitive drum as required in the specified print mode (full color or monochrome).

By controlling the developing cylinder engagement to the photosensitive drum only when needed, this control effectively prevents the photosensitive drums from being deteriorated to maximize the service life.

The DC controller actuates the motor (MF700s: Developing motor, MF600s: Main motor) to switch the direction of the engagement / disengagement cam to contact / separate the developing cylinder to / from the photosensitive drum.

The DC controller controls the developing cylinder (engagement / disengagement) by regulating the main motor rotation upon detecting signals from the development home position sensor.

The state of the Developing Cylinder for each color (engagement / disengagement) differs depending on the condition of the Main Body.

| Condition of the Main Body | Y | M | C | Bk |
|---|---|---|---|---|
| Power OFF/Standby | Disengagement | | | |
| Monochrome print | Disengagement | | | Engagement |
| Full-color print | Engagement | | | |

Related Error Code
- E015-000 (Error in developing roller contact)
  Failed to detect changes in developing home position sensor signals within the pre-defined time after actuating motor (MF700s: Developing motor, MF600s: Main motor) to control the developing roller contact.

## ■ Transfer unit

### ● Pad transfer method

This product employs the pad transfer method in the primary transfer mechanism.

Enhanced image stabilization is achieved by replacing the conventional transfer roller with the transfer pad. The characteristic of the pad transfer method is:

- It maintains the wider nip to the photosensitive drum to increase transferability.

The figures below show the difference between the pad transfer method and the conventional roller transfer method schematically.

Photosensitive drum

Wider nip width

ITB

Transfer pad

<Pad transfer method>

Narrow nip width

Transfer roller

<Roller transfer method>
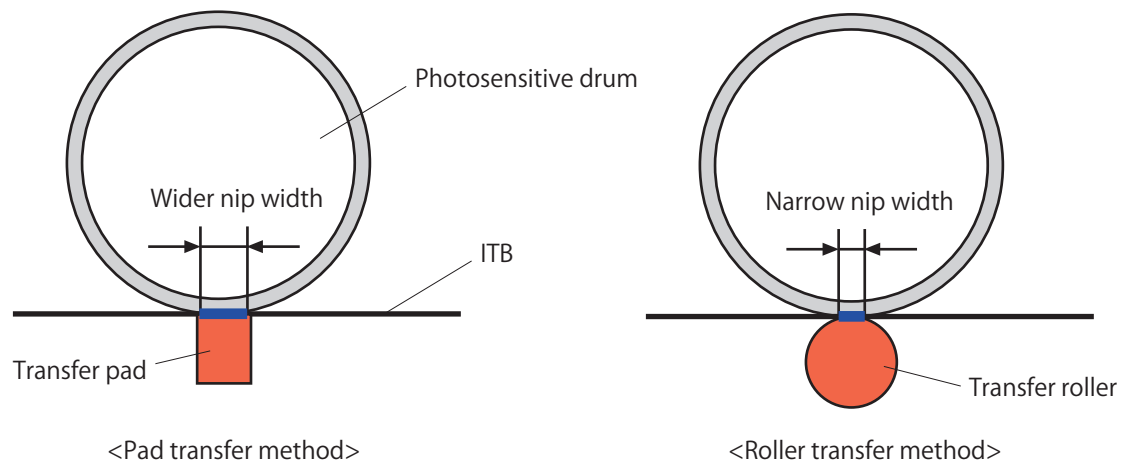
# Fixing System

## ● Overview

The fixing power supply controls temperatures of the Fixing Assembly.
This product employs the on-demand fixing method in the Fixing Assembly. The figure below shows the structure schematically.
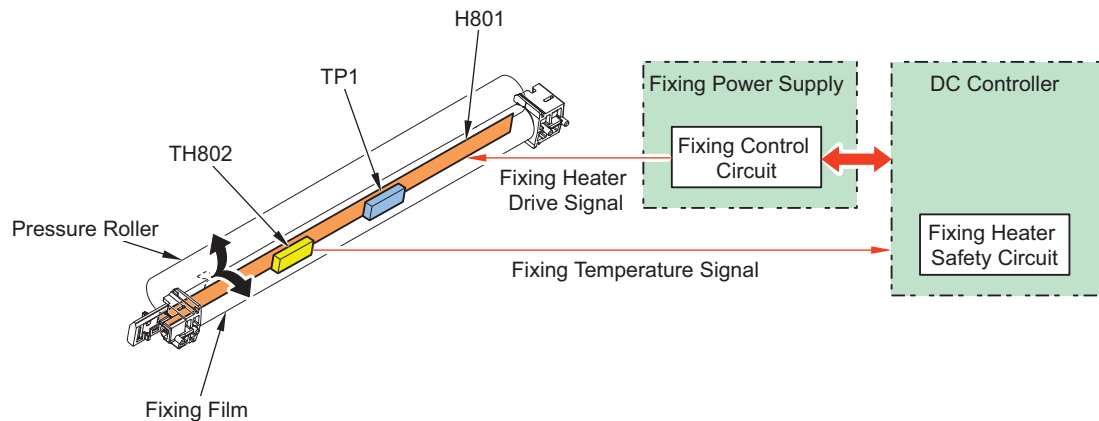


| Name | Symbol | Role |
|---|---|---|
| Fixing heater (100V, 120V, 230V) | T801 | To heat the fixing film |
| Main thermistor | TH802 | To detect the fixing heater temperature (center of the heater, contact thermistor) |
| Temperature fuse | FU1 | To prevent abnormal temperature rise in the fixing heater |

The temperature fuse is attached to the center of the fixing heater.
When the fixing heater comes to be abnormally hot, the temperature fuse is open to shut off the power supply to the fixing heater.
The thermistor detects the fixing heater temperature to input the temperature detection signal to the DC controller.
Note that temperatures at heater ends are not detected in models of MF600 series with slower print speed.
The temperatures in the whole fixing assembly are controlled by the fixing control circuit and the fixing heater safety circuit based on commands from the DC controller.

## ● Controls

### ■ Fixing Speed Control

#### ● Reduction of Throughput Based on Environment Temperature

Throughput is reduced according to the detected temperature of the Environment Sensor.

| Detected temperature | Paper type | Upper limit of throughput |
|---|---|---|
| 17 deg C or lower | Heavy paper 1 | Upper limit of throughput becomes 5 ppm. |
| | Heavy paper 2 | |
| 13 deg C or lower | Plain paper 1 | Upper limit of throughput becomes 12 ppm. |
| | Thin paper 1 | |
| | Thin paper 2 | |
| | Plain paper 2 | Upper limit of throughput becomes 10 ppm. |

#### ● Reduction of Throughput by Feeding Small Size Paper

> **NOTE:**
> When paper size is specified by user, paper interval is increased from the 2nd sheet of the job.
> When a sensor detects that the paper size is small, paper interval is increased from 3rd or 4th sheet of the job.

When small standard size paper other than A4 or LTR or custom paper size which paper width is less than 195 mm is specified, throughput is reduced according to the number of prints.

| Paper Type | Print speed | | | | |
|---|---|---|---|---|---|
| | 1-5 sheets | 6-10 Sheets | 11-20 sheets | 21-50 sheets | 50 sheets |
| Plain paper 1 (60 to 74g/m$^2$) Plain paper 2 (75 to 90g/m$^2$) | 8 | 6 | 5.5 | 4 | 2 |
| Thick paper 1 (91 to 120 g/m$^2$) Thick paper 2 (121 to 163 g/ | 6 | 5 | 5 | 2 | 2 |
| Coated paper 1 (100 to 110g/m$^2$) | 5.5 | 5 | 5 | 2 | 2 |
| Coated paper 2 (120 to 130g/m$^2$) | 5 | 5 | 5 | 2 | 2 |
| Coated paper 3 (155 to 165g/m$^2$) | 4 | 4 | 4 | 2 | 2 |

## ■ Fixing temperature control

The fixing control circuit controls temperatures of the fixing heater to attain the respective target temperatures.
The figure below shows this circuit schematically.
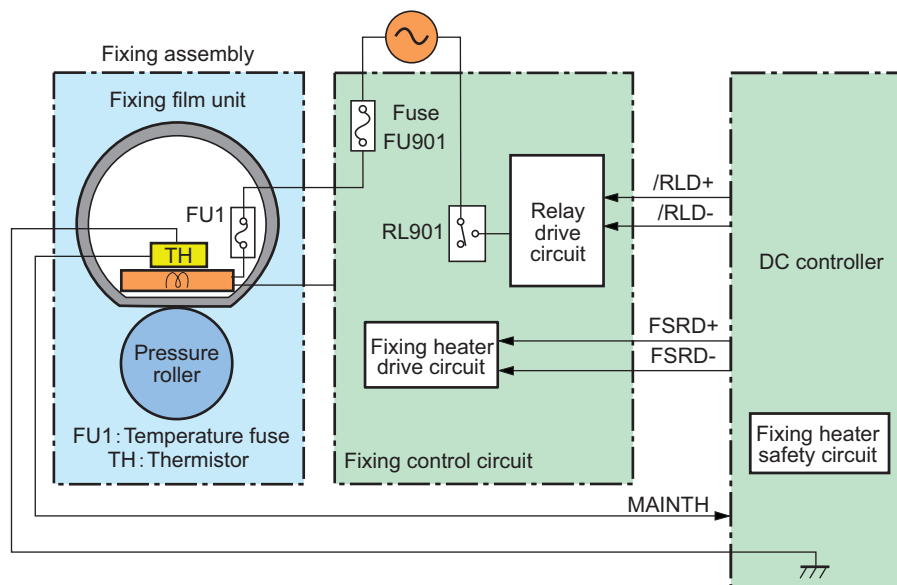


The DC controller monitors the fixing heater temperature detection signal (MAINTH) to output the respective fixing heater drive signals (FSRD+, FSRD-) depending on the detected temperatures. The fixing heater drive circuit controls the fixing heater based on the output signal to attain the target temperature in the fixing heater.

1. Start-up temperature control
   This controls the fixing heater warm-up to the target temperature.
   Different temperatures are targeted depending on elapsed time after the last print job, paper types or the environment.
2. Printing temperature control
   This controls the fixing film temperature during printing to maintain the target.
   Different temperatures are set in the fixing film depending on paper types.
3. Sheet-to-sheet temperature control
   This control lowers the sheet-to-sheet fixing heater temperature during continuous printing in the low-speed mode to prevent temperature rise on the pressure roller.
   Different sheet-to-sheet temperatures are set depending on sheet intervals or paper types.

## ■ Protective Control

This control is to detect abnormal temperature rise in the fixing assembly to shut off power supply to the fixing heater.
This product has the following 3 protective controls to prevent abnormal temperature rise in the fixing assembly.
• DC controller

- Fixing heater safety circuit
- Temperature fuse

The descriptions below are the details of each protective control.

1. DC controller

   When DC Controller monitors temperature of the central thermistor of the fixing heater and exceeds the pre-defined temperature, which is thought abnormally high temperature, therefore the drive signal (FSRD+, FSRD-) of the fixing heater is stopped outputting and the relay is turned off and the power distribution to the heater is stopped.

2. Fixing heater safety circuit

   This circuit detects abnormal temperatures in the center of the fixing heater to shut off power supply to the heater.

3. Temperature fuse

   When the temperature of the fixing heater abnormally rises, the temperature fuse is open to shut off power supply to the heater.
   - 226 deg C or higher detected at the temperature fuse.

## ■ Failure detection

The DC controller determines failures of the fixing assembly under conditions below to stop the fixing heater drive signal output (FSRD+, FSRD-) and shut off relay and power supply to the heater. At the same time, it notifies the failure occurrence to the main controller.

1. Start-up failure detection
   - The thermistor temperature does not exceed startup temperature 1 within the pre-defined time after start-up of the heater from the waiting status.
   - The thermistor temperature does not exceed startup temperature 2 within the pre-defined time after reaching startup temperature 1 upon start-up of the heater from the waiting status.
   - The thermistor temperature does not reach the target temperature within the pre-defined time after heater temperature control during initial rotation.
     [Related error code] : E000-0000
2. Abnormally high temperature failure
   - The thermistor temperature remains at pre-defined temperature or higher for the pre-defined time.
     [Related error code] : E001-0000 main thermistor
3. Abnormally low temperature failure
   - The thermistor temperature remains at pre-defined temperature or lower within the pre-defined time after heater temperature control during printing.
     [Related error code] : E003-0000 main thermistor
4. Fixing heater drive circuit failure
   - The zero-cross signal has not been detected for a certain times within the pre-defined time after power-ON.
   - The zero-cross signal is detected after power-ON but has not been detected continuously within the pre-defined time during printing.
     [Related error code] : E004-0000

# Pickup / Feed System

## ⬤ Overview

The Pickup / Feed System is responsible for paper pickup and delivery, made up with multiple rollers.
The figure below shows the structure of the Pickup/Feed System schematically.
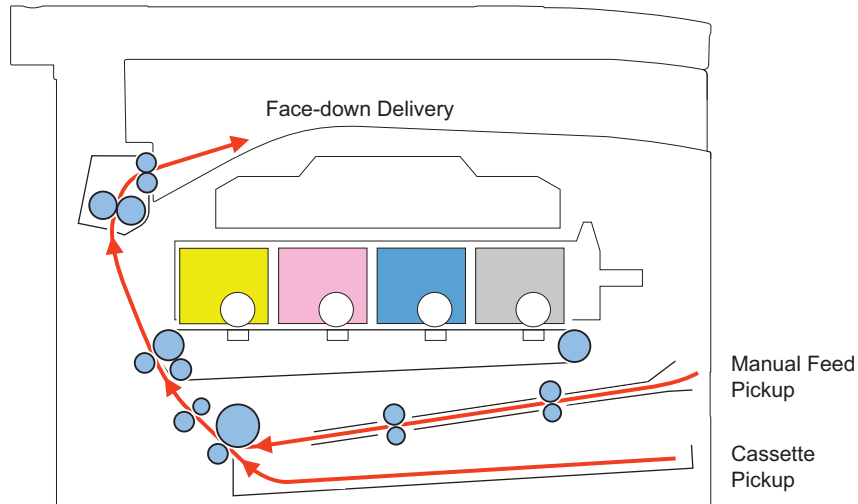


**Pickup slot**

Cassette
Manual feed slot

**Delivery slot**

Face-down tray

**Automatic 2-sided**

Not Available

## ⬤ Parts Configuration
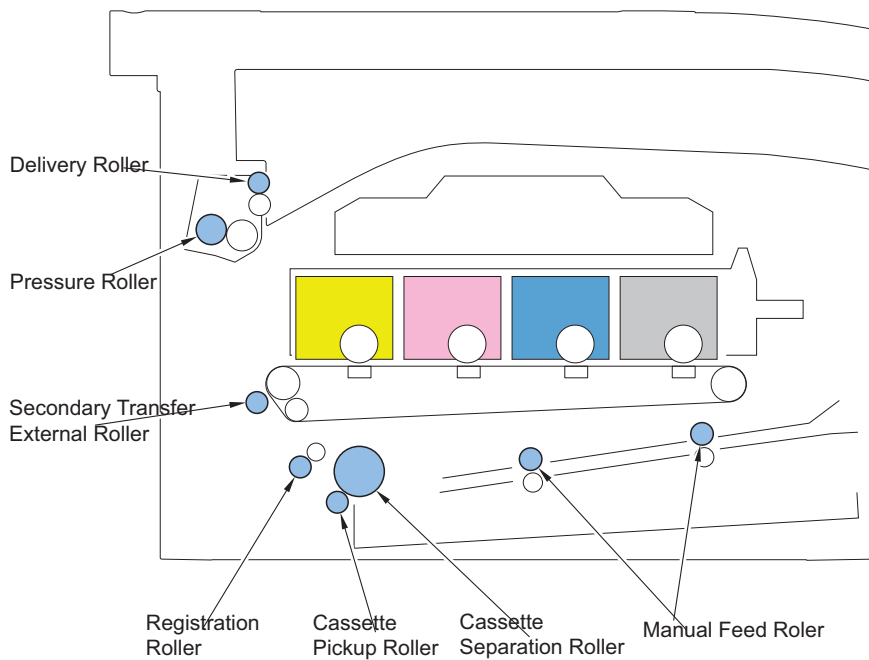
# Drive Configuration
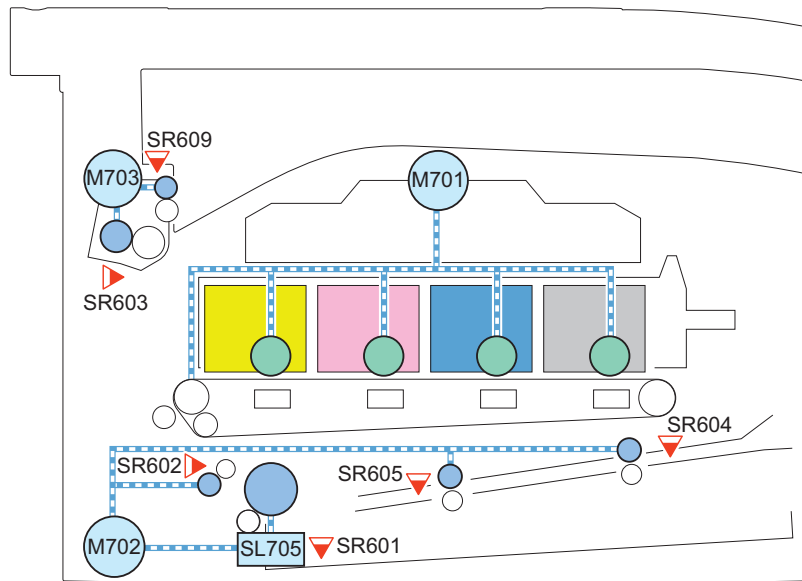


| Symbol | Name | Symbol | Name |
|---|---|---|---|
| M701: | Main Motor | SR601: | Cassette paper sensor |
| M702: | Pickup Motor | SR602: | Registration sensor |
| M703: | Fixing Motor | SR603: | Fixing arch sensor |
| SL705: | Cassette pickup solenoid | SR604: | Manual feed paper sensor |
| | | SR605: | Manual feed pre-registration sensor |
| | | SR609: | Fixing delivery sensor |

# Controls

## ■ Cassette paper feed

### ● Roller separation method

This product employs the separation roller method to avoid multi-feeding.
This method prevents multiple sheets from being fed by the driven separation roller. The separation roller is driven by the pickup roller.

**When normally operated**

The separation roller is driven by the pickup roller to feed paper. By this, the separation roller rotates in the paper feed direction.

**When multiple sheets are fed**

Multiple sheets weaken friction between rollers, decaying the driving force conveyed from the pickup roller to the separation roller. This product has the mechanism to regulate the separation roller rotation, which stops the roller rotation at multi-feeding under weaker driving force conveyed from the pickup roller. This enables to avoid multi-feeding.

The figure below shows the multi-feeding prevention mechanism employed in this product.
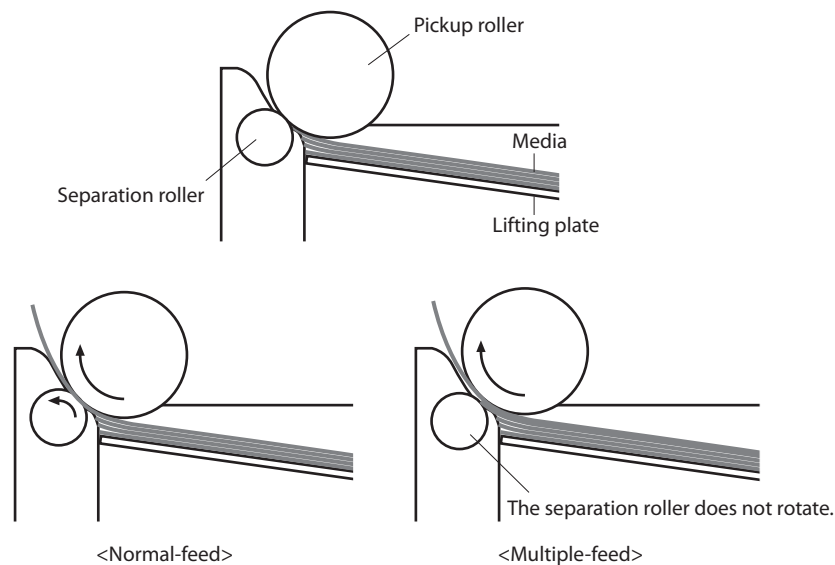


■ **Jam detection**

● **Overview**

This product has the paper sensors as listed below to detect paper level and paper feed status.
- Registration sensor
- Manual feed pre-registration sensor
- Fixing delivery sensor
- Fixing arch sensor
- Cassette paper sensor

The following jams are detected in this product.
1. Pickup delay jam
2. Pickup stationary jam
3. Fixing / delivery delay jam
4. Delivery stationary jam
5. Fixing seizure jam
6. Internal paper remaining jam
7. Open door jam

● **Delay jams**

**Pickup delay jam**

This occurs when the leading edge of the paper is not detected by the registration sensor[*] from the start of image formation to re-pickup.

[*] : SR602

**Fixing / delivery delay jam**

This occurs when the leading edge of the paper is not detected by the fixing delivery sensor [*] within the pre-defined duration after re-pickup.

[*] : SR609

● **Stationary jams**

**Pickup stationary jam**

This occurs when the trailing edge of the paper is not detected by the registration sensor[*] within the pre-defined duration after re-pickup.

[*] : SR602

**Fixing / delivery stationary jam**

This occurs when the trailing edge of the paper is not detected by the fixing delivery sensor[*2] within the pre-defined duration after the trailing edge of the paper is detected by the registration sensor.[*2]

*1 : SR602
*2 : SR609

## ● Other jams

### Fixing seizure jam

This occurs when the fixing / delivery sensor (SR8) detected the leading edge of the paper but the sensor went off before starting the fixing / delivery stationary detection.
*:SR609

### Internal paper remaining jam

When the sensor below detects "Paper Sensor" before-and-after Power on, Door close, Print operation.
- Registration sensor (SR602)
- Fixing arch sensor (SR603)
- Manual feed pre-registration sensor (SR605)
- Fixing delivery sensor (SR609)

### Open door jam

This occurs when any of sensors detected paper in the device and the door opening is detected during print jobs.

## Embedded RDS

# 🔵 Product Overview

## ■ Overview

Embedded RDS (hereinafter referred to as E-RDS) is a monitoring program that runs on the host machine. When the monitoring option is enabled by making the setting on this machine, information such as the status change of the machine, counter information, and failure information are collected. The collected device information is sent to a remote maintenance server called UGW (Universal Gateway Server) via Internet, thus allowing for e-Maintenance/ imageWARE Remote (Remote Diagnosis System).

The following device information/ status can be monitored.
- Parts counter
- Firmware info
- Service call error log
- Jam log
- Alarm log
- Status changes (Toner low/ out, etc.)

Since high confidentiality is required for the information shown above, it performs communication between this machine and the UGW using HTTPS/ SOAP protocol.
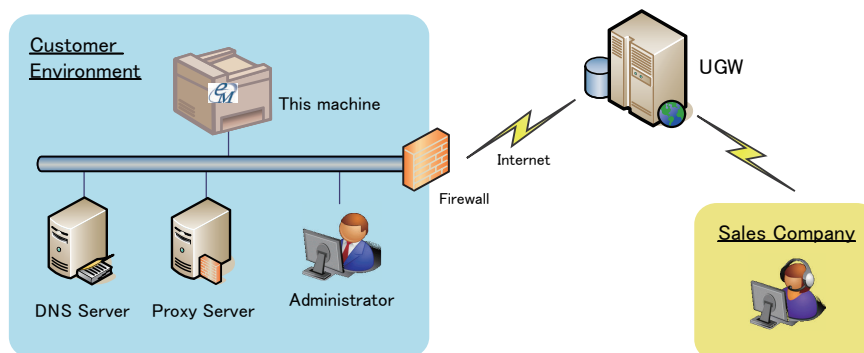


The e-Maintenance/ imageWARE Remote system configuration

## ■ Features and benefits

E-RDS embedded with a network module in advance can realize a front-end processing of e-Maintenance/ imageWARE Remote system without attaching any extra hardware equipment.

# 🔵 Service cautions

1. After clearing the Main Controller PCB, initialization of the E-RDS setting (ERDS-DAT) and a communication test (COM-TEST) need to be performed. Failure to do so will result that the counter transmitting value to the UGW may become unusual. Also, after replacing the main controller board, all settings must be reprogrammed.
2. The following settings in service mode must not be change unless there are specific instructions to do so. Changing these values will cause error in communication with UGW.
   - Set port number of UGW
     [COPIER] > [FUNCTION] > [INSTALL] > [RGW-PORT]
     Default : 443
3. If the e-Maintenance/ imageWARE Remote contract of the device is invalid, be sure to turn OFF the E-RDS setting (E-RDS : 0).

# ● E-RDS Setup

## ■ Confirmation and preparation in advance

To monitor this machine with e-Maintenance/ imageWARE Remote, the following settings are required.

### ● Advance preparations

The following network-related information needs to be obtained from the user's system administrator in advance.

#### Information item 1

IP address settings
  • Automatic setting : DHCP
  • Manual setting : IP address, subnet mask and gateway address to be set

#### Information item 2

Is there a DNS server in use?
If there is a DNS server in use, find out the following.
  • Primary DNS server address
  • Secondary DNS server address

#### Information item 3

Is there a proxy server?
If there is a proxy server in use, find out the following.
  • Proxy server address
  • Port No. for proxy server

#### Information item 4

Is proxy server authentication required?
If proxy server authentication is required, find out the following.
  • User name and password required for proxy authentication

### ● Network settings

Based on the results of the information obtained in "Advance preparations", make this machine network related settings.
See Users' Guide for detailed procedures.

> **CAUTION:**
> When changes are made to the above-mentioned network settings, be sure to turn OFF and then ON the main power of this machine.

## ■ Steps to E-RDS settings

1. **Start [SERVICE MODE].**

2. **Select [COPIER] > [FUNCTION] > [CLEAR] > [ERDS-DAT] and touch the [Yes].**

> **NOTE:**
> This operation initializes the E-RDS settings to factory setting values.
> For the setting values to be initialized, see the section of "Initialization procedure" on page 49.

3. **Select [COPIER] > [FUNCTION] > [INSTALL] > [ERDS].**

4. **Press the numeric key [1] on the control panel (the setting value is changed to 1) and touch the [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 UGW.

**NOTE:**
This initiates the communication test between the device and the UGW.

5. **Select [COM-TEST] and then touch [Yes].**
   The communication test with UGW will be executed.

6. **Select [COM-RSLT] .**
   If the communication is successful, "OK" is displayed. If "NG" (failed) appears, refer to the ""Troubleshooting"" on page 52 and repeat until "OK" is displayed.

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

## ■ Initializing E-RDS settings

It is possible to clear the FLASH data of E-RDS and change the E-RDS setting back to the default value.

### ● Initialization procedure

1. **Start [SERVICE MODE].**

2. **Select [COPIER] > [FUNCTION] > [CLEAR] > [ERDS-DAT] and touch the [Yes].**

### ● 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]

## ■ COM-LOG Report

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

### ● Report output procedure

1. **Start [SERVICE MODE] .**

2. **Select [COPIER] > [FUNCTION] > [MISC-P] > [ERDS-LOG] and touch the [Yes].**

Output sample

```
12/03 2015 10:14AM
                         ***********************
                         *** E-RDS-COM-LOG ***
                         ***********************

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

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

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

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

No.05    DATE 12/03 2015    TIME 01:56 AM    CODE 05000003
    Information    SUSPEND: Communication test is not performed.
```

# ● FAQ

## Q: In what case does a communication test with UGW fail?

**Ans.**

The following cases can be considered in the becoming "NG" case.
- Name resolution was failed due to an incorrect host name or DNS server has been halted.
- Network cable is blocked off.
- Proxy server settings is not correct.

## Q: When does E-RDS send counter information to UGW? How much data is sent?

**Ans.**

The schedule of data transmitting, the start time are determined by settings in the UGW side. The send time cannot be specified on the E-RDS side. Data is sent once every 16 hours.
The data size of counter information is approx. 285 KB.

## Q: Will data which failed to be sent due to an error in communication with UGW be resent?

**Ans.**

Data shown below will be resent.
- Jam log
- Service call log
- Alarm log
- Browser information
  It is resent only when the web browser option is enabled.

Data is resent endlessly (after 5, 10, 15, 20, 25, and 30 minutes since the occurrence of communication error; once 30 minutes have passed, it is resent at 30-minute intervals) until it is sent successfully. Resend continues even if the power is turned OFF and then ON.

## Q: What is the upper limit of the number of COM-LOGs? What is the upper limit of the number of characters of error information displayed in a COM-LOG?

**Ans.**

Up to 5 log data can be saved.

**Q: Although Microsoft ISA as a proxy server is introduced, the authentication check is failed. Can E-RDS adopt with Microsoft ISA?**

**Ans.**

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

**Q: Can I turn this machine power off during the e-Maintenance/ imageWARE Remote system operation?**

**Ans.**

While operating the e-Maintenance/ imageWARE Remote system, the power of the device must be ON. If power OFF is needed, do not leave the device power OFF for long time.
It will become "Device is busy, try later" errors if the power supply of network equipment such as HUB is made prolonged OFF.

**Q: Although a Service call error may not be notified to UGW, the reason is what?**

**Ans.**

If a service technician in charge turns off the power supply of this machine immediately after error occurred once, It may be unable to notify to UGW because data processing does not take a time from the controller of this machine to NIC though, the data will be saved on the RAM.
If the power supply is blocked off while starting up, the data will be inevitably deleted.

**Q: How does E-RDS operate while this machine is placed in the sleep mode?**

**Ans.**

While being in Real Deep Sleep, and if data to be sent is in E-RDS, the system wakes up asleep, then starts to send the data to the UGW. The system also waits for completion of data transmission and let the device to shift to asleep status again. However, transition time to the Real Deep Sleep depends on the device, and the transition to sleep won't be done if the next data transmission will be done within 10 minutes.

**Q: Is E-RDS compatible with Department counter?**

**Ans.**

No, E-RDS does not support Department counter.

**Q: Counter information could not be sent at the scheduled send time due to the power of this machine being turned OFF. Will the counter information be sent later when the power of this machine is turned ON?**

**Ans.**

Yes. When a scheduled send such as that for counter could not be executed due to the power of this machine being turned OFF, etc., and the scheduled send time has already passed at power-on, the send is executed immediately.
The following shows data send according to the status of this machine.

| Send types | Status of this machine | | |
|---|---|---|---|
| | **Power ON** | **Power OFF** | **Sleep** |
| Scheduled send | Sent | Not sent *1 | Sent *2 |
| Immediate send (Service call log / Alarm log / Jam log) | Sent | - | Sent *2 |

*1: Immediately sent if the send time has already passed at power-on.
*2: Sent after recovery from sleep mode.

**Q: What is the number of the network port used by E-RDS?**

**Ans.**

The port number used by E-RDS for communication with UGW is "443".
If this setting is changed, an error occurs during communication with UGW. Therefore this setting should not be changed unless otherwise instructed.

**Q: After the setting for E-RDS was made, the IP address of the host machine was changed. In that case, is it necessary to execute COM-TEST again?**

**Ans.**

It is not necessary to execute COM-TEST again because the IP address used by E-RDS is automatically changed. However, it is necessary to turn OFF and then ON the main power of this machine to reflect the change in the setting of the IP address.

# Troubleshooting

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

**Cause:**

Initial settings or network conditions is incomplete.

**Remedy 1:**

Check and take actions mentioned below.
1. Check network connections
   Is the status indicator LED for the HUB port to which this machine is connected ON?
   YES: Proceed to Step 2.
   NO: Check that the network cable is properly connected.
2. Confirm loop back address (* In case of IPv4 )
   Select [Settings/Registration] > [Preferences] > [Network] > [TCP/IP Settings] > [IPv4 Settings] > [PING Command], enter "127.0.0.1", and touch the [Start] button.
   Does the screen display "Response from the host."?
   YES: Proceed to Step 3.
   NO: There is a possibility that this machine's network settings are wrong. Check the details of the IPv4 settings once more.
3. Confirmation from another PC connected to same network.
   Request the user to ping this machine from a PC connected to same network. Does this machine respond?
   YES: Proceed to Step 4.
   NO: Confirm the details of this machine's IP address and subnet mask settings.
4. Confirm DNS connection
   (a) Select [Settings/Registration] > [Preferences] > [Network] > [TCP/IP Settings] > [DNS Settings] > [DNS Server Address Settings], write down the primary and secondary addresses of the DNS server, and touch the [Cancel] button.
   (b) Touch the [Up] button.
   (c) [Select IPv4 Settings] > [PING Command], enter the primary DNS server noted down in step (a) as the IP address, and touch the [Start] button.
   Does the screen display "Response from the host."?
   YES: Proceed to Remedy 2.
   NO: Proceed to step (d).
   (d) Enter the secondary DNS server noted down in step (a) as the IP address, and then touch the [Start] button.
   Does the screen display "Response from the host."?
   YES: Proceed to Remedy 2.
   NO: There is a possibility that the DNS server address is wrong. Reconfirm the address with the user's system administrator.

**Remedy 2:**

Troubleshooting using communication error log (COM-LOG)
1. Start [SERVICE MODE].
2. Select [COPIER] > [FUNCTION] > [MISC-P] > [ERDS-LOG], and press [Yes] to execute report output of the communication error log information.
3. When a message is displayed, take an appropriate action referring to "Error code and strings" on page 53.

## Symptom: A communication test results NG even if network setting is set properly.

**Cause:**

The network environment is inappropriate, or RGW-ADR or RGW-PORT settings for E-RDS have been changed.

**Remedy:**

The following points should be checked.
1. Check network conditions such as proxy server settings and so on.

2. Check the E-RDS setting values.
   - Check the communication error log from COM-LOG.
   - Check whether RGW-ADR or RGW-PORT settings has changed. If RGW-ADR or RGW-PORT settings has changed, restore initial values. For initial values, see "Service cautions" on page 47.

**Symptom: Registration information of the E-RDS machine was deleted from the device information on Web Portal, and then registered again. After that, if a communication test is left unperformed, the device setting in the UGW becomes invalid.**

**Cause:**

When the registration information of the E-RDS machine is deleted, information related to E-RDS is also deleted. Therefore, when 7 days have passed without performing a communication test after registering the E-RDS machine again, the device setting becomes invalid.

**Remedy:**

Perform a communication test before the device setting becomes invalid.

**Symptom: There was a log, indicating "Network is not ready, try later" in error details of COM-LOG list.**

**Cause:**

A certain problem occurred in networking.

**Remedy:**

Check and take actions mentioned below.
   1. Check networking conditions and connections.
   2. Turn on the power supply of this machine and perform a communication test about 60 seconds later.

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

**Cause:**

It could be a problem at the UGW side or the network load is temporarily faulty.

**Remedy:**

Try again after a period of time. If the same error persists, check the UGW status with a network and UGW administrator.

**Symptom: When a communication test (COM-TEST) is repeatedly executed, an error occurs.**

**Cause:**

During communication conducted after execution of a COM-TEST, another COM-TEST was executed again.

**Remedy:**

When repeatedly executing COM-TEST, execute COM-TEST at intervals of 5 minutes or more.

# ⬤ Error code and strings

The following error information is displayed on the communication error log details screen.
(Here, "server" means UGW.)
   - The error information are displayed in the following form.
     [*] [Character strings] [Functional classification (Method name)] [Error details provided by UGW]

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

| No. | Code | Character strings | Cause | Remedy |
|-----|------|-------------------|-------|--------|
| 1 | 0000 0000 | SUSPEND: mode changed. | Unmatched Operation Mode | Initialize the E-RDS setting (ERDS-DAT). |
| 2 | 0500 0003 | SUSPEND: Communication test is not performed. | Turning OFF and then ON the main power of this machine while the communication test had not been performed although E-RDS is enabled. | Perform a communication test (COM-TEST). |

| No. | Code | Character strings | Cause | Remedy |
|---|---|---|---|---|
| 3 | 0xxx 0003 | Server schedule is not exist | Blank schedule data have been received from UGW. | Perform and complete a communication test (COM-TEST). |
| 4 | 0xxx 0003 | Communication test is not performed | Communication test has not completed. | Perform and complete a communication test (COM-TEST). |
| 5 | 84xx 0003 | E-RDS switch is set to OFF | A communication test has been attempted with the E-RDS switch being OFF. | Set E-RDS switch (E-RDS) to 1, and then perform a communication test (COM-TEST). |
| 6 | 8600 0002<br>8600 0003<br>8600 0101<br>8600 0201<br>8600 0305<br>8600 0306<br>8600 0401<br>8600 0403<br>8600 0414<br>8600 0415 | Event Registration is Failed | Processing (event processing) within the device has failed. | Turn the device OFF/ ON.<br>If the error persists, replace the device system software. (Upgrade) |
| 7 | 8700 0306 | SRAM version unmatch! | Improper value is written in at the head of the NVMEM domain (nonvolatile memory domain) of E-RDS. | Turn the device OFF/ ON. |
| 8 | 8700 0306 | SRAM AeRDS version unmatch! | Improper value is written in at the head of the NVMEM domain (nonvolatile memory domain) of Ae-RDS. | Turn the device OFF/ ON. |
| 9 | 8xxx 0004 | Operation is not supported | Method which E-RDS is not supporting attempted. | Contact help desk. |
| 10 | 8xxx 0101 | Server response error (NULL) | Communication with UGW has been successful, but an error of some sort has prevented UGW from responding.<br>When (Null) is displayed at the end of the message, this indicates that there has been an error in the HTTPS communication method. | Perform and complete a communication test (COM-TEST). |
| 11 | 8xxx 0201<br>8xxx 0202<br>8xxx 0203<br>8xxx 0204<br>8xxx 0206 | Server schedule is invalid | During the communication test, there has been some kind of error in the schedule values passed from UGW. | When the error occurs, report the details to the support section.<br>After the UGW side has responded, try the communication test again. |
| 12 | 8xxx 0207<br>8xxx 0208 | Internal Schedule is broken | The schedule data in the inside of E-RDS is not right. | Perform a communication test (COM-TEST). |
| 13 | 8xxx 0221 | Server specified list is too big | Alarm/Alert filtering error: The number of elements of the list specified by the server is over restriction value. | Alert filtering is not supported by UGW. |
| 14 | 8xxx 0222 | Server specified list is wrong | Alarm filtering error: Unjust value is included in the element of the list specified by the server. | Alert filtering is not supported by UGW. |
| 15 | 8xxx 0304 | Device is busy, try later | The semaphore consumption error at the time of a communication test. | Try again a communication test after a period of time. |
| 16 | 8xxx 0709 | Tracking ID is not match | When upgrading firmware, the TrackingID notified by Updater differs from the thing of UGW designates. | Obtain the sublog, and contact the support department of the sales company. |
| 17 | 8xxx 2000 | Unknown error | Some other kind of communication error has occurred. | Perform and complete a communication test (COM-TEST). |
| 18 | 8xxx 2001 | URL Scheme error(not https) | The header of the URL of the registered UGW is not in https format. | Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agen-tif010. |

| No. | Code | Character strings | Cause | Remedy |
|---|---|---|---|---|
| 19 | 8xxx 2002 | URL server specified is illegal | A URL different to that specified by the UGW has been set. | Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010. |
| 20 | 8xxx 2003 | Network is not ready, try later | Communication attempted without confirming network connection, just after turning OFF and then ON the main power of this machine in which the network preparations are not ready. | Check the network connection, as per the initial procedures described in the troubleshooting. Perform a communication test (COM-TEST) about 60 seconds later, after turn on the device. |
| 21 | 8xxx 2004 | Server response error ([Hexadecimal]) [Error detailed in UGW]*1 | Communication with UGW has been successful, but an error of some sort has prevented UGW from responding. | Try again after a period of time. Check detailed error code (Hexadecimal) and [Error details in UGW] from UGW displayed after the message. |
| 22 | 8xxx 200A | Server connection error | • TCP/IP communication fault<br>• The IP address of device is not set. | • Check the network connection, as per the initial procedures described in the troubleshooting.<br>• When proxy is used, make the settings for proxy, and check the status of the proxy server. |
| 23 | 8xxx 200B | Server address resolution error | Server address name resolution has failed. | • Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010.<br>• Check that Internet connection is available in the environment. |
| 24 | 8xxx 2014 | Proxy connection error | Could not connect to proxy server due to improper address. | Check proxy server address / port and re-enter as needed. |
| 25 | 8xxx 2015 | Proxy address resolution error | Could not connect to proxy server due to name resolution error of proxy address. | • Check that the proxy server name is correct.<br>If the proxy server name is correct, check the DNS connection, as per the initial procedures described in the troubleshooting.<br>• Specify the IP address as the proxy server name. |
| 26 | 8xxx 201E | Proxy authentication error | Proxy authentication is failed. | Check the user name and password required in order to login to the proxy, and re-enter as needed. |
| 27 | 8xxx 2028 | Server certificate error | • No route certificate installed in device.<br>• Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device.<br>• The date and time of the device is not correct. | • Install the latest device system software. (Upgrade)<br>• Correctly set the date and time of the device.<br>• Execute CLEAR > CA-KEY, and turn OFF and then ON the device. (The CA certificate at the time of shipment is automatically installed.) |
| 28 | 8xxx 2029 | Server certificate verify error | The server certificate verification error occurred. | Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agentif010. |
| 29 | 8xxx 2046 | Server certificate expired | • The route certificate registered with the device has expired.<br>• Certificate other than that initially registered in the user's operating environment is being used, but has not been registered with the device.<br>• The device time and date is outside of the certificated period. | Check that the device time and date are correctly set.<br>If the device time and date are correct, upgrade to the latest system software. |

| No. | Code | Character strings | Cause | Remedy |
|---|---|---|---|---|
| 30 | 8xxx 2047 | Server response time out | Due to network congestion, etc., the response from UGW does not come within the specified time. (HTTPS level time out) | If this error occurs when the communication test is being run or Service Browser is being set, try again after a period of time. |
| 31 | 8xxx 2048 | Service not found | There is a mistake in the UGW URL, and UGW cannot be accessed. (Path is wrong) | Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agen-tif010. |
| 32 | 8xxx 2052 | URL error | The data which is not URL is inputted into URL field. | Check that the value of URL of UGW (RGW-ADR) is https://a01.ugwdevice.net/ugw/agen-tif010. |
| 33 | 8xxx 2058 | Unknown error | SOAP Client fails to obtain SOAP Response. Possibility of a problem in UGW or of a temporary problem in the network load. | Perform and complete a communication test (COM-TEST). |
| 34 | 8xxx 2063 | SOAP Fault | SOAP communication error has occurred. | Check that the value of port number of UGW (RGW-PORT) is 443. |
| 35 | xxxx xxxx | Device internal error | An internal error, such as memory unavailable, etc., has occurred during a device internal error phase. | Turn the device OFF/ ON. Or replace the device system software. (Upgrade) |
| 36 | xxxx xxxx | SUSPEND: Initialize Failure! | Internal error occurred at the initiating E-RDS. | Turn the device OFF/ ON. |

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

# Setting Information Export/Import Function (DCM)

## ● Function Overview

This function (DCM: Device Configuration Management) is used to export/import setting value information in the host machine as a file (DCM file).
The following setting information is exported/imported.
- Setting information of [Settings/ Registration]
- Setting information of service mode
- 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 setting backup function, and when the file is imported to a different device, this can be used as a setting information migration function.
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 DCM, an exported file could be imported to the same device, but the DCM function enables import of an exported file to a different device.
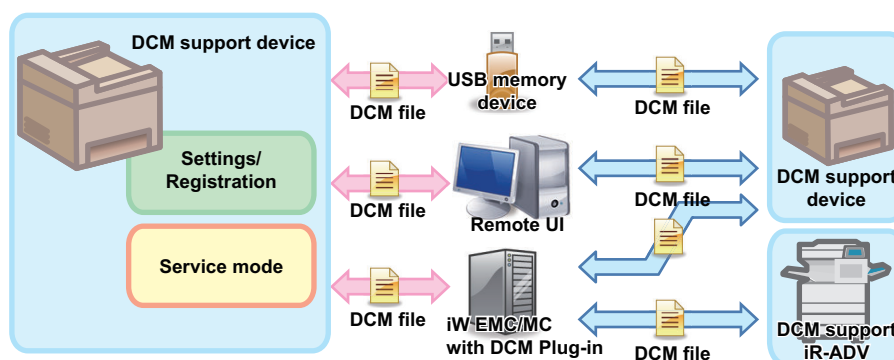


**NOTE:**
In order to export or import setting information using DCM, it is necessary that the device supports DCM.

### ■ Purpose for Using the Function

The purpose of using the DCM function is described below using three use cases.

| Case | Export/ Import | Use Case |
|------|----------------|----------|
| A | Export from and import to the same device | • Used as backup in preparation for a device failure<br>• Used as backup before changing settings |
| B | Export from and import to a different device of the same model | • Collectively migrate data when replacing the host machine<br>• Copy the settings to multiple devices (during kitting) |
| C | Export from and import to a different model | • Migrate the settings from the old model to the new model when replacing the host machine<br>• Migrate the settings of the base machine to a different model for a large-scale user |

### ● Export from and Import to the Same Device (Case A)

In this use case, setting information is exported as backup in preparation for a device failure or backup before changing settings. Information of various settings is backed up just in case.
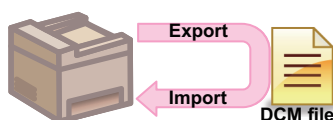
## ● Export from and Import to a Different Device of the Same Model (Case B)

In this use case, the exported setting information is copied to a different device of the same model.
This enables efficient installation in the case of installing multiple devices of the same model at a time (for example, kitting).

Export → DCM file → Import → A different machine of the same model
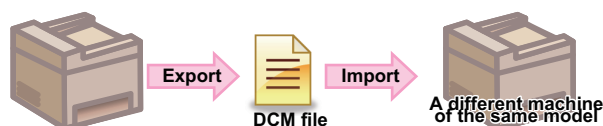
## ● Export from and Import to a Different Model (Case C)

In this use case, the exported setting information is copied to a device of a different model.
Not that all the information that can be exported using DCM can be imported, but this is effective in the case of replacing an old device or copying the settings of the base machine in an environment where various models exist.

Export → DCM file → Import → A different model

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

## ● Information Exported/Imported as a DCM File

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 | | |
| --- | --- | --- | --- | --- |
| | | Setting values of menu options | Address book[1] | Service mode setting values |
| [Settings/Registration] menu | Control panel | Yes (fixed) [2] | Yes (fixed) [2] | No |
| | Remote UI | Yes | Yes | With conditions[3] |
| Service mode | Control panel | No | No | Yes |
| | Remote UI | No | No | Yes |
| iW EMC/ MC DCM Plug-in | iW EMC/ MC DCM Plug-in | Yes | Yes | With conditions[4] |

*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 level 1 > COPIER > OPTION > USER > SMD-EXPT is set.
For items to be imported, refer to "List of Items Which Can Be Imported".
*4: It is included only in the data to be imported. If service mode data is not included in the data to be imported, the data is not imported.

## ● DCM File Storage Location

DCM files are saved in the following locations.

| Operation | Menu used | Storage destination |
| --- | --- | --- |
| Operation Panel | [Settings/ Registration] menu | USB flash drive |
| | Service mode | |
| Remote UI | [Settings/ Registration] menu | PC local disk |
| | Service mode | |
| DCM Plug-in | DCM Plug-in | Local disk of the iW EMC/MC server |

## ■ Compatibility

### ● Compatibility of DCM Files

Compatibility of DCM files differs depending on the export/import method as shown below.

| Exported from | Imported to | | | | |
|---|---|---|---|---|---|
| | iR series not supporting DCM | iR series supporting DCM | | iR-ADV series | |
| | Remote UI | Via DCM Plug-in | Remote UI/USB | DCM Plug-in | Remote UI/ USB |
| iR series not supporting DCM | Yes | No | With conditions *1 | No | No |
| iR series supporting DCM | No | Yes | Yes | With conditions *2 | No |
| iR-ADV series | No | With conditions *2 | No | Yes | Yes |

Yes: Compatible

With conditions *1: Address books can be imported. Other information cannot be imported.

With conditions *2: A part of address book can be imported using ABM Plug-in. Other information cannot be imported.

Compatibility of the DCM file imported via DCM Plug-in depends on the specification of DCM Plug-in.

No: Incompatible

### ● 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".

| Model | Serial number | Import Process |
|---|---|---|
| Same | Same | Items corresponding to Case A are imported. *1 |
| Same | Different *3 | Items corresponding to Case B are imported. *1 |
| Different | Different *3 | Items corresponding to Case C are imported. *2 |
| Different | Same | The file is judged to be invalid, and the process ends with an error. |

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

*2: Predetermined corrective processing may be performed.

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

# ◉ Specifications

## ■ Specifications Related to DCM Files

### ● Overall Specifications Related to DCM Files

- The DCM file to be exported is created directly under the root of the USB flash drive.
- The file name is not case sensitive.
- The DCM file exported/imported from the Control Panel or service mode is named as shown below:
  - Control Panel: compact.dcm
  - Service mode: service.dcm
- When the file is exported, if a file of the same name exists in the export destination, the behavior will be as shown below.
  - When the file is exported from the Control Panel: A message asking whether the user wants to overwrite appears.
  - When the file is exported from service mode: The file is always overwritten.

### ● Import of an Invalid File

- When an invalid file is imported, the process ends with an error.
- When a file which does not contain any data to be imported is imported, the process ends with an error.
- When there is an error in the imported file, the import process ends with an error in some cases.
- When there is an error in the imported data, the data is skipped and the import process continues.
- When the imported file fails to be read in the middle of the reading process or when the format is invalid, the import process is stopped. In that case, the machine is not rebooted. The data is not rolled back to the state it was before import.

## ● Encryption Password

- It is necessary to set a password during the export process because data such as the password of the address book set by the user are encrypted when the DCM file is exported/imported.
- The password must consist of 32 or less ASCII characters. A password exceeding 32 characters cannot be entered.
- If a wrong password is entered at import, the encrypted setting values cannot be decoded, and the import of the setting values end with an error.
- It is necessary to specify a password even when the data to be exported does not contain any data to be encrypted. However, in the case of export from service mode, it is not necessary to enter the password, and the password (28282828) is entered automatically.

# ■ Specifications Related to Department ID Management

- Department ID information is exported only when the Department ID management setting is enabled.Regardless of the state of the department ID management setting, the state of department ID management (enabled/disabled) and the system administrator information are exported. The department ID counter is not exported.
- When importing department ID information, the import process differs depending on the combination of the department ID set in the host machine and the department ID set in the data to be imported.

| | "ID_1" has not been set in the host machine. | "ID_1" has been set in the host machine. |
|---|---|---|
| "ID_1" has been set in the data to be imported. | Information of "ID_1" is imported. The department ID counter is "0". | Information excluding the department ID counter information of "ID_1" in the host machine is imported. |
| "ID_1" has not been set in the data to be imported. | Not overwritten | Information of "ID_1" is deleted. |
| Department ID information has not been set in the data to be imported. | Not overwritten | Not overwritten |

* ID_1 indicates a department ID.

# ■ Specifications during Execution of a Process

## ● Control Panel/Remote UI during a Process

- During export or import, a screen is displayed to prohibit operation from the Control Panel and remote UI.
- During export or import, the keys excluding the energy saver key are disabled.

## ● Cancel during a Process

During export or import, the process cannot be canceled by user operation.

## ● Behavior when a Service Error Occurs

Even when a service error has occurred, export and import can be executed.
However, this does not include errors which disable the DCM function.

## ● Export/import process from service mode

When performing export/import process from service mode, no error is displayed even when an error has occurred.

## ● Process after Import

After the setting file is imported using the DCM function, the following process is performed.

| Import method | Process |
|---|---|
| Operation Panel | When the import process is completed successfully, the device will be restarted in 25 seconds. |
| Remote UI | When the import process is completed successfully, the device will be restarted in 25 seconds. However, the device will not be restarted if only the address book is imported. |
| iW EMC /MC DCM Plug-in | When the import process is completed successfully, the device will be restarted in 90 seconds (time for DCM Plug-in to obtain the import result). However, the device will not be restarted if only the address book is imported. |

## ■ Specifications Related to Address Books

### ● Import of an Address Book

- The address book is imported after the existing address book in the host machine has been cleared.
- If an error occurs during import, the data is not returned to the state of data cleared before import.
- Addresses which exceed the number of addresses that can be registered are not imported.
- Group addresses which include addresses that were not imported are not registered.
- When entering the password for the address book from the Control Panel, if authentication is skipped, the address book is excluded from the process.

### ● Import of an Address Book in an Old Format

It is possible to import an address book in an old format that was exported from a device not supporting DCM, but it is not possible to export an address book in an old format.

There is no encryption password for an address book of an old format, but something needs to be entered, therefore a dummy password (enter anything and the passwords will match) needs to be entered.

The specifications of import of an address book in an old format are as shown below.

- When an address book is imported, the consistency is checked while reading a record, not that the consistency of all records is checked before import.
- If an accidental error (such as power discontinuity during import) occurs during import, the address book data which was partially imported does not remain and returns to the state before import.
- Passwords such as the password for SMB are not recorded in an address book in an old format. Therefore these passwords are not set in the address book to be imported.
- When an address book is imported, the data previously stored is not cleared but overwritten with the records stored in the new address book. In other words, after the address book is overwritten with a new address book, some of the previously stored records remain in some cases. All the registered call keys will be cleared.
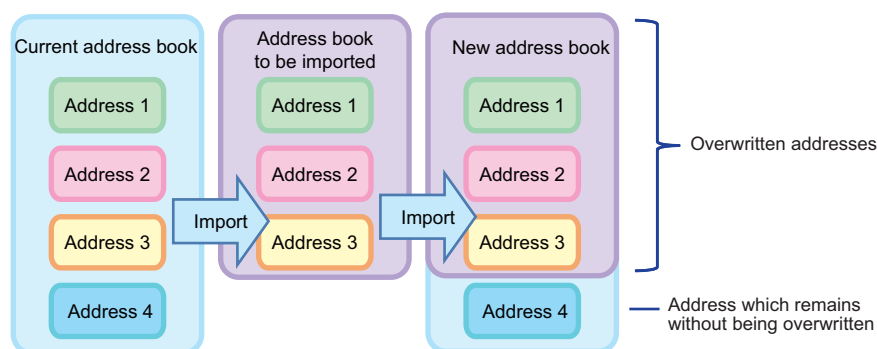


- Even if other data (settings of menu, service mode, etc.) is specified as data to be imported, only the address book is imported.
- Addresses whose required field shown below is not filled in are skipped and the import process is executed. In that case, the import process is continued without displaying an error message.

| Type | Required field |
|---|---|
| Group address | Addresses included in the group |
| Fax | Dial number |
| E-Mail | E-mail address |
| File server (SMB) | Host name (IP address) protocol |

- When an address book is imported, if there is a field with an attribute that is not any of the foregoing required fields and cannot be interpreted, import of only that attribute is skipped without abandoning the entire record. In that case, the import process is continued without displaying an error message.
- If the number of characters exceeds the upper limit at import, the excess characters are truncated on the right.

## 🔵 Limitations

### ■ Job Control

Do not execute the following processes during import or export.

- Reception of a new job (Execution of calibration requested by the engine is allowed.)
- Firmware update (during which faxes cannot be received due to busy line.)

If any of the following conditions is met, import/export is not executed.
- A job exists. (If calibration is requested by the engine, import/export is executed, ignoring the calibration job.)
- A firmware update is being performed.
- Another import or export is being executed.

> **CAUTION:**
> During import, print/fax jobs from the PC are not received and are stuck in the spooler on the PC.Those jobs stuck in the spooler may not be printed properly after reboot of the host machine. In that case, those jobs have not been received and are not even recorded in history.

## ■ Control Characters

If the character string to be exported (e.g. a destination name in the address book) includes an ASCII control character (0x01-0x08, 0xb, 0xc, 0xe-0x19, or 0x7f), the character string excluding the control character is exported.

## ■ Corrective Processing

When data is imported, corrective processing of setting values (changing a process to another process that can be performed) may be performed. Corrective processing is performed to process data so that it can be used by the import destination device. Even when a setting value has been changed by corrective processing, the import process is treated as successful.
Examples are shown below. Please note that the following cases are just examples, and how each item is processed by corrective processing varies depending on the initial settings and the service mode settings.

- When the length of the character string exceeds the limit
  If a character string exceeding the length permitted by the import destination device is registered as, for example, a device name, only the length of the character string that can be registered on the import destination device is registered. The excess characters of the character string are deleted.

- When an out-of-range value is imported
  Since the value is not comprehensible to the import destination device, the out-of-range value is not imported.In that case, the default value is not set but the originally registered value remains effective.

- When a necessary license or software option does not exist
  In that case, the specification differs depending on the setting value.
  Depending on the type of the license or software option, import is executed without the license or software option in some cases. Therefore the following behaviors may occur.

  **Assumption**
  There is "Setting 1" (default value: 0) which is required only when "License 1" has been activated.
  Device A: "License 1" activated, "Setting 1" set to "1"
  Device B: "License 1" not activated, "Setting 1" set to "0"
  Device C: "License 1" activated, "Setting 1" set to "2"

  **Operation**
  Export the settings of Device A and import them to Device B.
  Export the settings of Device B and import them to Device C.

  **Result**
  "Setting 1" of Device C is set to "1".
  The foregoing behavior may occur because the setting value related to the license is not always the default value in Device B where the license has not been activated.
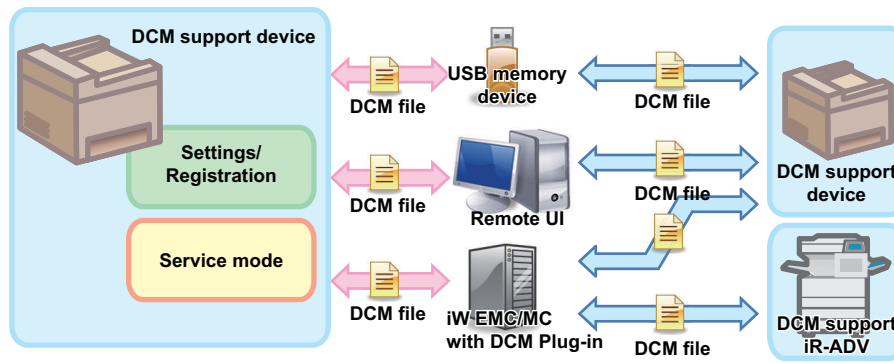
**Image of DCM file import**

- When a necessary hardware option does not exist
  The corrective processing performed is the same as that performed when an option has been changed during power discontinuity.

  **Example**

  Corrective processing performed when "Paper Source = Optional Deck" has been set as a favorite setting. Examples are shown below:
  - When this connection is released due to a failure of the optional deck, etc.
  - When a setting file exported from a device with an optional deck is imported to a device without an optional deckPlease note that this rule does not always apply to all the setting values.

  Please note that this rule does not always apply to all the setting values.

## ■ Power Supply Control

When power discontinuity occurs during export or import, the following behavior occurs.
- The import process that had been performed before the power discontinuity remains reflected, and the data is not rolled back.
- When power discontinuity occurs during an export process, export is not executed. Moreover, since the import/export history is not retained in the host machine, no records remain.

## ■ Sleep Operation during a Process

The device does not enter deep sleep mode during import or export.
Although this is not disclosed to users, sleep mode internally changes according to the usage conditions of the host machine.
Sleep mode ranges from energy saver mode where indicators such as LEDs are turned OFF to deep sleep mode where even the CPU stops.
Even if the conditions for entering deep sleep mode are met, the device does not enter deep sleep mode during export or import.
If a process is started from remote UI or iW EMC/ MC, the host machine recovers to energy saver mode and performs the process.
However, if service mode data is not included in the process, the process is started without waiting for recovery of the engine.

# ● Procedure for Exporting/Importing Service Mode Setting Information

This chapter describes the procedure for exporting/importing the service mode setting information using DCM.
For the procedure for exporting/importing [Settings/Registration] or address book data that can be performed by users, refer to the User's Guide (e-Manual).

## ■ Procedure for Export/Import Using the Control Panel (Service Mode)

By operating from the Control Panel (service mode), it is possible to export/import a file (service.dcm) containing service mode setting information from/to a USB flash drive connected to the host machine.
The following USB flash drives can be used as the export destination.
- USB flash drive in FAT 16 format (storage capacity: 2 GB)
- USB flash drive in FAT 32 format (storage capacity: 32 GB)

### ● Procedure for Export Using Service Mode

1. **Connect a USB memory device to the USB memory port.**
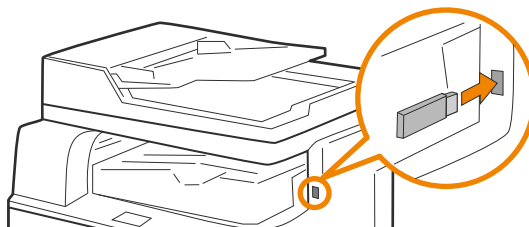
2. **Enter service mode, and execute the following service mode.**
   - COPIER > FUNCTION > SYSTEM > EXPORT

3. **The message shown below which is displayed during the process will disappear. When the display has returned to the original state, remove the USB flash drive.**



The procedure for removing the USB flash drive is shown below.
   1. Press the [Reset] (   )key.
   2. Press the [Status Monitor] (   )key.
   3. Tap "Device Status".
   4. Tap "Remove Memory Media".
      Wait until the message "The memory media can be safely removed." is displayed.
   5. Remove the USB flash drive.

---

**CAUTION:**
When exporting setting information using the [Settings/Registration] menu, if a USB flash drive is not connected, a message prompting the user to connect a USB flash drive will appear and the process cannot be executed.On the other hand, when this function is used, export can be executed without connecting a USB flash drive, therefore be sure to connect a USB flash drive before executing export.

---

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 procedure for exporting a setting information file.

## ● Procedure for Import Using Service Mode

1. **To the directory directly under the root of the USB flash drive, save a setting information file (service.dcm) to be imported.**

2. **Connect a USB memory device to the USB memory port.**
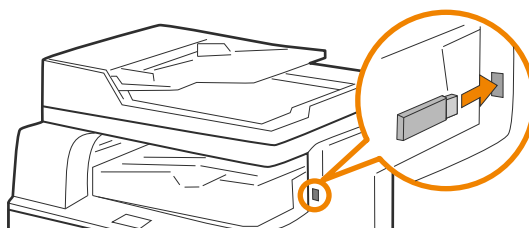


3. **Enter service mode, and execute the following service mode.**
   - COPIER > FUNCTION > SYSTEM > IMPORT

4. **The message shown below which is displayed during the process will disappear. When the display has returned to the original state, remove the USB flash drive.**
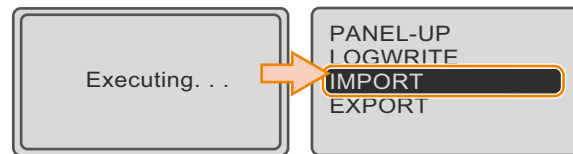


5. **Enter service mode, and check that the setting information is reflected.**

This completes the procedure for importing a setting information file.

## ■ Procedure for Export/Import Using Remote UI (Service Mode)

By operating from the remote UI, it is possible to export/import a file containing service mode setting information from/to a USB flash drive connected to the host machine or the local disk on the PC.

### ● Procedure for Export Using Service Mode (Remote UI)

**With this model, service mode can be used from the Remote UI.**
**Setting information can be exported by remote control by following the procedure shown below.**
**Since the information can be output only to a USB flash drive connected to the host machine, this is not strictly remote operation.**
**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)**

1. **Connect a USB memory device to the USB memory port.**
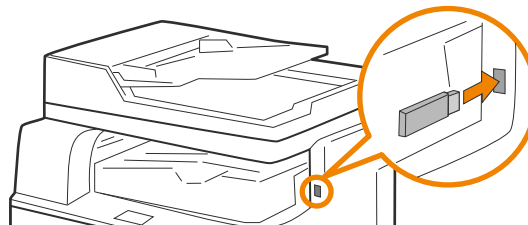


2. **Enter service mode, and execute the following service mode.**

Access service mode (Remote UI), select COPIER > FUNCTION > SYSTEM > EXPORT, and click [EXEC].
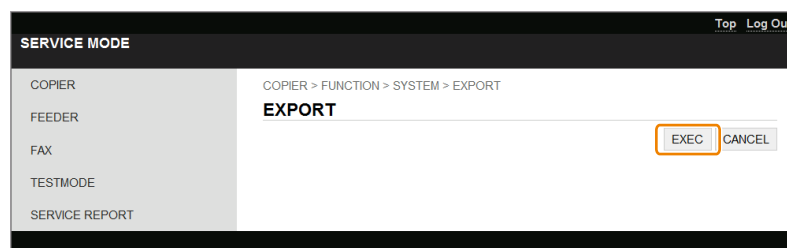


**CAUTION:**
When it is executed without connecting USB flash drive, the error message is not displayed.
Processing doesn't export anywhere of any though it seems to have completed it correctly.
Confirm USB memory device has been connected before it executes it from the above-mentioned reason without fail.

3. **The message shown below which is displayed during the process will disappear. When the display has returned to the original state, remove the USB flash drive.**
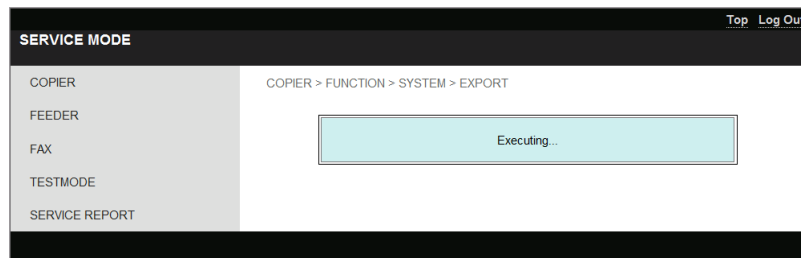


4. **Check that a setting information file (service.dcm) exists in the directory directly under the root of the USB flash drive.**

   This completes the procedure for exporting a setting information file.

## ● Procedure for Import Using Service Mode (Remote UI)

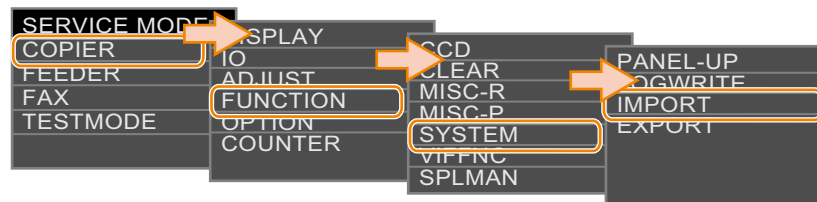**Import the service mode setting file that was exported to the USB flash drive in the previous procedure into the host machine.**

1. **To the directory directly under the root of the USB flash drive, save a setting information file (service.dcm) to be imported.**

2. **Connect a USB memory device to the USB memory port.**
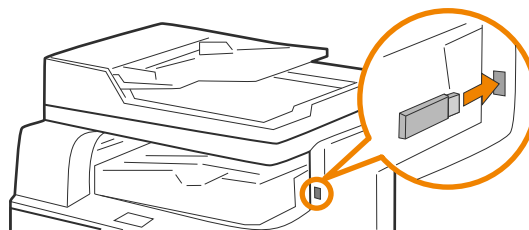


3. **Enter service mode, and execute the following service mode.**

   Access service mode (remote UI), select COPIER > FUNCTION > SYSTEM > EXPORT, and click [EXEC].



4. **The message shown below which is displayed during the process will disappear. When the display has returned to the original state, remove the USB flash drive.**
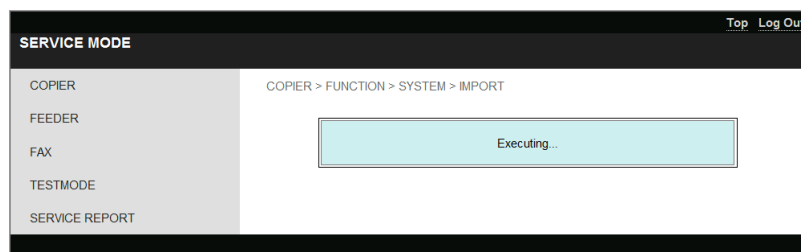


5. **Enter service mode, and check that the setting information is reflected.**

   This completes the procedure for importing a setting information file.

# ■ Procedure for Export/Import Using Remote UI ([System Management Settings] Menu)

## ● Procedure for Export Using 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
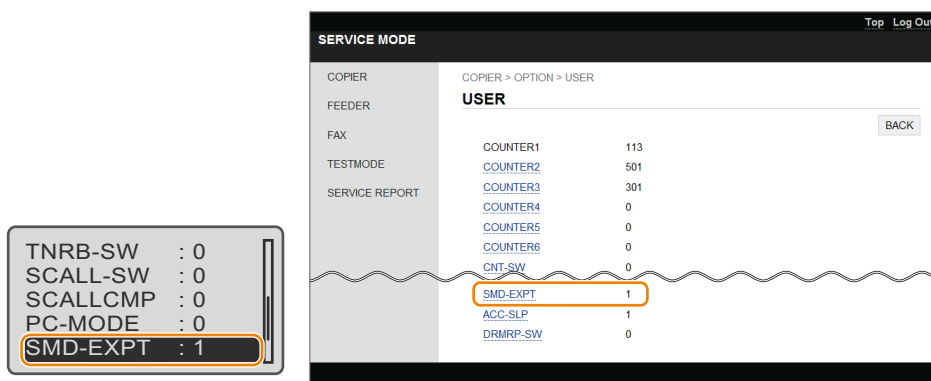


**NOTE:**
The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

2. **Exit service mode, and start the remote UI and log on in System Manager Mode.**
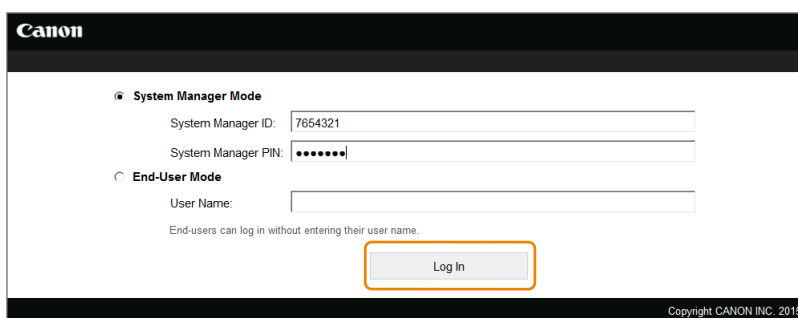


3. **Click [Settings/ Registration].**
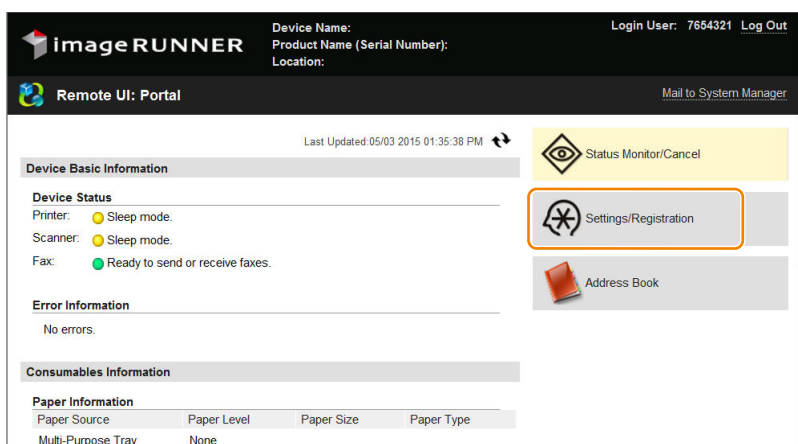


4. **Click[Import/Export] > [Export].**

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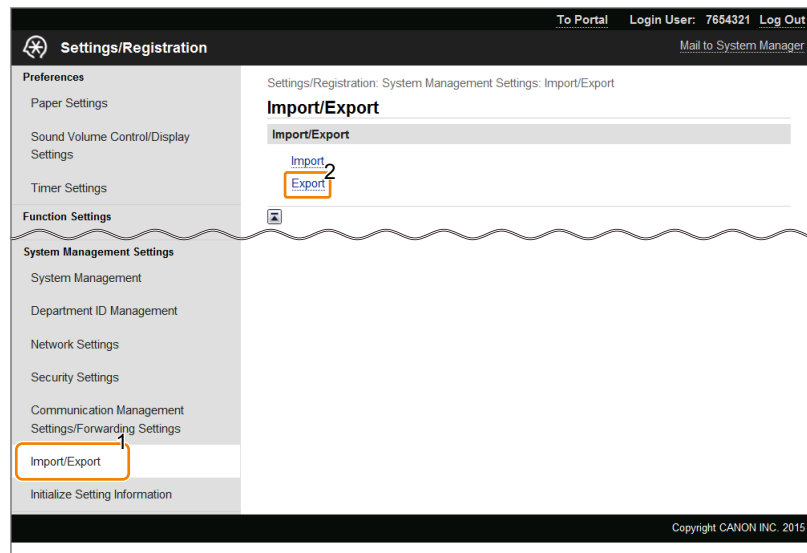
5. **Specify the settings for exporting, and click [Start Exporting].**

   Enter the encryption password and click [Start Exporting]. The menu options data will be exported.
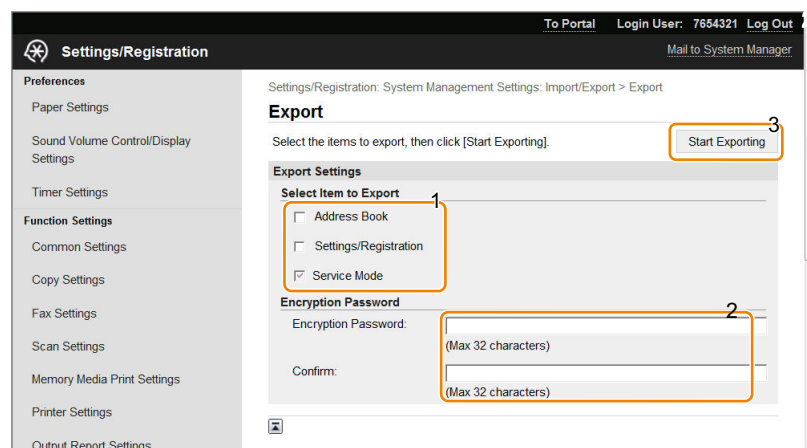


**Address Book**

   Select the check box to export the Address Book data.

**Settings/ Registration**

   Select the check box to export the setting data of the menu options.

**Service Mode**

   Selected and grayed out. If this item does not exist, perform step 1 again

**Encryption Password**

   Enter up to 32 alphanumeric characters for the encryption password. For confirmation, enter the same password in the [Confirm:] text box. This password will be required when you import the data to the machine.

6. **Follow the on-screen instructions to specify the location where the exported data is saved.**
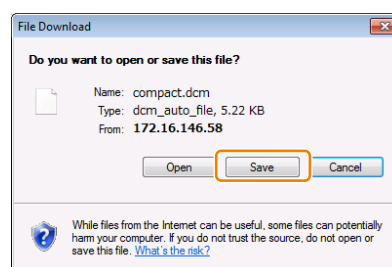
**7. Enter service mode, and set the following item to "0".**

- COPIER > OPTION > USER > SMD-EXPT



**NOTE:**
The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

## ● Procedure for Import Using 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 specified either from the Control Panel or from the remote UI.

**2. Exit service mode, and start the remote UI and log on in System Manager Mode.**



**3. Click [Settings/Registration].**

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**4. Click[Import/Export] > [Import].**

5. **Specify the settings for Importing, and click [Start Import].**

   Enter the encryption password and click [Start Import]. The menu options data will be Imported.
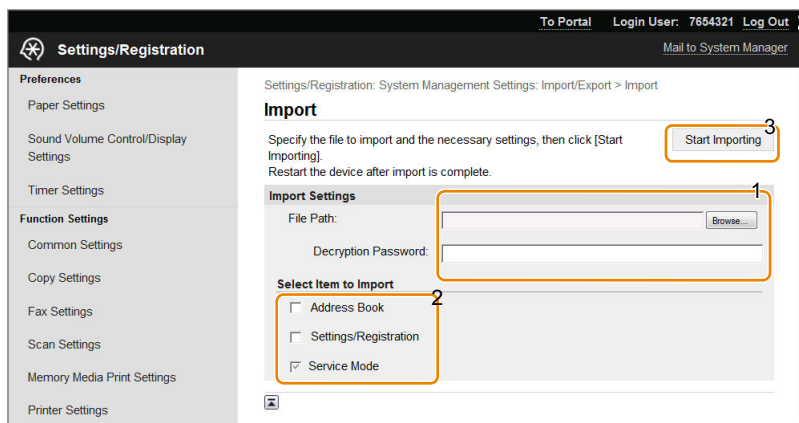


**[Browse..]button**

   Click to select the file to import.

**Decryption Password**

   Enter up to 32 alphanumeric characters for the password that was set when the file was exported.

**Address Book**

   Select the check box to import the Address Book data.

**Address Book PIN**

   If the Address Book PIN is set, enter the PIN in the [Address Book PIN:] text box. Setting a PIN for Address Book

**Settings/Registration**

   Select the check box to import the setting data of the menu options.

6. **A dialog box asking whether the user wants to execute import will appear. Click [OK].**
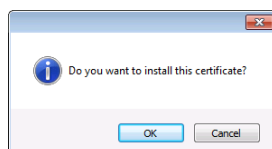


7. **A message will appear to indicate that the process has been completed. Click the [OK] button.**
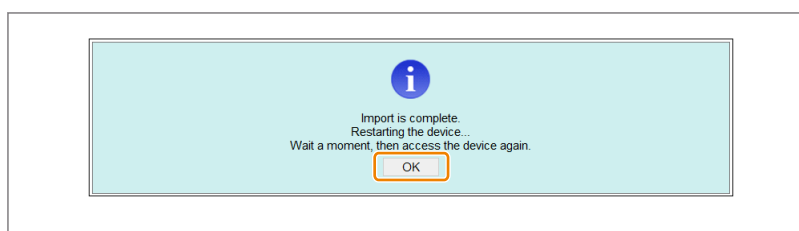


8. **Restart the host machine, enter service mode, and then check that the setting information is reflected.**

9. **Enter service mode, and set the following item to "0".**
   - COPIER > OPTION > USER > SMD-EXPT
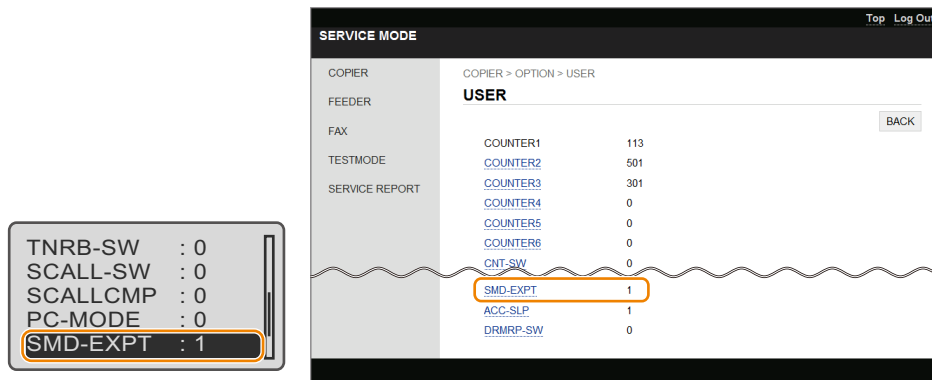


**NOTE:**
The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

# List of Items Which Can Be Imported

The following shows the items to be imported for this model.
Note that the setting values are not imported in cases such as below:
- Items which are originally not included in a DCM file (e.g.:"Settings/Registration Basic Information" of a DCM file exported 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) |

## ■ Settings/Registration Basic Information

### ● Preferences

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Volume Settings | | | |
| Fax Volume | Yes | Yes | Yes |
| Ring Tone | Yes | Yes | Yes |
| TX Done Tone | Yes | Yes | Yes |
| RX Done Tone | Yes | Yes | Yes |
| Scanning Done Tone | Yes | Yes | Yes |
| Entry Tone | Yes | Yes | Yes |
| Invalid Entry Tone | Yes | Yes | Yes |
| Restock Supplies Tone | Yes | Yes | Yes |
| Warning Tone | Yes | Yes | Yes |
| Job Done Tone | Yes | Yes | Yes |
| Energy Saver Alert | Yes | Yes | Yes |
| Original in Feeder Detection Tone | Yes | Yes | Yes |
| Display Settings | | | |
| Default Screen after Startup/Restoration | Yes | Yes | Yes |
| Language | Yes | Yes | Yes |

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Remote UI Language | Yes | Yes | Yes |
| Brightness | Yes | Yes | Yes |
| Invert Screen Colors | Yes | Yes | Yes |
| Millimeter/Inch Entry Switch | Yes | Yes | Yes |
| Gram/Pound Switch | Yes | Yes | Yes |
| Message Display Time | Yes | Yes | Yes |
| Scrolling Speed | Yes | Yes | Yes |
| Cursor Movement Type | Yes | Yes | Yes |
| English Keyboard Layout | Yes | Yes | Yes |

## ● Timer Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Date/Time Settings | | | |
| Date Format | Yes | Yes | Yes |
| Time Format | Yes | Yes | Yes |
| Time Zone | Yes | Yes | Yes |
| Daylight Saving Time Settings | Yes | Yes | Yes |
| Start | Yes | Yes | Yes |
| End | Yes | Yes | Yes |
| Auto Sleep Time | Yes | Yes | Yes |
| Auto Reset Time | Yes | Yes | Yes |
| Function After Auto Reset | Yes | Yes | Yes |
| Auto Offline Time | Yes | Yes | Yes |

## ● Common Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Drawer Auto Selection On/Off | | | |
| Copy | | | |
| Multi-Purpose Tray | Yes | Yes | Yes |
| Drawer 1 | Yes | Yes | Yes |
| Printer | | | |
| Drawer 1 | Yes | Yes | Yes |
| Fax | | | |
| Multi-Purpose Tray | Yes | Yes | Yes |
| Drawer 1 | Yes | Yes | Yes |
| Other | | | |
| Multi-Purpose Tray | Yes | Yes | Yes |
| Drawer 1 | Yes | Yes | Yes |

## ● Copy Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Change Default Settings | Yes | Yes | No |

## ● Fax Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Basic Settings | | | |
| Register Unit Telephone Number | | | |
| Telephone Number | Yes | Yes | No |
| Select Line Type | Yes | Yes | Yes |
| Pulse | Yes | Yes | Yes |
| Tone | Yes | Yes | Yes |

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Off-Hook Alarm | Yes | Yes | Yes |
| Communication Management Settings | | | |
| TX Start Speed | Yes | Yes | Yes |
| RX Start Speed | Yes | Yes | Yes |
| TX Function Settings | | | |
| Change Default Setting | Yes | Yes | Yes |
| Resolution | Yes | Yes | Yes |
| Density | Yes | Yes | Yes |
| Sharpness | Yes | Yes | Yes |
| Register Unit Name (Fax) | Yes | Yes | Yes |
| ECM TX | Yes | Yes | Yes |
| Set Pause Time | Yes | Yes | Yes |
| Auto Redial | Yes | Yes | Yes |
| Number of Times to Redial | Yes | Yes | Yes |
| Redial Interval | Yes | Yes | Yes |
| Redial When Error Occurs | Yes | Yes | Yes |
| TX Terminal ID | Yes | Yes | Yes |
| Print Position | Yes | Yes | Yes |
| Mark Number as: | Yes | Yes | Yes |
| Check Dial Tone Before Sending | Yes | Yes | Yes |
| Allow Fax Driver TX | Yes | Yes | Yes |
| Confirm Entered Fax Number | Yes | Yes | Yes |
| Restrict Sequential Broadcast | Yes | Yes | Yes |
| RX Function Settings | | | |
| ECM RX | Yes | Yes | Yes |
| Incoming Ring | Yes | Yes | Yes |
| times | Yes | Yes | Yes |
| Remote RX | Yes | Yes | Yes |
| specific ID number | Yes | Yes | Yes |
| Switch to Auto RX | Yes | Yes | Yes |
| Switch to Auto RX | Yes | Yes | Yes |
| Memory Lock Settings | | | |
| Memory Lock PIN | Yes | Yes | Yes |
| Report Print | Yes | Yes | Yes |
| Memory Lock Time | Yes | Yes | Yes |
| Memory Lock Start Time | Yes | Yes | Yes |
| Memory Lock End Time | Yes | Yes | Yes |
| RX Print Settings | | | |
| Ratio | Yes | Yes | Yes |
| Direction | Yes | Yes | Yes |
| RX Page Footer | Yes | Yes | Yes |
| Continue Printing When Amount in Cartridge Is Low | Yes | Yes | Yes |
| Forwarding Settings | | | |
| Print Images | Yes | Yes | Yes |
| Store Images in Memory | Yes | Yes | Yes |

## ● Scan Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| USB Memory Settings | | | |
| Change Default Settings | Yes | Yes | Yes |
| Scan Size | Yes | Yes | Yes |
| File Format | Yes | Yes | Yes |
| Encryption Level | | | |

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Digital Signatures | | | |
| Density | Yes | Yes | Yes |
| Original Orientation | Yes | Yes | Yes |
| Original Type | Yes | Yes | Yes |
| Sharpness | Yes | Yes | Yes |
| Data Size | Yes | Yes | Yes |
| E-Mail Settings | | | |
| Change Default Settings | Yes | Yes | Yes |
| Scan Size | Yes | Yes | Yes |
| File Format | Yes | Yes | Yes |
| Encryption Level | Yes | Yes | Yes |
| Digital Signatures | Yes | Yes | Yes |
| Density | Yes | Yes | Yes |
| Original Orientation | Yes | Yes | Yes |
| Original Orientation | Yes | Yes | Yes |
| Sharpness | Yes | Yes | Yes |
| Data Size | Yes | Yes | Yes |
| Subject | Yes | Yes | Yes |
| Message | Yes | Yes | Yes |
| Reply To | Yes | Yes | Yes |
| Priority | Yes | Yes | Yes |
| I-Fax Settings | | | |
| TX Function Settings | | | |
| Change Default Settings | Yes | Yes | Yes |
| Scan Size | Yes | Yes | Yes |
| Density | Yes | Yes | Yes |
| Sharpness | Yes | Yes | Yes |
| Message | Yes | Yes | Yes |
| Reply To | Yes | Yes | Yes |
| TX Terminal ID | Yes | Yes | Yes |
| Print Position | Yes | Yes | Yes |
| RX Print Settings | | | |
| RX Print Size | Yes | Yes | Yes |
| File Settings | | | |
| Change Default Settings | | | |
| Scan Size | Yes | Yes | Yes |
| File Format | Yes | Yes | Yes |
| Density | Yes | Yes | Yes |
| Original Orientation | Yes | Yes | Yes |
| Original Type | Yes | Yes | Yes |
| Sharpness | Yes | Yes | Yes |
| Data Size | Yes | Yes | Yes |
| Output File Image Settings | | | |
| YCbCr TX Gamma Value | Yes | Yes | No |
| PDF (Compact) Image Quality Level | | | |
| Image Level in Text/Photo Mode or Photo Mode | Yes | Yes | Yes |
| Image Level in Text Mode | Yes | Yes | Yes |
| OCR (Text Searchable) Settings | | | |
| Smart Scan | Yes | Yes | No |

## ● Memory Media Print Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Change Default Settings | Yes | Yes | Yes |

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| File Sort Default Settings | Yes | Yes | Yes |
| File Name Display Format | Yes | Yes | Yes |
| Default Display Settings | Yes | Yes | Yes |

## ● Printer Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Prioritize Driver Settings When Printing | Yes | Yes | Yes |
| Multi-Purpose Tray | Yes | Yes | Yes |
| Drawer 1 | Yes | Yes | Yes |
| Paper Size Override | Yes | Yes | Yes |

## ● Adjustment/Maintenance

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Auto Correction Settings | | | |
| Auto Adjust Image Regularly | Yes | Yes | No |
| Correct Print Color Mismatch When Main Power is ON | Yes | Yes | No |
| Display Timing for Cartridge Preparation Notification | | | |
| Auto | Yes | Yes | No |
| Custom | Yes | Yes | No |
| Black Text Processing | | | |
| Feeder | Yes | Yes | Yes |
| Platen Glass | Yes | Yes | Yes |
| Special Processing | | | |
| Special Paper Processing | | | |
| Manual Back Side Settings (for 2-Sided Only) | | | |
| Multi-Purpose Tray | Yes | Yes | No |
| Drawer 1 | Yes | Yes | No |
| Rough Paper Settings | | | |
| Multi-Purpose Tray | Yes | Yes | No |
| Drawer 1 | Yes | Yes | No |
| Envelope Cling Prevention | Yes | Yes | No |
| Envelope Switch | Yes | Yes | No |
| Special Mode P | Yes | Yes | No |

# ■ System Management Settings

## ● System Manager Information Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| System Manager ID and PIN | | | |
| System Manager ID | Yes | Yes | Yes |
| System Manager PIN | Yes | Yes | Yes |
| System Manager Name | Yes | Yes | Yes |
| Device Information Settings | | | |
| Device Name | Yes | No | No |
| Location | Yes | No | No |
| Display Consumables Information (RUI/Toner Status) | | | |
| Display Consumables Purchase Button (RUI) | Yes | Yes | Yes |
| Toner Status Settings | Yes | Yes | Yes |

## ● Setting the Department ID Management

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Department ID Management | Yes | Yes | Yes |
| Register New Department | Yes | Yes | Yes |
| Department ID | Yes | Yes | Yes |
| Set PIN | Yes | Yes | Yes |
| Restrict Functions | Yes | Yes | Yes |
| Black & White Copy | Yes | Yes | Yes |
| Color Copy | Yes | Yes | Yes |
| Black & WhitePrint | Yes | Yes | Yes |
| Color Print | Yes | Yes | Yes |
| Scan | Yes | Yes | Yes |
| Fax | Yes | Yes | Yes |
| Department ID Management | | | |
| Allow Print Jobs with Unknown IDs | Yes | Yes | Yes |
| Allow Scan Jobs with Unknown IDs | Yes | Yes | Yes |
| Allow Black & White Copy Jobs | Yes | Yes | Yes |

## ● Network Settings

### TCP/IP Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| IPv4 Settings | | | |
| Auto IP | Yes | Yes | Yes |
| Select Protocol | Yes | Yes | Yes |
| IP Address | Yes | No | No |
| Subnet Mask | Yes | Yes | Yes |
| Gateway Address | Yes | Yes | Yes |
| Primary DNS Server | Yes | Yes | Yes |
| Secondary DNS Server | Yes | Yes | Yes |
| DNS Host Name/Domain Name Settings | Yes | No | No |
| Host Name | Yes | No | No |
| Domain Name | Yes | No | No |
| DNS Dynamic Update Settings | Yes | Yes | Yes |
| DNS Dynamic Update | Yes | Yes | Yes |
| DNS Dynamic Update Interval | Yes | Yes | Yes |
| Use mDNS | Yes | No | No |
| mDNS Name | Yes | No | No |
| DHCP Option Settings | | | |
| Acquire Host Name | Yes | Yes | Yes |
| DNS Dynamic Update | Yes | Yes | Yes |
| Acquire DNS Server Address | Yes | Yes | Yes |
| Acquire Domain Name | Yes | Yes | Yes |
| Acquire WINS Server Address | Yes | Yes | Yes |
| Acquire SMTP Server Address | Yes | Yes | Yes |
| Acquire POP Server Address | Yes | Yes | Yes |
| IPv6 Settings | | | |
| Use IPv6 | Yes | Yes | Yes |
| Use Stateless Address | Yes | Yes | Yes |
| Use Manual Address | Yes | No | No |
| IP Address | Yes | No | No |
| Prefix Length | Yes | No | No |
| Default Router Address | Yes | No | No |
| Use DHCPv6 | Yes | Yes | Yes |

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| DNS Server Settings | Yes | Yes | Yes |
| Primary DNS Server | Yes | Yes | Yes |
| Secondary DNS Server | Yes | Yes | Yes |
| DNS Host Name/Domain Name Settings | Yes | No | No |
| Use IPv4 Host/Domain | Yes | No | No |
| Host Name | Yes | No | No |
| Domain Name | Yes | No | No |
| DNS Dynamic Update Settings | Yes | Yes | Yes |
| DNS Dynamic Update | Yes | Yes | Yes |
| Register Manual Address | Yes | Yes | Yes |
| Register Stateful Address | Yes | Yes | Yes |
| Register Stateless Address | Yes | Yes | Yes |
| DNS Dynamic Update Interval | Yes | Yes | Yes |
| Use mDNS | Yes | No | No |
| Use Same mDNS Name as IPv4 | Yes | No | No |
| mDNS Name | Yes | No | No |
| DHCP Option Settings | | | |
| Acquire DNS Server Address | Yes | Yes | Yes |
| Acquire Domain Name | Yes | Yes | Yes |
| WINS Settings | | | |
| WINS Resolution | Yes | Yes | Yes |
| WINS Server Address | Yes | Yes | Yes |
| LPD Settings | | | |
| LPD Print Settings | Yes | Yes | Yes |
| RX Timeout | Yes | Yes | Yes |
| RAW Settings | | | |
| RAW Print Settings | Yes | Yes | Yes |
| RX Timeout | Yes | Yes | Yes |
| WSD Settings | | | |
| WSD Print Settings | | | |
| Use WSD Print | Yes | Yes | Yes |
| Use WSD Browsing | Yes | Yes | Yes |
| WSD Scan Settings | | | |
| Use WSD Scan | Yes | Yes | Yes |
| Use Computer Scan | Yes | Yes | Yes |
| Use Multicast Discovery | Yes | Yes | Yes |
| Use FTP PASV Mode | Yes | Yes | Yes |
| Use HTTP | Yes | Yes | Yes |
| Port Number Settings | | | |
| LPD | Yes | Yes | Yes |
| LPD | Yes | Yes | Yes |
| HTTP | Yes | Yes | Yes |
| POP3 | Yes | Yes | Yes |
| HTTP | Yes | Yes | Yes |
| SMTP | Yes | Yes | Yes |
| SNMP | Yes | Yes | Yes |
| WSD Multicast Discovery | Yes | Yes | Yes |
| Multicast Discovery | Yes | Yes | Yes |
| MTU Size | Yes | Yes | Yes |
| IPP Print Settings | | | |
| Use IPP Printing | Yes | Yes | Yes |
| Use SSL | Yes | Yes | Yes |
| Network Link Scan Settings | | | |
| Use Network Link Scan | Yes | Yes | Yes |

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| SNMP Settings | | | |
| Use SNTP | Yes | Yes | Yes |
| Polling Interval | Yes | Yes | Yes |
| NTP Server Name | Yes | Yes | Yes |
| Multicast Discovery Settings | | | |
| Respond to Discovery | Yes | Yes | Yes |
| Scope Name | Yes | Yes | Yes |
| Sleep Mode Notification Settings | | | |
| Notify | Yes | Yes | Yes |
| Port Number | Yes | Yes | Yes |
| Number of Routers to Traverse | Yes | Yes | Yes |
| Notification Interval | Yes | Yes | Yes |

### Google Cloud Print Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Using Google Cloud Print | Yes | Yes | Yes |
| Local Print | Yes | Yes | Yes |
| Server Connection Checking Interval | Yes | Yes | Yes |
| Verify Server Certificate | Yes | Yes | Yes |
| Add CN to Verification Items | Yes | Yes | Yes |

### Proxy Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Use Proxy | Yes | Yes | Yes |
| HTTP Proxy Server Address | Yes | Yes | Yes |
| HTTP Proxy Server Port Number | Yes | Yes | Yes |
| Use Proxy within Same Domain | Yes | Yes | Yes |
| Use Proxy Authentication | Yes | Yes | Yes |
| User Name | Yes | Yes | Yes |
| Password | Yes | Yes | Yes |

### Configuring E-mail/I-Fax Communication Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| SMTP Server | Yes | Yes | Yes |
| E-Mail Address | Yes | Yes | Yes |
| POP Server | Yes | Yes | Yes |
| User Name | Yes | Yes | Yes |
| Password | Yes | Yes | Yes |
| POP RX | Yes | Yes | Yes |
| POP Interval | Yes | Yes | Yes |
| Setting up authentication before sending and encrypted communication with the server | | | |
| Use POP Authentication Before Sending | Yes | Yes | Yes |
| Use APOP Authentication | Yes | Yes | Yes |
| Use SMTP Authentication (SMTP AUTH) | Yes | Yes | Yes |
| User Name | Yes | Yes | Yes |
| Password | Yes | Yes | Yes |
| Use SSL for SMTP | Yes | Yes | Yes |
| Verify Certificate | Yes | Yes | Yes |
| Add CN to Verification Items | Yes | Yes | Yes |
| Use SSL for POP | Yes | Yes | Yes |
| Verify Certificate | Yes | Yes | Yes |
| Add CN to Verification Items | Yes | Yes | Yes |

**SMB Settings**

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| NetBIOS Name | Yes | No | No |
| Workgroup Name | Yes | No | No |

**SNMP Settings**

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| SNMPv1 Settings | | | |
| Use SNMPv1 | Yes | Yes | Yes |
| Use Community Name 1 | Yes | Yes | Yes |
| Community Name 1 | Yes | Yes | Yes |
| Use Community Name 2 | Yes | Yes | Yes |
| Community Name 2 | Yes | Yes | Yes |
| MIB Access Permission 1 | Yes | Yes | Yes |
| MIB Access Permission 2 | Yes | Yes | Yes |
| Use Dedicated Community | Yes | Yes | Yes |
| Dedicated Community Settings | Yes | Yes | Yes |
| Specify SNMPv3 settings | | | |
| Use SNMPv3 | Yes | Yes | Yes |
| Enable User | | | |
| User Name | Yes | Yes | Yes |
| MIB Access Permission | Yes | Yes | Yes |
| Security Settings | Yes | Yes | Yes |
| Authentication Algorithm | Yes | Yes | Yes |
| Encryption Algorithm | Yes | Yes | Yes |
| Authentication Password | Yes | Yes | Yes |
| Encryption Password | Yes | Yes | Yes |
| Enable User | Yes | Yes | Yes |
| Context Settings | | | |
| Context Name | Yes | Yes | Yes |
| Acquire Printer Management Information from Host | Yes | Yes | Yes |

**Wireless LAN Settings**

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Setting Up Connection by Specifying Detailed Settings | | | |
| SSID Settings | Yes | Yes | Yes |
| Security Settings | Yes | Yes | Yes |
| WPA/WPA2 PSK Settings | | | |
| WPA/WPA2 Encryption Method | Yes | Yes | Yes |
| Entry type | Yes | Yes | Yes |
| WPA/WPA2 PSK | Yes | Yes | Yes |
| WEP Settings | | | |
| WEP key length | Yes | Yes | Yes |
| Key form | Yes | Yes | Yes |
| WEP key 1 | Yes | Yes | Yes |
| WEP key 2 | Yes | Yes | Yes |
| WEP key 3 | Yes | Yes | Yes |
| WEP key 4 | Yes | Yes | Yes |
| Select WEP Key | Yes | Yes | Yes |
| 802.11 Authentication | Yes | Yes | Yes |
| Power Save Mode | | | |
| Power Save Mode | Yes | Yes | Yes |
| Select Wired/Wireless LAN | | | |
| Select Wired/Wireless LAN | Yes | Yes | Yes |

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Device Settings Management Settings | | | |
| Device Settings Management On/Off | Yes | Yes | Yes |

**Other Settigs**

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| AirPrint Settings | | | |
| Use AirPrint | Yes | Yes | Yes |
| Latitude | Yes | No | No |
| Longitude | Yes | No | No |
| Mopria Settings | | | |
| Use Mopria | Yes | Yes | Yes |
| Dedicated Port Settings | | | |
| Dedicated Port Settings | Yes | Yes | Yes |
| Waiting Time for Connection at Startup | | | |
| Waiting Time for Connection at Startup | Yes | Yes | Yes |
| Ethernet Driver Settings | | | |
| Ethernet Driver Settings | Yes | Yes | Yes |
| Auto Detect | Yes | Yes | Yes |
| Communication Mode | Yes | Yes | Yes |

## ● Security Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| IPv4 Address Filter | | | |
| Set Outbound Filter | | | |
| Use Filter | Yes | Yes | Yes |
| Default Policy | Yes | Yes | Yes |
| Exception Address | Yes | Yes | Yes |
| Inbound Filter | | | |
| Use Filter | Yes | Yes | Yes |
| Default Policy | Yes | Yes | Yes |
| Exception Address | Yes | Yes | Yes |
| IPv6 Address Filter | | | |
| Outbound Filter | | | |
| Use Filter | Yes | Yes | Yes |
| Default Policy | Yes | Yes | Yes |
| Exception Address | Yes | Yes | Yes |
| Inbound Filter | | | |
| Use Filter | Yes | Yes | Yes |
| Default Policy | Yes | Yes | Yes |
| Exception Address | Yes | Yes | Yes |
| MAC Address Filter | | | |
| Outbound Filter | | | |
| Use Filter | Yes | Yes | Yes |
| Default Policy | Yes | Yes | Yes |
| Exception Address | Yes | Yes | Yes |
| Inbound Filter | | | |
| Use Filter | Yes | Yes | Yes |
| Default Policy | Yes | Yes | Yes |
| Exception Address | Yes | Yes | Yes |

## ● Restrict TX Function

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Address Book PIN | Yes | Yes | Yes |
| Restrict New Destinations | Yes | Yes | Yes |
| Restrict Resending from Log | Yes | Yes | Yes |
| Coded Dial TX Confirmation | Yes | Yes | Yes |

## ● LDAP Server Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Register the server used for searches | | | |
| Server Name | Yes | Yes | Yes |
| Server Address | Yes | Yes | Yes |
| Position to Start Search | Yes | Yes | Yes |
| Port Number | Yes | Yes | Yes |
| Search Timeout | Yes | Yes | Yes |
| Login Information | Yes | Yes | Yes |
| User Name | Yes | Yes | Yes |
| Password | Yes | Yes | Yes |
| Domain Name | Yes | Yes | Yes |
| Display Authentication Screen When Searching | Yes | Yes | Yes |
| Use Same Authentication Information as When Send Operation Started | Yes | Yes | Yes |
| Registering the authentication server | | | |
| Server Name | Yes | Yes | Yes |
| Server Address | Yes | Yes | Yes |
| Position to Start Search | Yes | Yes | Yes |
| Port Number | Yes | Yes | Yes |
| Search Timeout | Yes | Yes | Yes |
| User Name Attribute | Yes | Yes | Yes |
| E-Mail Address Attribute | Yes | Yes | Yes |
| Login Information | Yes | Yes | Yes |
| Use System Manager ID | Yes | Yes | Yes |
| User Name | Yes | Yes | Yes |
| Password | Yes | Yes | Yes |
| Use SSL | Yes | Yes | Yes |
| Domain Name | Yes | Yes | Yes |

## ● Authentication Settings for Send Function

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Display Authentication Screen When Sending Operation Starts | Yes | Yes | Yes |
| Display Confirmation Screen When Logging Out | Yes | Yes | Yes |
| E-Mail Sending Settings | | | |
| E-Mail Sending | Yes | Yes | Yes |
| Authentication Method | Yes | Yes | Yes |
| Specify Authentication User Destination as Sender | Yes | Yes | Yes |
| File Sending Settings | | | |
| File Sending | Yes | Yes | Yes |
| When Sending Files to Destinations Registered In Address Book | | | |
| Authentication Method | Yes | Yes | Yes |
| When Sending Files to Myself | | | |
| Authentication Method | Yes | Yes | Yes |
| Display Authentication Screen | Yes | Yes | Yes |
| Specify Destination Folder | | | |

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Host Name | Yes | Yes | Yes |
| Folder Path | Yes | Yes | Yes |
| Add User Name | Yes | Yes | Yes |
| Fax Sending Settings | Yes | Yes | Yes |

## ● Other Settings

| Setting Information | Case A | Case B | Case C |
|---|---|---|---|
| Display Job Log | Yes | Yes | Yes |
| Use as USB Device | Yes | Yes | Yes |
| Store to USB Memory | Yes | Yes | Yes |
| Memory Media Print On/Off | Yes | Yes | Yes |
| Enable Product Extended Survey Program | Yes | Yes | Yes |
| Canon Mobile Scanning ON/OFF | Yes | Yes | Yes |
| Google Cloud Print Settings | Yes | Yes | Yes |
| Notify to Check Paper Settings | Yes | Yes | Yes |
| Secure Print Settings | | | |
| Secured Print | Yes | Yes | Yes |
| Secure Print Deletion Time | Yes | Yes | Yes |
| Select OS for USB Connected PC | Yes | Yes | |
| PDL Selection (Plug and Play) | | | |
| USB | Yes | Yes | No |
| Auto Online for Remote Scan | Yes | Yes | Yes |
| Enable NFC | Yes | Yes | Yes |

## ■ Service Mode

| Initial screen | Large | Middle | Small | Case A | Case B | Case C |
|---|---|---|---|---|---|---|
| COPIER | ADJUST | VIFADJ | DEV-HV-Y | Yes | No | No |
| COPIER | ADJUST | VIFADJ | DEV-HV-M | Yes | No | No |
| COPIER | ADJUST | VIFADJ | DEV-HV-C | Yes | No | No |
| COPIER | ADJUST | VIFADJ | DEV-HV-K | Yes | No | No |
| COPIER | ADJUST | VIFADJ | TR1-HV-Y | Yes | No | No |
| COPIER | ADJUST | VIFADJ | TR1-HV-M | Yes | No | No |
| COPIER | ADJUST | VIFADJ | TR1-HV-C | Yes | No | No |
| COPIER | ADJUST | VIFADJ | TR1-HV-K | Yes | No | No |
| COPIER | ADJUST | VIFADJ | TR2SF-HV | Yes | No | No |
| COPIER | ADJUST | VIFADJ | TR2BK-HV | Yes | No | No |
| COPIER | ADJUST | VIFADJ | ICL-HV | Yes | No | No |
| COPIER | ADJUST | VIFADJ | FU-TMP | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-Y0 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-M0 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-C0 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-K0 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-Y1 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-M1 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-C1 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-K1 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-Y2 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-M2 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-C2 | Yes | No | No |
| COPIER | ADJUST | SCNR | SUB-S-K2 | Yes | No | No |
| COPIER | ADJUST | SCNR | MAI-S-Y0 | Yes | No | No |
| COPIER | ADJUST | SCNR | MAI-S-M0 | Yes | No | No |

| Initial screen | Large | Middle | Small | Case A | Case B | Case C |
|---|---|---|---|---|---|---|
| COPIER | ADJUST | SCNR | MAI-S-C0 | Yes | No | No |
| COPIER | ADJUST | SCNR | MAI-S-K0 | Yes | No | No |
| COPIER | ADJUST | SCNR | MAI-S-Y1 | Yes | No | No |
| COPIER | ADJUST | SCNR | MAI-S-M1 | Yes | No | No |
| COPIER | ADJUST | SCNR | MAI-S-C1 | Yes | No | No |
| COPIER | ADJUST | SCNR | MAI-S-K1 | Yes | No | No |
| COPIER | ADJUST | SCNR | MAI-S-Y2 | Yes | No | No |
| COPIER | ADJUST | SCNR | MAI-S-M2 | Yes | No | No |
| COPIER | ADJUST | SCNR | MAI-S-C2 | No | No | No |
| COPIER | ADJUST | SCNR | MAI-S-K2 | No | No | No |
| COPIER | FUNCTION | VIFFNC | SMEAR-PV | Yes | No | No |
| COPIER | FUNCTION | VIFFNC | FEED-IMP | Yes | No | No |
| COPIER | FUNCTION | VIFFNC | ICL-IMP | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL14159 | Yes | Yes | Yes |
| COPIER | FUNCTION | SPLMAN | SPL27767 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL23846 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL26433 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL14682 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL83279 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL50288 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL37510 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL65677 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL68676 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL68677 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL25607 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL93822 | Yes | Yes | Yes |
| COPIER | FUNCTION | SPLMAN | SPL78788 | Yes | Yes | Yes |
| COPIER | FUNCTION | SPLMAN | SPL15176 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL58122 | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL71100 * | Yes | No | No |
| COPIER | FUNCTION | SPLMAN | SPL00171 | Yes | Yes | Yes |
| COPIER | FUNCTION | SPLMAN | SPL80100 | Yes | Yes | Yes |
| COPIER | FUNCTION | SPLMAN | SPL84194 | Yes | Yes | Yes |
| COPIER | FUNCTION | INSTALL | ERDS | Yes | Yes | Yes |
| COPIER | FUNCTION | INSTALL | RGW-PORT | Yes | Yes | Yes |
| COPIER | OPTION | BODY | NS-CMD5 | Yes | No | No |
| COPIER | OPTION | BODY | NS-PLN | Yes | No | No |
| COPIER | OPTION | BODY | NS-LGN | Yes | No | No |
| COPIER | OPTION | BODY | SLPMODE | Yes | Yes | Yes |
| COPIER | OPTION | BODY | SDTM-DSP | Yes | Yes | Yes |
| COPIER | OPTION | IMG-MCON | TMIC-BK | Yes | No | No |
| COPIER | OPTION | IMG-MCON | TMIC-CMY | Yes | No | No |
| FAX | SSSW | SW01 * | - | Yes | No | No |
| FAX | SSSW | SW02 * | - | Yes | No | No |
| FAX | SSSW | SW03 * | - | Yes | No | No |
| FAX | SSSW | SW04 * | - | Yes | No | No |
| FAX | SSSW | SW05 * | - | Yes | No | No |
| FAX | SSSW | SW06 * | - | Yes | No | No |
| FAX | SSSW | SW07 * | - | Yes | No | No |
| FAX | SSSW | SW08 * | - | Yes | No | No |
| FAX | SSSW | SW09 * | - | Yes | No | Case C |
| FAX | SSSW | SW10 * | - | Yes | No | No |
| FAX | SSSW | SW11 | - | Yes | No | No |
| FAX | SSSW | SW12 * | - | Yes | No | No |

| Initial screen | Large | Middle | Small | Case A | Case B | Case C |
|---|---|---|---|---|---|---|
| FAX | SSSW | SW13 * | - | Yes | No | No |
| FAX | SSSW | SW14 * | - | Yes | No | No |
| FAX | SSSW | SW15 * | - | Yes | No | No |
| FAX | SSSW | SW16 * | - | Yes | No | No |
| FAX | SSSW | SW17 * | - | Yes | No | No |
| FAX | SSSW | SW18 * | - | Yes | No | No |
| FAX | SSSW | SW19 * | - | Yes | No | No |
| FAX | SSSW | SW20 * | - | Yes | No | No |
| FAX | SSSW | SW21 * | - | Yes | No | No |
| FAX | SSSW | SW22 * | - | Yes | No | No |
| FAX | SSSW | SW23 * | - | Yes | No | No |
| FAX | SSSW | SW24 * | - | Yes | No | No |
| FAX | SSSW | SW25 * | - | Yes | No | No |
| FAX | SSSW | SW26 * | - | Yes | No | No |
| FAX | SSSW | SW27 * | - | Yes | No | No |
| FAX | SSSW | SW28 * | - | Yes | No | No |
| FAX | SSSW | SW29 * | - | Yes | No | No |
| FAX | SSSW | SW30 * | - | Yes | No | No |
| FAX | SSSW | SW31 * | - | Yes | No | No |
| FAX | SSSW | SW32 * | - | Yes | No | No |
| FAX | MENU | 005 * | - | Yes | No | No |
| FAX | MENU | 006 * | - | Yes | No | No |
| FAX | MENU | 007 * | - | Yes | No | No |
| FAX | MENU | 008 * | - | Yes | No | No |
| FAX | MENU | 009 * | - | Yes | No | No |
| FAX | MENU | 010 * | - | Yes | No | No |
| FAX | NUM | 002 * | - | Yes | No | No |
| FAX | NUM | 003 * | - | Yes | No | No |
| FAX | NUM | 004 * | - | Yes | No | No |
| FAX | NUM | 005 * | - | Yes | No | No |
| FAX | NUM | 006 * | - | Yes | No | No |
| FAX | NUM | 008 * | - | Yes | No | No |
| FAX | NUM | 010 * | - | Yes | No | No |
| FAX | NUM | 011 * | - | Yes | No | No |
| FAX | NUM | 012 * | - | Yes | No | No |
| FAX | NUM | 013 * | - | Yes | No | No |
| FAX | NUM | 015 * | - | Yes | No | No |
| FAX | NUM | 016 * | - | Yes | No | No |
| FAX | NUM | 017 * | - | Yes | No | No |
| FAX | NUM | 018 * | - | Yes | No | No |
| FAX | NUM | 019 * | - | Yes | No | No |
| FAX | NUM | 020 * | - | Yes | No | No |
| FAX | NUM | 021 * | - | Yes | No | No |
| FAX | NUM | 022 * | - | Yes | No | No |
| FAX | NUM | 023 * | - | Yes | No | No |
| FAX | NUM | 024 * | - | Yes | No | No |
| FAX | NUM | 025 * | - | Yes | No | No |
| FAX | NUM | 026 * | - | Yes | No | No |
| FAX | NUM | 027 * | - | Yes | No | No |
| FAX | NUM | 029 * | - | Yes | No | No |
| FAX | NUM | 049 * | - | Yes | No | No |
| FAX | NUM | 051 * | - | Yes | No | No |
| FAX | NUM | 053 * | - | Yes | No | No |
| FAX | NUM | 054 * | - | Yes | No | No |

| Initial screen | Large | Middle | Small | Case A | Case B | Case C |
|---|---|---|---|---|---|---|
| FAX | NCU | TONE | 001 * | Yes | No | No |
| FAX | NCU | TONE | 002 * | Yes | No | No |
| FAX | NCU | PULSE | FORM * | Yes | No | No |
| FAX | NCU | PULSE | 001 * | Yes | No | No |
| FAX | NCU | PULSE | 002 * | Yes | No | No |
| FAX | NCU | PULSE | 003 * | Yes | No | No |
| FAX | NCU | PULSE | 004 * | Yes | No | No |
| FAX | NCU | DIALTONE | BIT * | Yes | No | No |
| FAX | NCU | DIALTONE | 001 * | Yes | No | No |
| FAX | NCU | DIALTONE | 002 * | Yes | No | No |
| FAX | NCU | DIALTONE | 003 * | Yes | No | No |
| FAX | NCU | DIALTONE | 004 * | Yes | No | No |
| FAX | NCU | DIALTONE | 005 * | Yes | No | No |
| FAX | NCU | DIALTONE | 006 * | Yes | No | No |
| FAX | NCU | DIALTONE | 007 * | Yes | No | No |
| FAX | NCU | DIALTONE | 008 * | Yes | No | No |
| FAX | NCU | 3rd DLTN | BIT * | Yes | No | No |
| FAX | NCU | 4th DLTN | 001 * | Yes | No | No |
| FAX | NCU | 5th DLTN | 002 * | Yes | No | No |
| FAX | NCU | 6th DLTN | 003 * | Yes | No | No |
| FAX | NCU | 7th DLTN | 004 * | Yes | No | No |
| FAX | NCU | 8th DLTN | 005 * | Yes | No | No |
| FAX | NCU | 9th DLTN | 006 * | Yes | No | No |
| FAX | NCU | 10th DLTN | 007 * | Yes | No | No |
| FAX | NCU | 11th DLTN | 008 * | Yes | No | No |
| FAX | NCU | BUSTONE1 | BIT * | Yes | No | No |
| FAX | NCU | BUSTONE2 | 001 * | Yes | No | No |
| FAX | NCU | BUSTONE3 | 002 * | Yes | No | No |
| FAX | NCU | BUSTONE4 | 003 * | Yes | No | No |
| FAX | NCU | BUSTONE5 | 004 * | Yes | No | No |
| FAX | NCU | BUSTONE6 | 005 * | Yes | No | No |
| FAX | NCU | BUSTONE7 | 006 * | Yes | No | No |
| FAX | NCU | BUSTONE8 | 007 * | Yes | No | No |
| FAX | NCU | BUSTONE9 | 008 * | Yes | No | No |
| FAX | NCU | BUSTONE2 | BIT * | Yes | No | No |
| FAX | NCU | BUSTONE3 | 001 * | Yes | No | No |
| FAX | NCU | BUSTONE4 | 002 * | Yes | No | No |
| FAX | NCU | BUSTONE5 | 003 * | Yes | No | No |
| FAX | NCU | BUSTONE6 | 004 * | Yes | No | No |
| FAX | NCU | BUSTONE7 | 005 * | Yes | No | No |
| FAX | NCU | BUSTONE8 | 006 * | Yes | No | No |
| FAX | NCU | BUSTONE9 | 007 * | Yes | No | No |
| FAX | NCU | BUSTONE10 | 008 * | Yes | No | No |
| FAX | NCU | REORDRTN | BIT * | Yes | No | No |
| FAX | NCU | REORDRTN | 001 * | Yes | No | No |
| FAX | NCU | REORDRTN | 002 * | Yes | No | No |
| FAX | NCU | REORDRTN | 003 * | Yes | No | No |
| FAX | NCU | REORDRTN | 004 * | Yes | No | No |
| FAX | NCU | REORDRTN | 005 * | Yes | No | No |
| FAX | NCU | REORDRTN | 006 * | Yes | No | No |
| FAX | NCU | REORDRTN | 007 * | Yes | No C | No C |
| FAX | NCU | REORDRTN | 008 * | Yes | No | No |
| FAX | NCU | AUTO RX | 001 * | Yes | No | No |
| FAX | NCU | AUTO RX | 002 * | Yes | No | No |

| Initial screen | Large | Middle | Small | Case A | Case B | Case C |
|---|---|---|---|---|---|---|
| FAX | NCU | AUTO RX | 003 * | Yes | No | No |
| FAX | NCU | AUTO RX | 004 * | Yes | No | No |
| FAX | NCU | AUTO RX | 005 * | Yes | No | No |
| FAX | NCU | AUTO RX | 006 * | Yes | No | No |
| FAX | NCU | AUTO RX | 007 * | Yes | No | No |
| FAX | NCU | AUTO RX | 008 * | Yes | No | No |
| FAX | NCU | AUTO RX | 009 * | Yes | No | No |
| FAX | NCU | CNGDTCT | 001 * | Yes | No | No |
| FAX | NCU | CNGDTCT | 002 * | Yes | No | No |
| FAX | NCU | CNGDTCT | 006 * | Yes | No | No |
| FAX | NCU | CNGDTCT | 007 * | Yes | No | No |
| FAX | NCU | CNGDTCT | 008 * | Yes | No | No |
| FAX | NCU | CNGDTCT | 009 * | Yes | No | No |
| FAX | NCU | CNGDTCT | 011 * | Yes | No | No |
| FAX | NCU | CNGDTCT | 012 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW01 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW02 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW03 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW04 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW05 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW06 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW07 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW08 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW09 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW10 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW11 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW12 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW13 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW14 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW15 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW16 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW17 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW18 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW19 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW20 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW21 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW22 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW23 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW24 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW25 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW26 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW27 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW28 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW29 * | Yes | No | No |
| FAX | NCU | SPECIALB | SW30 * | Yes | No | No |
| FAX | NCU | SPECIALN | 004 * | Yes | No | No |
| FAX | NCU | SPECIALN | 005 * | Yes | No | No |
| FAX | NCU | SPECIALN | 006 * | Yes | No | No |
| FAX | NCU | SPECIALN | 007 * | Yes | No | No |
| FAX | NCU | SPECIALN | 008 * | Yes | No | No |
| FAX | NCU | SPECIALN | 009 * | Yes | No C | No C |
| FAX | NCU | SPECIALN | 011 * | Yes | No | No |
| FAX | NCU | SPECIALN | 012 * | Yes | No | No |
| FAX | NCU | SPECIALN | 013 * | Yes | No | No |

| Initial screen | Large | Middle | Small | Case A | Case B | Case C |
|---|---|---|---|---|---|---|
| FAX | NCU | SPECIALN | 014 * | Yes | No | No |
| FAX | NCU | SPECIALN | 015 * | Yes | No | No |
| FAX | NCU | SPECIALN | 016 * | Yes | No | No |
| FAX | NCU | SPECIALN | 017 * | Yes | No | No |
| FAX | NCU | SPECIALN | 019 * | Yes | No | No |
| FAX | NCU | SPECIALN | 020 * | Yes | No | No |
| FAX | NCU | SPECIALN | 024 * | Yes | No | No |
| FAX | NCU | SPECIALN | 025 * | Yes | No | No |
| FAX | NCU | SPECIALN | 026 * | Yes | No | No |
| FAX | NCU | SPECIALN | 027 * | Yes | No | No |
| FAX | NCU | SPECIALN | 030 * | Yes | No | No |
| FAX | NCU | SPECIALN | 040 * | Yes | No | No |
| FAX | NCU | SPECIALN | 041 * | Yes | No | No |
| FAX | NCU | SPECIALN | 042 * | Yes | No | No |
| FAX | NCU | SPECIALN | 044 * | Yes | No | No |
| FAX | NCU | SPECIALN | 045 * | Yes | No | No |
| FAX | NCU | SPECIALN | 046 * | Yes | No | No |
| FAX | NCU | SPECIALN | 047 * | Yes | No | No |
| FAX | NCU | SPECIALN | 048 * | Yes | No | No |
| FAX | NCU | SPECIALN | 065 * | Yes | No | No |
| FAX | NCU | SPECIALN | 066 * | Yes | No | No |
| FAX | NCU | RKEY | 001 * | Yes | No | No |
| FAX | NCU | RKEY | 002 * | Yes | No | No |
| TESTMODE | NCU | PBXDIALT | BIT * | Yes | No | No |
| TESTMODE | NCU | PBXDIALT | 001 * | Yes | No | No |
| FTESTMODE | NCU | PBXDIALT | 002 * | Yes | No | No |
| TESTMODE | NCU | PBXDIALT | 003 * | Yes | No | No |
| TESTMODE | NCU | PBXDIALT | 004 * | Yes | No | No |
| TESTMODE | NCU | PBXDIALT | 005 * | Yes | No | No |
| TESTMODE | NCU | PBXDIALT | 006 * | Yes | No | No |
| TESTMODE | NCU | PBXDIALT | 007 * | Yes | No | No |
| TESTMODE | NCU | PBXDIALT | 008 * | Yes | No | No |
| TESTMODE | NCU | PBXBUSYT | BIT * | Yes | No | No |
| TESTMODE | NCU | PBXBUSYT | 001 * | Yes | No | No |
| TESTMODE | NCU | PBXBUSYT | 002 * | Yes | No | No |
| TESTMODE | NCU | PBXBUSYT | 003 * | Yes | No | No |
| TESTMODE | NCU | PBXBUSYT | 004 * | Yes | No | No |
| TESTMODE | NCU | PBXBUSYT | 005 * | Yes | No | No |
| TESTMODE | NCU | PBXBUSYT | 006 * | Yes | No | No |
| TESTMODE | NCU | PBXBUSYT | 007 * | Yes | No | No |
| TESTMODE | NCU | PBXBUSYT | 008 * | Yes | No | No |

* : FAX model only

# 3 Periodical Service

# Periodically Replaced Parts

No periodically replaced parts is set for this product.

# Durable Parts

No durable parts is set for this product.

91

# Periodical Services

No periodical service is set for this product.

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Periodical Services

No periodical service is set for this product.

# Cleaning
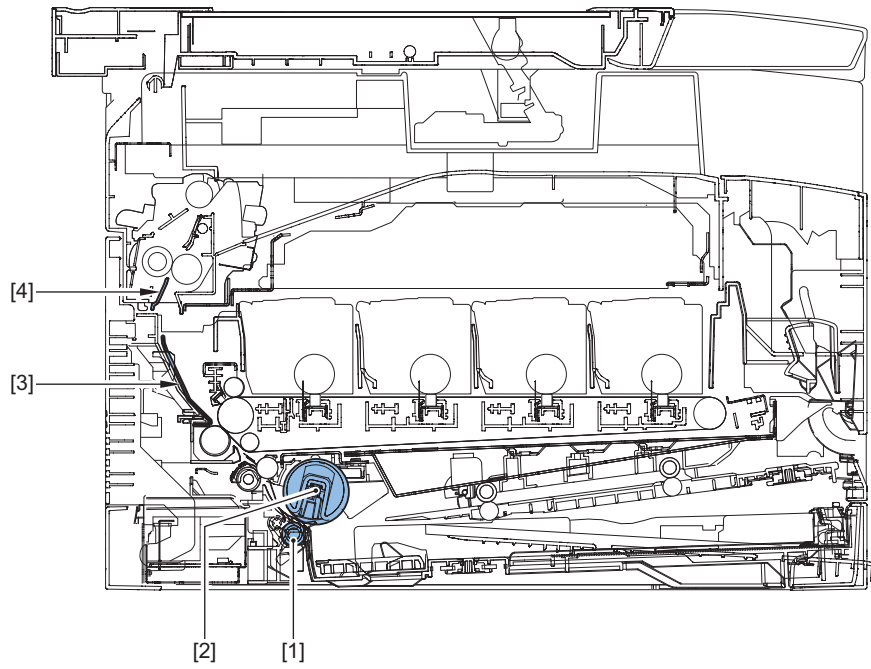


| No. | Cleaning parts | Procedure |
|---|---|---|
| 1 | Pickup roller | Clean with lint-free paper. For heavy soils, use alcohol to wipe off with lint-free paper. |
| 2 | Separation roller | |
| 3 | Paper feed guide | |
| 4 | Fixing front guide | |

# 4 Disassembly/Assembly

# List of Parts

## ● List of External / Internal Cover

### ■ Front Side



| No. | Parts Name | Remarks | Reference |
|-----|-----------|---------|-----------|
| [1] | ADF Front Upper Cover | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [2] | ADF Upper Cover | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [3] | Side Guide (Front) | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [4] | Side Guide (Rear) | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [5] | Document Tray | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [6] | Extension Tray | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [7] | Sub Tray | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [8] | Delivery Tray | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [9] | Right Cover | - | "Removing the Right Cover" on page 111 |
| [10] | Multi-Purpose Tray Pickup Cover | - | - |
| [11] | Paper Guide | - | - |
| [12] | Control Panel Lower Cover | - | - |
| [13] | Control Panel | - | "Removing the Control Panel Unit" on page 160 |
| [14] | Upper Cover | - | "Removing the Upper Cover" on page 117 |
| [15] | USB Port | - | - |
| [16] | Right Front Cover | - | - |
| [17] | Front Cover | - | "Removing the Front Cover" on page 113 |
| [18] | Cassette | - | - |
| [19] | Multi-Purpose Tray Transport Guide | - | - |

| No. | Parts Name | Remarks | Reference |
|-----|-----------|---------|-----------|
| [20] | Left Cover | - | "Removing the Left Cover" on page 109 |
| [21] | Reader Cover | - | - |
| [22] | Platen Cover | MF621Cn | |

## ■ Rear Side



| No. | Parts Name | Remarks | Reference |
|-----|-----------|---------|-----------|
| [1] | ADF Rear Cover | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [2] | Rear Upper Cover | - | "Removing the Rear Upper Cover" on page 116 |
| [3] | Rear Cover | - | "Removing the Rear Cover" on page 116 |
| [4] | Rear Lower Cover | - | "Removing the Rear Lower Cover" on page 116 |
| [5] | Power Socket | - | - |
| [6] | Telephone Line Jack | MF628Cw / 626Cn | - |
| [7] | External Device Jack | MF628Cw / 626Cn | - |
| [8] | Handset Terminal | MF628Cw / 626Cn | - |
| [9] | LAN Port | - | - |
| [10] | USB Port | - | - |

# 🔵 List of Main Unit

## ■ 1/2
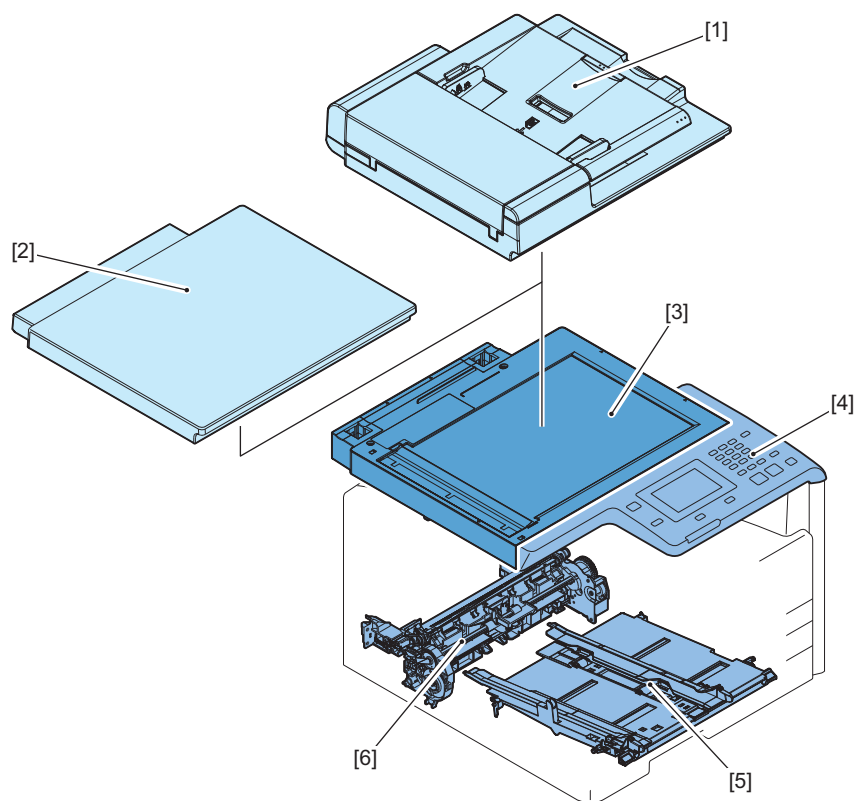


| No. | Parts Name | Remarks | Reference | Adjustment during parts replacement |
|-----|-----------|---------|-----------|-------------------------------------|
| [1] | ADF Unit | MF628Cw / 626Cn / 624Cw / 623Cn | "Removing the ADF Unit/Copyboard + Reader Unit" on page 121 | "After Replacing the ADF Units" on page 124 |
| [2] | Platen Cover | MF621Cn | - | - |
| [3] | Reader Unit | - | "Removing the ADF Unit/Copyboard + Reader Unit" on page 121 | "After Replacing the Reader Unit" on page 124 |
| [4] | Control Panel Unit | - | "Removing the Control Panel Unit" on page 160 | - |
| [5] | Multi-purpose Tray Unit | - | "Removing the Multi-purpose Tray Unit" on page 196 | - |
| [6] | Pickup Unit | - | "Removing the Pickup Unit" on page 199 | - |

■ **2/2**
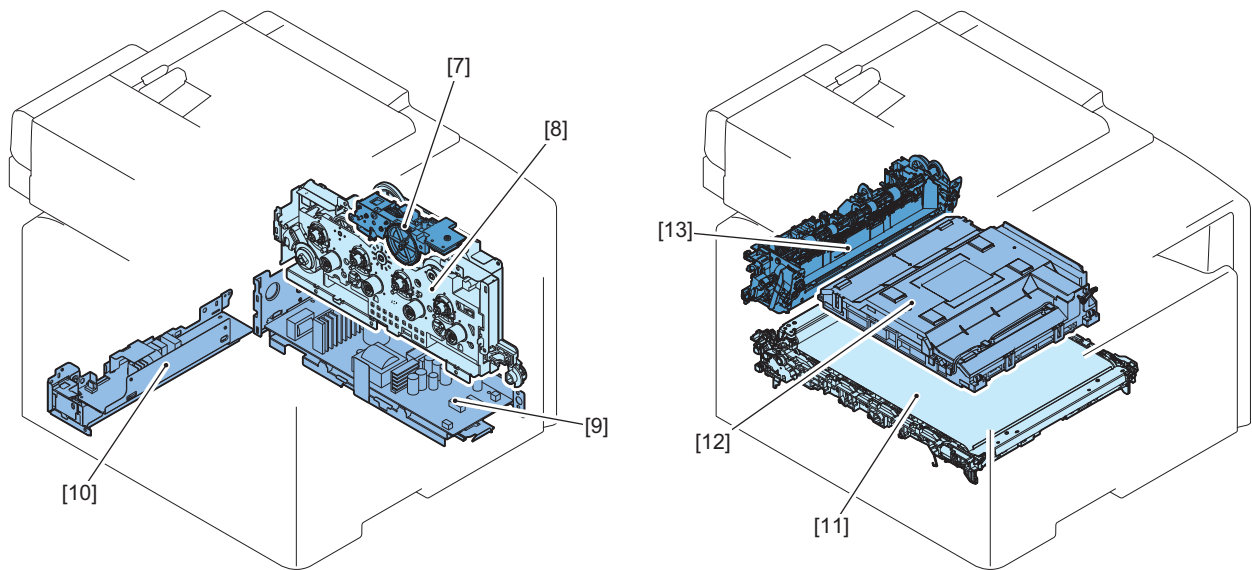


| No. | Parts Name | Remarks | Reference | Adjustment during parts replacement |
|---|---|---|---|---|
| [7] | Sub Drive Unit | - | "Removing the Sub Drive Unit" on page 168 | - |
| [8] | Main Drive Unit | - | "Removing the Main Drive Unit" on page 162 | - |
| [9] | Low Voltage Power Supply Unit | - | "Removing the Low Voltage Power Supply Unit" on page 155 | - |
| [10] | Fixing Power Supply Unit | - | "Removing the Fixing Power Supply Unit" on page 159 | - |
| [11] | ITB Unit | - | "Removing the ITB Unit" on page 179 | - |
| [12] | Laser Scanner Unit | - | "Removing the Laser Scanner Unit" on page 173 | "After Replacing the Laser Scanner Unit" on page 176 |
| [13] | Fixing Assembly | - | "Removing the Fixing Assembly" on page 186 | - |

## List of Motor / Fan



98
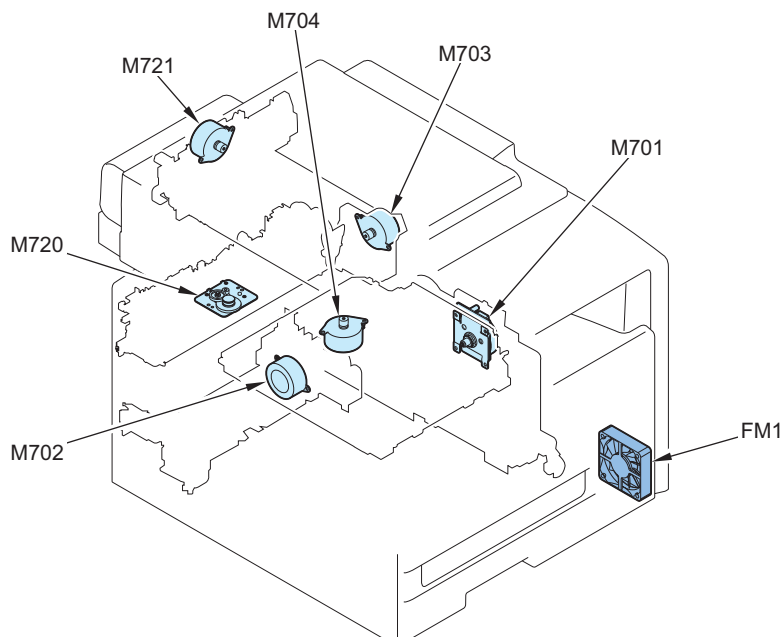
| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|-----|-----------|-----------|---------|-----------|------------------------------------|
| M701 | Main Motor | Main Drive Unit | - | "Removing the Main Motor" on page 169 | - |
| M702 | Pickup Motor | Pickup Unit | - | - | - |
| M703 | Fixing Motor | Product configuration | - | "Removing the Fixing Motor" on page 191 | - |
| M704 | Laser Scanner Motor | Laser Scanner Unit | - | - | - |
| M720 | Reader Motor | Reader Unit | - | "Removing the Reader Scanner Motor" on page 142 | - |
| M721 | ADF Motor | ADF Paper Feeder Unit | MF628Cw / 626Cn / 624Cw / 623Cn | " Removing the ADF Pickup Motor (MF628Cw/626Cn/624Cw/623Cn) " on page 132 | - |
| FM1 | Fan | Product configuration | - | "Removing the Fan" on page 170 | - |

## ● List of Clutch / Solenoid / Heater / Thermistor / Switch / Speaker
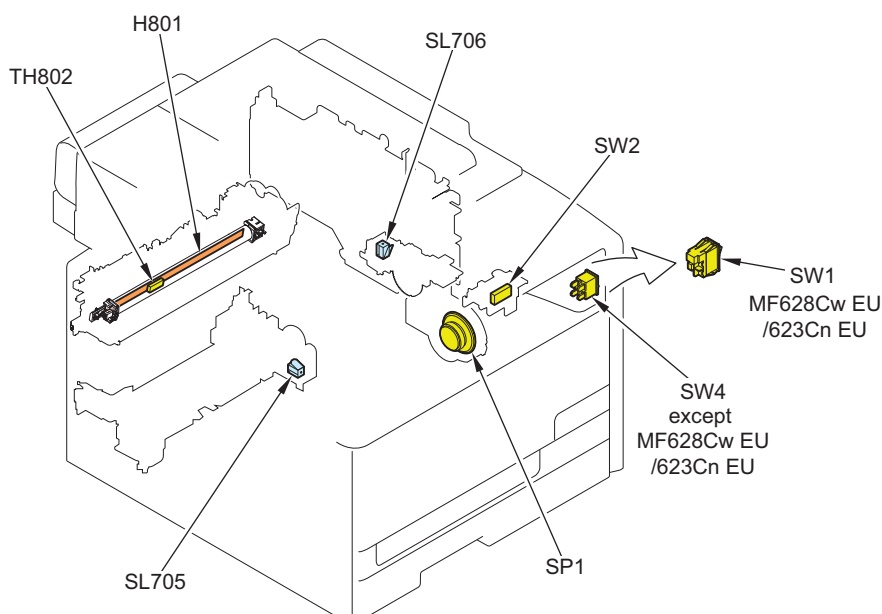


| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|-----|-----------|-----------|---------|-----------|------------------------------------|
| H801 | Fixing Heater | Fixing Film Unit | - | - | - |
| TH802 | Thermistor | Fixing Film Unit | - | - | - |
| SP1 | Speaker | Product configuration | MF628Cw / 626Cn | "Removing the Speaker (MF628Cw/ 626Cn)" on page 171 | - |
| SL706 | Developing Separation Solenoid | Sub Drive Unit | - | - | - |
| SL705 | Cassette Pickup Solenoid | Pickup Unit | - | - | - |
| SW2 | Front Cover Sensor | Product configuration | - | - | - |
| SW4 | Main Power Switch | Product configuration | except MF628Cw EU / 623Cn EU | - | - |
| SW1 | Main Power Switch | Product configuration | MF628Cw EU / 623Cn EU | - | - |

# ⬤ List of Sensor
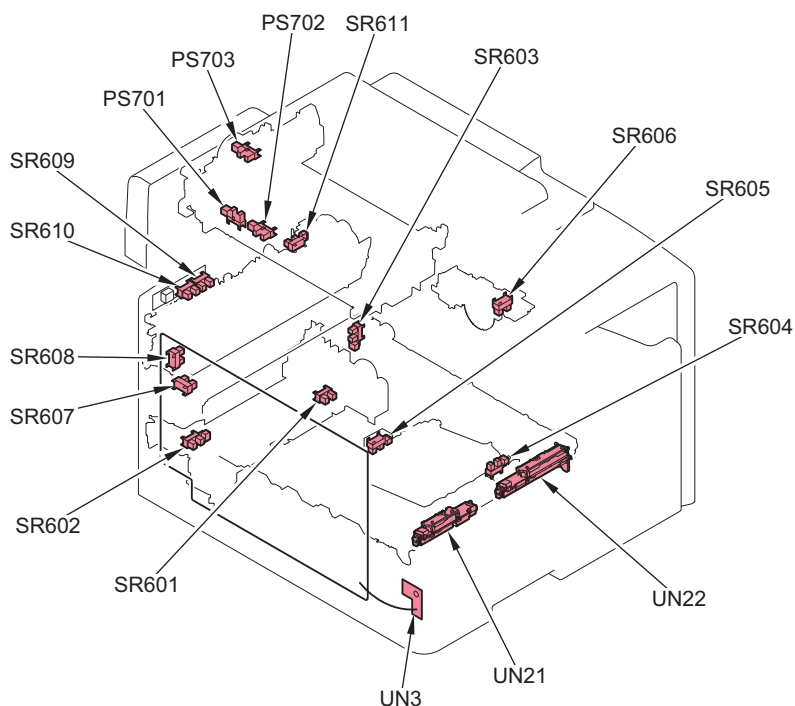


| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|---|---|---|---|---|---|
| PS701 | CIS Unit Homeposition Sensor | Reader Unit | - | - | - |
| PS702 | Document End Sensor | ADF Paper Feeder Unit | MF628Cw / 626Cn / 624Cw / 623Cn | - | - |
| PS703 | Document Sensor | ADF Paper Feeder Unit | MF628Cw / 626Cn / 624Cw / 623Cn | - | - |
| SR601 | Cassette Paper Detection Sensor | Pickup Unit | - | - | - |
| SR602 | Registration Detection Sensor | Pickup Unit | - | - | - |
| SR603 | Fixing Loop Sensor | Product configuration | - | - | - |
| SR604 | MP Tray Paper Detection Sensor | Multi-purpose Tray Unit | - | - | - |
| SR605 | MP Tray Pre-Registration Detection Sensor | Multi-purpose Tray Unit | - | - | - |
| SR606 | Developing Homeposition Sensor | Product configuration | - | - | - |
| SR607 | Rear Cover Sensor | Product configuration | - | - | - |
| SR608 | Fixing Pressure Release Sensor | Product configuration | - | - | - |
| SR609 | Fixing Delivery Sensor | Fixing Assembly | - | - | - |
| SR610 | Media Width Sensor (L) | Fixing Assembly | - | - | - |
| SR611 | Media Width Sensor (R) | Fixing Assembly | - | - | - |
| UN3 | Environment Sensor | High Voltage Power Supply PCB | - | - | - |
| UN21 | Patch Sensor | ITB Unit | - | - | - |
| UN22 | Patch Registration Sensor | ITB Unit | - | - | - |

## ● PCB
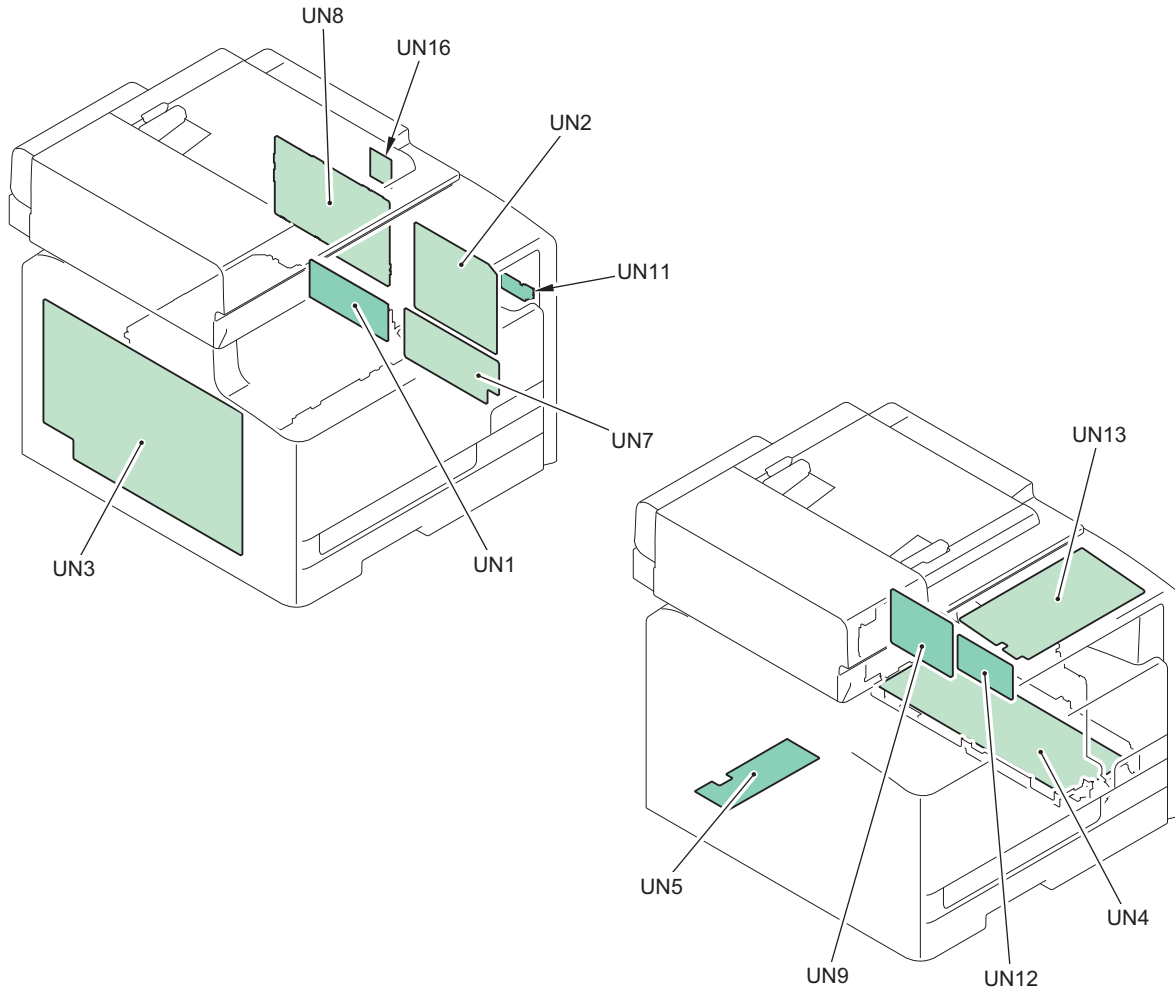


| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|-----|-----------|-----------|---------|-----------|-------------------------------------|
| UN1 | Laser Driver PCB | Laser Scanner Unit | - | - | - |
| UN2 | DC Controller PCB | Product configuration | - | "Removing the DC Controller PCB" on page 152 | "Before Replacing the DC Controller PCB" on page 152<br>"After Replacing the DC Controller PCB" on page 152 |
| UN3 | High Voltage Power Supply PCB | Product configuration | - | "Removing the High Voltage Power Supply PCB" on page 158 | - |
| UN4 | Low Voltage Power Supply PCB | Low Voltage Power Supply Unit | - | - | - |
| UN5 | Fixing Power Supply PCB | Fixing Power Supply Unit | - | - | - |
| UN7 | Driver PCB | Product configuration | - | "Removing the Driver PCB" on page 153 | - |
| UN8 | Main Controller PCB | Product configuration | - | "Removing the Main Controller PCB" on page 147 | "Before Replacing the Main Controller PCB" on page 147<br>"After Replacing the Main Controller PCB" on page 149 |
| UN9 | FAX-NCU PCB | Product configuration | MF628Cw / 626Cn | "Removing the FAX PCB (MF628Cw/ 626Cn)" on page 161 | - |
| UN11 | USB Host PCB | Product configuration | - | - | - |
| UN12 | Off Hook PCB | Product configuration | MF628Cw / 626Cn | "Removing the Off Hook PCB (MF628Cw/ 626Cn)" on page 162 | - |
| UN13 | Control Panel NFC PCB | Control Panel Unit | - | - | - |

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| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|---|---|---|---|---|---|
| UN16 | Wireless LAN PCB | Product configuration | MF628Cw / 624Cw | "Removing the Wireless LAN PCB (MF628Cw/624Cw)" on page 147 | - |

# 🔵 List of connector

## ■ 1/4
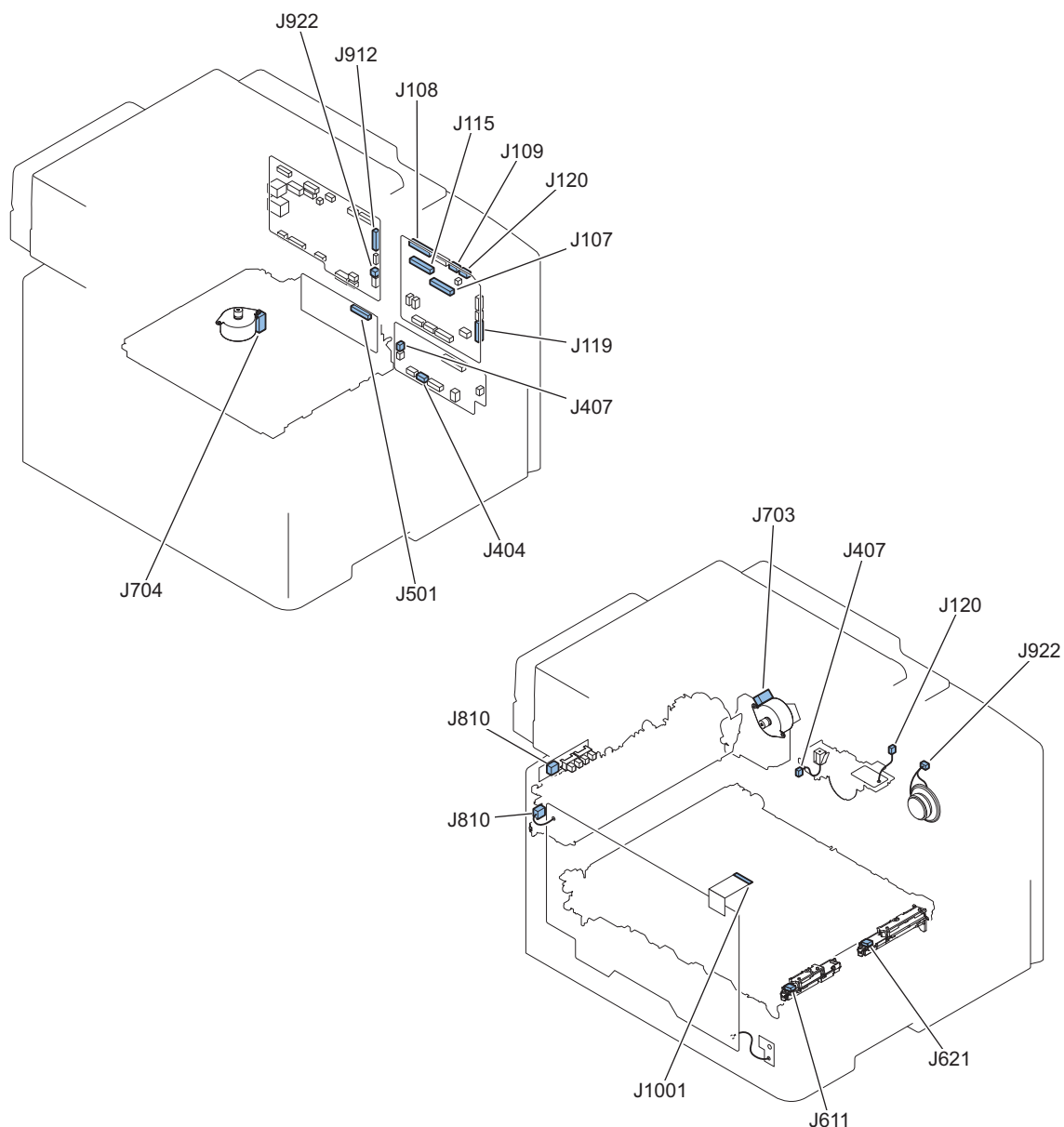


| J No. | Symbol | Name | Relay connector | | | J No. | Symbol | Name | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| J107 | UN2 | DC Controller PCB | | | | J912 | UN8 | Main Controller PCB | |
| J108 | UN2 | DC Controller PCB | | | | J501 | UN1 | Laser Driver PCB | |
| J109 | UN2 | DC Controller PCB | | | | J704 | M704 | Laser Scanner Motor | |
| J404 | UN7 | Driver PCB | | | | J703 | M703 | Fixing Motor | |
| J407 | UN7 | Driver PCB | | | | J407 | SL706 | Developing Separation Solenoid | |
| J115 | UN2 | DC Controller PCB | | | | J1001 | UN3 | High Voltage Power Supply PCB | |
| J119 | UN2 | DC Controller PCB | | | | J611 | UN21 | Patch Sensor | |

| J No. | Symbol | Name | Relay connector | | | J No. | Symbol | Name | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| J119 | UN2 | DC Controller PCB | | | | J621 | UN22 | Patch Registration Sensor | |
| J120 | UN2 | DC Controller PCB | | | | J120 | SR606 | Developing Homeposition Sensor | |
| J810 | UN3 | High Voltage Power Supply PCB | | | | J810 | - | Fixing Unit Sensor | |
| J922 | UN8 | Main Controller PCB | | | | J922 | SP1 | Speaker | MF628Cw / 626Cn |

## ■ 2/4
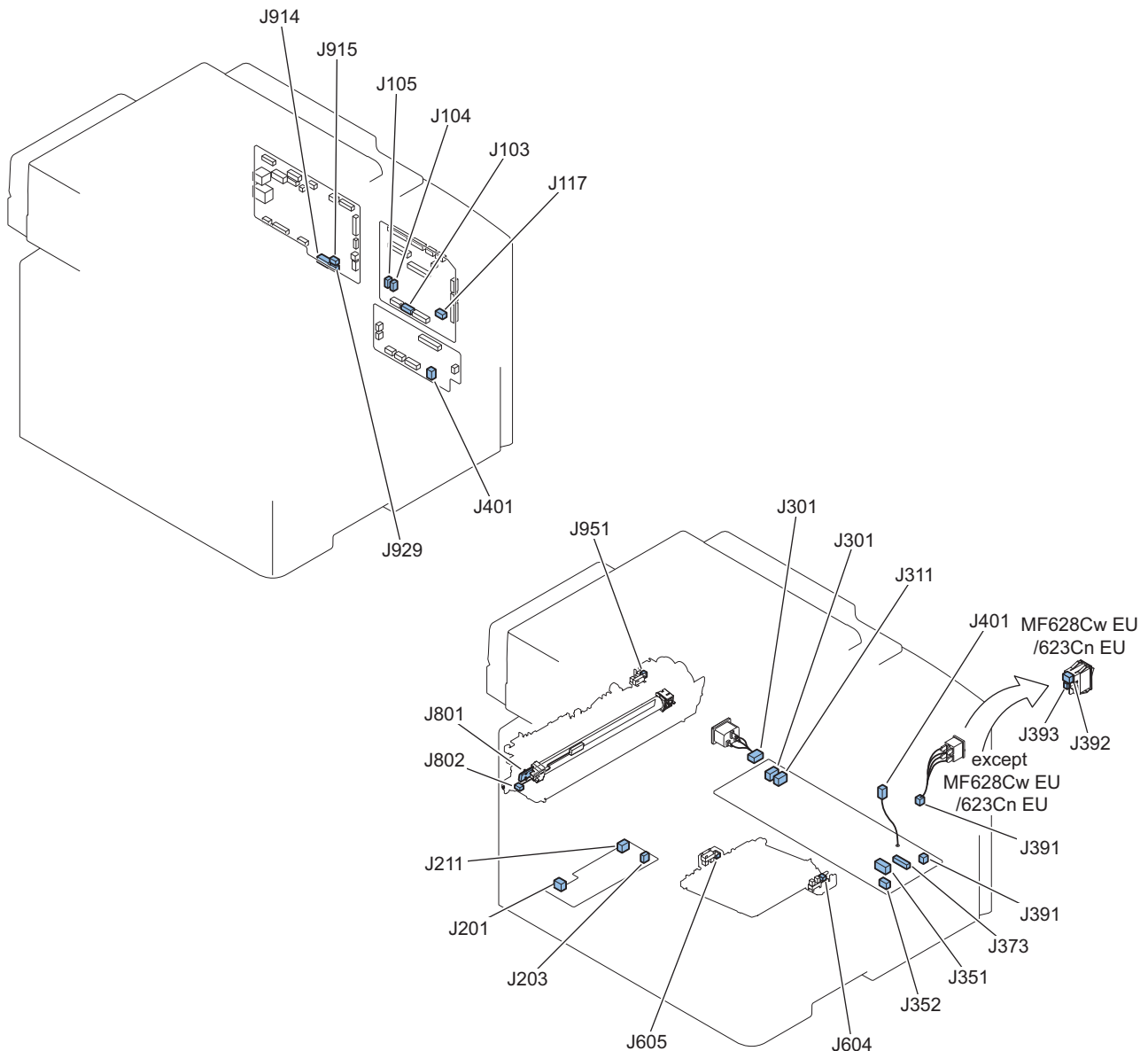


| J No. | Symbol | Name | Relay connector | | | J No. | Symbol | Name | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| J103 | UN2 | DC Controller PCB | | | | J373 | UN4 | Low Voltage Power Supply PCB | |
| J104 | UN2 | DC Controller PCB | J802 | | | J802 | TH802 | Thermistor | |
| J104 | UN2 | DC Controller PCB | | | | J951 | SR611 | Media Width Sensor (R) | |
| J105 | UN2 | DC Controller PCB | | | | J203 | UN5 | Fixing Power Supply PCB | |
| J117 | UN2 | DC Controller PCB | | | | J604 | SR604 | MP Tray Paper Detection Sensor | |
| J117 | UN2 | DC Controller PCB | | | | J605 | SR605 | MP Tray Pre-Registration Detection Sensor | |

| J No. | Symbol | Name | Relay connector | | | J No. | Symbol | Name | Remarks |
|-------|--------|------|---|---|---|-------|--------|------|---------|
| J301 | UN4 | Low Voltage Power Supply PCB | | | | J301 | - | INLET | |
| J391 | UN4 | Low Voltage Power Supply PCB | | | | J393 | SW1 | Main Power Switch | MF628Cw EU / 623Cn EU |
| J929 | UN8 | Main Controller PCB | | | | J392 | SW1 | Main Power Switch | MF628Cw EU / 623Cn EU |
| J391 | UN4 | Low Voltage Power Supply PCB | | | | J391 | SW4 | Main Power Switch | except MF628Cw EU /623Cn EU |
| J311 | UN4 | Low Voltage Power Supply PCB | | | | J211 | UN5 | Fixing Power Supply PCB | |
| J351 | UN4 | Low Voltage Power Supply PCB | | | | J914 | UN8 | Main Controller PCB | |
| J352 | UN4 | Low Voltage Power Supply PCB | | | | J915 | UN8 | Main Controller PCB | |
| J401 | UN4 | Low Voltage Power Supply PCB | | | | J401 | UN7 | Driver PCB | |
| J201 | UN5 | Fixing Power Supply PCB | | | | J801 | H801 | Fixing Heater | |

## ■ 3/4
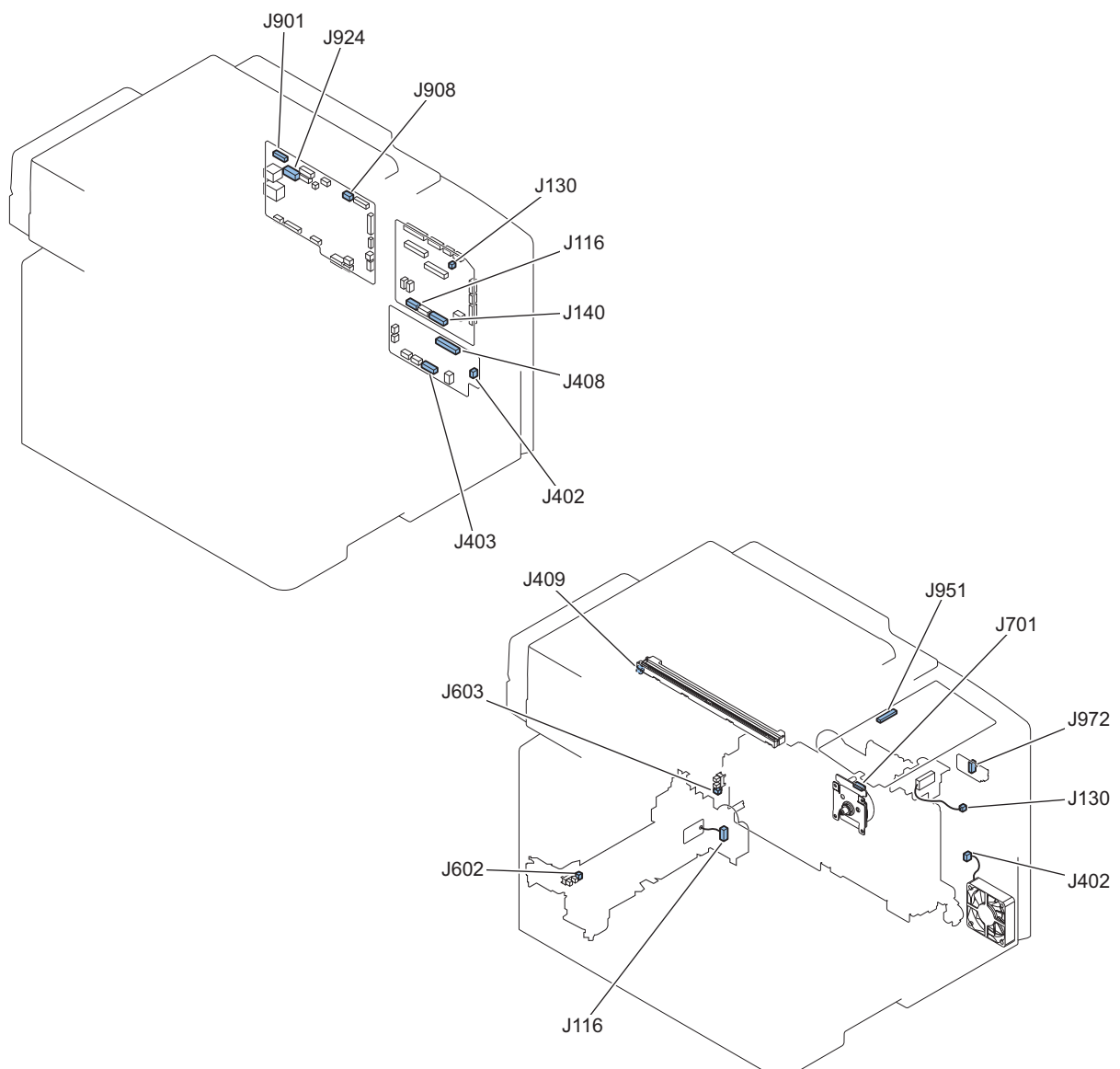
| J No. | Sym-bol | Name | Relay connec-tor | | J No. | Sym-bol | Name | Remarks |
|-------|---------|------|-----|--|-------|---------|------|---------|
| J116 | UN2 | DC Controller PCB | | | J116 | SR601 | Cassette Paper Detection Sensor | |
| J116 | UN2 | DC Controller PCB | | | J602 | SR602 | Registration Detection Sensor | |
| J116 | UN2 | DC Controller PCB | | | J603 | SR603 | Fixing Loop Sensor | |
| J130 | UN2 | DC Controller PCB | | | J130 | SW2 | Front Cover Sensor | |
| J140 | UN2 | DC Controller PCB | | | J408 | UN7 | Driver PCB | |
| J402 | UN7 | Driver PCB | | | J402 | FM1 | Fan | |
| J403 | UN7 | Driver PCB | | | J701 | M701 | Main Motor | |
| J901 | UN8 | Main Controller PCB | | | J409 | UN23 | CIS Unit | |
| J908 | UN8 | Main Controller PCB | | | J972 | UN11 | USB Host PCB | |
| J924 | UN8 | Main Controller PCB | | | J951 | UN13 | Control Panel NFC PCB | |

## ■ 4/4
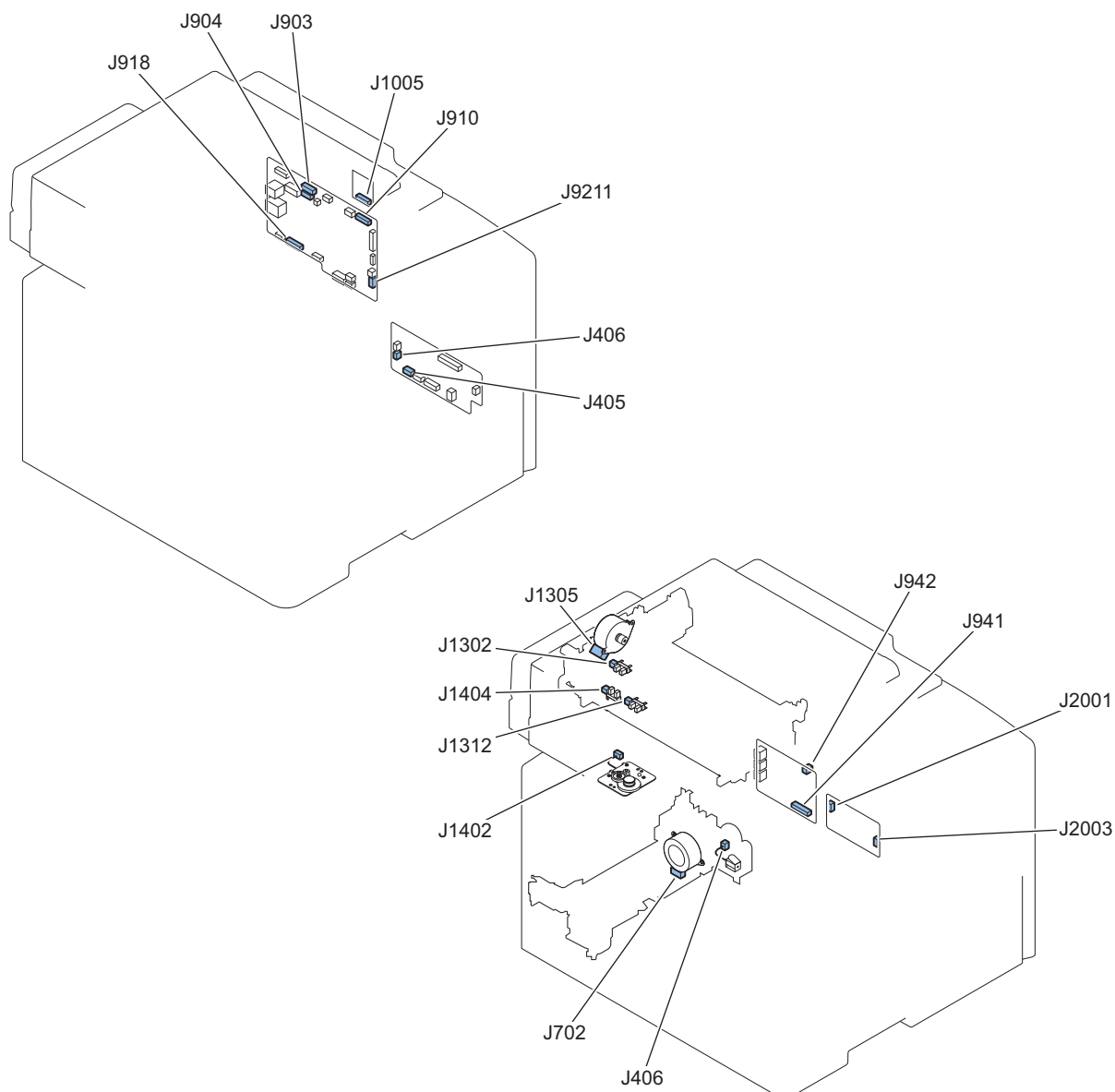


| J No. | Sym bol | Name | Relay connector | | J No. | Sym-bol | Name | Remarks |
|-------|---------|------|-----|--|-------|---------|------|---------|
| J405 | UN7 | Driver PCB | | | J702 | M702 | Pickup Motor | |
| J406 | UN7 | Driver PCB | | | J406 | SL705 | Cassette Pickup Solenoid | |
| J903 | UN8 | Main Controller PCB | | | J1302 | PS703 | Document Sensor | MF628Cw / 626Cn / 624Cw / 623Cn |

| J No. | Symbol | Name | Relay connector | | | J No. | Symbol | Name | Remarks |
|-------|--------|------|-----------------|--|--|-------|--------|------|---------|
| J903 | UN8 | Main Controller PCB | | | | J1305 | M721 | ADF Motor | MF628Cw / 626Cn / 624Cw / 623Cn |
| J903 | UN8 | Main Controller PCB | J1310 | | | J1312 | PS702 | Document End Sensor | MF628Cw / 626Cn / 624Cw / 623Cn |
| J904 | UN8 | Main Controller PCB | J1402 | | | J1402 | M720 | Reader Motor | |
| J904 | UN8 | Main Controller PCB | J1401 | | | J1404 | PS701 | CIS Unit Homeposition Sensor | |
| J918 | UN8 | Main Controller PCB | | | | J941 | UN9 | FAX-NCU PCB | MF628Cw / 626Cn |
| J9211 | UN8 | Main Controller PCB | | | | J2003 | UN12 | Off Hook PCB | MF628Cw / 626Cn |
| J942 | UN9 | FAX-NCU PCB | | | | J2001 | UN12 | Off Hook PCB | MF628Cw / 626Cn |
| J910 | UN8 | Main Controller PCB | | | | J1005 | UN16 | Wireless LAN PCB | MF628Cw / 624Cw |

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# External Cover, Internal Cover

## ⬤ Location

### ■ Front Side

| No. | Parts Name | Remarks | Reference |
|---|---|---|---|
| [1] | ADF Front Upper Cover | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [2] | ADF Upper Cover | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [3] | Side Guide (Front) | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [4] | Side Guide (Rear) | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [5] | Document Tray | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [6] | Extension Tray | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [7] | Sub Tray | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [8] | Delivery Tray | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [9] | Right Cover | - | "Removing the Right Cover" on page 111 |
| [10] | Multi-Purpose Tray Pickup Cover | - | - |
| [11] | Paper Guide | - | - |
| [12] | Control Panel Lower Cover | - | - |
| [13] | Control Panel | - | "Removing the Control Panel Unit" on page 160 |
| [14] | Upper Cover | - | "Removing the Upper Cover" on page 117 |
| [15] | USB Port | - | - |
| [16] | Right Front Cover | - | - |
| [17] | Front Cover | - | "Removing the Front Cover" on page 113 |
| [18] | Cassette | - | - |

| No. | Parts Name | Remarks | Reference |
|---|---|---|---|
| [19] | Mulyi-Purpose Tray Transport Guide | - | - |
| [20] | Left Cover | - | "Removing the Left Cover" on page 109 |
| [21] | Reader Cover | - | - |
| [22] | Platen Cover | MF621Cn | |

## ■ Rear Side



| No. | Parts Name | Remarks | Reference |
|---|---|---|---|
| [1] | ADF Rear Cover | MF628Cw / 626Cn / 624Cw / 623Cn | - |
| [2] | Rear Upper Cover | - | "Removing the Rear Upper Cover" on page 116 |
| [3] | Rear Cover | - | "Removing the Rear Cover" on page 116 |
| [4] | Rear Lower Cover | - | "Removing the Rear Lower Cover" on page 116 |
| [5] | Power Socket | - | - |
| [6] | Telephone Line Jack | MF628Cw / 626Cn | - |
| [7] | External Device Jack | MF628Cw / 626Cn | - |
| [8] | Handset Terminal | MF628Cw / 626Cn | - |
| [9] | LAN Port | - | - |
| [10] | USB Port | - | - |

# External/ Internal Cover Disassembly/ Assembly Procedure

## ⬤ Removing the Left Cover

### ■ Procedure

> **NOTE:**
> The following shows the 11 claws of the Left Cover.
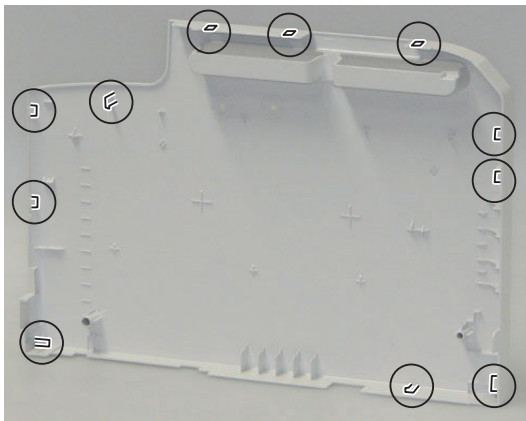


1. Remove the Cassette [1].

2. To remove the claw at the lower side of the Left Cover, move the Host Machine for about 5cm from the base.

3. Open the Reader Unit [2].

4. Open the Front Cover [3].
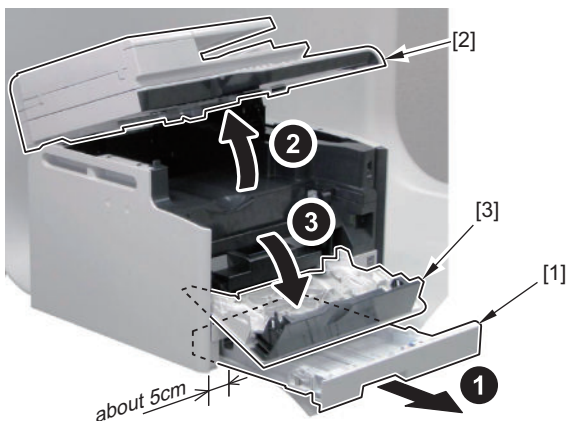


5. Remove the 4 claws [1] at the upper side of the Left Cover.

6. Remove the 3 claws [2] at the rear side of the Left Cover.
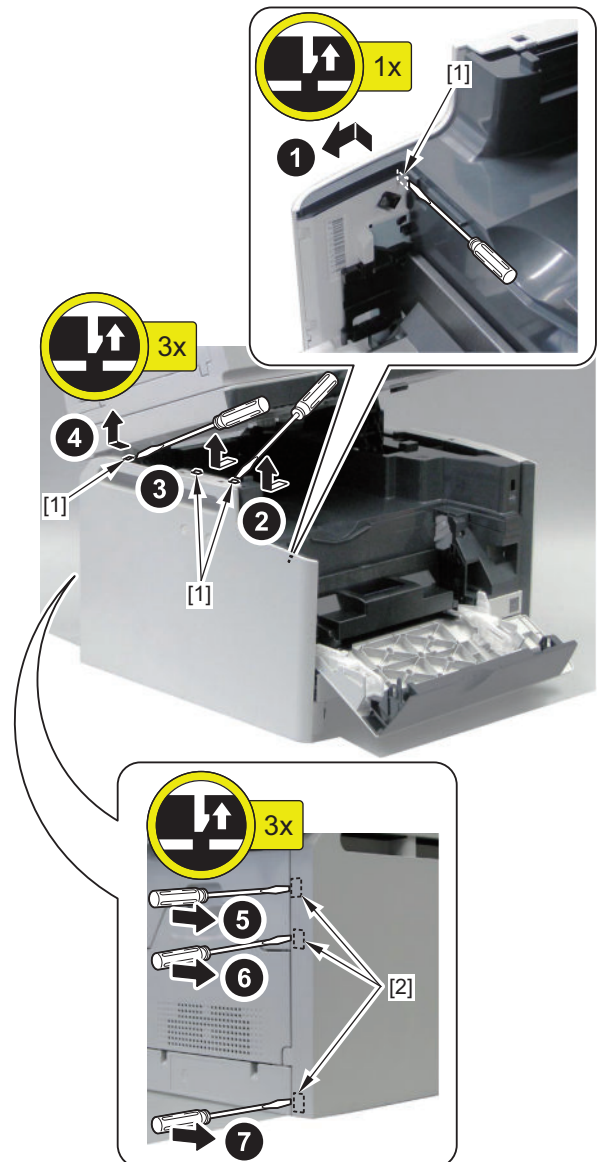


7. Remove the claw [1] at the lower side of the Left Cover.

8. While supporting the Left Cover, remove the 2 claws [2] at the upper front side of the Left Cover.

2. **Open the Front Cover [1].**

3. **Install the 3 claws [2] at the front side of the Left Cover.**



about 5cm
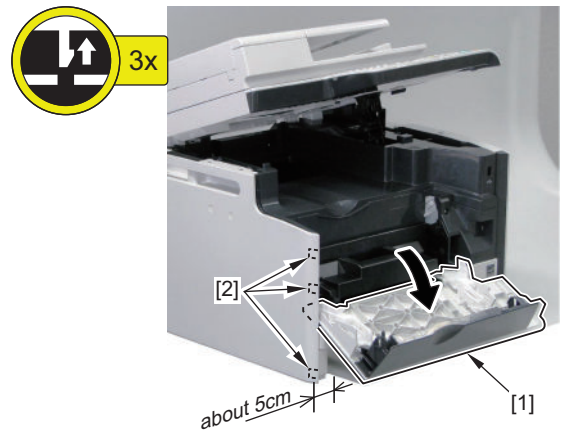
4. **Fit in the 2 claw [1] at the lower side of the Left Cover.**
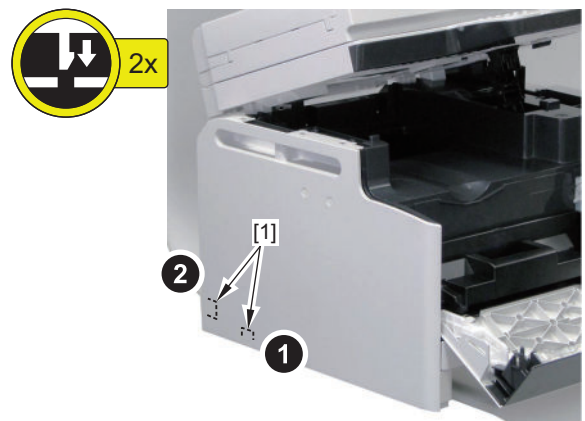


5. **Install the Left Cover [1].**
   - 5 claws [2]



9. **Close the Front Cover [1], and then hold the Left Cover [2] to remove.**
   - 1 claw [3]



## ■ Installing the Left Cover

1. **To remove the claw at the lower side of the Left Cover, move the Host Machine for about 5cm from the base.**
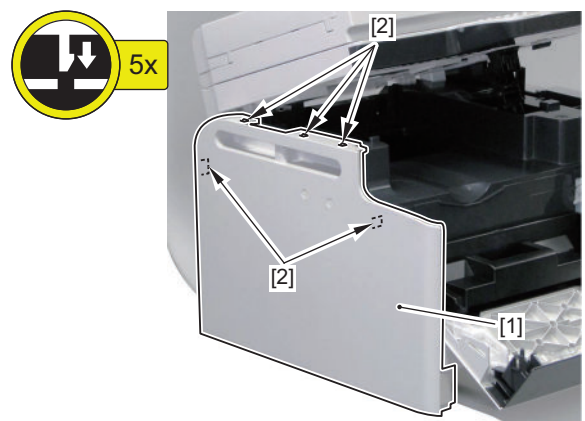
# 🔵 Removing the Right Cover

## ■ Procedure

**NOTE:**
The following shows the 9 claws of the Right Cover.
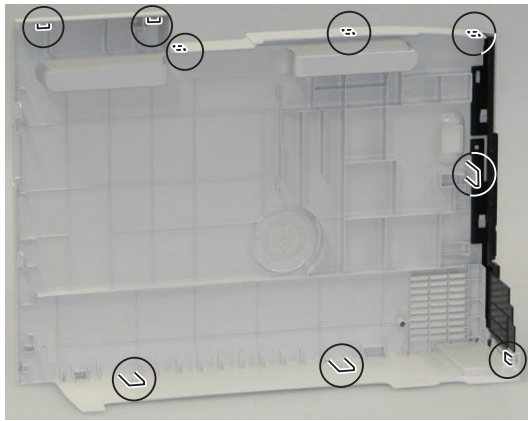


1. Remove the Cassette [1].

2. To remove the claw at the lower side of the Right Cover, move the Host Machine for about 5cm from the base.

3. Open the Reader Unit [2].

4. Open the Front Cover [3].
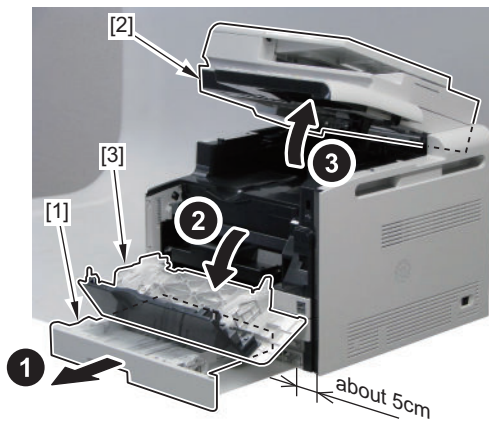


5. Remove the 2 screws [1], and release the 5 claws [2].
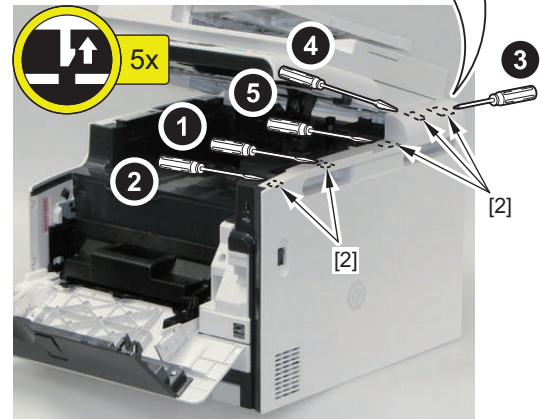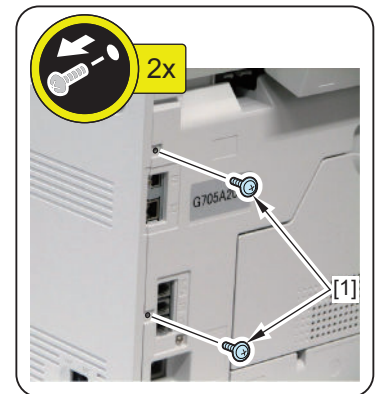


6. Release the claw [1] and claw [2] while opening the Right Cover.
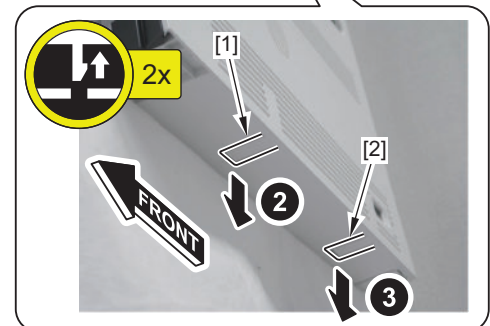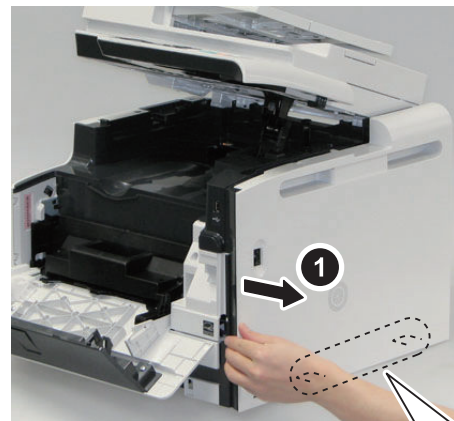


7. Release the claw [1] while opening the Right Cover.

8. **Close the Front Cover [2], release the claw [3], and then remove the Right Cover [4].**
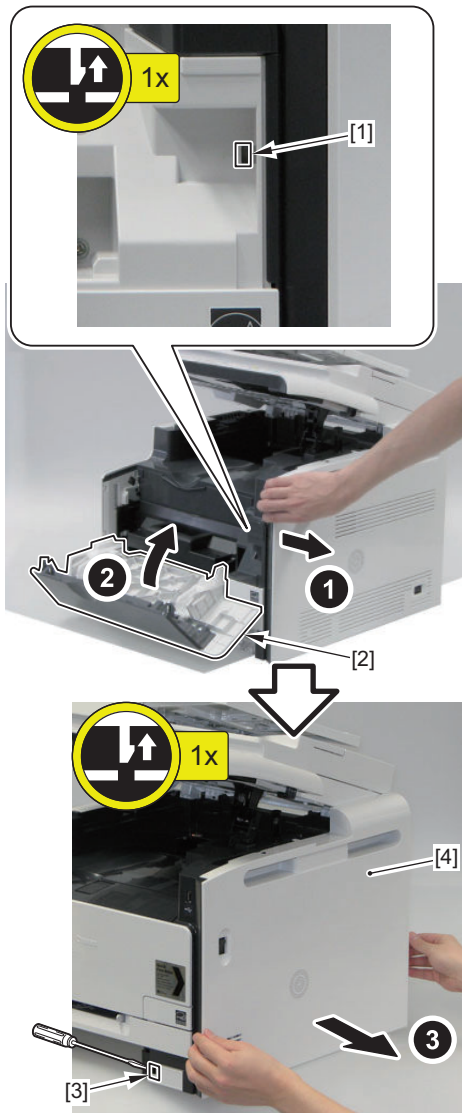


## ■ Installing the Right Cover

1. **Open the Multi-purpose Tray Pickup Cover [1] and attach the 2 claws [2] on the lower side and 2 claws [3] on the front side of the Right Cover.**



about 5cm
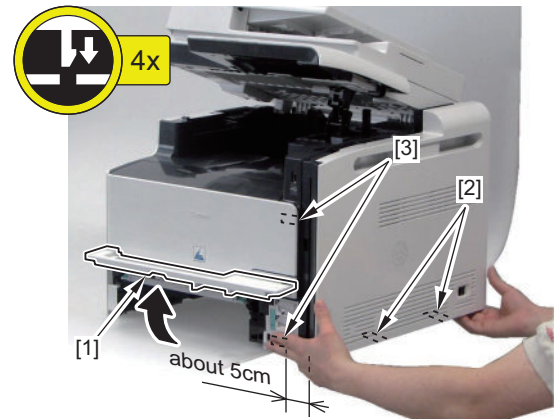
**CAUTION:**
To install the Right Cover to the Host Machine, be sure to install [A] part of the Right Cover to be attached outside of [B] part.
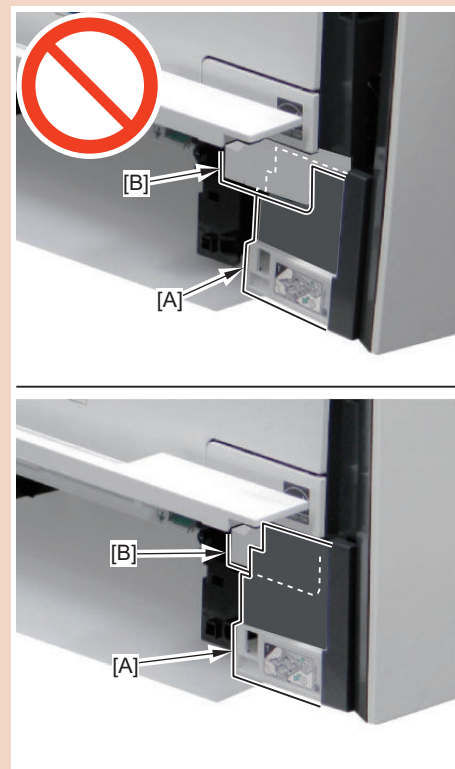
2. **Insert the 5 claws [1] on the upper side of the Right Cover and install the Right Cover [2].**

   • 2 screws [3]
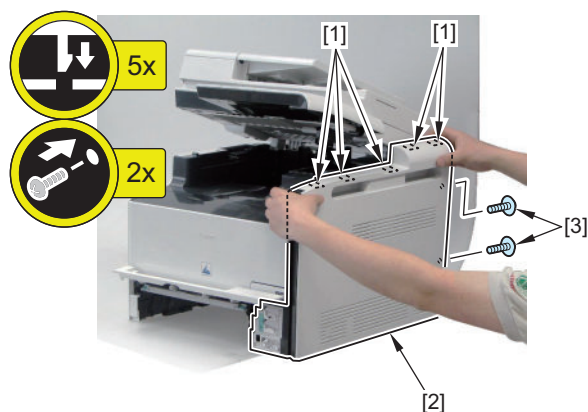
# Removing the Front Cover

## ■ Procedure

1. **Remove the Cassette [1].**

2. **Open the Front Cover [2].**
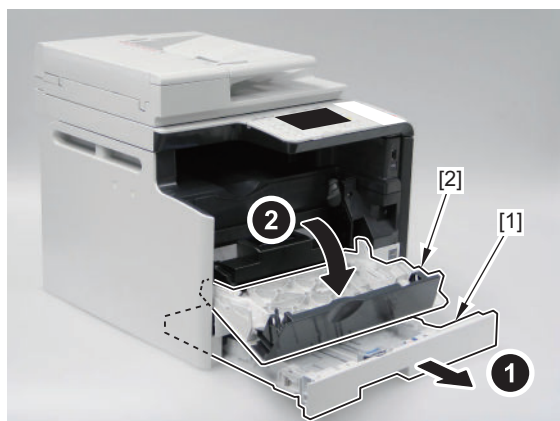
3. **Pull the Cartridge Tray [1].**
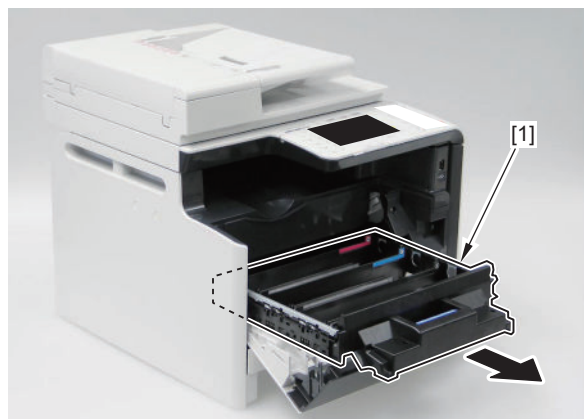
4. **Remove the cartridges**

**CAUTION:**
Since the Cartridge Tray interferes with the stopper when removing the stopper, do not pull out the Cartridge Tray until it hits the end.

5. **Insert a flat-blade screwdriver into the clearance [A] between the Right Stopper [1] and rail.**

6. **Remove the Right Stopper [1] while pushing the [B] part.**

   • 1 Claws [2]
   • 1 Protrusion [3]
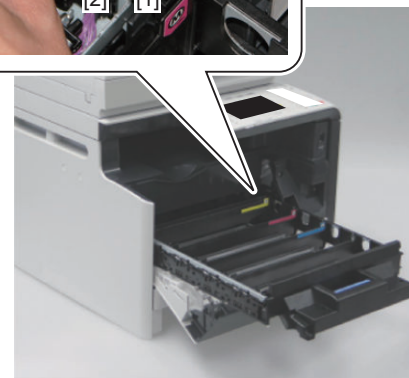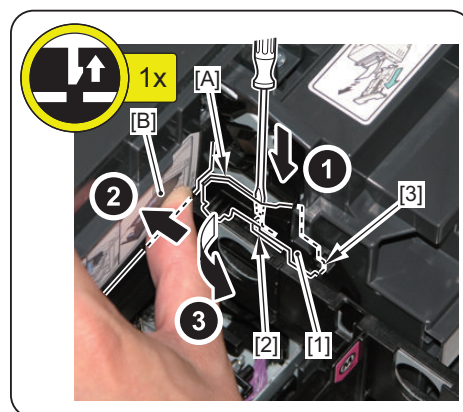
7. **Insert a flat-blade screwdriver into the clearance [A] between the Left Stopper [1] and rail.**

8. **Remove the Left Stopper [1] while pushing the [B] part.**

   - 1 Claws [2]
   - 1 Protrusion [3]



9. **Remove the Cartridge Tray [1].**
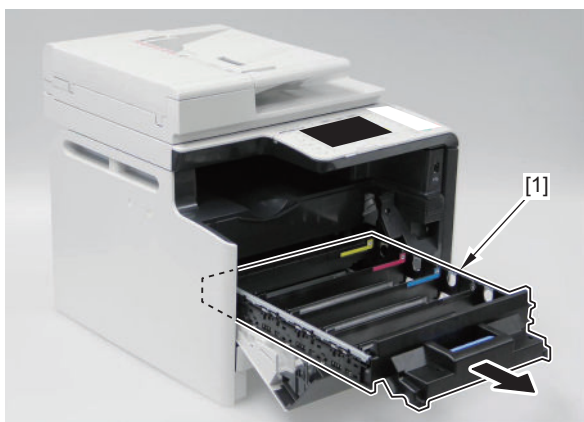


10. **Close the Front Cover [1].**

11. **Open the Multi-purpose Tray Pickup Slot Cover [2] and Multi-purpose Tray Pickup Tray [3].**
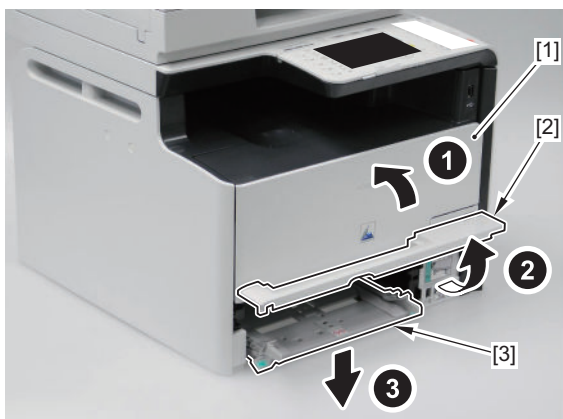


12. **While lifting the Feeding Guide [1], remove the 3 claws [2].**

13. **Close the Multi-purpose Tray Pickup Slot Cover [3]**
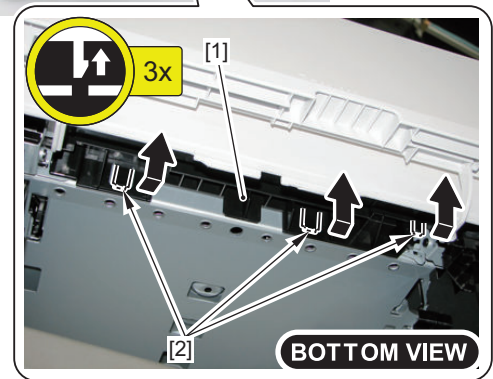


14. **Open the Front Cover [1] to remove the Feeding Guide [2].**
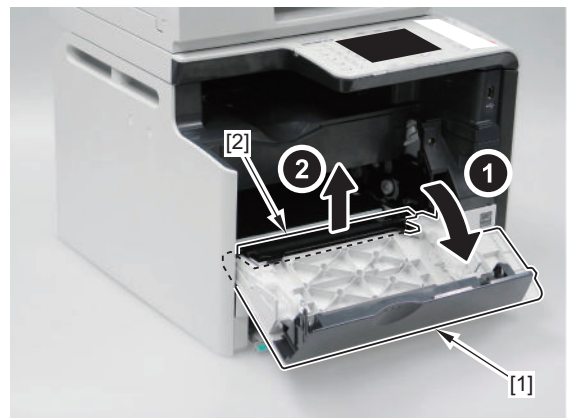


15. **Put the Front Cover [1] back to position A.**

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**16.** Remove the Right Arm [2] of the Multi-purpose Tray Pickup Slot Cover to remove the Multi-purpose Tray Pickup Slot Cover [3].

- 2 Shafts [4]
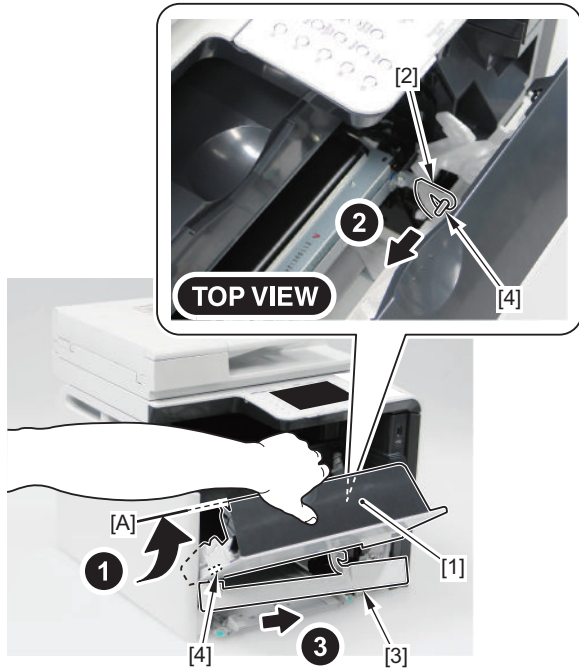
**17.** Remove the Fixation Pin [1] of the Right Arm.

- 1 Claw [2]
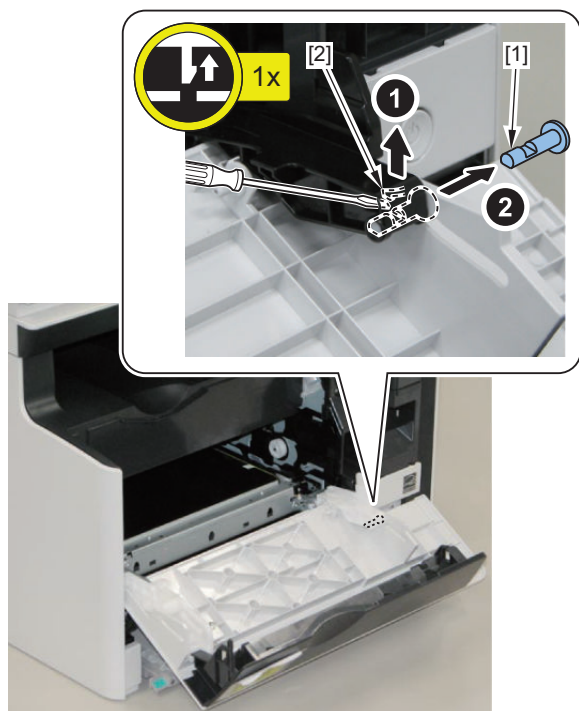
**18.** Remove the Left Holder [2] while holding the Front Cover [1].

- 2 Shafts [3]
- 1 Claw [4]
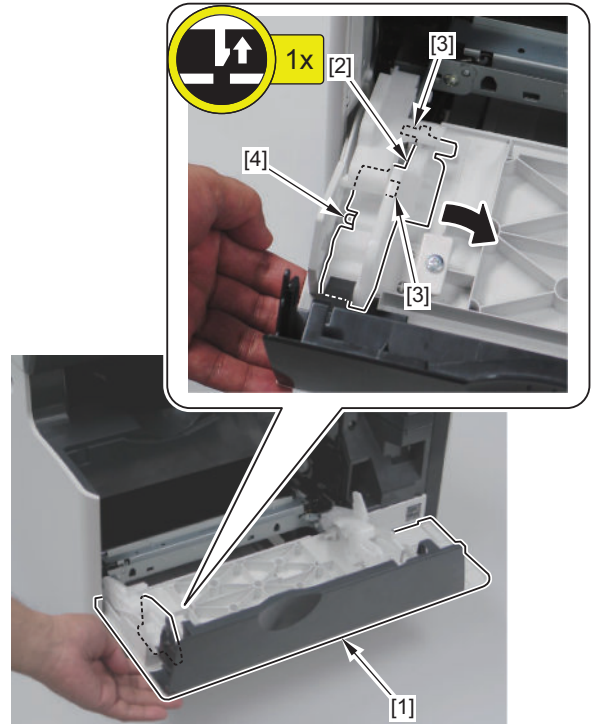
**19.** Push and remove the Left Arm [1].

- 1 Shaft [2]
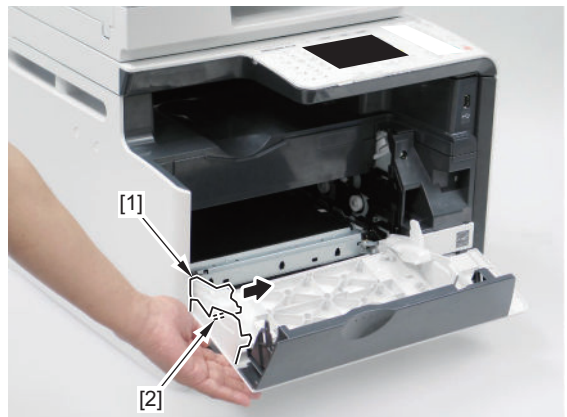
**20.** Remove the Front Cover [1].

- 1 Shaft [2]
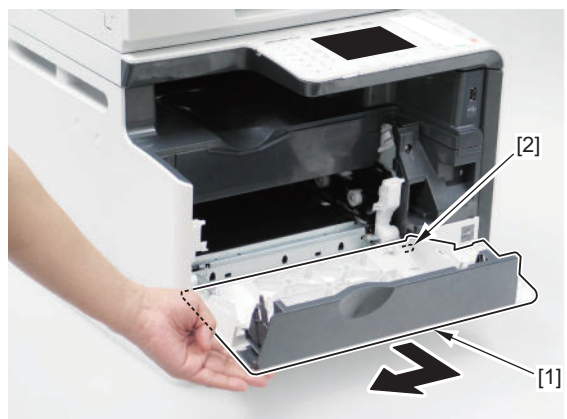
# Removing the Rear Upper Cover

## ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

2. Remove the Left Cover. (Refer to **"Removing the Left Cover" on page 109**)

## ■ Procedure

1. Open the Rear Cover [1].
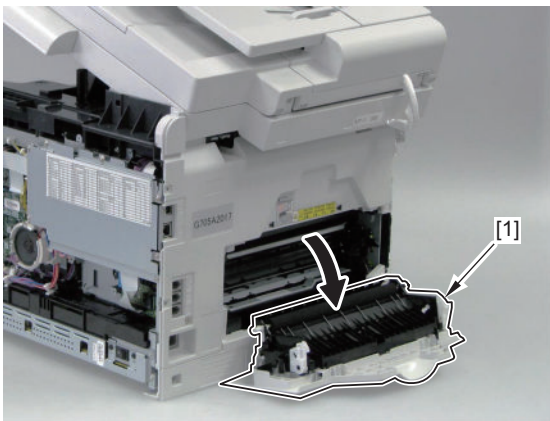
2. Remove the Rear Upper Cover [1].
   - 1 screw [2]
   - 5 claws [3]
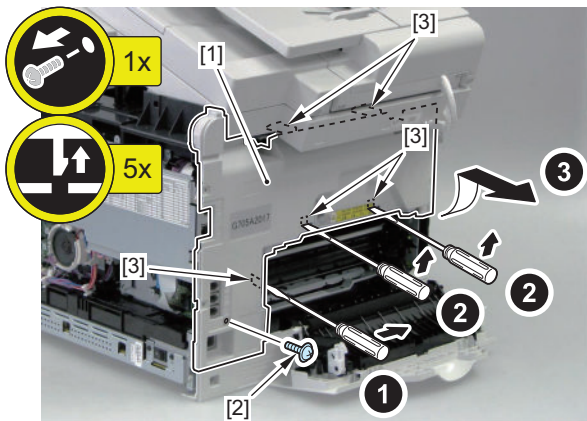
# Removing the Rear Lower Cover

## ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

2. Remove the Left Cover. (Refer to **"Removing the Left Cover" on page 109**)

3. Remove the Rear Upper Cover. (Refer to **"Removing the Rear Upper Cover" on page 116**)

## ■ Procedure

1. Close the Rear Cover [1] and remove the 2 screws [2].
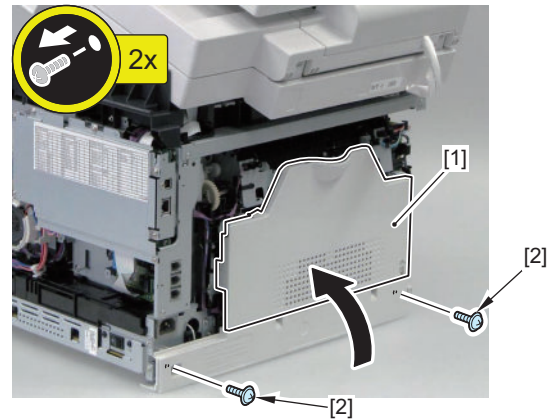
2. Open the Rear Cover and remove the Rear Lower Cover [1] in the direction of the arrow.
   - 1 boss [2]
   - 4 claws [3]
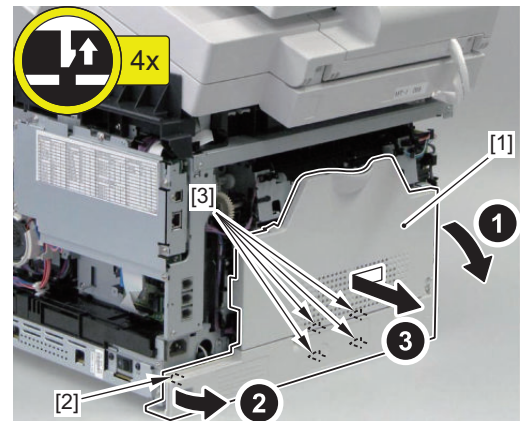
# Removing the Rear Cover

## ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

2. Remove the Left Cover. (Refer to **"Removing the Left Cover" on page 109**)

3. Remove the Rear Upper Cover. (Refer to **"Removing the Rear Upper Cover" on page 116**)

4. Remove the Rear Lower Cover. (Refer to **"Removing the Rear Lower Cover" on page 116**)

## ■ Procedure

1. **Remove the Rear Cover [2] from the shafts [1] of the Rear Lower Cover.**
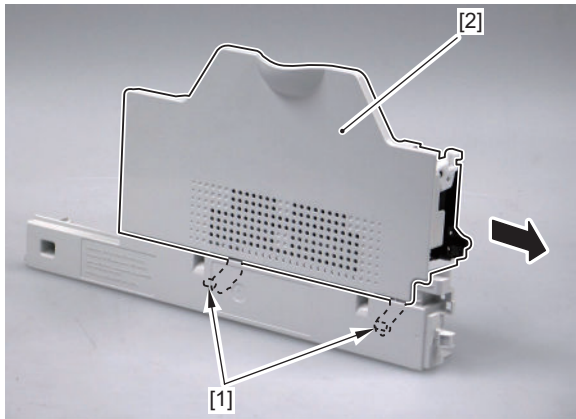


> **CAUTION:**
> When installing the Rear Door, be sure to install [A] part to be attached outside of [B] part.
>
> 
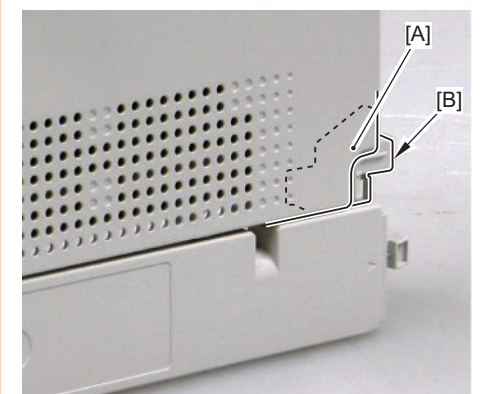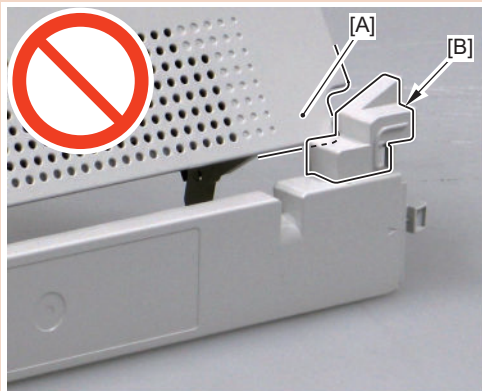
3. **Remove the Rear Upper Cover. (Refer to** "Removing the Rear Upper Cover" on page 116**)**

4. **Remove the ADF Unit/Copyboard + Reader Unit. (Refer to** "Removing the ADF Unit/Copyboard + Reader Unit" on page 121**)**

## ■ Procedure

1. **Open the Front Cover.**

2. **Remove the USB Host PCB [1].**
   - 1 screw [2]
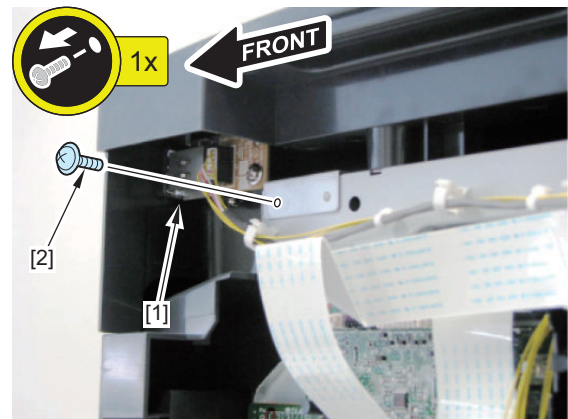


## 🔵 Removing the Upper Cover

## ■ Preparation

1. **Remove the Right Cover. (Refer to** "Removing the Right Cover" on page 111**)**

2. **Remove the Left Cover. (Refer to** "Removing the Left Cover" on page 109**)**

**3. Remove the Upper Cover [1].**

- 8 screws [2]
- 1 claw [3]
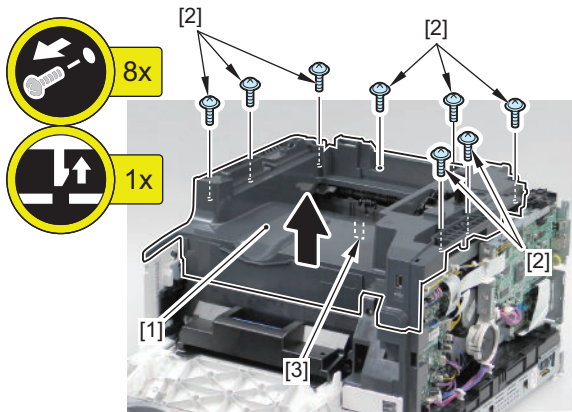


**CAUTION:**

When installing the Upper Cover [1], make sure that the claw [2] is surely fitted.



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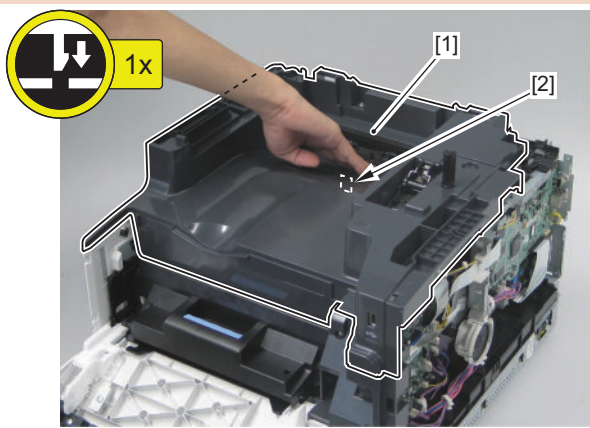
# Document exposure/feeder system

## 🔵 Location
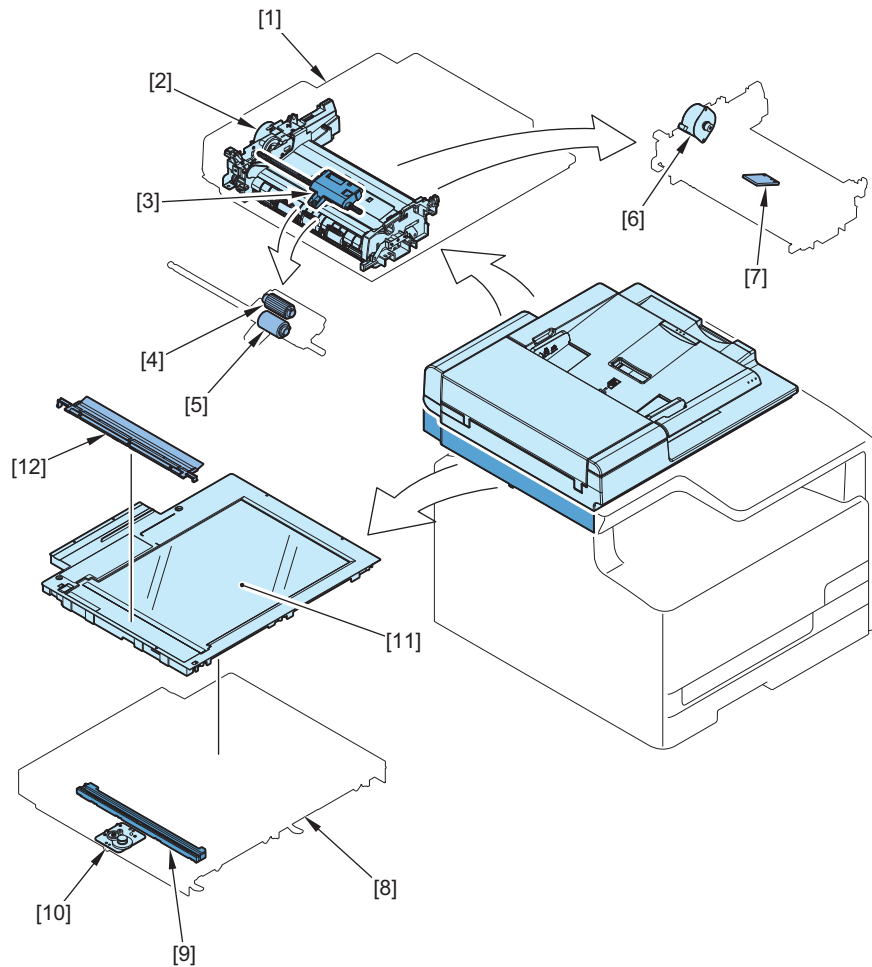


| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|-----|-----------|-----------|---------|-----------|-------------------------------------|
| [1] | ADF Unit | Product Configuration | MF628Cw / 626Cn / 624Cw / 623Cn | "Removing the ADF Unit/ Copyboard + Reader Unit" on page 121 | "After Replacing the ADF Units" on page 124 |
| [2] | ADF Paper Feeder Unit | ADF Unit | MF628Cw / 626Cn / 624Cw / 623Cn | " Removing the ADF Pickup Feed Unit (MF628Cw/ 626Cn/624Cw/623Cn) " on page 131 | - |
| [3] | ADF Roller Unit | ADF Unit | MF628Cw / 626Cn / 624Cw / 623Cn | " Removing the ADF Roller Unit (MF628Cw/626Cn/ 624Cw/623Cn) " on page 127 | - |
| [4] | ADF Pickup Roller | ADF Roller Unit | MF628Cw / 626Cn / 624Cw / 623Cn | " Removing the ADF Pickup Roller (MF628Cw/626Cn/ 624Cw/623Cn) " on page 128 | - |
| [5] | ADF Separation Roller | ADF Roller Unit | MF628Cw / 626Cn / 624Cw / 623Cn | " Removing the ADF sepa- ration roller (MF628Cw/ 626Cn/624Cw/623Cn)" on page 129 | - |

| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|-----|-----------|-----------|---------|-----------|-------------------------------------|
| [6] | ADF Motor | ADF Paper Feeder Unit | MF628Cw / 626Cn / 624Cw / 623Cn : M721 | " Removing the ADF Pickup Motor (MF628Cw/626Cn/624Cw/623Cn) " on page 132 | - |
| [7] | ADF Separation Pad | ADF Paper Feeder Unit | MF628Cw / 626Cn / 624Cw / 623Cn | "Removing the ADF Separation Pad (MF628Cw/626Cn/624Cw/623Cn)" on page 129 | - |
| [8] | Reader Unit | Product Configuration | - | "Removing the ADF Unit/ Copyboard + Reader Unit" on page 121 | "After Replacing the Reader Unit" on page 124 |
| [9] | CIS Unit | Reader Unit | UN23 | "Removing the CIS Unit" on page 138 | "After replacing CIS units" on page 140 |
| [10] | Reader Motor | Reader Unit | M720 | "Removing the Reader Scanner Motor" on page 142 | - |
| [11] | Reader Unit Upper Cover | Reader Unit | - | "Removing the Reader Unit Upper Cover" on page 135 | "After Replacing the Reader Upper Cover Unit" on page 136 |
| [12] | Scoopup sheet holder | Reader Unit | - | "Removing the Scoopup sheet holder" on page 134 | "After Replacing the Scoopup Sheet Holder" on page 134 |

# Document Exposure, Feed System Disassembly/ Assembly Procedure

## 🔵 Removing the ADF Unit/ Copyboard + Reader Unit

### ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. **Remove the Left Cover. (Refer to "Removing the Left Cover" on page 109)**

3. **Remove the Rear Upper Cover. (Refer to "Removing the Rear Upper Cover" on page 116)**

### ■ Procedure

> **CAUTION:**
> Be sure to perform "After replacing ADF unit (Refer to "After Replacing the ADF Units" on page 124)" and "After replacingreader unit (Refer to "After Replacing the Reader Unit" on page 124)" when replacing the ADF Unit and Reader Unit,respectively.

1. **Remove the claw [1] to remove the Reader Shaft Retainer [2].**

2. **While supporting the ADF Unit/Copyboard + Reader Unit [3], remove the Reader Support Shaft [4].**

3. **Bring down the Reader Support Shaft [4] to close the ADF Unit/Copyboard + Reader Unit [3].**
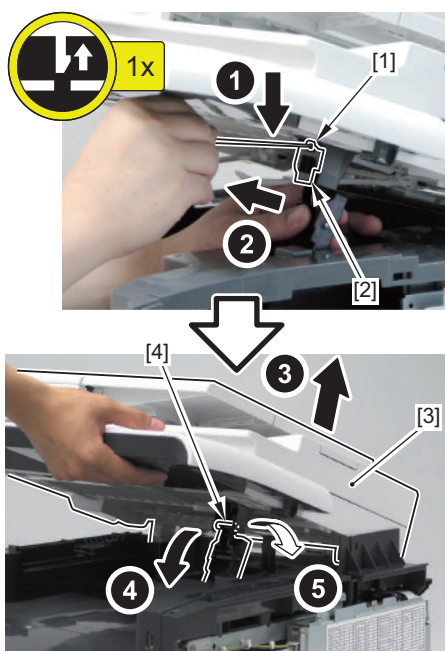


4. **Remove the handle [1].**
   - 2 screws [2]



5. **Remove the Controller Cover [1].**
   - 7 screws [2]
   - 2 hooks [3]



**121**
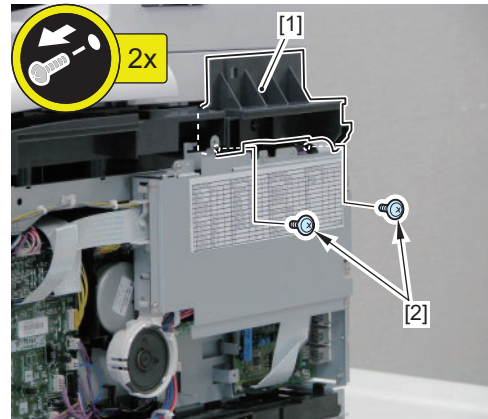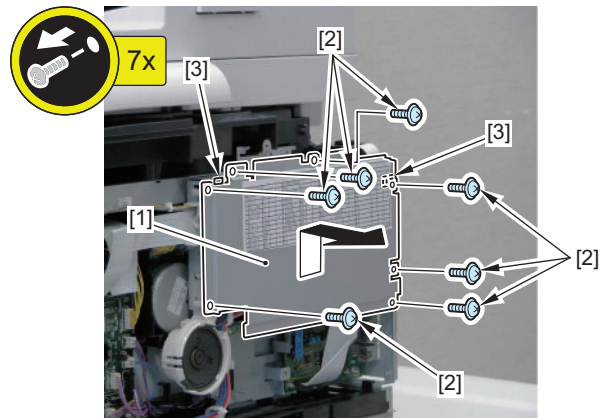
**6.** Disconnect the connector [1], connector (only for models with ADF) [2], and 2 Flat Cables [3].

- 1 Flat Cable Connector Lock [4]
- 1 Ferrite Core [5]
- 2 Harness Guides [6]
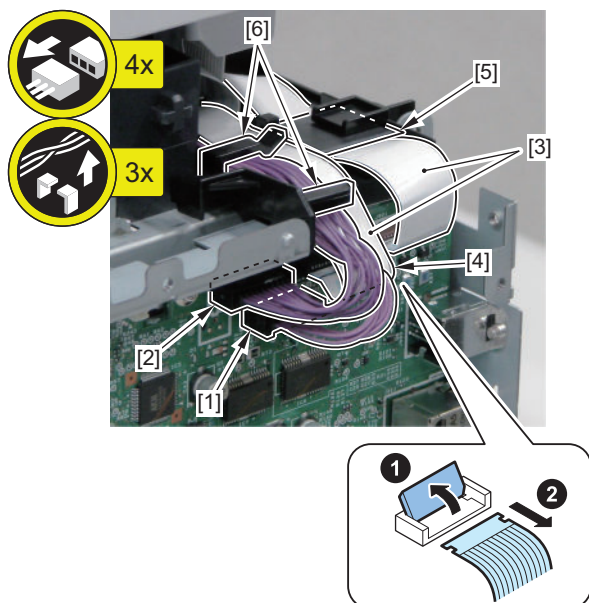


**CAUTION:**

When connecting the Flat Cable, be sure to perform the following; while pushing the Flat Cable [1] against the connector with a lock [2], check that the line on the edge [A] of the Flat Cable Connector and the line on the edge [B] of the Flat Cable Connector Lock are parallel, and then close the Flat Cable Connector Lock [3].
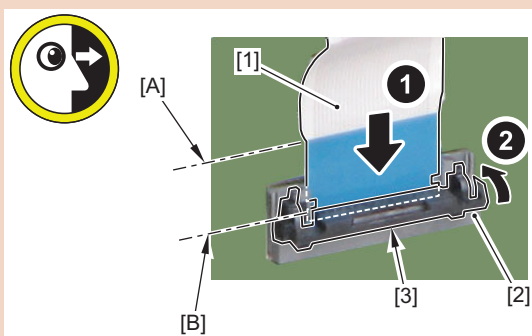


**7.** Disconnect the grounding [1] and grounding [2] (only for models with ADF).

- 2 Screws [3]

**8.** Open and remove the ADF Unit/Copyboard + Reader Unit [4].

- 2 Hooks [5]
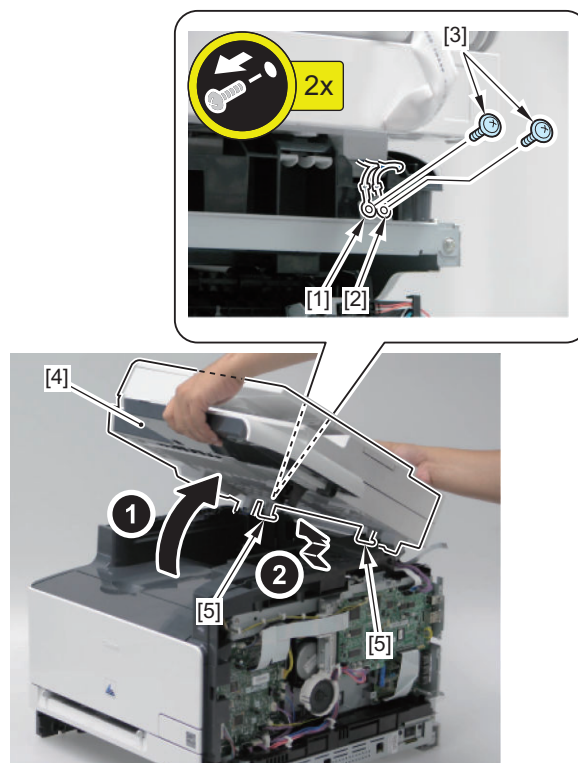


## Separating the ADF Unit/Copyboard + Reader Unit

### ■ Preparation

1. Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)

2. Remove the Left Cover. (Refer to "Removing the Left Cover" on page 109)

3. Remove the Rear Upper Cover. (Refer to "Removing the Rear Upper Cover" on page 116)

4. Remove the ADF Unit/Copyboard + Reader Unit. (Refer to "Removing the ADF Unit/Copyboard + Reader Unit" on page 121)

### ■ Procedure

**CAUTION:**

Be sure to perform "After replacing ADF unit (Refer to "After Replacing the ADF Units" on page 124)" and "After replacing reader unit (Refer to "After Replacing the Reader Unit" on page 124)" when replacing the ADF Unit and Reader Unit, respectively.

1. **Place the ADF Unit and Reader Unit in the open status as shown in the figure below (only for models with ADF).**
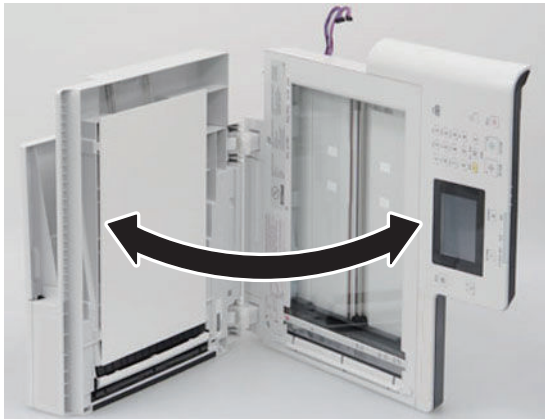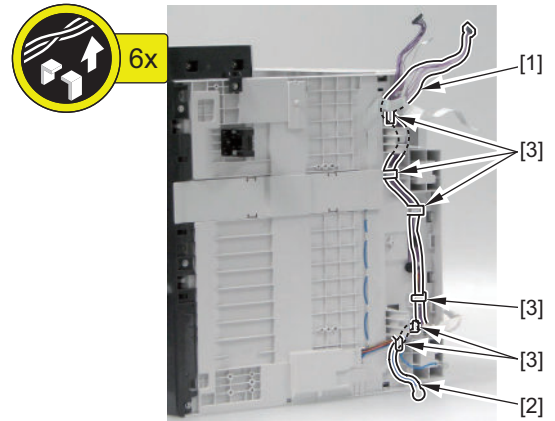


2. **Remove the Reader Unit Lower Cover [1] (only for models with ADF).**
   - 1 Screw [2]
   - 4 Claws [3]
   - 2 Harnesses [4]
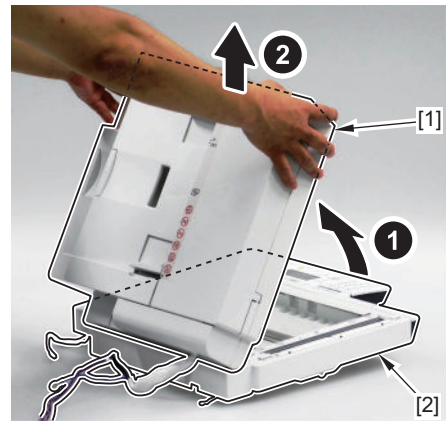   - 2 Flat Cables [5]
   - 2 Grounding Wires [6]
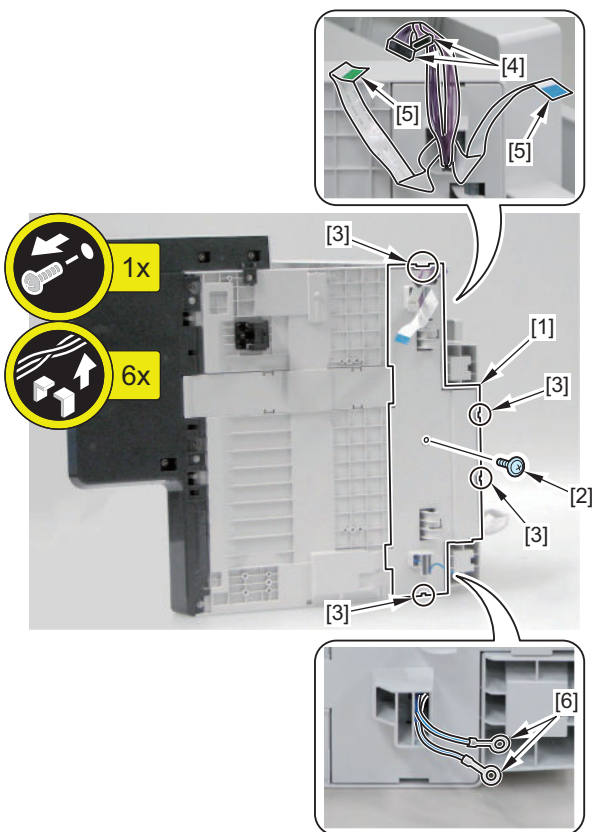


3. **Remove the cable [1] and the grounding wire [2] (only for models with ADF).**
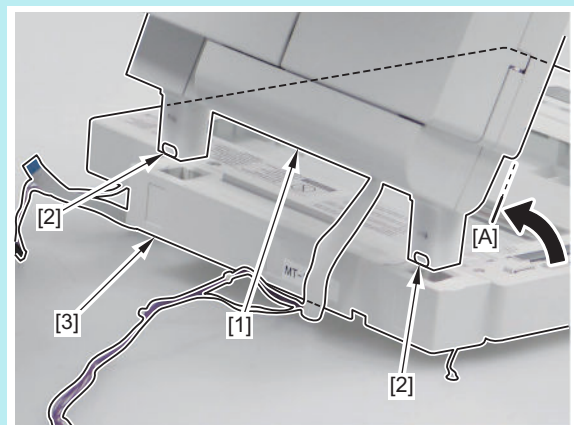   - 6 wire guides [3]



4. **Open the ADF Unit/Copyboard and separeate it to the dirrection of the arrow from the Reader Unit [2].**



**NOTE:**
If ADF Unit/Copyboard [1] is not opened to the position[A], it cannot be separate from the Reader Unit, because of the 2 claws [2].

## ■ After Replacing the ADF Units

**1. Adjust the white level in the following service mode, and write the final setting values on the service label.**

1. Enter the values in the following service mode items respectively.
   - In COPIER > ADJUST > CCD > DFTAR-R, set "299".
   - In COPIER > ADJUST > CCD > DFTAR-G, set "309".
   - In COPIER > ADJUST > CCD > DFTAR-B, set "307" .
   - In COPIER > ADJUST > CCD > DFTAR-BW, set "315".

2. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode (color))

3. Place the same blank paper on the ADF, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode (color))

4. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader again, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))

5. Place the same blank paper on the ADF again, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))

6. If the operation was successful, write the setting value on the service label.

7. Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation is successful or not.
   - COPIER > ADJUST > CCD > DFTAR-R (Adjustment of shading target value (R) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-G (Adjustment of shading target value (G) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-B (Adjustment of shading target value (B) at ADF reading)

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

8. If the operation result is "failed", turn OFF and then ON the power, execute
   - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode: color)
   and then execute
   - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode: color)
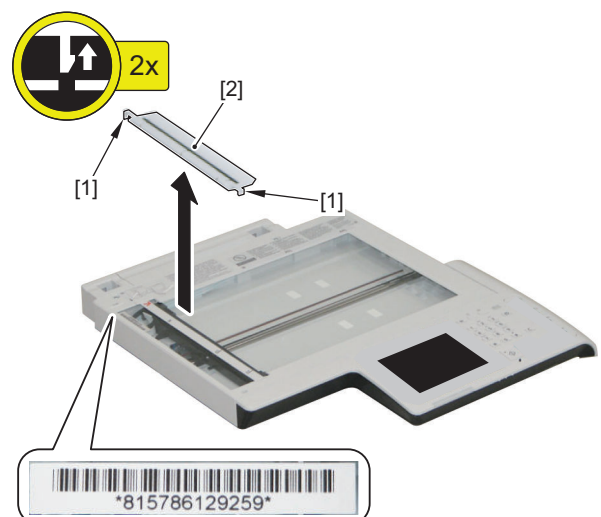   again.

9. Checking the value of DFTAR-BW
   Check the value of
   - COPIER > ADJUST > CCD > DFTAR-BW (Adjustment of shading target value (B&W) at ADF reading)
   If the value remains the same as the value you entered, the operation result is judged to be "failed".

10. If the operation result is "failed", turn OFF and then ON the power, execute
    - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
    and then execute
    - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
    again.

**2. ADF geometric adjustment**

1. On an image copied using the ADF, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.
   In the case of E353MGMH, perform 2-sided original reading from the ADF.
   If adjustment is needed, enter necessary adjustment values in the following service mode:
   - COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adj img pstn in ADF mode:horz scan)
   - FEEDER > ADJUST > DOCST (Fine adjustment of VSYNC timing at ADF reading [front side])
   - FEEDER > ADJUST > LA-SPD (Fine adjustment of magnification ratio in vertical scanning direction at ADF stream reading [front side])

2. If you enter adjustment values, write the final values on the service label.

## ■ After Replacing the Reader Unit

**1. Release the 2 claws [1], remove the Scoop-up Sheet Holder [2], and check the setting values of the Standard White Plate indicated under the barcode that was hidden beneath the Scoop-up Sheet Holder.**

2. **Enter the X, Y, and Z values indicated under the barcode on the Copyboard Glass in**
   - COPIER > ADJUST > CCD > W-PLT-X (White level data (X) entry of white plate) ,
   - COPIER > ADJUST > CCD > W-PLT-Y (White level data (Y) entry of white plate) , and
   - COPIER > ADJUST > CCD > W-PLT-Z (White level data (Z) entry of white plate) ,

   and then write the entered values (the the X, Y, and Z values shown under 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

3. **Return the Scoop-up Sheet to its original position.**

4. **AGC adjustment**
   1. Entering a provisional value
      Change the foregoing values to "1,000".
      - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)

      Change the foregoing values to "1,200"
      - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)
   2. Adjust the white level in the following service mode.
      - COPIER > FUNCTION > CCD > BW-AGC (CIS intensity adjustment in ADF (B&W))
      - COPIER > FUNCTION > CCD > CL-AGC (CIS intensity adjustment in ADF (color))
   3. If the operation was "successful", this procedure is completed. (There is no need to write the value on the service label.)

   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.
      B&W mode
      - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)

      Check the foregoing values. If all of them remain "1,000", the operation result is judged to be "failed". If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > BW-AGC again.
      Color mode
      - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)

      Check the foregoing values. If all of them remain "1,200", the operation result is judged to be "failed". If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > CL-AGC again.

5. **Automatic adjustment of the stream reading position**
   1. Entering a provisional value
      Set the value of
      - COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)

      to "-20".
   2. Automatic adjustment of the stream reading position
      Execute
      - COPIER > FUNCTION > INSTALL > STRD-POS (Scan position auto adj in ADF mode)

      If the operation was successful, write the value of STRD-POS on the service label.

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 value of
   - COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)
   If it remains "-20", the operation is judged to be "failed".
   If the operation is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > INSTALL > STRD-POS again.

6. **Adjust the white level in the following service mode, and write the final setting values on the service label.**
   1. Enter the values in the following service mode items respectively.
      - In COPIER > ADJUST > CCD > DFTAR-R, set "299".
      - In COPIER > ADJUST > CCD > DFTAR-G, set "309".
      - In COPIER > ADJUST > CCD > DFTAR-B, set "307" .
      - In COPIER > ADJUST > CCD > DFTAR-BW, set "315".
   2. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode (color))
   3. Place the same blank paper on the ADF, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode (color))
   4. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader again, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
   5. Place the same blank paper on the ADF again, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
   6. If the operation was successful, write the setting value on the service label.

7. Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation is successful or not.
   - COPIER > ADJUST > CCD > DFTAR-R (Adjustment of shading target value (R) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-G (Adjustment of shading target value (G) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-B (Adjustment of shading target value (B) at ADF reading)
   Check the foregoing values, and if all the values remain the same with those you entered, the operation result is judged to be "failed".

8. If the operation result is "failed", turn OFF and then ON the power, execute
   - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode: color)
   and then execute
   - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode: color)
   again.

9. Checking the value of DFTAR-BW
   Check the value of
   - COPIER > ADJUST > CCD > DFTAR-BW (Adjustment of shading target value (B&W) at ADF reading)
   If the value remains the same as the value you entered, the operation result is judged to be "failed".

10. If the operation result is "failed", turn OFF and then ON the power, execute
    - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
    and then execute
    - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
    again.

7. **Copyboard color displacement offset adjustment**
   Enter the value shown on the label that comes with the part in the following service mode.
   Enter the values of 50-RG, 50-GB, 100-RG, and 100-GB shown on the replacement label in the following service mode, and write the entered values on the service label.
   - COPIER > ADJUST > CCD > 50-RG (Color displacement (R and G lines) correction value in the vertical scanning direction (50%))
   - COPIER > ADJUST > CCD > 50-GB (Color displacement (G and B lines) correction value in the vertical scanning direction (50%))
   - COPIER > ADJUST > CCD > 100-RG (Color displacement (R and G lines) correction value in the vertical scanning direction (100%))
   - COPIER > ADJUST > CCD > 100-GB (Color displacement (G and B lines) correction value in the vertical scanning direction (100%))

8. **PASCAL adjustment**

   Enter the values shown on the label that comes with the part in the following service mode items.
   Enter the values of OFST-P-Y, OFST-P-M, OFST-P-C, and OFST-P-K in the following service mode, and write the entered values on the service label.
   - COPIER>ADJUST>PASCAL>OFST-P-Y (Y density adj at test print reading)
   - COPIER>ADJUST>PASCAL>OFST-P-M (M density adj at test print reading)
   - COPIER>ADJUST>PASCAL>OFST-P-C (C density adj at test print reading)
   - COPIER>ADJUST>PASCAL>OFST-P-B (Bk density adj at test print reading)

9. **Copyboard geometric adjustment**

   Enter the values shown on the label that comes with the part in the following service mode items.
   - COPIER > ADJUST > ADJ-XY > ADJ-X (Adj of img pstn in book mode: vert scan)
   - COPIER > ADJUST > ADJ-XY > ADJ-Y (Adj of img pstn in book mode: (horizontal scanning direction)
   - COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine adj image ratio: vertical scanning)

   Enter the values in the foregoing service mode.

10. **ADF geometric adjustment**

    1. On an image copied using the ADF, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.
       In the case of E353MGMH, perform 2-sided original reading from the ADF.
       If adjustment is needed, enter necessary adjustment values in the following service mode:
       - COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adj img pstn in ADF mode:horz scan)
       - FEEDER > ADJUST > DOCST (Fine adjustment of VSYNC timing at ADF reading [front side])
       - FEEDER > ADJUST > LA-SPD (Fine adjustment of magnification ratio in vertical scanning direction at ADF stream reading [front side])
    2. If you enter adjustment values, write the final values on the service label.

## 🔵 Removing the ADF Roller Unit (MF628Cw/626Cn/624Cw/623Cn)

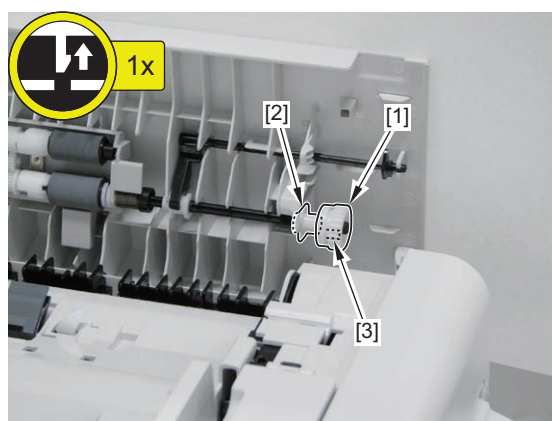### ■ Procedure

> **CAUTION:**
> Do not touch the surface of the roller.
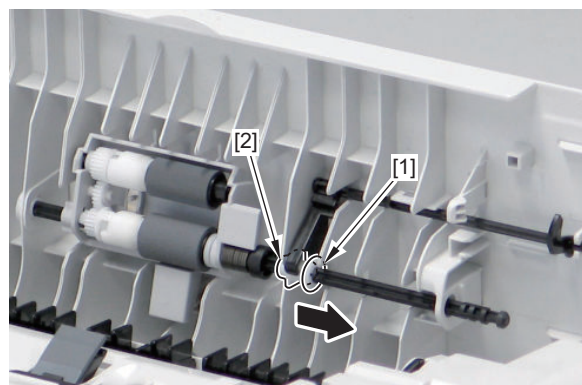
1. Open the ADF Upper Cover [1].
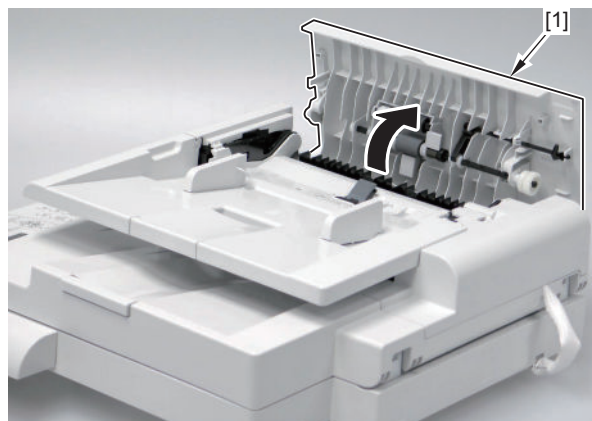


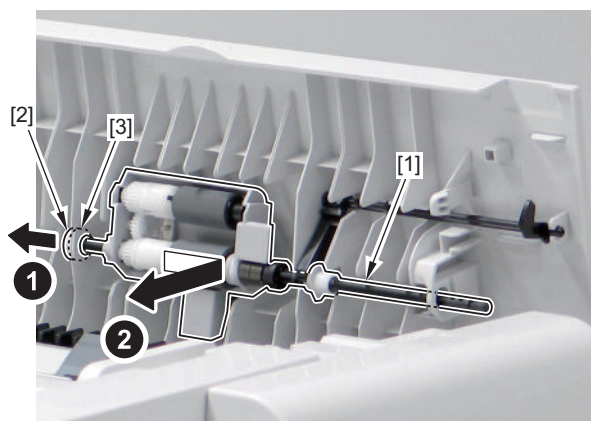2. Remove the gear [1] and the bushing [2].
   - 1 claw [3]



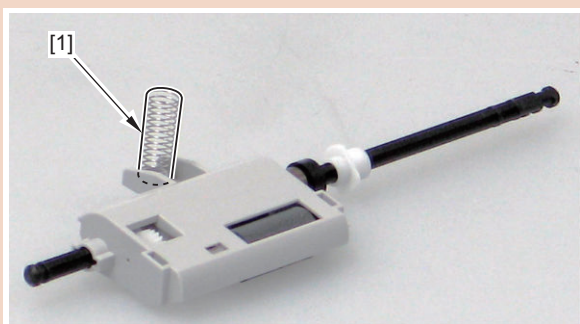3. Remove the plastic E-ring [1] and slide the bushing [2].

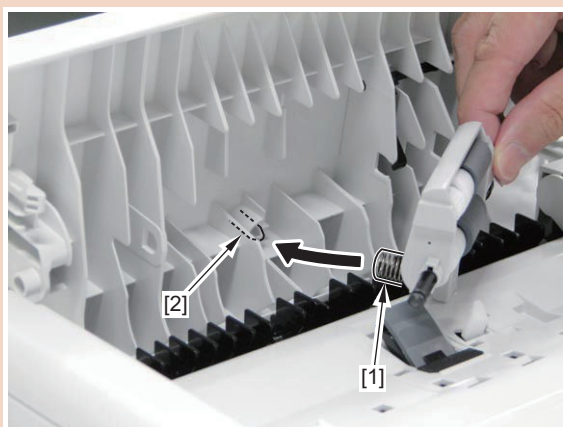**4. Remove the ADF Roller Unit [1].**
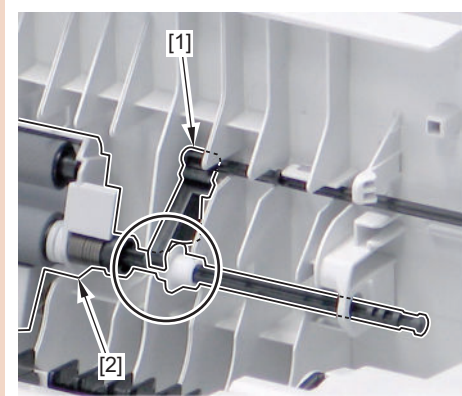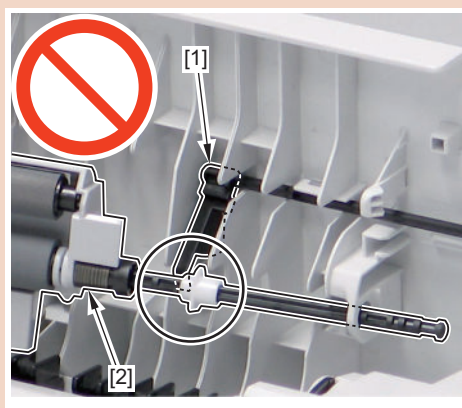- 1 plastic E-ring [2]
- 1 bushing [3]



**CAUTION:**
Be careful not to lose the spring [1] attached to the ADF Roller Unit.



**CAUTION:**
When installing, match the spring [1] of the ADF Roller Unit to the boss [2].



**CAUTION:**
Be sure to put the Sensor Flag [1] above the ADF Roller Unit [2] at installation work.



# 🔵 Removing the ADF Pickup Roller (MF628Cw/626Cn/624Cw/623Cn)
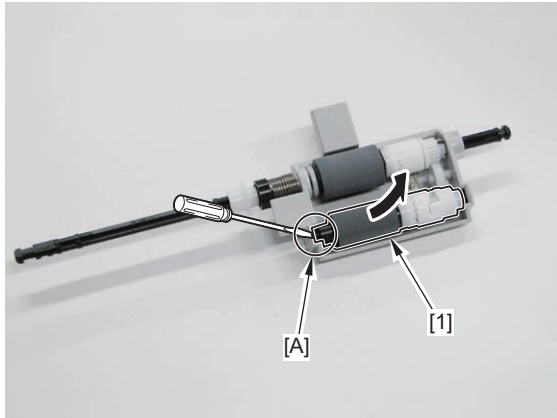
## ■ Preparation

1. Remove the ADF roller unit. (Refer to "Removing the ADF Roller Unit (MF628Cw/626Cn/624Cw/623Cn)" on page 127)

## ■ Procedure

**CAUTION:**
Do not touch the surface of the roller.

1. Insert the end of the flat-blade screwdriver into the [A] part to remove the ADF Pickup Roller Unit [1].



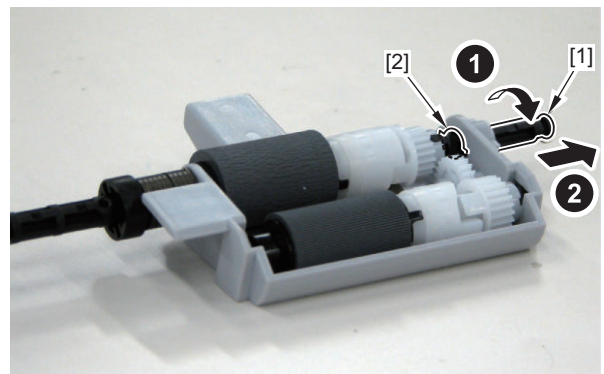2. Remove the ADF Pickup Roller [1].



## Removing the ADF separation roller (MF628Cw/626Cn/624Cw/623Cn)

### ■ Preparation

1. Remove the ADF roller unit. (Refer to " Removing the ADF Roller Unit (MF628Cw/626Cn/624Cw/623Cn) " on page 127)

### ■ Procedure

**CAUTION:**
Do not touch the surface of the roller.

1. Remove the bushing [1] and 2 plastic e-rings [2].
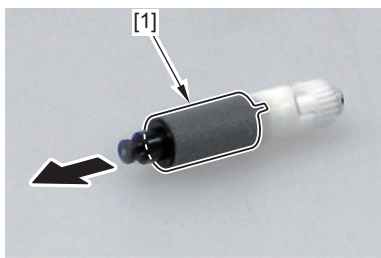


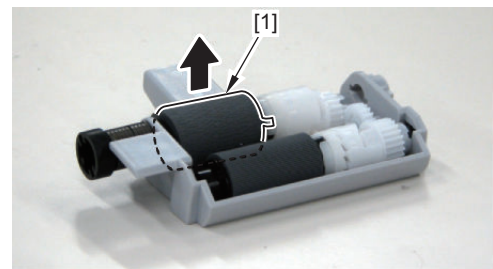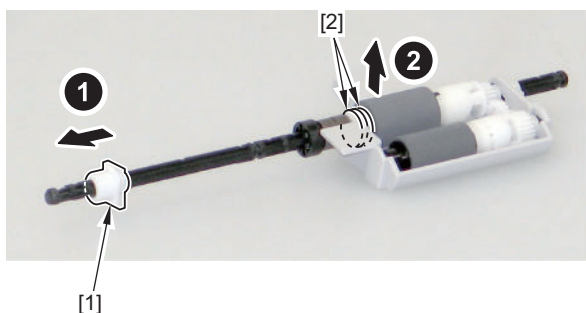2. Slide the Roller Shaft [1] to remove the parallel pin [2].

**CAUTION:**
Be careful not to lose the parallel pin [2] at assembly/disassembly.
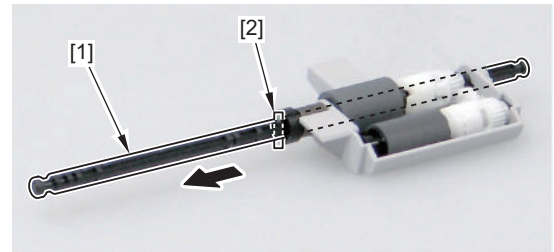


3. Turn the Roller Shaft [1] in the direction of the arrow and fit the projection [2] to the hole of the Roller Holder to remove.
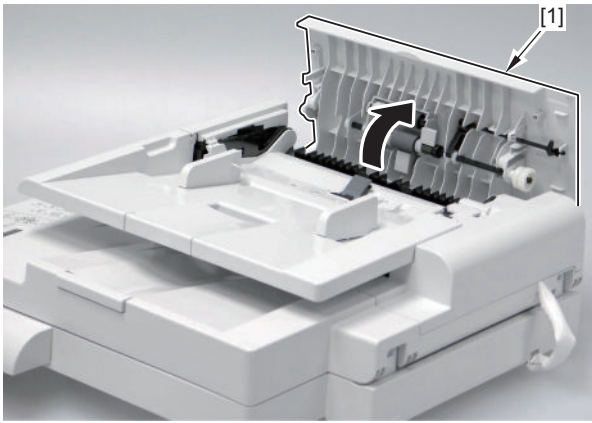


4. Remove the ADF Separation Roller [1].



## Removing the ADF Separation Pad (MF628Cw/626Cn/624Cw/623Cn)
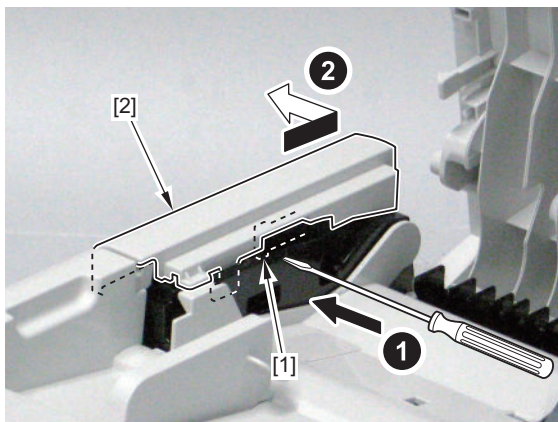
### ■ Procedure

**CAUTION:**
Do not touch the surface of the roller or pad.

1. **Open the ADF Upper Cover [1].**



2. **Unhook the hook [1] using the flat-head screw driver and remove the ADF Front Cover [1] in the direction of the arrow.**



3. **Remove the Feed Guide [1] in the direction of the arrow.**
   - 2 bosses [2]
   - 1 claw [3]
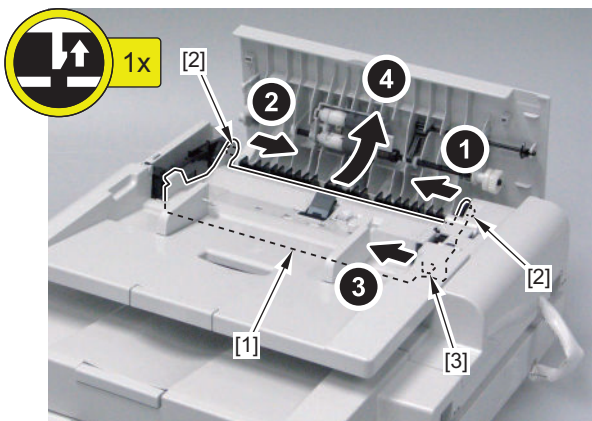


4. **Reverse the Feed Guide.**

5. **Remove the Separation Pad Holder [1].**
   - 2 Claws [2]
   - 2 Shafts [3]



**CAUTION:**
Be careful not to lose the spring [2] attached to the Separation Pad Holder [1].
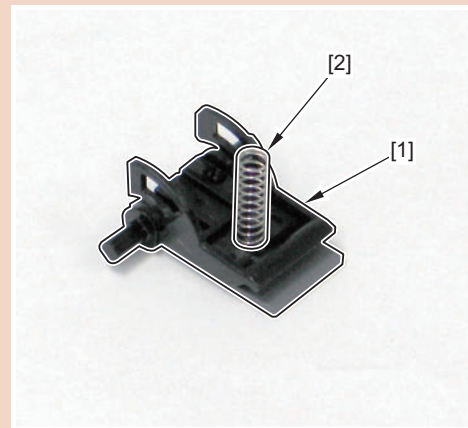


**CAUTION:**
When installing, match the spring [1] to the boss [2] of the Feed Guide.
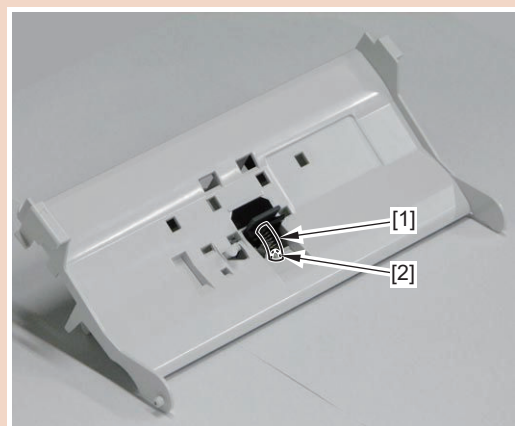
**6. Remove the Separation Pad [1].**
- Pad retainer [2]
- Sheet [3]
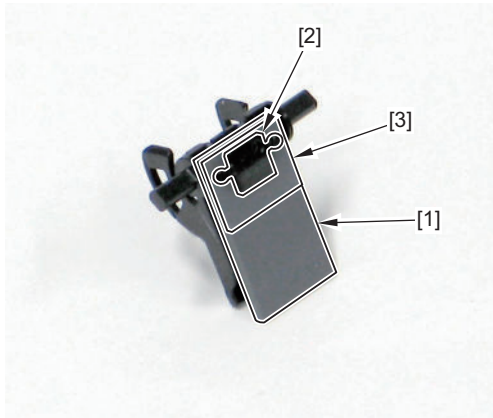


# 🔵 Removing the ADF Pickup Feed Unit (MF628Cw/626Cn/624Cw/623Cn)

## ■ Procedure

**1. Open the ADF Upper Cover [1].**



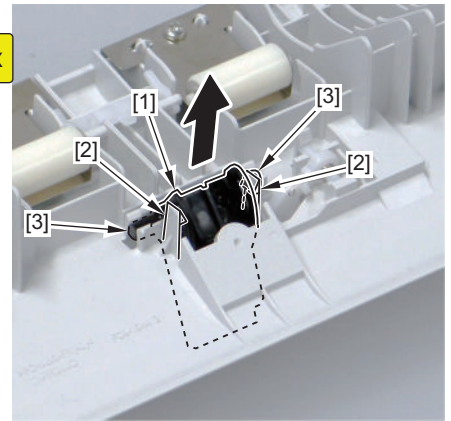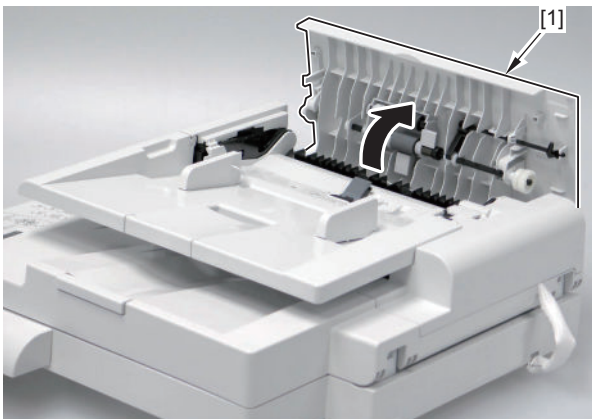**2. Remove the hook [1] using flat-head driver, and remove the ADF Front Cover [2] in the direction of the arrow.**
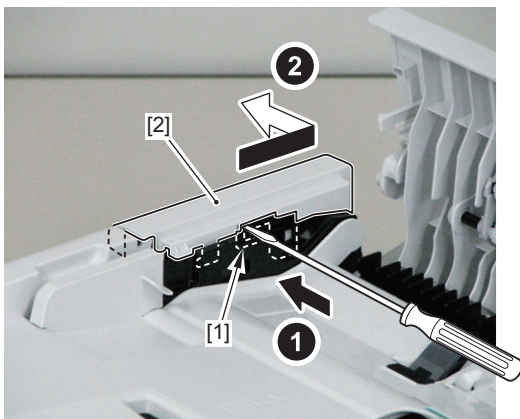


**3. Lift the ADF Tray [1] until it stops and release the hook [2] to tip the tray into the perpendicular position and remove by pulling upward.**
- 1 Claw [3]
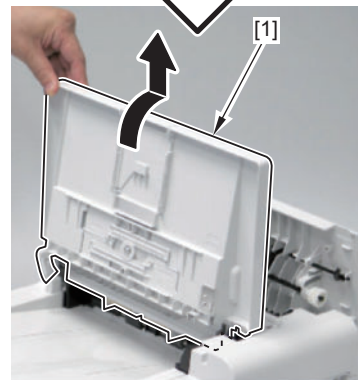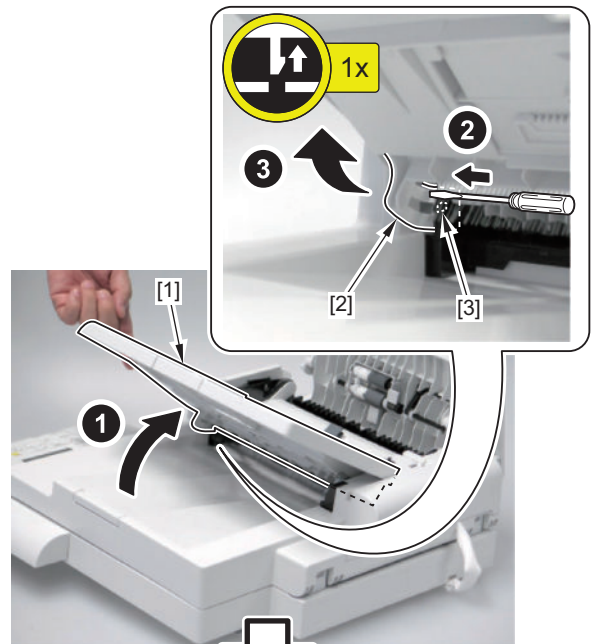


**4. Remove the boss [1] to remove the ADF Rear Cover [2] in the direction of the arrow.**
- 4 claws [3]



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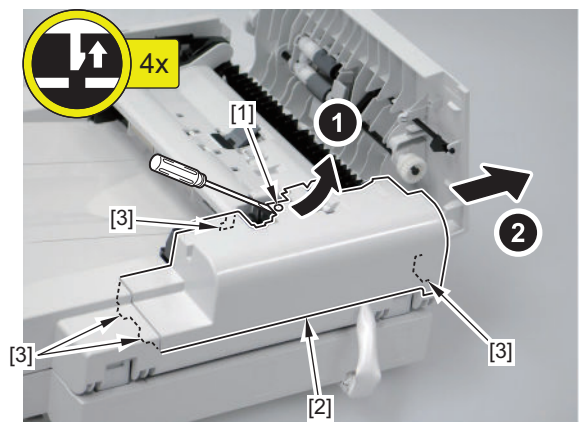
**5. Remove the harness [1] and the grounding cord [2].**
- • 1 screw (binding) [3]
- • 3 connectors [4]
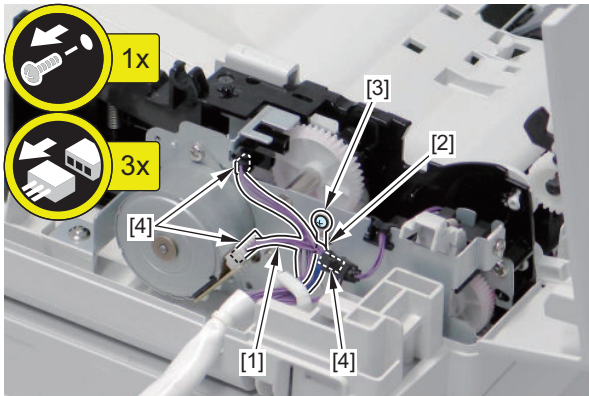


**6. Remove the 3 screws [1] of the ADF Pickup Feed Unit.**



**TOP VIEW**

**TOP VIEW**
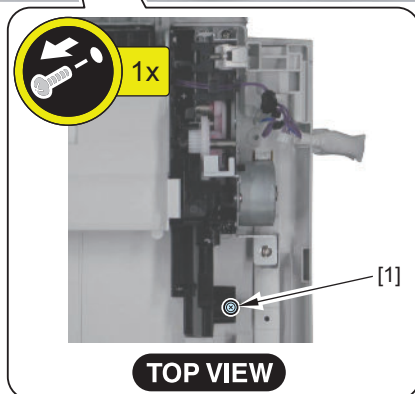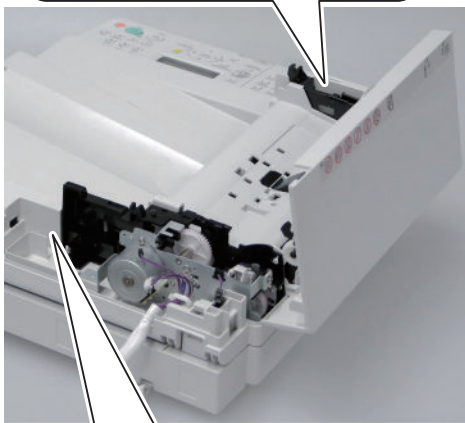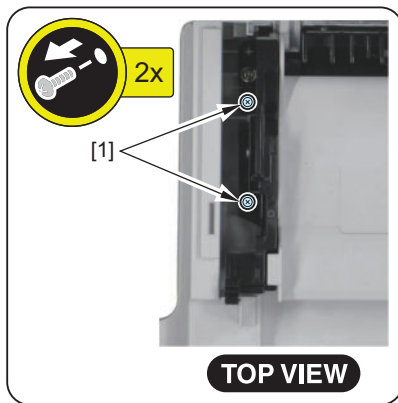
**7. Close the ADF Upper Cover [1] to remove the ADF Pickup Feed Unit [2].**
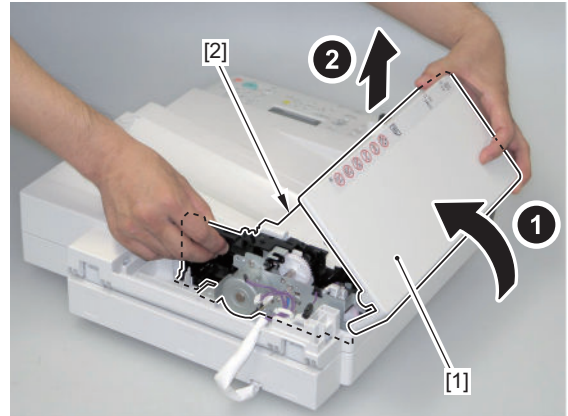


**8. Remove the ADF Upper Cover Unit [1].**
- • 2 bosses [2]
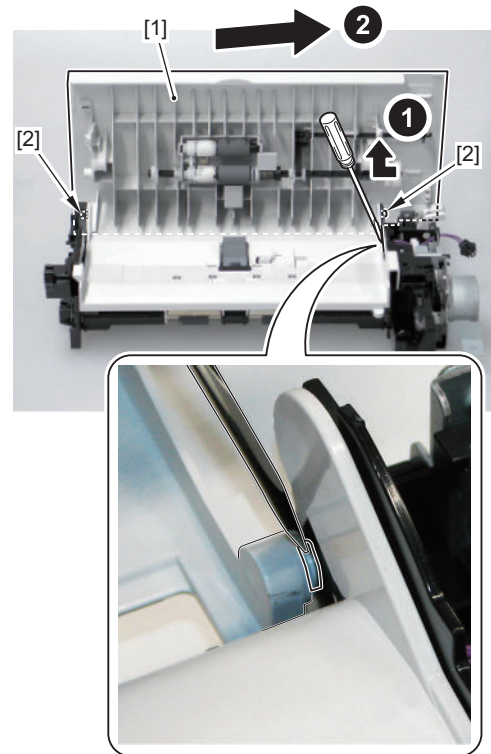


## Removing the ADF Pickup Motor (MF628Cw/626Cn/624Cw/623Cn)

### ■ Preparation

**1. Remove the ADF Pickup Feed Unit. (Refer to " Removing the ADF Pickup Feed Unit (MF628Cw/626Cn/624Cw/623Cn) " on page 131)**

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## ■ Procedure

> **NOTE:**
> When removing the ADF Pickup Motor, it is not necessary to remove the ADF Upper Cover Unit described in the previous step.

1. **Remove the ADF Motor [1] in the direction of the arrow.**
   - 2 screws [2]
   - 1 belt [3]
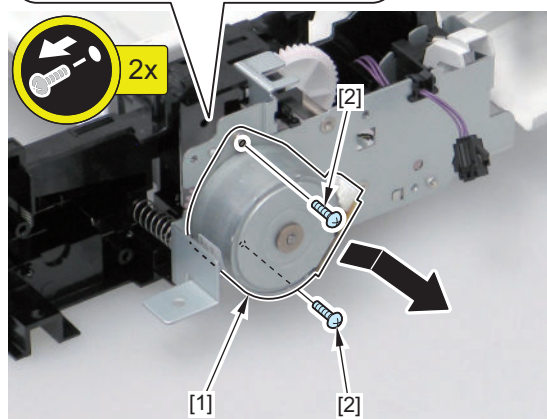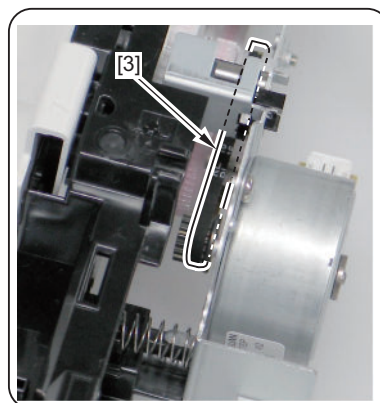


> **CAUTION:**
> When installing the ADF Pickup Motor, be sure to hook the gear [1] of the motor on the belt [2].
>
>
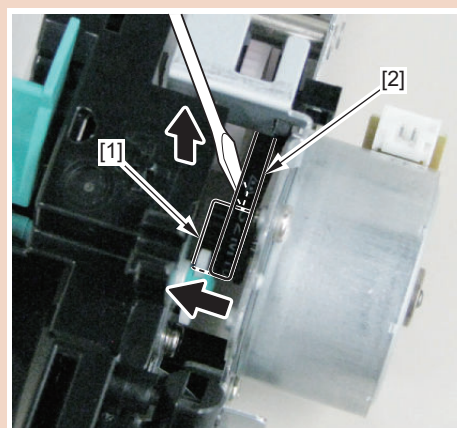
**CAUTION:**
When installing the ADF Pickup Motor, be sure to install with the connector [1] on the right side.

## ■ Procedure

**CAUTION:**
Be sure to perform "After Replacing the Scoopup sheet holder (Refer to "After Replacing the Scoopup Sheet Holder" on page 134)" when replacing the Scoopup sheet holder, respectively.

1. **Remove the 3 screws [1] at the bottom of the Reader Unit.**

2. **Remove the Scoopup sheet holder [1].**
   • 2 claws [2]
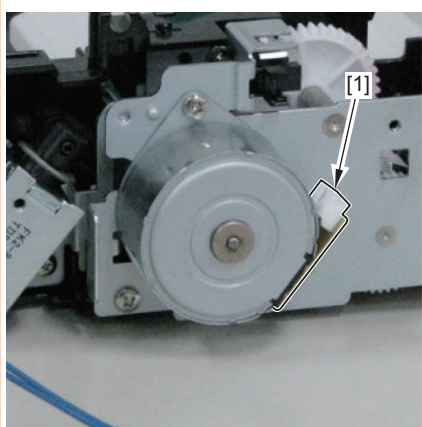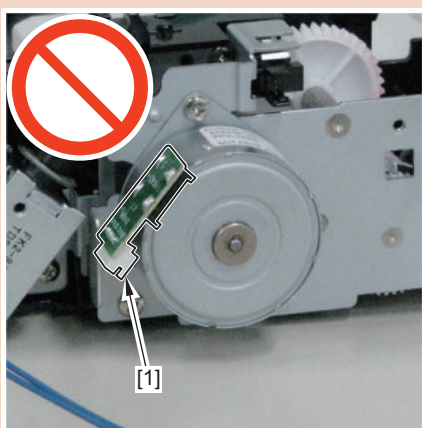
# Removing the Scoopup sheet holder

## ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. **Remove the Left Cover. (Refer to "Removing the Left Cover" on page 109)**

3. **Remove the Rear Upper Cover. (Refer to "Removing the Rear Upper Cover" on page 116)**

4. **Remove the ADF Unit/Copyboard + Reader Unit. (Refer to "Removing the ADF Unit/Copyboard + Reader Unit" on page 121)**

5. **Separate the ADF Unit/Copyboard + Reader Unit. (Refer to "Separating the ADF Unit/Copyboard + Reader Unit" on page 122)**

## ■ After Replacing the Scoopup Sheet Holder

1. **Automatic adjustment of the stream reading position**
   1. Entering a provisional value
      Set the value of
      • COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)
      to "-20".
   2. Automatic adjustment of the stream reading position
      Execute
      • COPIER > FUNCTION > INSTALL > STRD-POS (Scan position auto adj in ADF mode)
      If the operation was successful, write the value of STRD-POS on the service label.

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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 value of

- COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)

If it remains "-20", the operation is judged to be "failed".

If the operation is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > INSTALL > STRD-POS again.

2. **Adjust the white level in the following service mode, and write the final setting values on the service label.**

1. Enter the values in the following service mode items respectively.
   - In COPIER > ADJUST > CCD > DFTAR-R, set "299".
   - In COPIER > ADJUST > CCD > DFTAR-G, set "309".
   - In COPIER > ADJUST > CCD > DFTAR-B, set "307" .
   - In COPIER > ADJUST > CCD > DFTAR-BW, set "315".

2. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode (color))

3. Place the same blank paper on the ADF, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode (color))

4. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader again, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))

5. Place the same blank paper on the ADF again, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))

6. If the operation was successful, write the setting value on the service label.

7. Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation is successful or not.
   - COPIER > ADJUST > CCD > DFTAR-R (Adjustment of shading target value (R) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-G (Adjustment of shading target value (G) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-B (Adjustment of shading target value (B) at ADF reading)

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

8. If the operation result is "failed", turn OFF and then ON the power, execute
   - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode: color)
   and then execute
   - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode: color)
   again.

9. Checking the value of DFTAR-BW
   Check the value of
   - COPIER > ADJUST > CCD > DFTAR-BW (Adjustment of shading target value (B&W) at ADF reading)
   
   If the value remains the same as the value you entered, the operation result is judged to be "failed".

10. If the operation result is "failed", turn OFF and then ON the power, execute
    - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
    and then execute
    - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
    again.

# ◉ Removing the Reader Unit Upper Cover
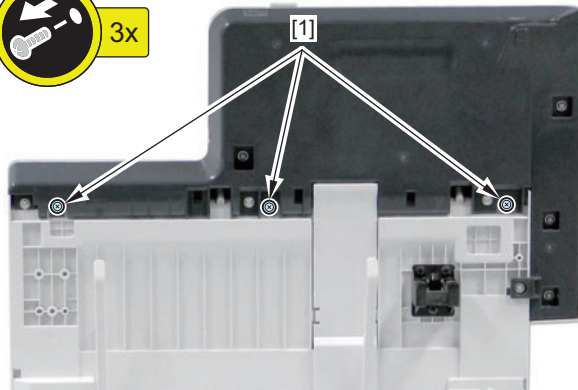
## ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. **Remove the Left Cover. (Refer to "Removing the Left Cover" on page 109)**

3. **Remove the Rear Upper Cover. (Refer to "Removing the Rear Upper Cover" on page 116)**

4. **Remove the ADF Unit/Copyboard + Reader Unit. (Refer to "Removing the ADF Unit/Copyboard + Reader Unit" on page 121)**

5. **Separate the ADF Unit/Copyboard + Reader Unit. (Refer to "Separating the ADF Unit/Copyboard + Reader Unit" on page 122)**
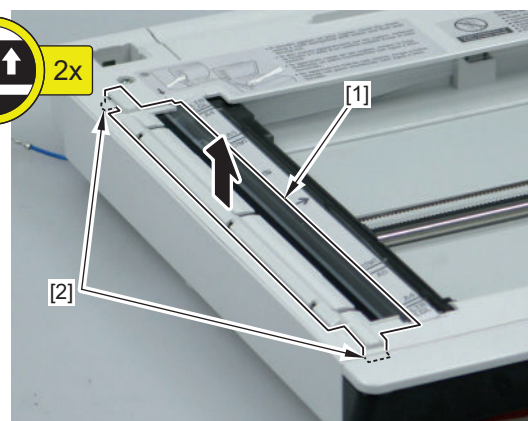
6. **Remove the Scoopup sheet holder. (Refer to** **)**

## ■ Procedure

**CAUTION:**
Be sure to perform "After Replacing the Reader Upper Cover Unit (Refer to )" when replacing the Reader Upper Cover Unit, respectively.

**CAUTION:**
To replace the Copyboard Glass, be sure to replace the Copyboard Glass together with the Reader Unit Upper Cover.

1. **Remove the Reader Unit Upper Cover [1].**
   - 2 screw [2]
   - 5 claws [3]

**CAUTION:**
Because the Copyboard Glass [2] is attached to the Upper Cover [1], be careful not to drop or damage the Upper Cover.



## ■ After Replacing the Reader Upper Cover Unit

1. **Enter the X, Y, and Z values indicated under the barcode on the Copyboard Glass in**



   - COPIER > ADJUST > CCD > W-PLT-X (White level data (X) entry of white plate) ,
   - COPIER > ADJUST > CCD > W-PLT-Y (White level data (Y) entry of white plate) , and
   - COPIER > ADJUST > CCD > W-PLT-Z (White level data (Z) entry of white plate) ,

   and then write the entered values (the the X, Y, and Z values shown under 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

2. **AGC adjustment**
   1. Entering a provisional value
      Change the foregoing values to "1,000".
      - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)

      Change the foregoing values to "1,200"
      - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)

2. Adjust the white level in the following service mode.
   - COPIER > FUNCTION > CCD > BW-AGC (CIS intensity adjustment in ADF (B&W))
   - COPIER > FUNCTION > CCD > CL-AGC (CIS intensity adjustment in ADF (color))
3. If the operation was "successful", this procedure is completed. (There is no need to write the value on the service label.)
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.
   B&W mode
   - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)
   Check the foregoing values. If all of them remain "1,000", the operation result is judged to be "failed". If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > BW-AGC again.
   Color mode
   - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)
   Check the foregoing values. If all of them remain "1,200", the operation result is judged to be "failed". If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > CL-AGC again.

3. **Automatic adjustment of the stream reading position**
   1. Entering a provisional value
      Set the value of
      - COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)
      to "-20".
   2. Automatic adjustment of the stream reading position
      Execute
      - COPIER > FUNCTION > INSTALL > STRD-POS (Scan position auto adj in ADF mode)
      If the operation was successful, write the value of STRD-POS on the service label.

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 value of
   - COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)
   If it remains "-20", the operation is judged to be "failed".
   If the operation is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > INSTALL > STRD-POS again.

4. **Adjust the white level in the following service mode, and write the final setting values on the service label.**
   1. Enter the values in the following service mode items respectively.
      - In COPIER > ADJUST > CCD > DFTAR-R, set "299".
      - In COPIER > ADJUST > CCD > DFTAR-G, set "309".
      - In COPIER > ADJUST > CCD > DFTAR-B, set "307" .
      - In COPIER > ADJUST > CCD > DFTAR-BW, set "315".
   2. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode (color))
   3. Place the same blank paper on the ADF, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode (color))
   4. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader again, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
   5. Place the same blank paper on the ADF again, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
   6. If the operation was successful, write the setting value on the service label.

7. Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation is successful or not.
    - COPIER > ADJUST > CCD > DFTAR-R (Adjustment of shading target value (R) at ADF reading)
    - COPIER > ADJUST > CCD > DFTAR-G (Adjustment of shading target value (G) at ADF reading)
    - COPIER > ADJUST > CCD > DFTAR-B (Adjustment of shading target value (B) at ADF reading)

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

8. If the operation result is "failed", turn OFF and then ON the power, execute
    - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode: color)
    and then execute
    - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode: color)
    again.

9. Checking the value of DFTAR-BW
    Check the value of
    - COPIER > ADJUST > CCD > DFTAR-BW (Adjustment of shading target value (B&W) at ADF reading)

    If the value remains the same as the value you entered, the operation result is judged to be "failed".

10. If the operation result is "failed", turn OFF and then ON the power, execute
    - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
    and then execute
    - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
    again.

5. **Copyboard geometric adjustment**

   Enter the values shown on the label that comes with the part in the following service mode items.
    - COPIER > ADJUST > ADJ-XY > ADJ-X (Adj of img pstn in book mode: vert scan)
    - COPIER > ADJUST > ADJ-XY > ADJ-Y (Adj of img pstn in book mode: (horizontal scanning direction)
    - COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine adj image ratio: vertical scanning)

   Enter the values in the foregoing service mode.

# ⬤ Removing the CIS Unit

## ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. **Remove the Left Cover. (Refer to "Removing the Left Cover" on page 109)**

3. **Remove the Rear Upper Cover. (Refer to "Removing the Rear Upper Cover" on page 116)**

4. **Remove the ADF Unit/ Copyboard + Reader Unit. (Refer to "Removing the ADF Unit/Copyboard + Reader Unit" on page 121)**

5. **Separate the ADF Unit/ Copyboard + Reader Unit. (Refer to "Separating the ADF Unit/Copyboard + Reader Unit" on page 122)**

6. **Remove the Reader Unit Upper Cover Unit. (Refer to "Removing the Reader Unit Upper Cover" on page 135)**

## ■ Procedure

> **CAUTION:**
> Be sure to perform "After replacing CIS unit (Refer to"After replacing CIS units" on page 140)" when replacing the CIS unit, respectively.

1. **Pull the Drive Belt [1] to move the CIS Unit [2].**

2. **Loosen the screw [3] and move the Pulley Holder [4] in the direction of the arrow to remove the Drive Belt [1].**

3. **Remove the CIS Unit Mount [1] and remove the flat cable [2].**
   - 1 guide [3]

**CAUTION:**
- When assembling/ disassembling the copyboard glass, take care not to lose the 2 CIS unit spacers [1].
- When assembling/ disassembling the copyboard glass, do not touch the copy reading area [2] of the CIS unit.
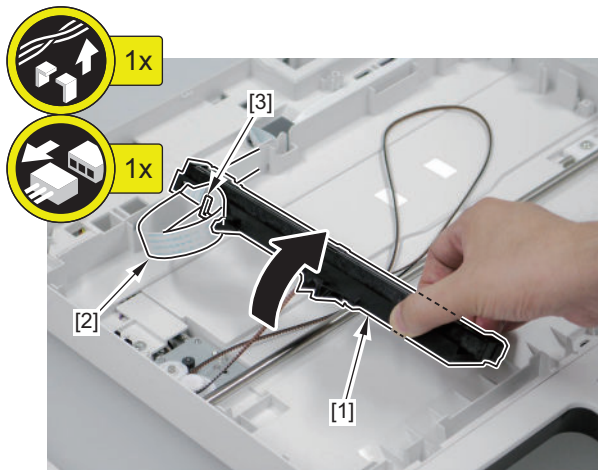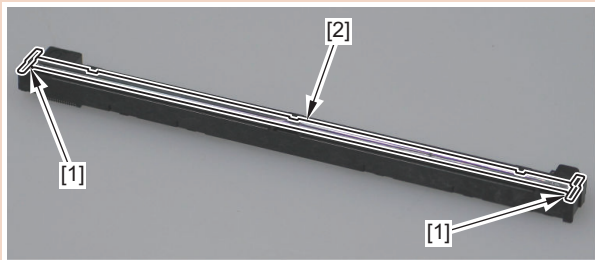




4. **Bring up the CIS Unit [1] to remove in the direction of the arrow.**
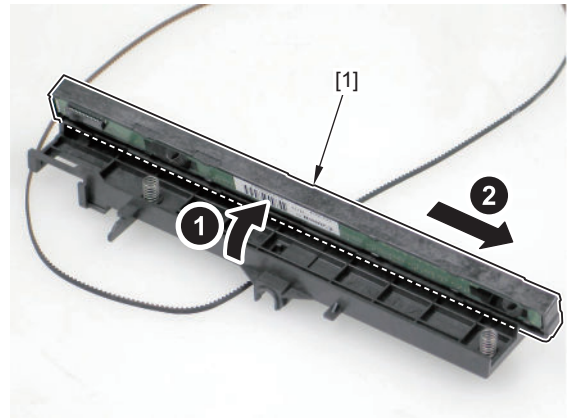


**CAUTION:**
When replacing the CIS Unit [1], be sure to replace the CIS Unit [1] and the CIS Spacer [2], which are included in the package of the service part, at the same time. If a different spacer is used, image reading error may occur.
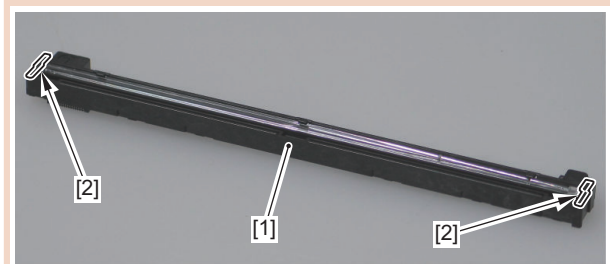


**CAUTION:**
When installing the CIS Unit [1], be sure to replace the CIS Spacer [2] together with the CIS Unit [1] (included in the package of the Service Parts).
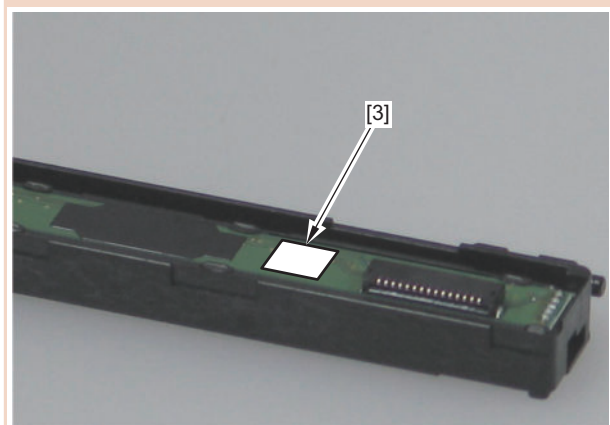
**CAUTION:**

When the CIS Spacers are mixed up or lost, check the CIS Rank Label [3] to use, and use the appropriate CIS Spacer that fits the rank of the CIS Unit.

| Rank | Color of spacer | Dimension (Height of spacer) |
|---|---|---|
| rank A | light gray | 1.17 mm |
| rank B | dark gray | 1.27 mm |
| rank C | brown | 1.37 mm |

**CAUTION:**

When installing the CIS Unit, be sure to check that the projection [1] is fitted to the dent [2] to install.





# ■ After replacing CIS units

**1. AGC adjustment**

1. Entering a provisional value
   Change the foregoing values to "1,000".
   - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)

   Change the foregoing values to "1,200"
   - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)

2. Adjust the white level in the following service mode.
   - COPIER > FUNCTION > CCD > BW-AGC (CIS intensity adjustment in ADF (B&W))
   - COPIER > FUNCTION > CCD > CL-AGC (CIS intensity adjustment in ADF (color))

3. If the operation was "successful", this procedure is completed. (There is no need to write the value on the service label.)

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.
B&W mode
- COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
- COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
- COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)

Check the foregoing values. If all of them remain "1,000", the operation result is judged to be "failed". If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > BW-AGC again.
Color mode
- COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
- COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
- COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)

Check the foregoing values. If all of them remain "1,200", the operation result is judged to be "failed". If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > CL-AGC again.

2. **Automatic adjustment of the stream reading position**

1. Entering a provisional value
Set the value of
- COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)

to "-20".

2. Automatic adjustment of the stream reading position
Execute
- COPIER > FUNCTION > INSTALL > STRD-POS (Scan position auto adj in ADF mode)

If the operation was successful, write the value of STRD-POS on the service label.

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 value of
- COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)

If it remains "-20", the operation is judged to be "failed".
If the operation is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > INSTALL > STRD-POS again.

3. **Adjust the white level in the following service mode, and write the final setting values on the service label.**

1. Enter the values in the following service mode items respectively.
- In COPIER > ADJUST > CCD > DFTAR-R, set "299".
- In COPIER > ADJUST > CCD > DFTAR-G, set "309".
- In COPIER > ADJUST > CCD > DFTAR-B, set "307" .
- In COPIER > ADJUST > CCD > DFTAR-BW, set "315".

2. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader, and execute
- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode (color))

3. Place the same blank paper on the ADF, and execute
- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode (color))

4. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader again, and execute
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))

5. Place the same blank paper on the ADF again, and execute
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))

6. If the operation was successful, write the setting value on the service label.

7. Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation is successful or not.
   - COPIER > ADJUST > CCD > DFTAR-R (Adjustment of shading target value (R) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-G (Adjustment of shading target value (G) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-B (Adjustment of shading target value (B) at ADF reading)

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

8. If the operation result is "failed", turn OFF and then ON the power, execute
   - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode: color)

   and then execute
   - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode: color)

   again.

9. Checking the value of DFTAR-BW
   Check the value of
   - COPIER > ADJUST > CCD > DFTAR-BW (Adjustment of shading target value (B&W) at ADF reading)

   If the value remains the same as the value you entered, the operation result is judged to be "failed".

10. If the operation result is "failed", turn OFF and then ON the power, execute
    - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))

    and then execute
    - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))

    again.

4. **Copyboard geometric adjustment**

   Enter the values shown on the label that comes with the part in the following service mode items.
   - COPIER > ADJUST > ADJ-XY > ADJ-X (Adj of img pstn in book mode: vert scan)
   - COPIER > ADJUST > ADJ-XY > ADJ-Y (Adj of img pstn in book mode: (horizontal scanning direction)
   - COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine adj image ratio: vertical scanning)

   Enter the values in the foregoing service mode.

5. **ADF geometric adjustment**

   1. On an image copied using the ADF, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.
      In the case of E353MGMH, perform 2-sided original reading from the ADF.
      If adjustment is needed, enter necessary adjustment values in the following service mode:
      - COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adj img pstn in ADF mode:horz scan)
      - FEEDER > ADJUST > DOCST (Fine adjustment of VSYNC timing at ADF reading [front side])
      - FEEDER > ADJUST > LA-SPD (Fine adjustment of magnification ratio in vertical scanning direction at ADF stream reading [front side])

   2. If you enter adjustment values, write the final values on the service label.

# ⬤ Removing the Reader Scanner Motor

## ■ Preparation

## ■ Procedure

1.  **Free the harness [2] while holding the Reader Unit [1].**

    - 1 Connector [3]
    - 3 Harness Guides at the [A] location

    > **CAUTION:**
    > To prevent parts on the top side of the Reader Unit, do not tip the Reader Unit [1] into the perpendicular position.
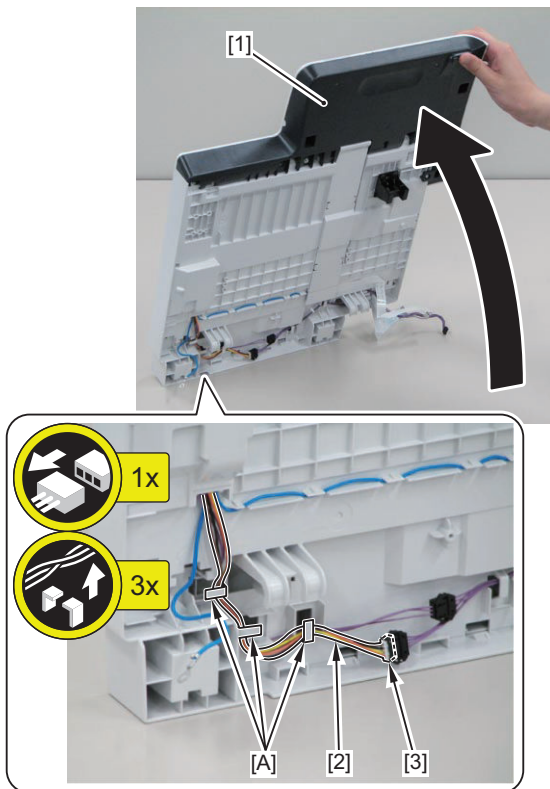


2.  **Pull the Drive Belt [1] to move the CIS Unit [2].**

3.  **Loosen the screw [3] and move the Pulley Holder [4] in the direction of the arrow to remove the Drive Belt [1].**
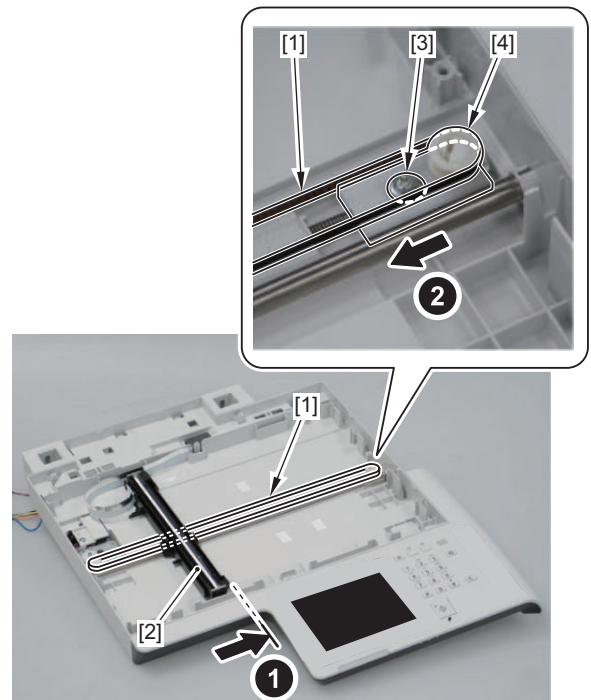


4.  **Remove the gear [1].**

    - 1 claw [2]
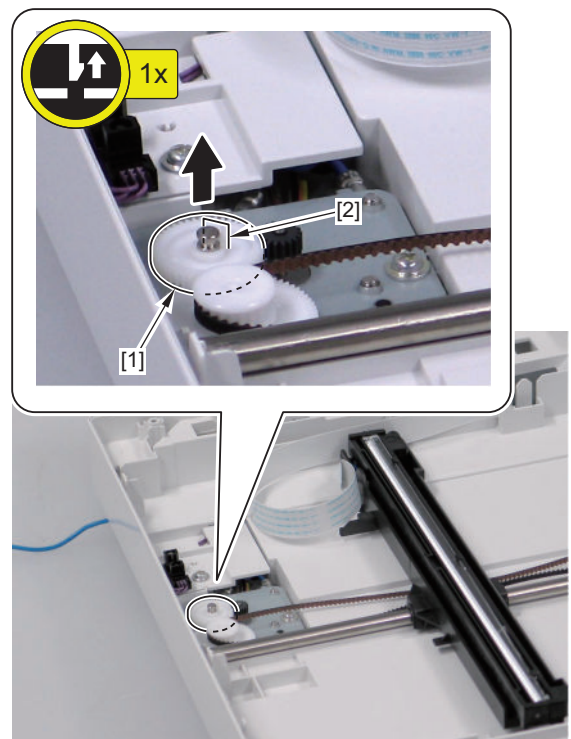
**5. Remove the Shaft Retaining Plate [1].**

- 1 screw [2]
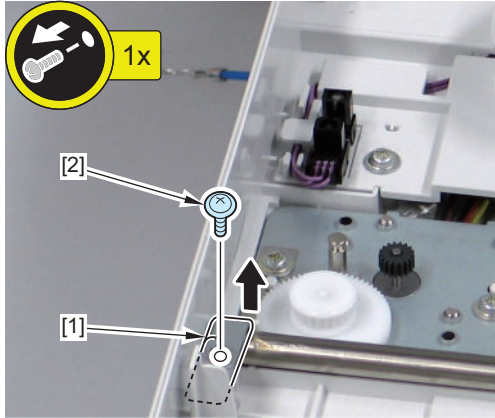


**6. Move the Sensor Mount [1].**

- 1 screw [2]
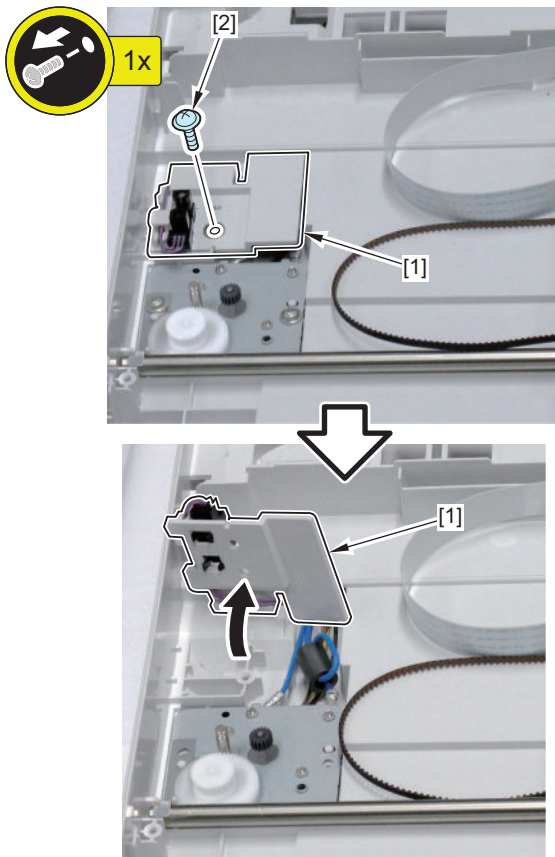


**7. Move the Motor Mounting Plate [1] and turn it over.**

- 2 screws [2]
- 1 Grounding Plate [3]
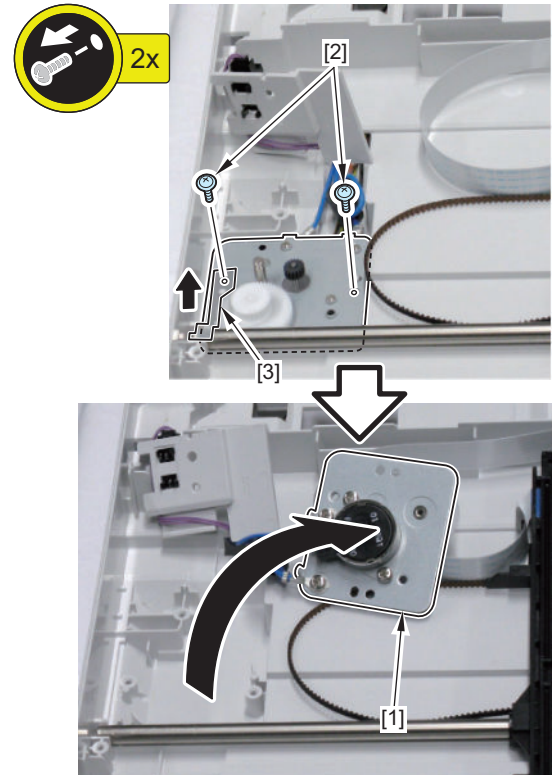


**8. Pass the connector [1] through the hole [A].**

**9. Remove the Reader Scanner Motor [3] from the Motor Mounting Plate [2].**

- 2 screws [4]
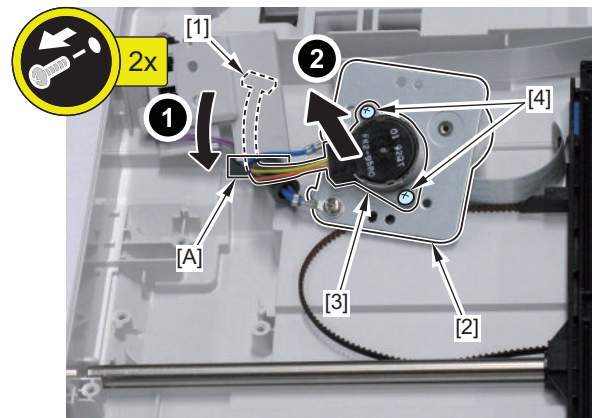
# Controller System

## Location

### ■ 1/2
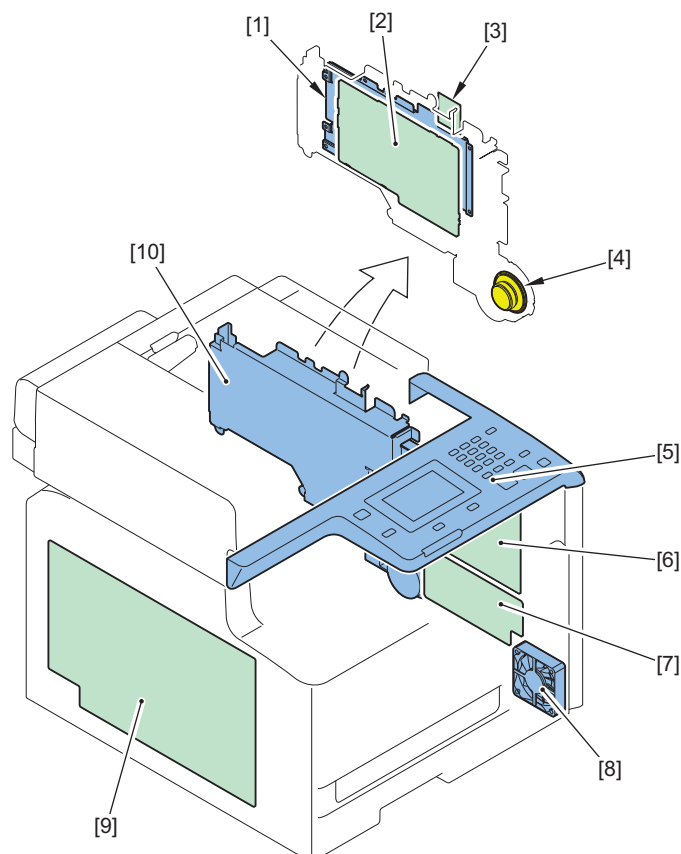


| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|-----|-----------|-----------|---------|-----------|--------------------------------------|
| [1] | Controller Cover | Product Configuration | | "Removing the Controller Cover" on page 147 | - |
| [2] | Main Controller PCB | Product Configuration | UN8 | "Removing the Main Controller PCB" on page 147 | "Before Replacing the Main Controller PCB" on page 147<br>"After Replacing the Main Controller PCB" on page 149 |
| [3] | Wireless LAN PCB | Product Configuration | MF628Cw / 624Cw : UN1 | "Removing the Wireless LAN PCB (MF628Cw/ 624Cw)" on page 147 | - |
| [4] | Speaker | Product Configuration | MF628Cw / 626Cn : SP1 | "Removing the Speaker (MF628Cw/ 626Cn)" on page 171 | - |
| [5] | Control Panel Unit | Product Configuration | | "Removing the Control Panel Unit" on page 160 | - |
| [6] | DC Controller PCB | Product Configuration | UN2 | "Removing the DC Controller PCB" on page 152 | "Before Replacing the DC Controller PCB" on page 152<br>"After Replacing the DC Controller PCB" on page 152 |
| [7] | Driver PCB | Product Configuration | UN7 | "Removing the Driver PCB" on page 153 | - |

| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|---|---|---|---|---|---|
| [8] | Fan | Product Configuration | FM1 | "Removing the Fan" on page 170 | - |
| [9] | High Voltage Power Supply PCB | Product Configuration | UN3 | "Removing the High Voltage Power Supply PCB" on page 158 | - |
| [10] | Main Controller Support Plate | Product Configuration | | "Removing the Main Controller Support Plate" on page 151 | - |

## ■ 2/2
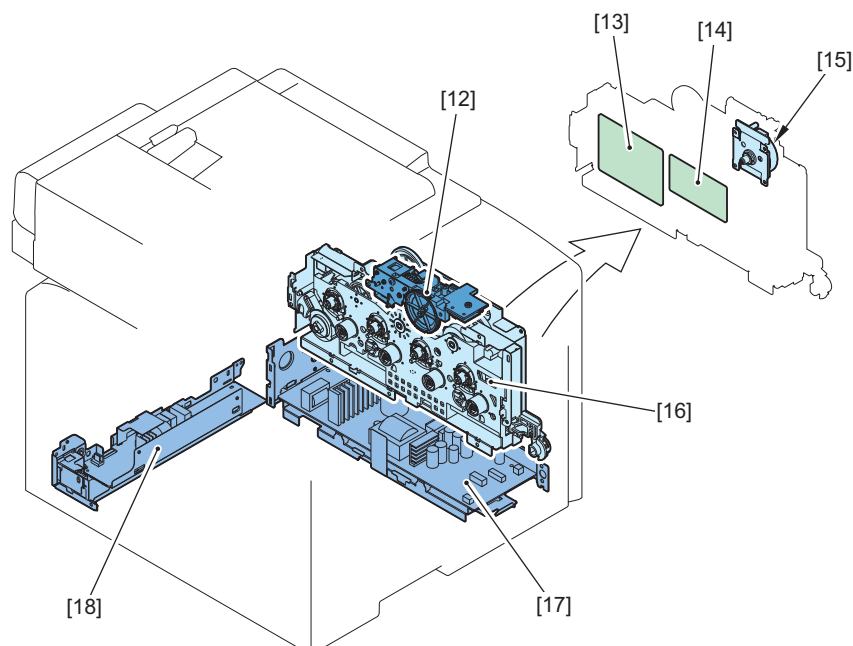


| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|---|---|---|---|---|---|
| [12] | Sub Drive Unit | Product Configuration | - | "Removing the Sub Drive Unit" on page 168 | - |
| [13] | FAX-NCU PCB | Product Configuration | MF628Cw / 626Cn : UN9 | "Removing the FAX PCB (MF628Cw/ 626Cn)" on page 161 | - |
| [14] | Off Hook PCB | Product Configuration | MF628Cw / 626Cn : UN12 | "Removing the Off Hook PCB (MF628Cw/ 626Cn)" on page 162 | - |
| [15] | Main Motor | Product Configuration | M701 | "Removing the Main Motor" on page 169 | - |
| [16] | Main Drive Unit | Main Drive Unit | - | "Removing the Main Drive Unit" on page 162 | - |
| [17] | Low Voltage Power Supply Unit | Product Configuration | - | "Removing the Low Voltage Power Supply Unit" on page 155 | - |
| [18] | Fixing Power Supply Unit | Product Configuration | - | "Removing the Fixing Power Supply Unit" on page 159 | - |

# Controller System Disassembly/ Assembly Procedure

## 🔵 Removing the Controller Cover

### ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

### ■ Procedure

1. Remove the Controller Cover [1].
   - 7 Screws [2]
   - 2 Hooks [3]
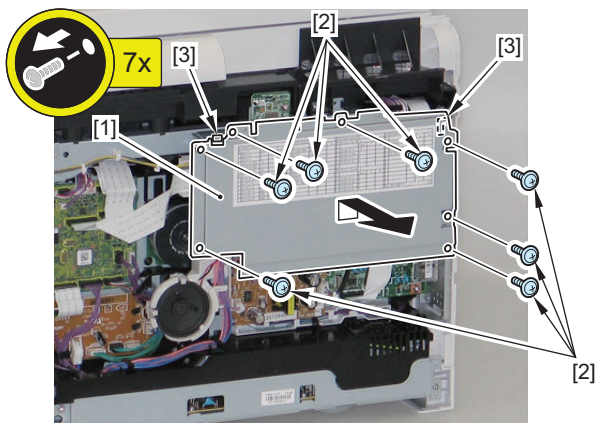


## 🔵 Removing the Wireless LAN PCB (MF628Cw/624Cw)

### ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111** )

2. Remove the Controller Cover. (Refer to **"Removing the Controller Cover" on page 147**)

## ■ Procedure

1. Remove the Wireless LAN PCB [1].
   - 1 Screw [2]
   - 1 Flat Cable [3]
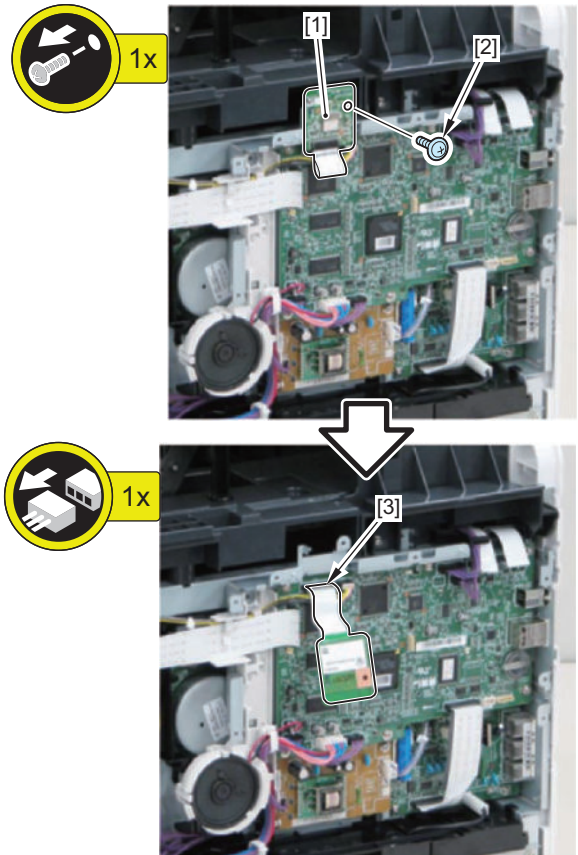


## 🔵 Removing the Main Controller PCB

**CAUTION:**
When replacing the Main Controller PCB, be sure to perform the works to be done before replacing the Main Controller PCB (Refer to "Before Replacing the Main Controller PCB" on page 147 ) and the works be done after replacing the Main Controller PCB (Refer to "After Replacing the Main Controller PCB" on page 149).

### ■ Before Replacing the Main Controller PCB

Back up user data (settings, registered data, etc.) and service mode data for setting and registration after PCB replacement. Take notes if data is unable to back up.

1. **Enter service mode, and set the following item to "1".**
   - COPIER > OPTION > USER > SMD-EXPT



**SERVICE MODE**

| COPIER | COPIER > OPTION > USER |
| FEEDER | **USER** |
| FAX | |
| TESTMODE | COUNTER1 113 |
| SERVICE REPORT | COUNTER2 501 |
| | COUNTER3 301 |
| | COUNTER4 0 |
| | COUNTER5 0 |
| | COUNTER6 0 |
| | CNT-SW 0 |
| | SMD-EXPT 1 |
| | ACC-SLP 1 |
| | DRMRP-SW 0 |

```
TNRB-SW   : 0
SCALL-SW  : 0
SCALLCMP  : 0
PC-MODE   : 0
SMD-EXPT  : 1
```

```
TNRB-SW   : 0
SCALL-SW  : 0
SCALLCMP  : 0
PC-MODE   : 0
SMD-EXPT  : 1
```

**NOTE:**
The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

2. **Using the DCM function (Refer to "Setting Information Export/Import Function (DCM)" on page 57), export the following information.**
   - User data (the settings of the [Settings/Registration] menu and the address book)
   - Service mode setting information

3. **Write down the following information because these settings need to be configured (entered) after replacing the PCB.**
   - The default settings shown on the service label [1]
   - The machine's serial number
   - Settings/Registration > System Settings > Device Information> Location



[1]

4. **Enter service mode, and set the following item to "0".**
   - COPIER > OPTION > USER > SMD-EXPT



**SERVICE MODE**

| COPIER | COPIER > OPTION > USER |
| FEEDER | **USER** |
| FAX | |
| TESTMODE | COUNTER1 113 |
| SERVICE REPORT | COUNTER2 501 |
| | COUNTER3 301 |
| | COUNTER4 0 |
| | COUNTER5 0 |
| | COUNTER6 0 |
| | CNT-SW 0 |
| | SMD-EXPT 1 |
| | ACC-SLP 1 |
| | DRMRP-SW 0 |

**NOTE:**
The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

## ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. **Remove the Controller Cover. (Refer to "Removing the Controller Cover" on page 147)**

3. **Remove the Wireless LAN PCB. (MF628Cw/ 624Cw only) (Refer to "Removing the Wireless LAN PCB (MF628Cw/624Cw)" on page 147)**

## ■ Procedure

1. **Remove the Main Controller PCB [1].**
   - 1 Flat Cable Connector Lock [2]
   - 3 Flat Cables [3]
   - 1 Flat Cables [4] (Fax model only)
   - 4 Connectors [5]
   - 2 Connectors [6] (Fax model only)
   - 1 Connector [7] (ADF model only)
   - 1 Connector [8] (MF628Cw 230V, MF623Cn 230V only)
   - 6 Screws [9] (TP)
   - 1 Screw [10] (Binding)
   - 1 Hook [11]
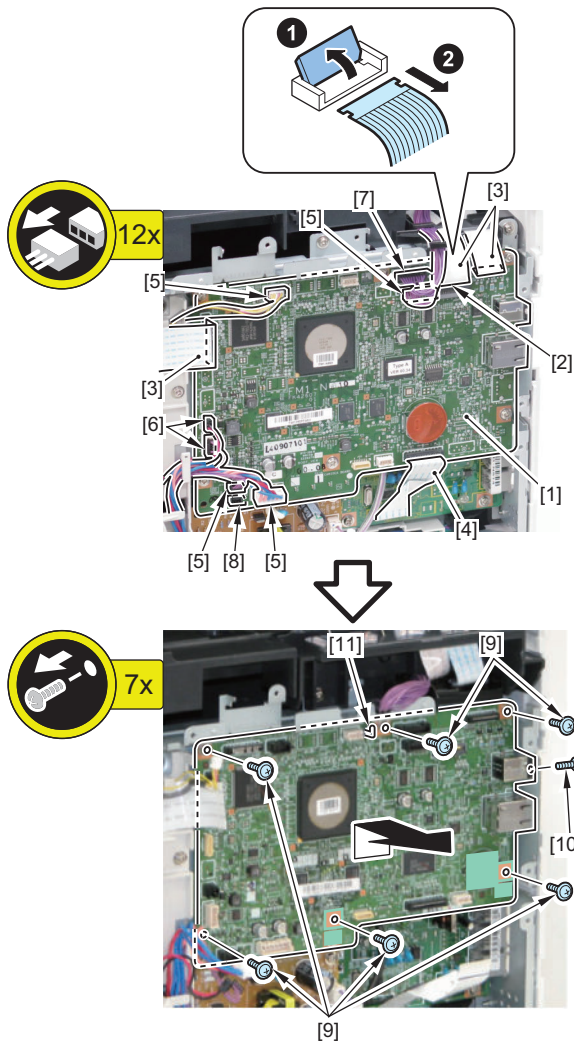


**CAUTION:**
When connecting the Flat Cable, be sure to perform the following; while pushing the Flat Cable [1] against the connector with a lock [2], check that the line on the edge [A] of the Flat Cable Connector and the line on the edge [B] of the Flat Cable Connector Lock are parallel, and then close the Flat Cable Connector Lock [3].



## ■ After Replacing the Main Controller PCB

1. **Setting of destination/paper size group**
   1. COPIER > OPTION > BODY > LOCALE (to set destination groups)
      [Settings]
      1: Japan, 2: North America, 3: Korea, 4: China, 5: Taiwan, 6: Europe, 7: Asia, 8: Oceania
   2. COPIER > OPTION > BODY > SIZE-LC (to set paper size groups)
      [Settings]
      1: AB series, 2: Inch series, 3: A series, 4: AB/Inch series

2. **Executing initial settings.**
   Perform the following procedure to change the settings back to the initial settings.
   1. Execute the following service mode to initialize the data according to the setting values in step 1.
      COPIER > FUNCTION > CLEAR > ALL (to clear all data)
      - Setting / Registration data (the default value for each destination is set).
      - Service mode data (the default value for each destination is set).
      - Job IDs
      - Log data
      - Dates
   2. Execute the following service mode to clear the reader/DF-related factory adjustment values.
      COPIER > FUNCTION > CLEAR > R-CON

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### 3. AGC adjustment

1. Entering a provisional value
   Change the foregoing values to "1,000".
   - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)

   Change the foregoing values to "1,200"
   - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)

2. Adjust the white level in the following service mode.
   - COPIER > FUNCTION > CCD > BW-AGC (CIS intensity adjustment in ADF (B&W))
   - COPIER > FUNCTION > CCD > CL-AGC (CIS intensity adjustment in ADF (color))

3. If the operation was "successful", this procedure is completed. (There is no need to write the value on the service label.)

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.
   B&W mode
   - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)

   Check the foregoing values. If all of them remain "1,000", the operation result is judged to be "failed". If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > BW-AGC again.
   Color mode
   - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)

   Check the foregoing values. If all of them remain "1,200", the operation result is judged to be "failed". If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > CL-AGC again.

### 4. Executing initial adjustment.

Follow the procedure shown below to execute initial adjustment and enter the factory adjustment values.

1. Enter default setting values indicated on the service label in the corresponding service mode items.

2. Execute the following service mode to back up the DC Controller setting values.
   COPIER > FUNCTION > VIFFNC > STOR-DCN

3. The initial installation mode will be activated by turning OFF and then ON the power. Configure the following settings according to the instruction on the screen.
   - Setting of date/time
   - Auto-gradation correction

4. Correction of coordinate position of Touch Panel in the following service mode.
   COPIER > ADJUST > PANEL > TOUCHCHK

**5. Migrating the serial number**

1. Enter the serial number (8-digit alphanumeric) in Settings/Registration > System Settings > Device Information > Location.
2. Execute the following service mode, and write the serial number entered in the previous step on the Main Controller PCB.
COPIER > OPTION > SERIAL > SN-MAIN
After it has been written, the serial number entered in "Location" is deleted.
3. Turn OFF and then ON the main power.
4. Execute the following service mode, and check the serial number on the System Management Data List that was output (Body. No.).
COPIER > FUNCTION > MISC-P > SPEC

**6. Migrating user data and service mode data**

1. Enter service mode, and set the following item to "1".
   • COPIER > OPTION > USER > SMD-EXPT

> **NOTE:**
> The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

2. Using the DCM function (Refer to "Setting Information Export/Import Function (DCM)" on page 57), restore the following information.
   • User data (the settings of the [Settings/ Registration] menu and the address book)
   • Service mode setting information
3. Enter service mode, and set the following item to "0".
   • COPIER > OPTION > USER > SMD-EXPT

> **NOTE:**
> The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

**7. Reinstall the drivers.**

1. Uninstalling Old Drivers.
   • Printer Driver
   • FAX Driver
   • Scanner Driver
   • Network Scan Utility. (for machines with network connection)
     * As for the procedure, refer to "Uninstalling the Software" in the Starter Guide.
2. Refer to the following items in the Startup Guide and install the drivers which were uninstalled.
   • In case of network connection: "Installing via Network Connection"
   • In case of USB connection: "Installing with USB Connection"

> **NOTE:**
> MAC address information is changed 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 the USB memory device, the PC will not be able to recognize the machine if the USB ID is changed. It becomes therefore necessary to reinstall the driver.

**In the case of a model without fax for EUR ( MF623Cn), perform the following works.**

> **NOTE:**
> **After replacing the Main Controller PCB, the value of the service mode (SDTM-DSP) to set whether to display or hide the automatic shutdown menu becomes "0" (default value).**
> **In that case, the automatic shutdown menu is not displayed on the LUI of the machine.**
> **To display the automatic shutdown menu on the LUI of the machine, it is necessary to execute this process.**

**8. Setting of automatic shutdown menu display**

Set 1 for automatic shutdown menu display in service mode (default: 0).
COPIER > OPTION > BODY > SDTM-DSP

**9. Turn OFF and then ON the main power.**

**10. Checking the setting of Auto Sleep Time**

In setting menu, check that the setting value of Auto Sleep Time is 1. (If the setting value is 0, automatic shutdown does not work.)
Menu > Timer Settings > Auto Shutdown Time

# ⬤ Removing the Main Controller Support Plate

## ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. Remove the Controller Cover. (Refer to **"Removing the Controller Cover" on page 147**)

3. Remove the Wireless LAN PCB. (MF628Cw/ 624Cw only) (Refer to **"Removing the Wireless LAN PCB (MF628Cw/624Cw)" on page 147**)

4. Remove the Main Controller PCB. (Refer to **"Removing the Main Controller PCB" on page 147**)

## ■ Procedure

1. Free the harness [1] and Flat Cable [2].
   - Guide [A]

2. Free the harness [3] and remove the Main Controller Support Plate [4].
   - 1 Connector [5] (Fax model only)
   - Guide [B]
   - 6 Screws [6]



## 🔵 Removing the DC Controller PCB

**CAUTION:**
When replacing the DC Controller PCB, be sure to perform the works to be done before replacing the DC Controller PCB (Refer to "Before Replacing the DC Controller PCB" on page 152 ) and the works be done after replacing the DC Controller PCB (Refer to "After Replacing the DC Controller PCB" on page 152).

## ■ Before Replacing the DC Controller PCB

1. Execute the following service mode to restore the DC Controller setting values that were backed up in the previous step.
   COPIER > FUNCTION > VIFFNC > STOR-DCN

## ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

## ■ Procedure

1. Remove the DC Controller PCB [1].
   - 4 Flat Cables [2]
   - 10 Connectors [3]
   - Harness Guide [A]
   - 4 Screws [4]



## ■ After Replacing the DC Controller PCB

1. In service mode, perform the following procedure to restore the DC Controller setting values.
   COPIER > FUINCTION > VIFFNC > RSTR-DCN
   When restoration is executed, "ACTIVE" will be displayed, and then "OK!" will be displayed in about 2 minutes at the completion of restoration.

2. When backup data cannot be uploaded before replacement due to reasons such as damage of the DC Controller PCB, enter the value of each service mode item described on the service label.

3. Turn OFF and then ON the power.

4. Configure the following settings from the Control Panel.
   - Menu > Adjustment/Maintenance > Print Color Displacement Correction
   - Menu > Adjustment/Maintenance > Auto Gradation Correction > Quick Correction

5. Turn OFF and then ON the power.

# ⬤ Removing the Driver PCB

## ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

2. Remove the Controller Cover. (Refer to **"Removing the Controller Cover" on page 147**)

## ■ Procedure

1. Free the harness [1] and 1 Flat Cable [2].
   - 3 Connectors [3]
   - 2 Connectors [4] (Fax model only)
   - 1 Connectors [5] (MF628Cw 230V, MF623Cn 230V only)
   - 1 Harness Guide [A]
   - 1 Harness Guide [B]
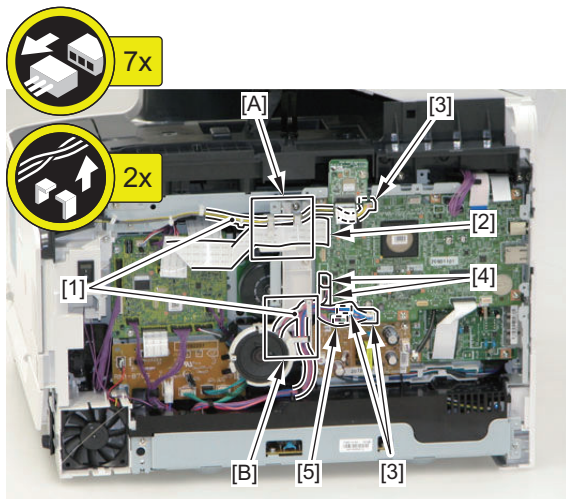


2. Remove the Speaker Holder [1].
   - 1 Screws [2]
   - 2 Hooks [3]
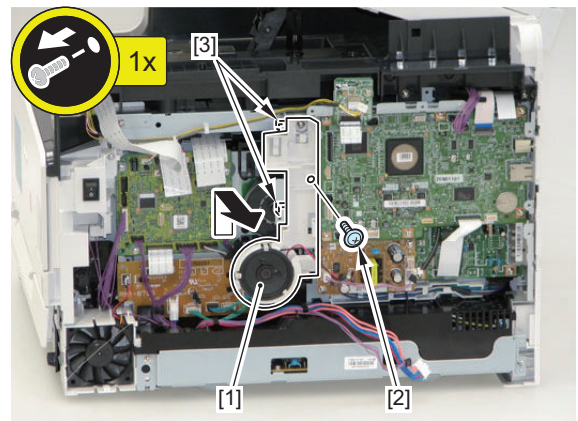


3. Free the harness [1].
   - 2 Connectors [2]
   - 1 Harness Guide [A]
   - 1 Harness Guide [B]
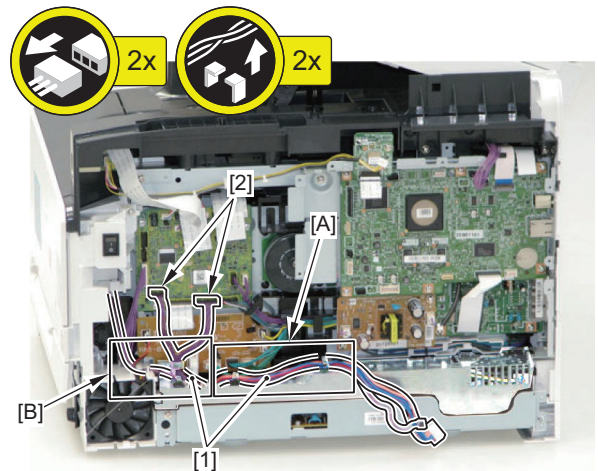
**4. Remove the Low Voltage Power Supply Unit Cover [1].**

- 4 Claws [2]
- 2 Protrusions [3]
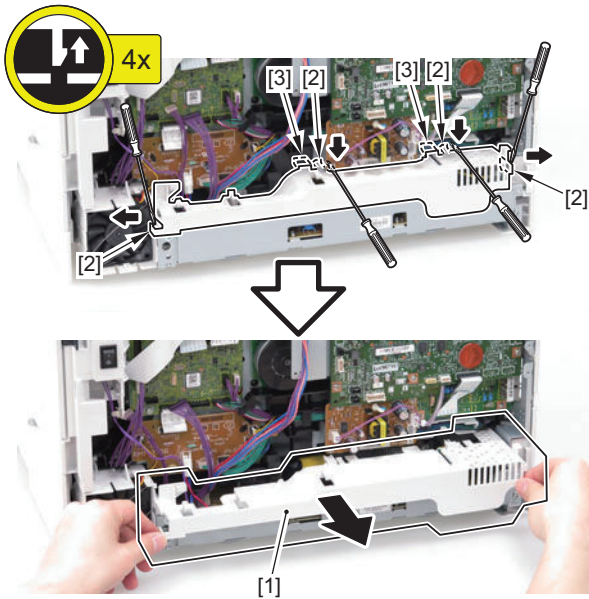


**5. Shift the Harness Guide [1].**

- 3 Connectors [2]
- 1 Boss [3]
- 4 Hooks [4]
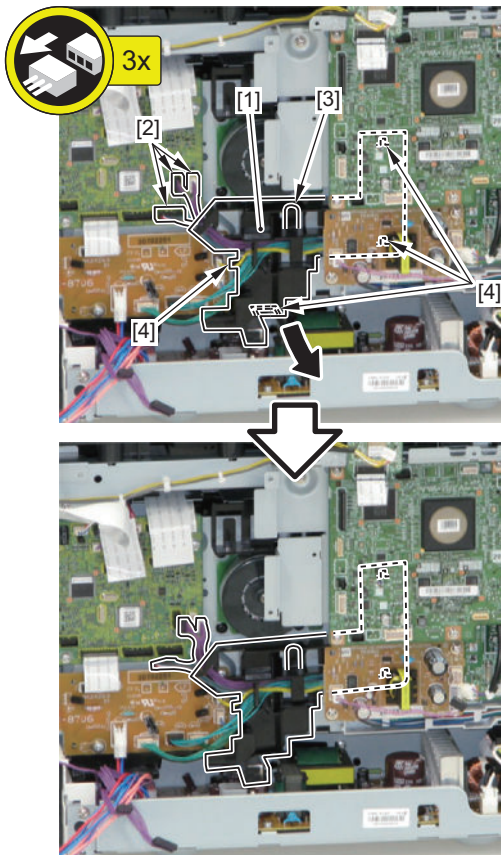


**6. Remove the Driver PCB [1].**

- 1 Flat Cable [2]
- 7 Connectors [3]
- 2 Screws [4]
- 1 Claw [5]
- 1 Hook [6]
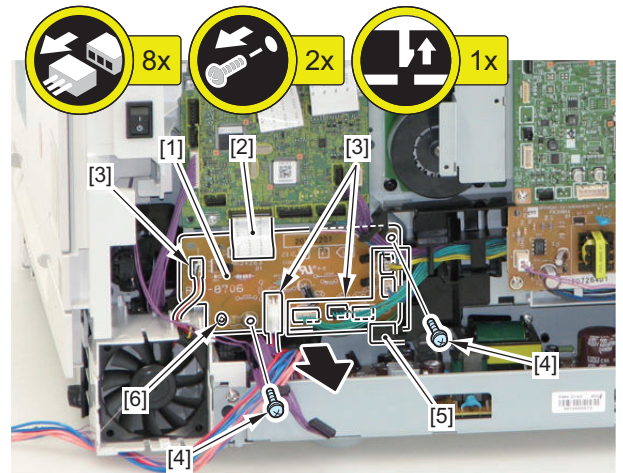


**CAUTION:**

When installing the Harness Guide [1] shifted in step 5 to the plate of the host machine, be sure to install it as shown in the figure below because the 2 hooks [2] are hidden under the Main Controller Support Plate [3].
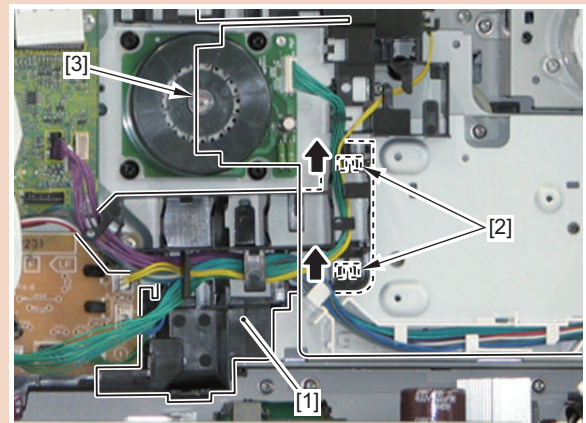
**CAUTION:**

After moving the Harness Guide [1] in the direction of the arrow and hooking the 2 hooks [2] and the 2 hooks [3], insert the boss [4].
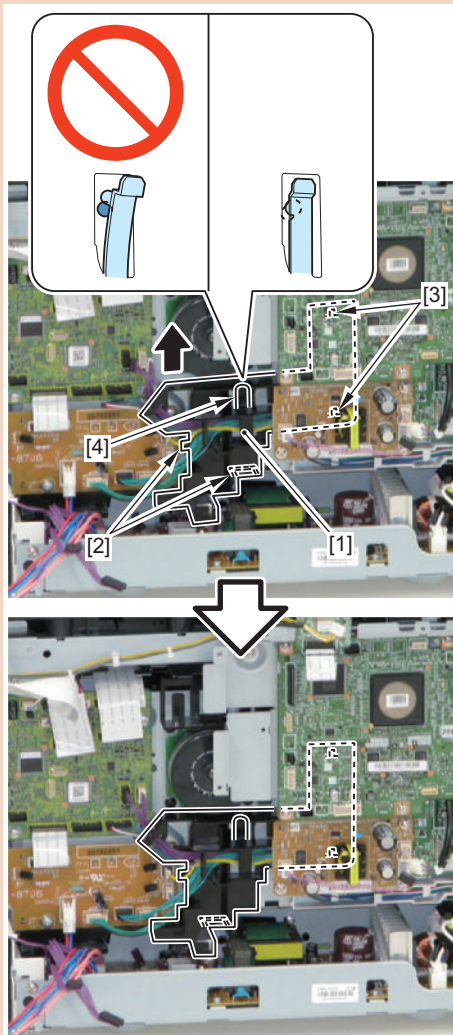


## Removing the Low Voltage Power Supply Unit

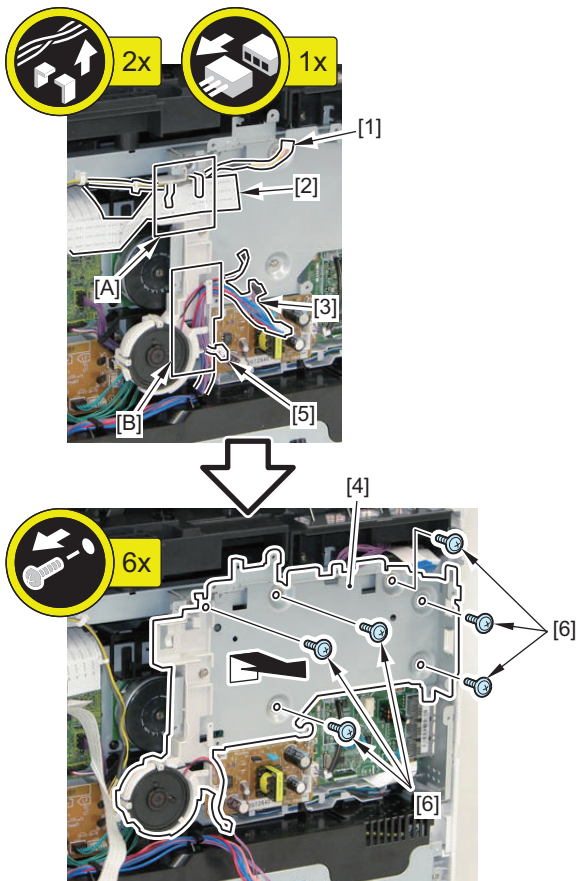### ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. **Remove the Left Cover. (Refer to "Removing the Left Cover" on page 109)**

3. **Remove the Rear Upper Cover. (Refer to "Removing the Rear Upper Cover" on page 116)**

4. **Remove the Rear Lower Cover. (Refer to "Removing the Rear Lower Cover" on page 116)**

5. **Remove the Controller Cover. (Refer to "Removing the Controller Cover" on page 147)**

6. **Remove the Wireless LAN PCB. (MF628Cw/ 624Cw only) (Refer to "Removing the Wireless LAN PCB (MF628Cw/624Cw)" on page 147)**

7. **Remove the Main Controller PCB. (Refer to "Removing the Main Controller PCB" on page 147)**

8. **Remove the Off Hook PCB. (Fax model only) (Refer to "Removing the Off Hook PCB (MF628Cw/ 626Cn)" on page 162)**

9. **Remove the Fax PCB. (Fax model only) (Refer to "Removing the FAX PCB (MF628Cw/ 626Cn)" on page 161)**

10. **Removing the Main Controller Support Plate. (Refer to "Removing the Main Controller Support Plate" on page 151)**

### ■ Procedure

1. **Remove the Fax PCB Mounting Plate [1].**
   - 4 Screws [2]
   - 2 Hooks [3]
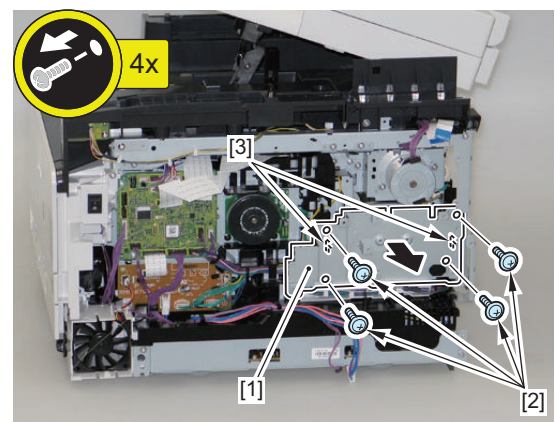


2. **Free the harness [1] from the guides [A], [B], and [C].**
   - 6 Connectors [2]



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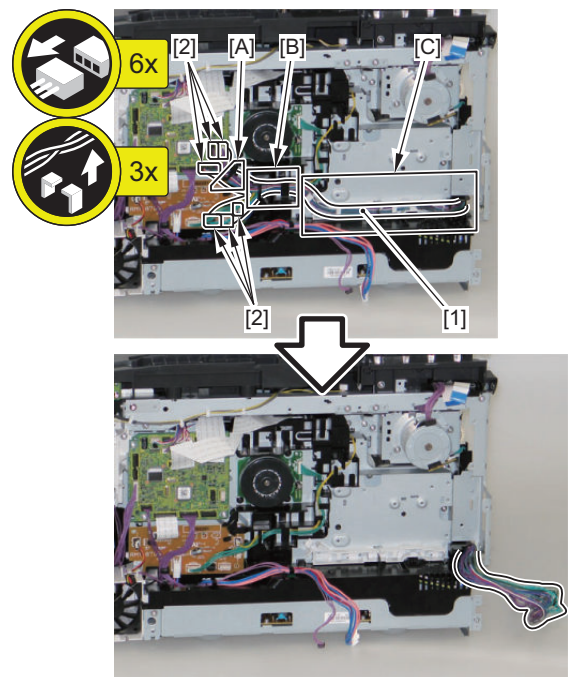
3. **Remove the Fixing Power Supply Cover [1].**
   - 2 Screws [2]
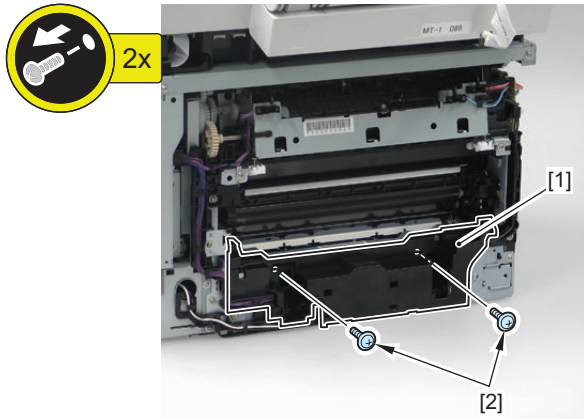


4. **Remove the Harness Guide [1].**
   - 1 Connector [2]
   - 1 Hook [3]
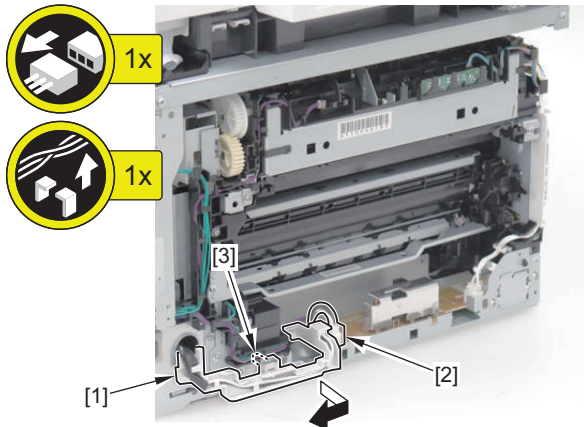


5. **Free the harness [1] from the guide [B] by putting it through the hole [A] of the plate.**
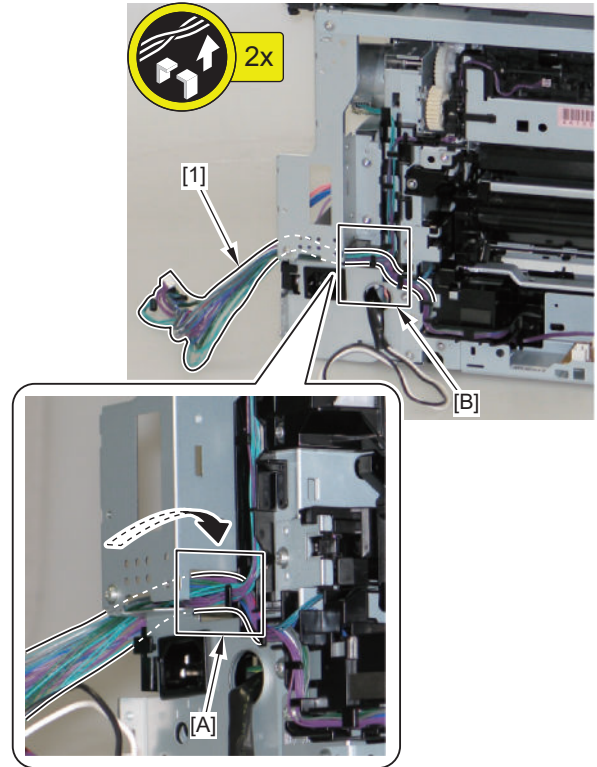


6. **Shift the Fax Cover Plate [1], and remove the Harness Guide [2].**
   - 3 Screws [3]
   - 1 Boss [4]
   - 2 Hooks [5]
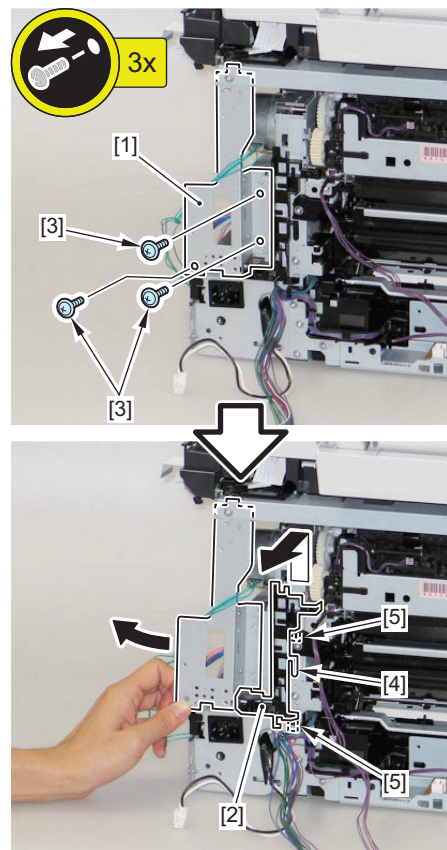
**7. Free the harness [1].**

- 2 Connectors [2]
- 1 Harness Guide [A]
- 1 Harness Guide [B]
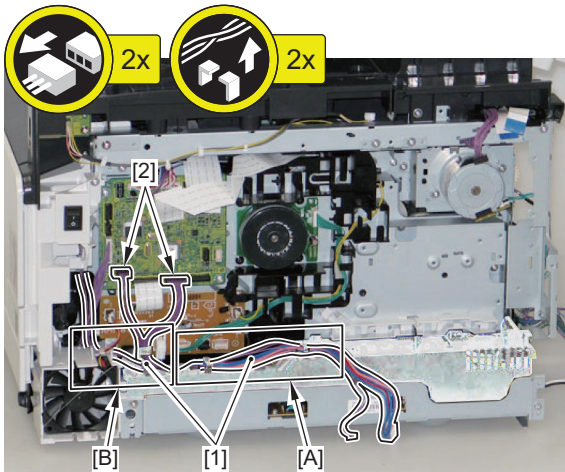


**8. Remove the Low Voltage Power Supply Unit Cover [1].**

- 4 Claws [2]
- 2 Protrusions [3]
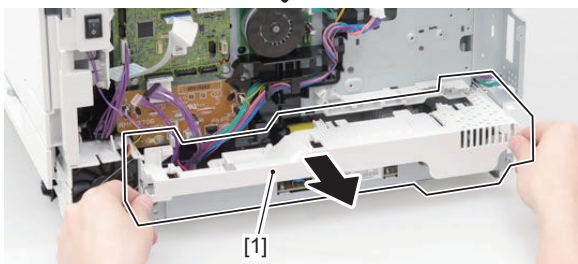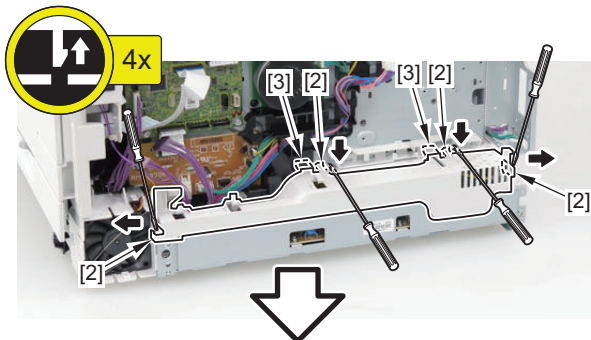


**9. Pull out the Low Voltage Power Supply Unit [1] for about 2 cm.**

- 1 Connector [2]
- Harness Guide [A]
- 5 Screws [3]
- 2 Hooks [4]
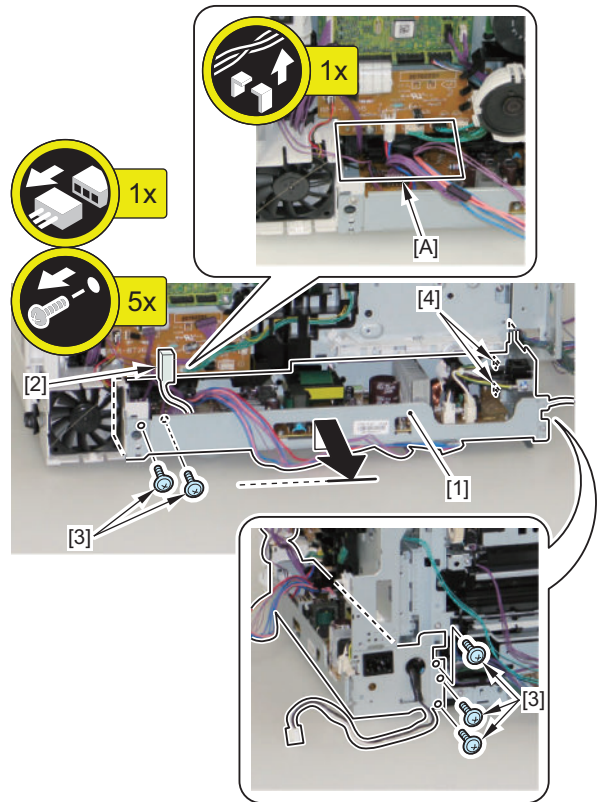


**10. Free the Power Supply Harness [1] by putting it through the hole [A] of the plate.**

- 1 Connector [2]

**11. Remove the Low Voltage Power Supply Unit [3].**

- 1 Connector [4]
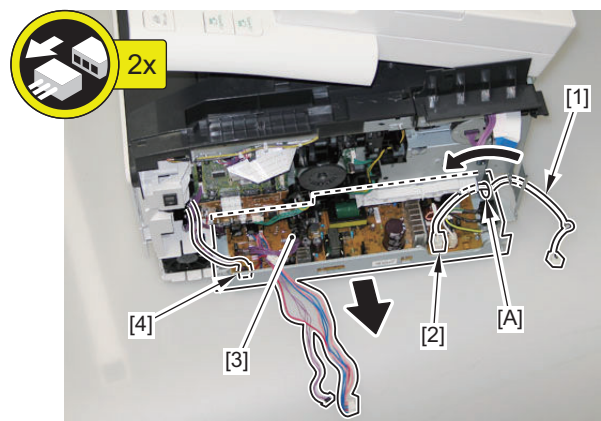
# Removing the High Voltage Power Supply PCB

## ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

2. Remove the Left Cover. (Refer to **"Removing the Left Cover" on page 109**)

3. Remove the Rear Upper Cover. (Refer to **"Removing the Rear Upper Cover" on page 116**)

4. Remove the ADF Unit/Copyboard + Reader Unit. (Refer to **"Removing the ADF Unit/Copyboard + Reader Unit" on page 121**)

5. Remove the Upper Cover. (Refer to **"Removing the Upper Cover" on page 117**)

## ■ Procedure

1. **Disconnect the flat cable [1].**
   - 1 guide [2]
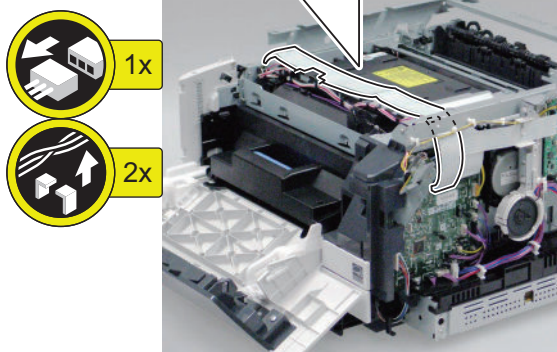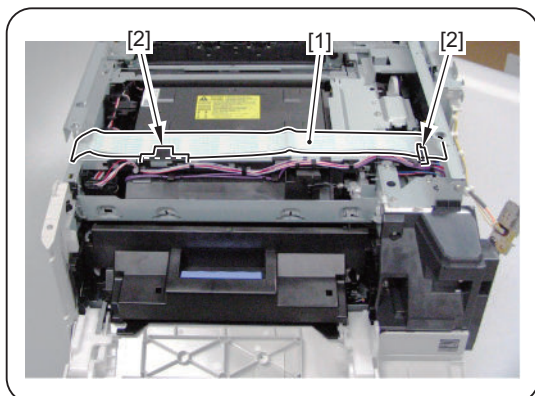
2. **Remove the Harness [1].**
   - 1 Connector [2]
   - Harness Guide [A]
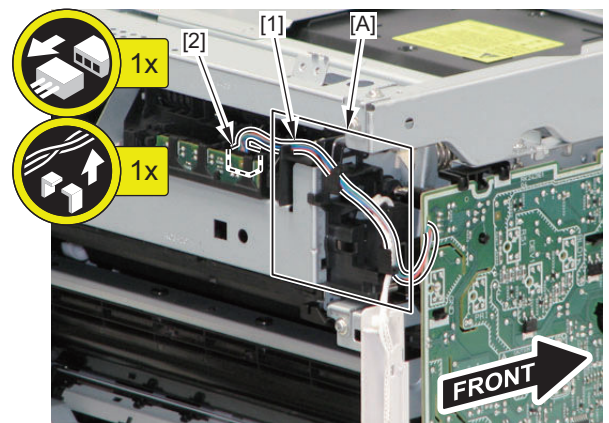
3. **Remove the Sub PCB [1].**

4. **Free the harness [3] from the harness guide [2].**
   - 1 screw [4]

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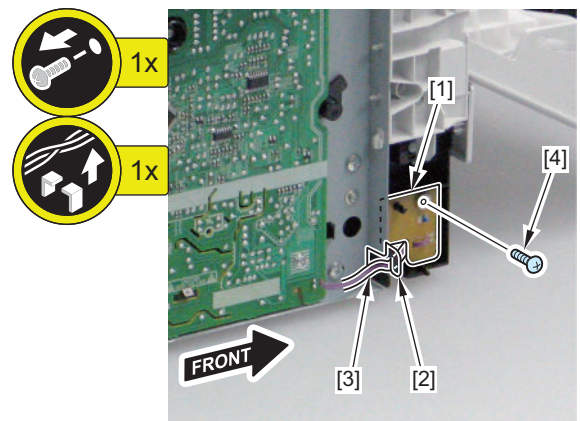
5. **Remove the High Voltage Power Supply PCB [1].**
   - 3 screws (binding) [2]
   - 1 screw (W SEMS) [3]
   - 6 claws [4]
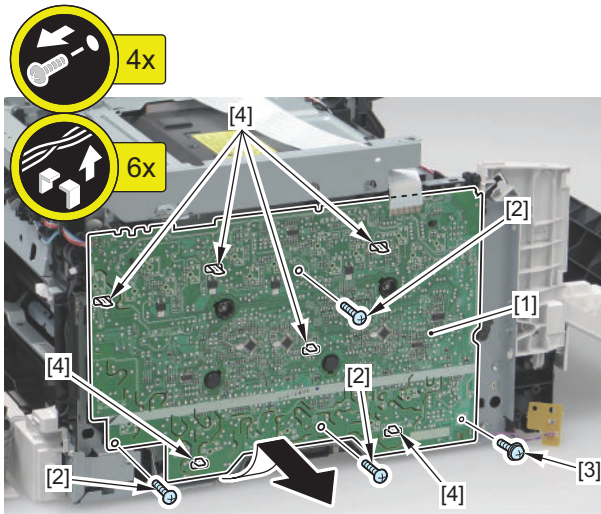


**CAUTION:**
When installing the High Voltage Power Supply PCB [1], be sure to check that the contact springs [3] are in contact with the 20 round holes.
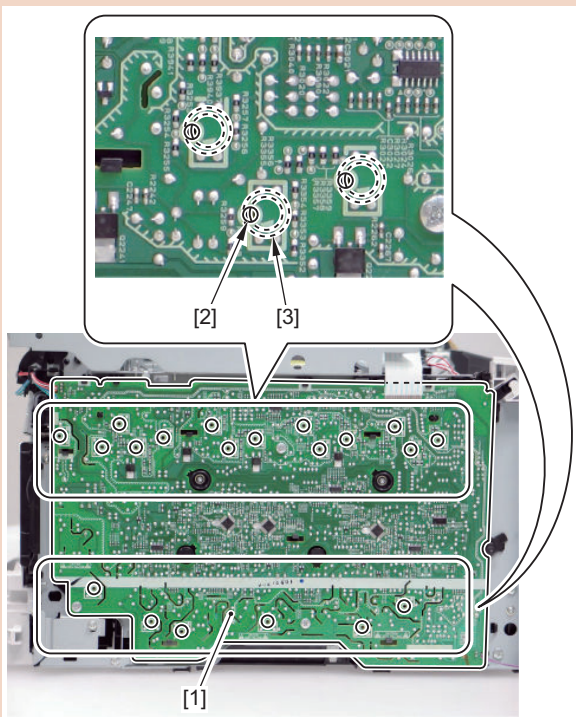


## Removing the Fixing Power Supply Unit

### ■ Preparation

1. **Remove the Right Cover. (Refer to** **)**

2. **Remove the Left Cover. (Refer to** **)**

3. **Remove the Rear Upper Cover. (Refer to** **)**

4. **Remove the Rear Lower Cover. (Refer to** **)**

### ■ Procedure

1. **Remove the Fixing Power Supply Cover [1].**
   - 2 screws [2]
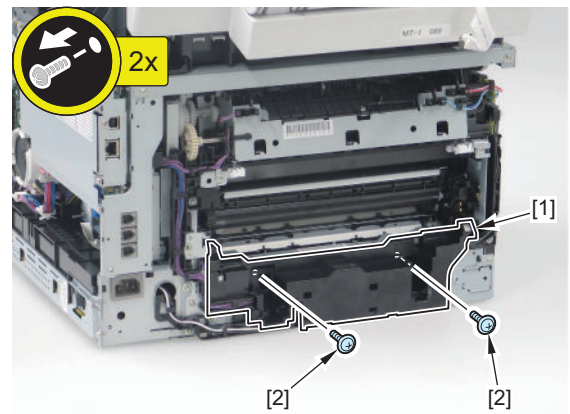


2. **Remove the Harness Guide [1].**
   - 1 Connector [2]
   - 1 Hook [3]

3. **Remove the Fixing Power Supply Unit [4].**
   - 2 Connectors [5]
   - 4 Screws [6]



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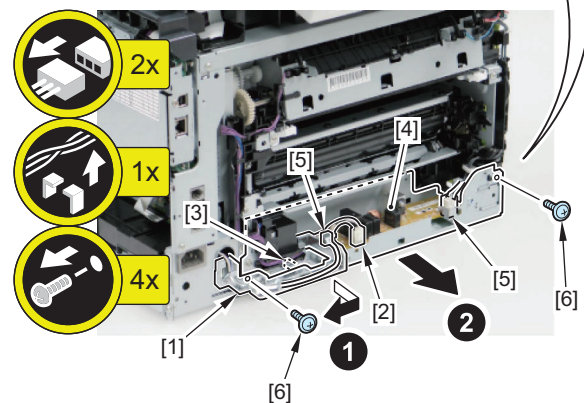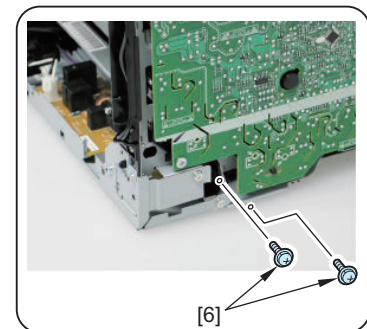
# Removing the Control Panel Unit

## ■ Procedure

1. Remove the claw [1] to remove the Reader Shaft Retainer [2].

2. While supporting the ADF Unit/Copyboard + Reader Unit [3], remove the Reader Support Shaft [4].

3. Bring down the Reader Support Shaft [4] to close the ADF Unit/Copyboard + Reader Unit [3].



4. Remove the screws at the bottom of the Reader Unit [1].
   - 6 Screws [2]



5. Open the ADF Unit/Copyboard [1] and place a sheet of paper [2] on the copyboard.
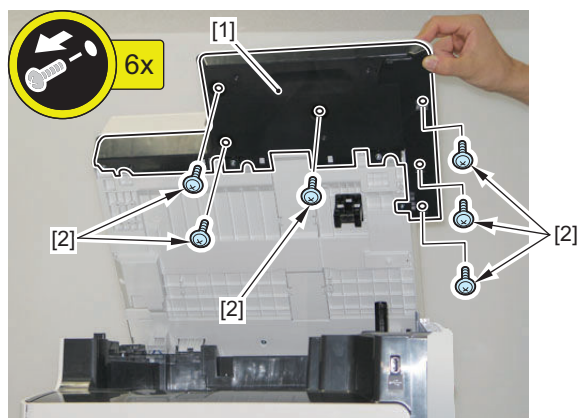
**6. Shift the Control Panel Unit [1], and disconnect the Faston Connector [2].**

- 11 Claws [3]
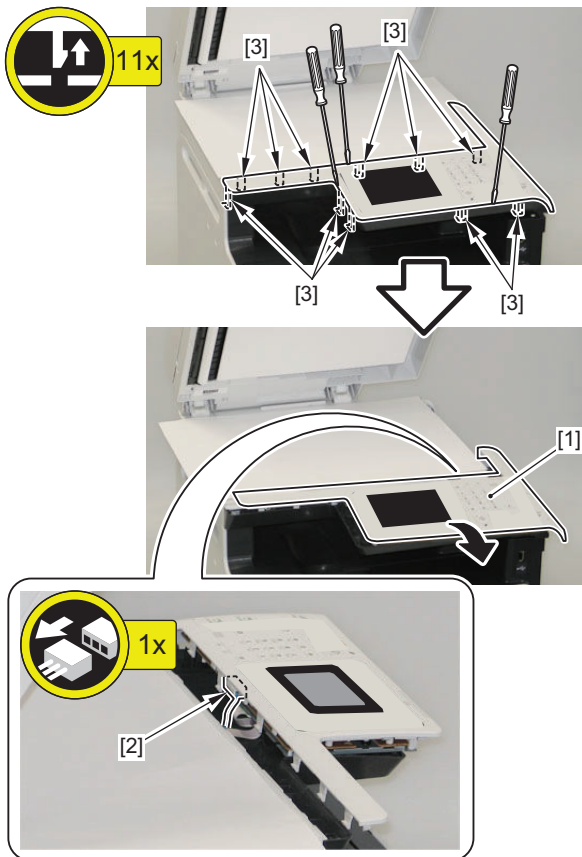


**CAUTION:**
Do not touch the IC part [A] of the LCD Flat Cable [1].
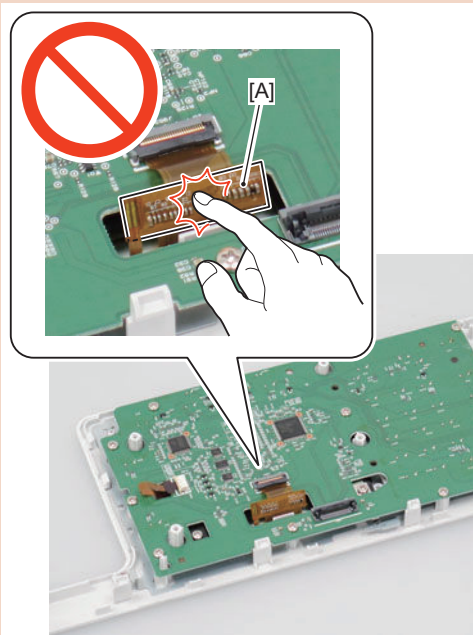


**7. Turn the Control Panel Unit [1] over, and disconnect the Flat Cable [2].**

**CAUTION:**
Do not damage and cut the Flat Cable [2].
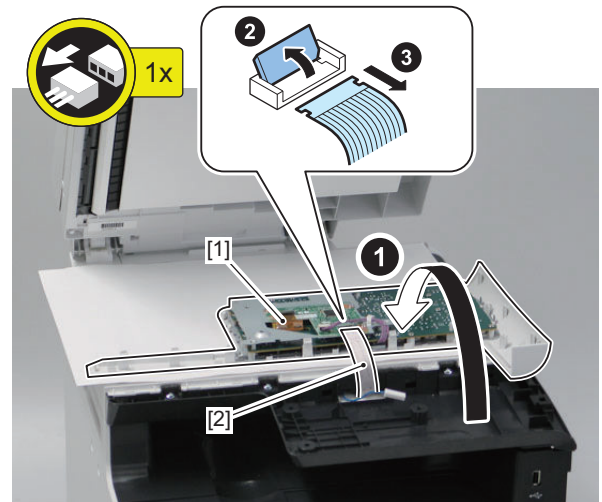


**CAUTION:**
When connecting the Flat Cable, be sure to perform the following; while pushing the Flat Cable [1] against the connector with a lock [2], check that the line on the edge [A] of the Flat Cable Connector and the line on the edge [B] of the Flat Cable Connector Lock are parallel, and then close the Flat Cable Connector Lock [3].



## ● Removing the FAX PCB (MF628Cw/ 626Cn)

### ■ Preparation

1. Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)

2. Remove the Controller Cover. (Refer to "Removing the Controller Cover" on page 147)

3. Remove the Wireless LAN PCB. (MF628Cw/ 624Cw only) (Refer to "Removing the Wireless LAN PCB (MF628Cw/624Cw)" on page 147)

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4. Remove the Main Controller PCB. (Refer to "Removing the Main Controller PCB" on page 147)

## ■ Procedure

1. Remove the Fax PCB [1].
   - 1 Flat Cable [2]
   - 1 Connector [3]
   - 4 Screws [4]



# Removing the Off Hook PCB (MF628Cw/ 626Cn)

## ■ Preparation

1. Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)

## ■ Procedure

1. Remove the Off Hook PCB [1].
   - 2 Connectors [2]
   - 2 Screws [3]
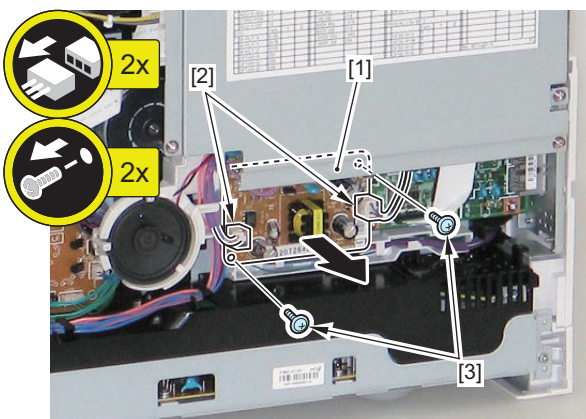


# Removing the Main Drive Unit

## ■ Preparation

1. Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)

2. Remove the Left Cover. (Refer to "Removing the Left Cover" on page 109)

3. Remove the Rear Upper Cover. (Refer to "Removing the Rear Upper Cover" on page 116)

4. Remove the ADF Unit/ Copyboard + Reader Unit. (Refer to "Removing the ADF Unit/Copyboard + Reader Unit" on page 121)

5. Remove the Upper Cover. (Refer to "Removing the Upper Cover" on page 117)

6. Remove the DC Controller PCB. (Refer to "Removing the DC Controller PCB" on page 152)

7. Remove the Driver PCB. (Refer to "Removing the Driver PCB" on page 153)

8. Remove the Wireless LAN PCB. (MF628Cw/ 624Cw only) (Refer to "Removing the Wireless LAN PCB (MF628Cw/624Cw)" on page 147)

9. Remove the Main Controller PCB. (Refer to "Removing the Main Controller PCB" on page 147)

10. Remove the Off Hook PCB. (Fax model only) Refer to "Removing the Off Hook PCB (MF628Cw/ 626Cn)" on page 162)

11. Remove the Fax PCB. (Fax model only) (Refer to "Removing the FAX PCB (MF628Cw/ 626Cn)" on page 161)

12. Remove the Main Controller Support Plate. (Refer to "Removing the Main Controller Support Plate" on page 151)

13. Remove the Low Voltage Power Supply Unit. (Refer to "Removing the Low Voltage Power Supply Unit" on page 155)

## ■ Procedure

1. Pull out the Cartridge Tray [1].

**2. Remove the ITB Fixing Holder [2].**
- 1 Screw [3]
- 2 Hooks [4]
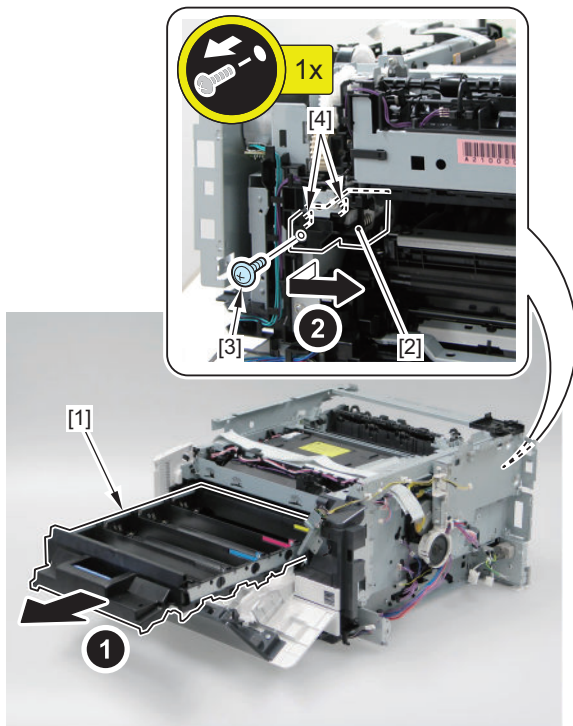


**3. Disconnect the Flat Cable [1].**
- 2 Guides [2]
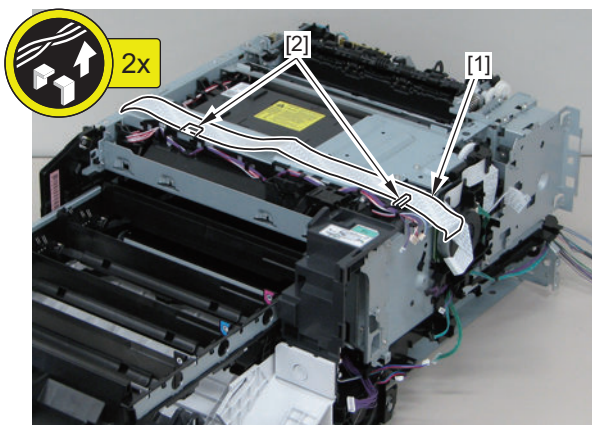


**4. Free the harness [1] from the guide [A].**

**5. Free the harness [2] from the guides [A], and [B].**

**6. Free the harnesses [3] and [4] from the guides [A], [B], and [C].**
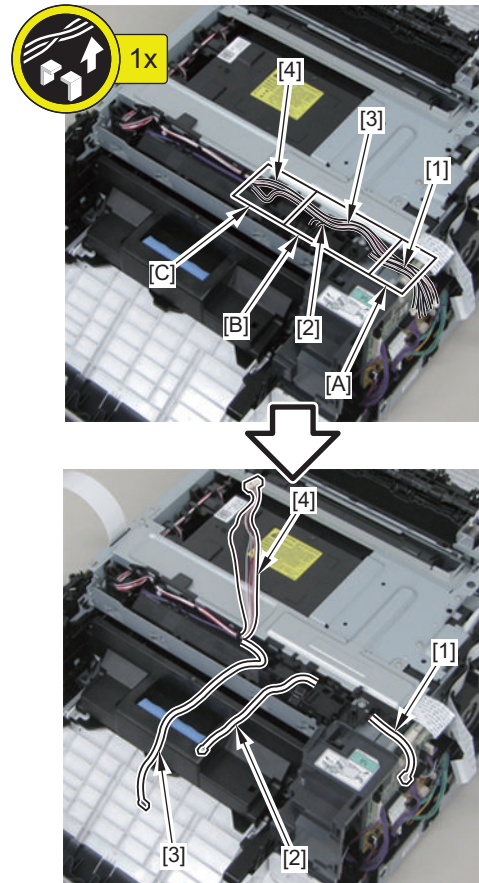
7.  **While lifting the Connecting Plate [1], remove the Flag Unit [2].**
    - 3 Screws [3]
    - 1 Boss [4]
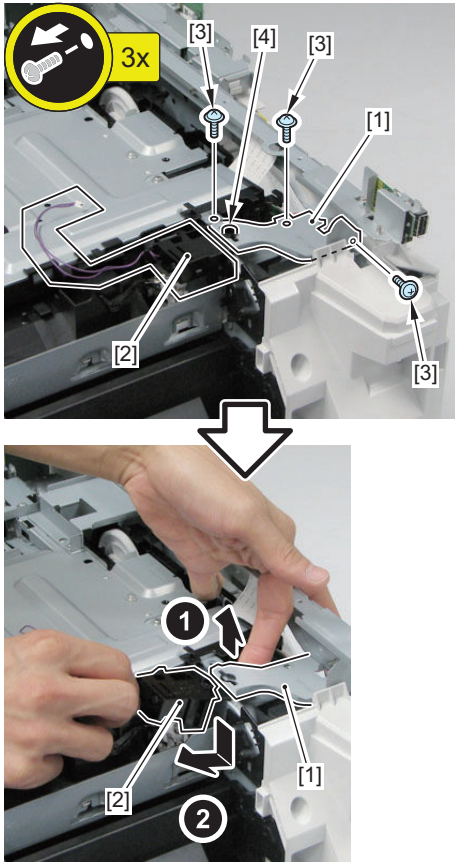


8.  **Free the harness [1] from the guide [A].**
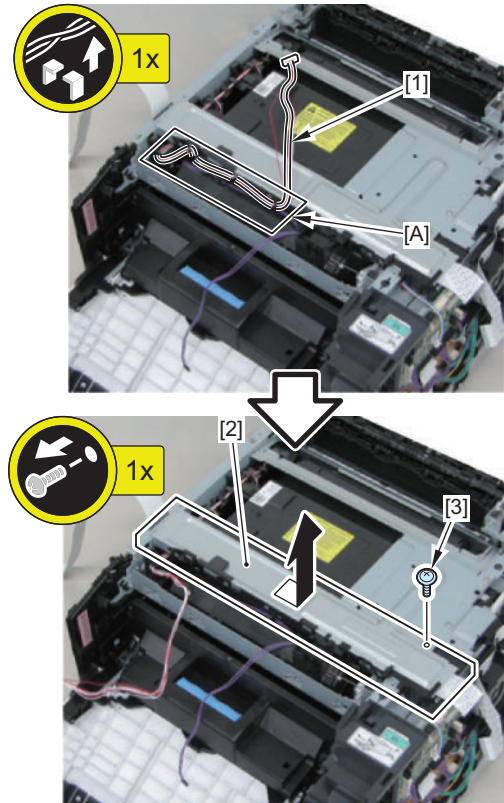
9.  **Remove the Harness Support Plate [2].**
    - 1 Screw [3]



10. **While lifting the Connecting Plate [1], remove the Sub Drive Unit Cover [2].**
    - 2 Screws [3]



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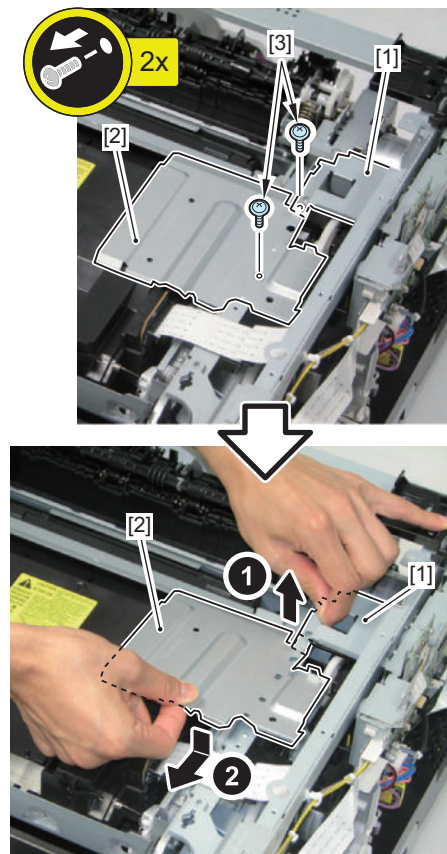
**11. Place a sheet of paper [1] over the hole [A], and remove the Link Shaft Stopper [2].**

- 2 Claws [3]

**NOTE:**
The reason a sheet of paper [1] is placed over the hole [A] is to prevent the Link Shaft Stopper [2] from falling in the machine.
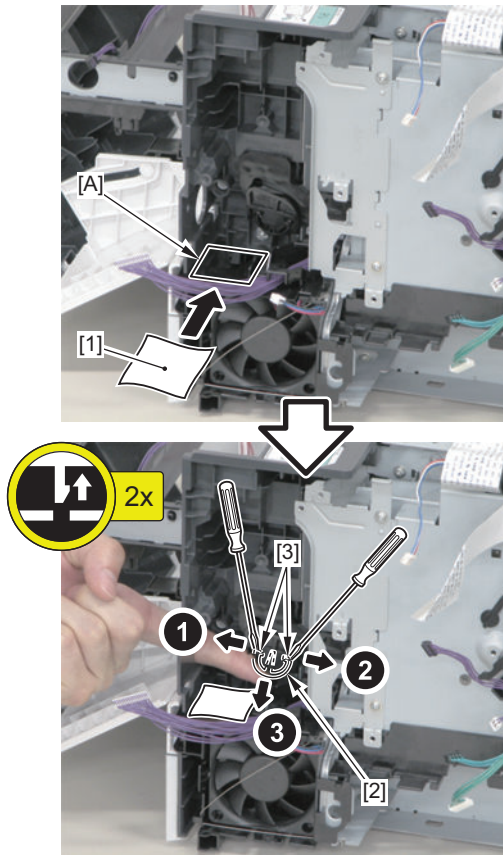


**12. Remove the Link Shaft [1].**

- 2 Bosses [2]
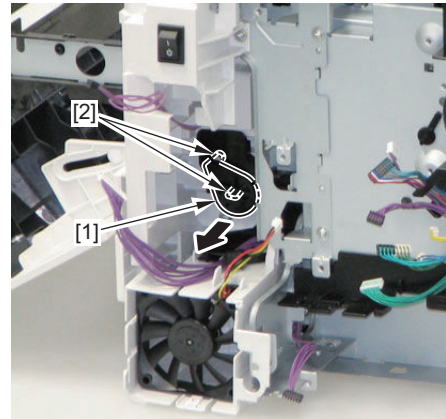


**CAUTION:**
When installing the Link Shaft, be sure to fit the boss [1] of the Link Shaft to the groove [2] of the arm of the Main Drive Unit.
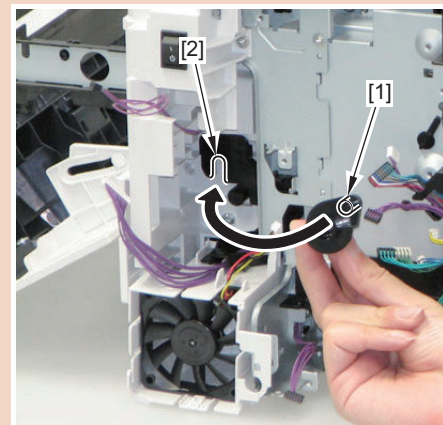


**13. Remove the Main Switch Unit [1].**

- 2 Screws [2]
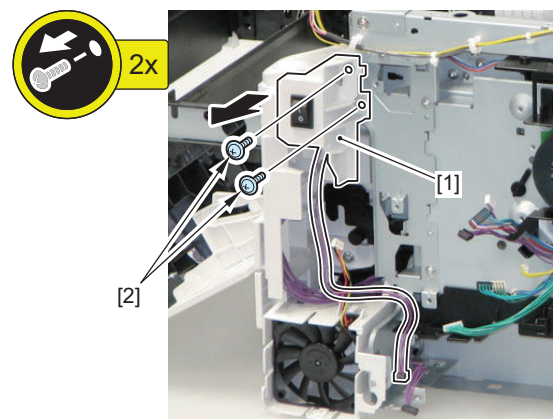
14. **While lifting the Frame Plate [1], remove the DC Controller Support Plate [2].**
    • 2 Screws [3]
    • 1 Protrusion [4]
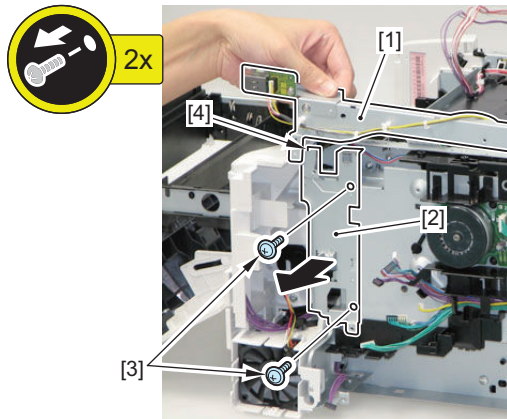


15. **Free the harness [1].**
    • 1 Connector [2]
    • Guide [A]

16. **Free the harness [3].**
    • Guides [A] and [B]
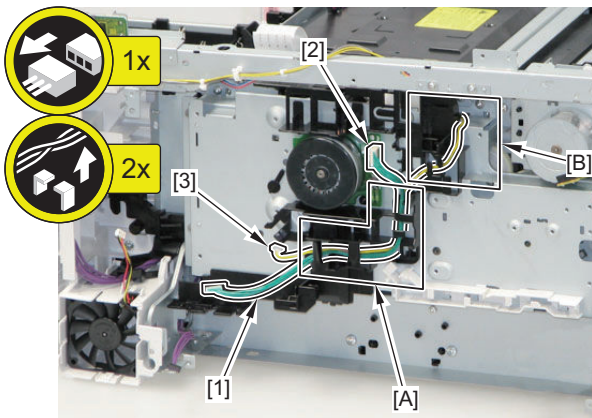


17. **Remove the Harness Guide [1].**
    • 1 Claw [2]
    • 2 Hooks [3]
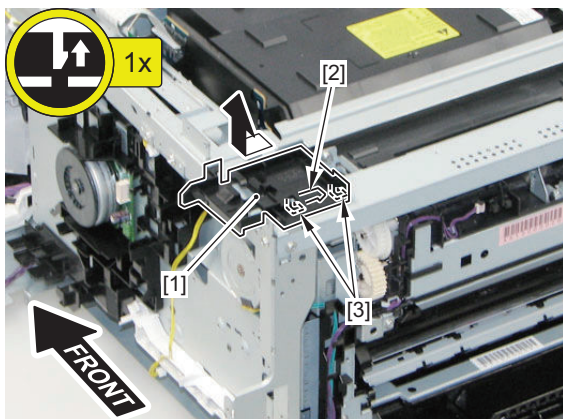


18. **While lifting the Frame Plate [1], remove the Fax Cover Plate [2].**
    • 2 Screws [3]
    • 1 Boss [4]
    • 1 Protrusion [5]
    • 1 Hook [6]
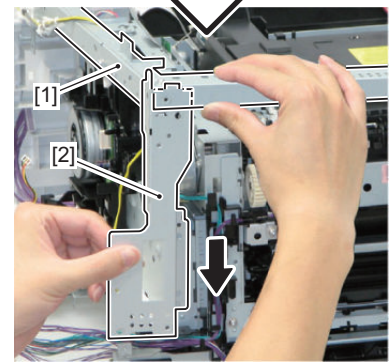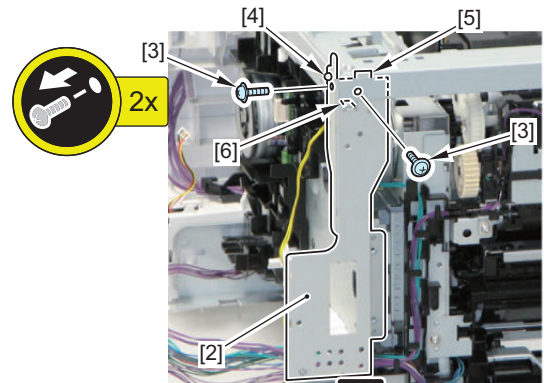


19. **Remove the Harness Guide [1].**
    • 1 Boss [2]
    • 2 Hooks [3]
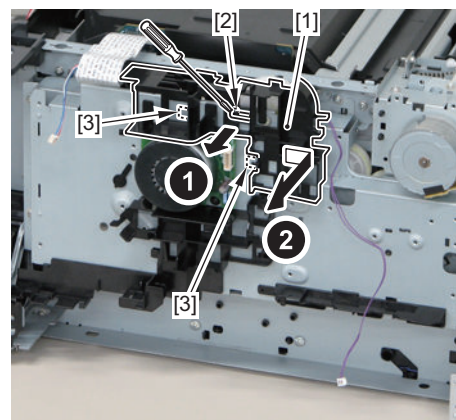
**20. Remove the Harness Guide [1].**
- 1 Boss [2]
- 3 Hooks [3]
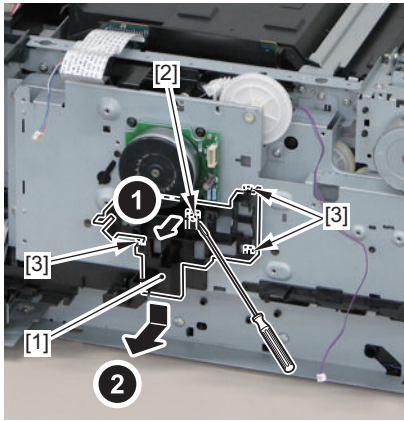


**21. Remove the Harness Guide [1].**
- 2 Bosses [2]
- 1 Hook [3]
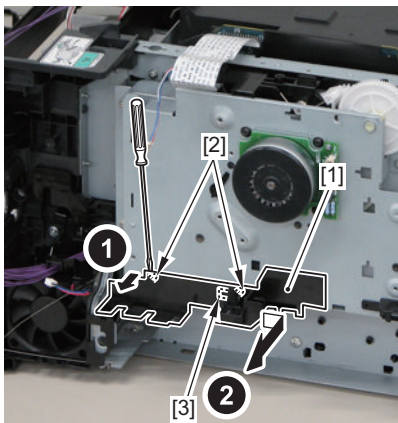


**22. Release the 2 hooks [1] of the Main Drive Unit from the claw [2] in the direction of the arrow, and remove the Main Drive Unit [3].**
- 7 Screws [4]
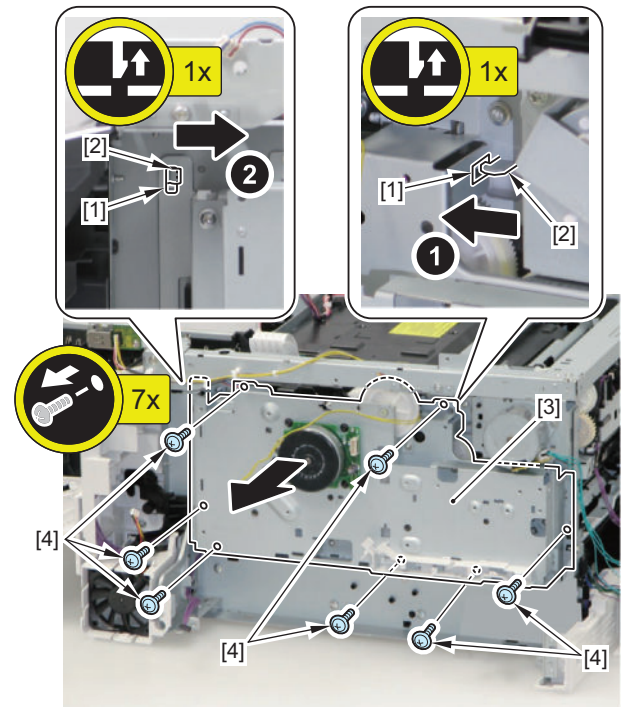


**CAUTION:**
At installation, check that the hook [2] of the gear [1] of the Sub Drive Unit is in the correct position as shown in the figure below.
If not, rotate the gear [1] in the direction of the arrow to set the hook [2] in the correct position.
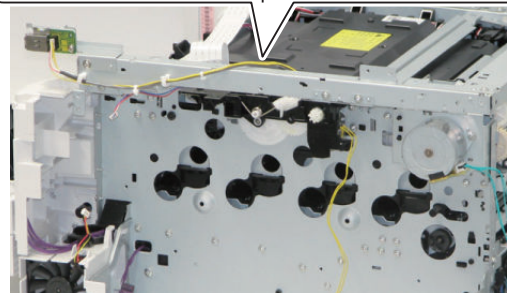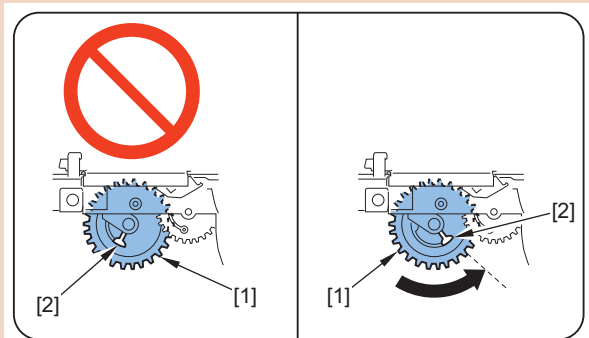
**CAUTION:**

- Be sure to check that the ITB Link [2] of the Main Drive Unit [1] is set at the correct position as shown in the figure below.If not, turn the ITB Link [2] in the direction of the arrow to be set at the correct position.
- Be sure to check that the Cartridge Cover Link [3] of the Main Drive Unit [1] is set at the correct position as shown in the figure below.If not, pull out the Cartridge Cover Link [3].
- Be sure to install the shaft [4] of the Main Drive Unit by fitting it in the hole [5] of the Side Plate.

5. Remove the Upper Cover. (Refer to **"Removing the Upper Cover" on page 117**)

6. Remove the DC Controller PCB. (Refer to **"Removing the DC Controller PCB" on page 152**)

7. Remove the Driver PCB. (Refer to **"Removing the Driver PCB" on page 153**)

8. Remove the Wireless LAN PCB. (MF628Cw/ 624Cw only) (Refer to **"Removing the Wireless LAN PCB (MF628Cw/624Cw)" on page 147**)

9. Remove the Main Controller PCB. (Refer to **"Removing the Main Controller PCB" on page 147**)

10. Remove the Off Hook PCB. (Fax model only) Refer to **"Removing the Off Hook PCB (MF628Cw/ 626Cn)" on page 162**)

11. Remove the Fax PCB. (Fax model only) (Refer to **"Removing the FAX PCB (MF628Cw/ 626Cn)" on page 161**)

12. Remove the Main Controller Support Plate. (Refer to **"Removing the Main Controller Support Plate" on page 151**)

13. Remove the Low Voltage Power Supply Unit. (Refer to **"Removing the Low Voltage Power Supply Unit" on page 155**)

14. Remove the Main Drive Unit. (Refer to **"Removing the Main Drive Unit" on page 162**)

# Removing the Sub Drive Unit

## ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

2. Remove the Left Cover. (Refer to **"Removing the Left Cover" on page 109**)

3. Remove the Rear Upper Cover. (Refer to **"Removing the Rear Upper Cover" on page 116**)

4. Remove the ADF Unit/ Copyboard + Reader Unit. (Refer to **"Removing the ADF Unit/Copyboard + Reader Unit" on page 121**)

## ■ Procedure

1. **Remove the Sub Drive Unit [1].**
   - 2 Screws [2]
   - 1 Parallel Pin [3]
   - 1 Bushing [4]

**CAUTION:**
- When installing the Sub Drive Unit, go through the following steps.
  1. Install the bushing [2] and the Parallel Pin [3] to the shaft [1].
  2. At installation, rotate the shaft [1] and the gear [4] to make the directions of the Parallel Pin [3] and the pin reception horizontally-aligned.
- Depending on the direction of the shaft [1], the Parallel Pin [3] may fall. Be careful not to drop or lose it.
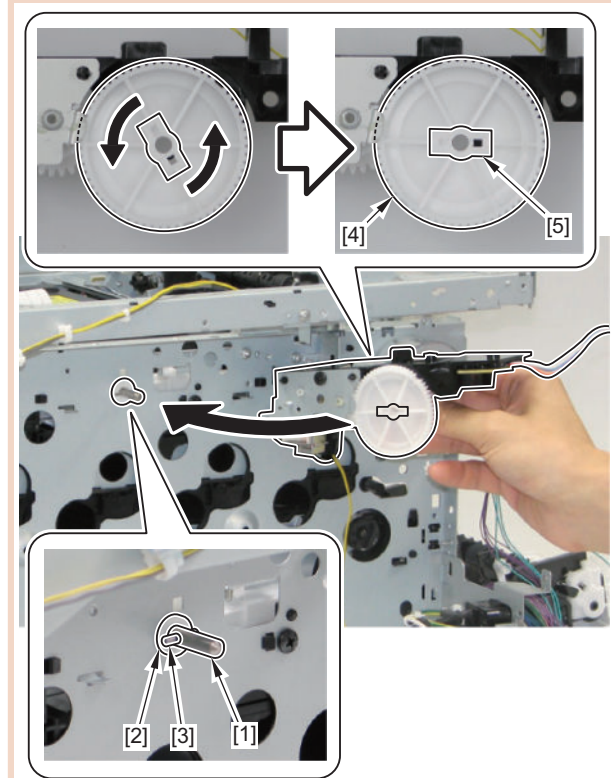
## Removing the Main Motor

### ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. **Remove the Controller Cover. (Refer to "Removing the Controller Cover" on page 147)**

3. **Remove the Wireless LAN PCB. (MF628Cw/ 624Cw only) (Refer to "Removing the Wireless LAN PCB (MF628Cw/624Cw)" on page 147)**

4. **Remove the Main Controller PCB. (Refer to "Removing the Main Controller PCB" on page 147)**

5. **Remove the Main Controller Support Plate. (Refer to "Removing the Main Controller Support Plate" on page 151)**

## ■ Procedure

1. **Remove the Main Motor [1].**
   - 1 Connector [2]
   - 4 Screws [3]



# 🔵 Removing the Fan

## ■ Preparation

1. **Remove the Right Cover. (Refer to** **)**

## ■ Procedure

1. **Free the harness [1].**
   - 1 Connector [2]
   - Guide [A]
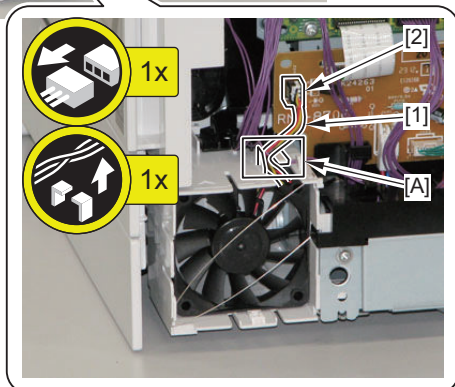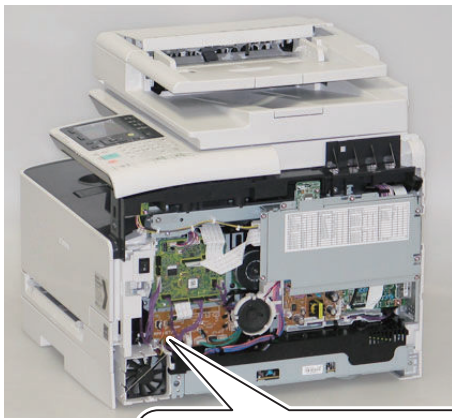


2. **Free the Fan Retainer Spring [1] from the 2 guides [A] of the Fan Duct.**

3. **While sliding the edge [B] of the Low Voltage Power Supply Unit Cover, free the Fan Retainer Spring [1] from the hole [C] of the plate.**
   - 1 Claw [2]
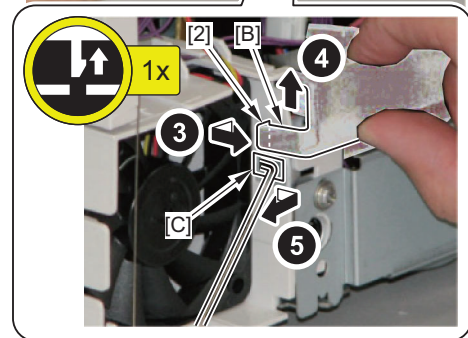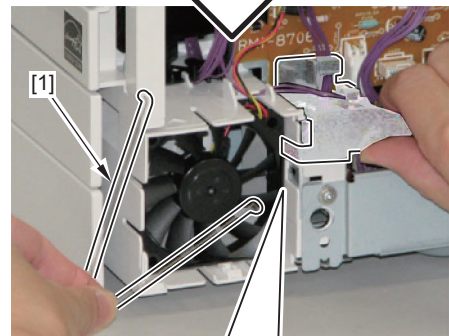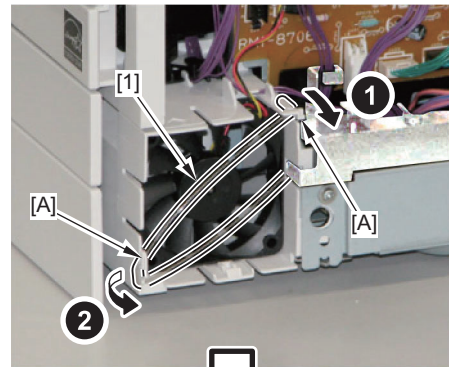
**4. Remove the fan [1].**

- 2 Claws [2]
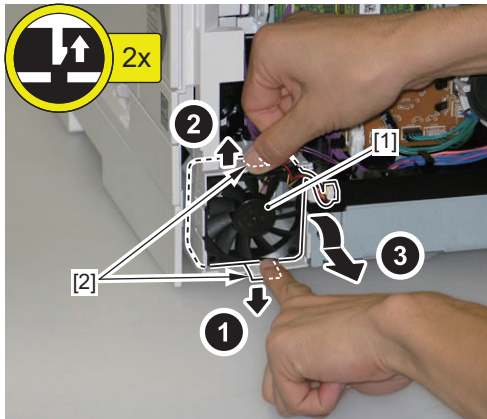


**CAUTION:**

When installing the fan [1], be sure to set its orientation as shown in the figure below.

- Face the label [2] inside.
- Face the harness [3] upward.



# Removing the Speaker (MF628Cw/ 626Cn)

## ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

2. Remove the Controller Cover. (Refer to **"Removing the Controller Cover" on page 147**)
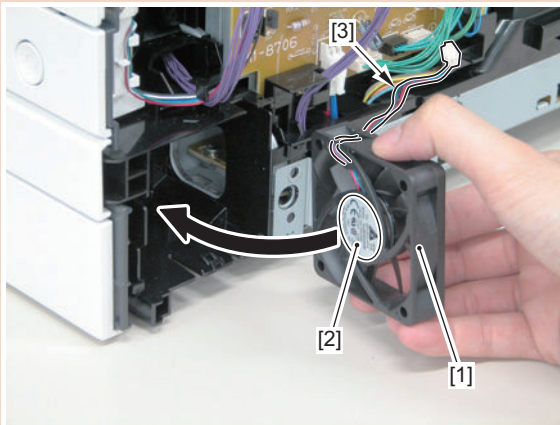
## ■ Procedure

1. **Remove the Speaker [1].**

   - 1 Connector [2]
   - Guide [A]
   - 2 Claws [3]
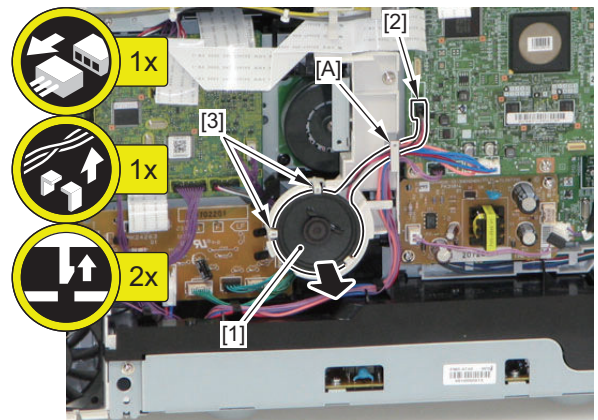
# Laser Exposure System

## 🔵 Location



[1]
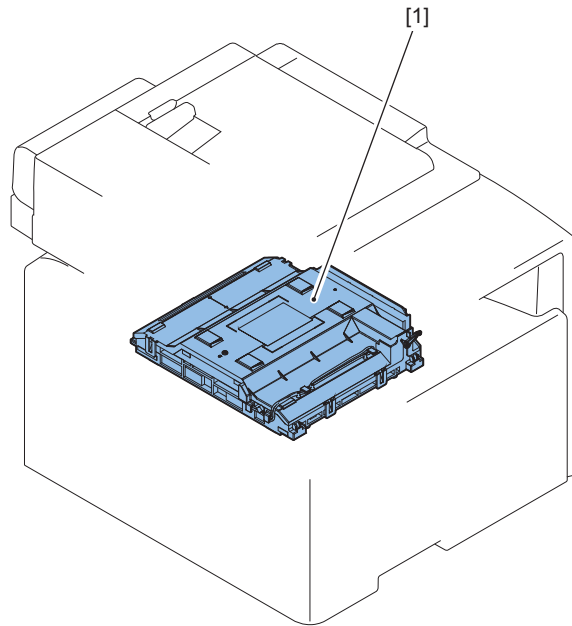
| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|-----|-----------|-----------|---------|-----------|-------------------------------------|
| [1] | Laser Scanner Unit | Product Configuration | - | "Removing the Laser Scanner Unit" on page 173 | "After Replacing the Laser Scanner Unit" on page 176 |

## Laser Exposure System Disassembly/ Assembly Procedure
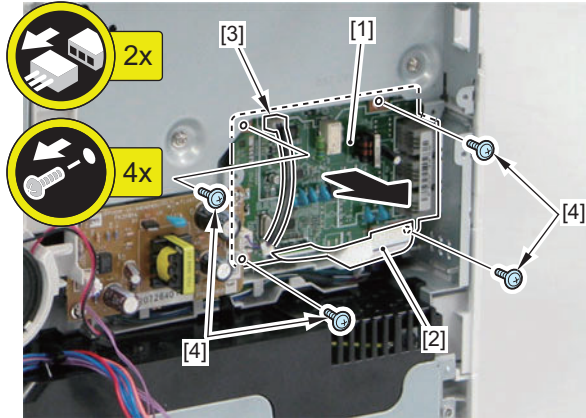
### ⬤ Removing the Laser Scanner Unit

#### ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

2. Remove the Left Cover. (Refer to **"Removing the Left Cover" on page 109**)

3. Remove the Rear Upper Cover. (Refer to **"Removing the Rear Upper Cover" on page 116**)

4. Remove the ADF Unit/ Copyboard + Reader Unit. (Refer to **"Removing the ADF Unit/Copyboard + Reader Unit" on page 121**)

5. Remove the Upper Cover. (Refer to **"Removing the Upper Cover" on page 117**)

#### ■ Procedure

> **CAUTION:**
> When replacing the Laser Scanner Unit, be sure to perform the following procedure.
> • After Replacing the Laser Scanner Unit. (Refer to "After Replacing the Laser Scanner Unit" on page 176)

> **CAUTION:**
> • The ITB Unit is under the Laser Scanner Unit. Ensure to close a Cartridge Tray when performing this procedure, because there is a possibility that the ITB Unit might be damaged when the Laser Scanner Unit is mistakenly dropped during installation/ removal.
> • Be sure not to disassemble the Laser Scanner Unit because it requires adjustment.

1. **Disconnect the Flat Cable [1].**

2. **Disconnect the 2 Flat Cables [2].**
   • 2 Guides [3]
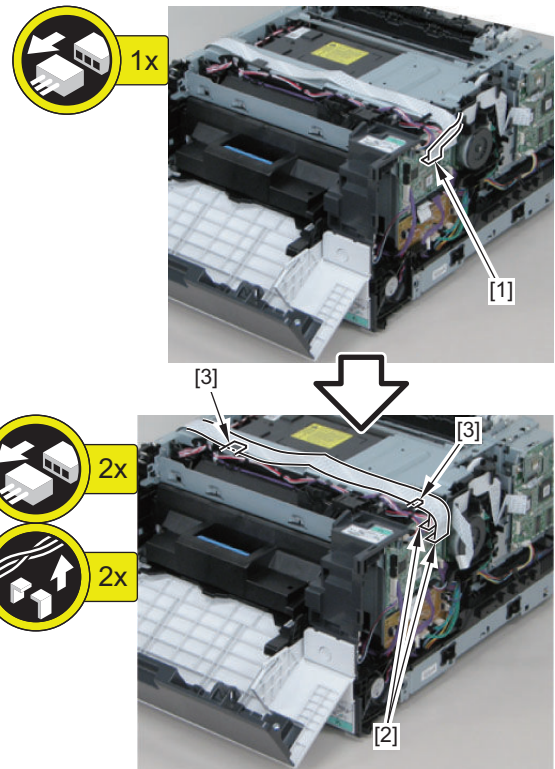


3. **Disconnect the 4 connectors [1].**
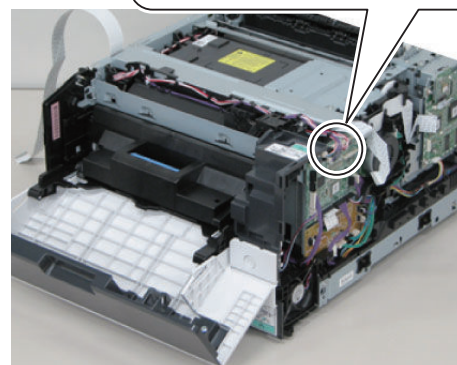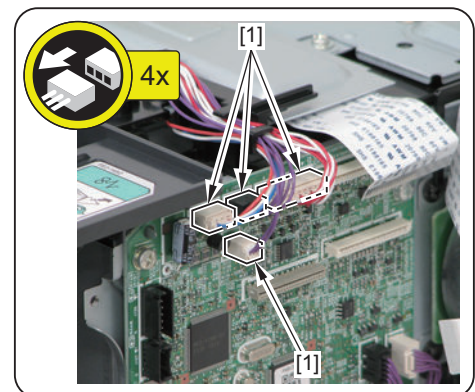


4. **Free the harness [1] from the guide [A].**

5. **Free the harness [2] from the guide [A] and [B].**

6. **Free the harness [3] and [4] from the guide [A], [B], and [C].**
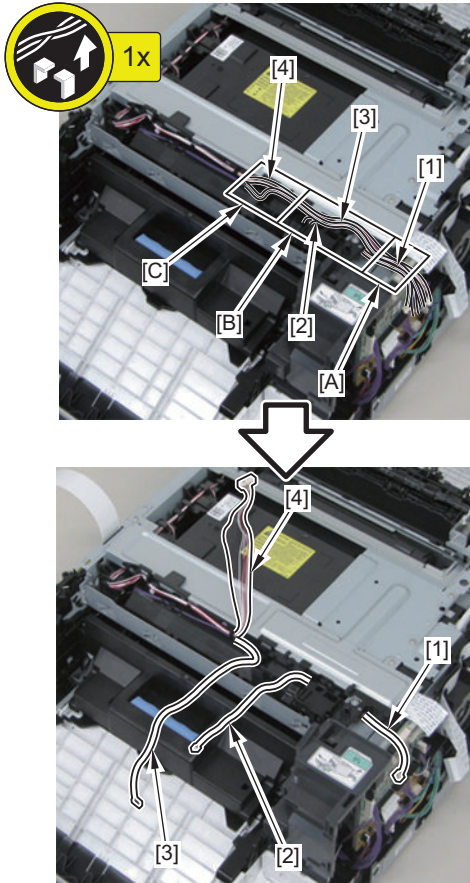


7. **While lifting the Connecting Plate [1], remove the Flag Unit [2].**
   - 3 Screws [2]
   - 1 Boss [3]
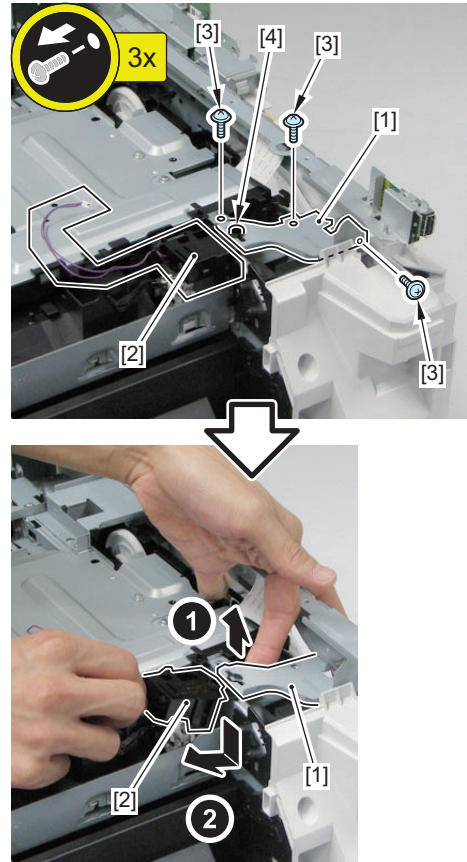


8. **Free the harness [1] from the guide [A].**

**9. Remove the Harness Support Plate [2].**

- 1 Screw [3]
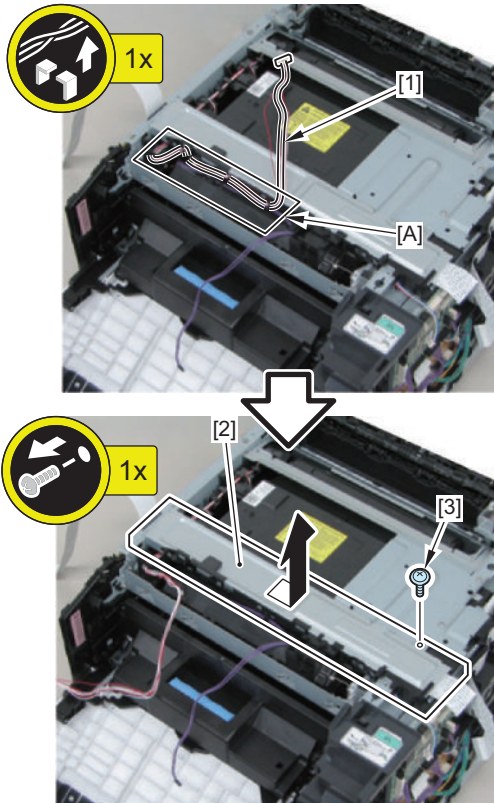
**10. While lifting the Connecting Plate [1], remove the Sub Drive Unit Cover [2].**

- 2 Screws [3]
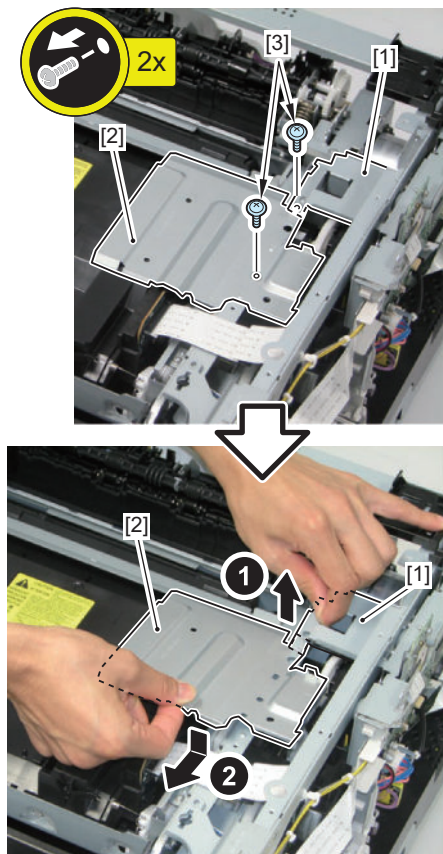
**11. Remove the spring [1].**

- 1 Hole [A] of the Sensor Arm
- 1 Hook [2]
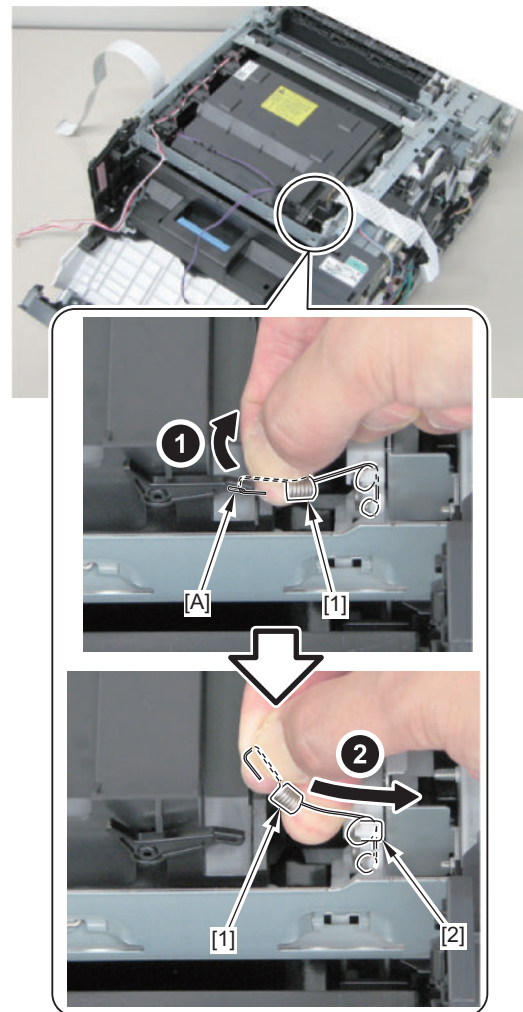
**12. Remove the Scanner Fixation Spring [1] on the right side.**

- 1 Hook [2]
- 1 Groove [A]

**13. Remove the Scanner Fixation Spring [3] on the left side.**

- 1 Hook [4]
- 1 Groove [B]

14. **Remove the Scanner Fixation Spring [5] on the rear side.**
    - 1 Hook [6]
    - 1 Groove [C]
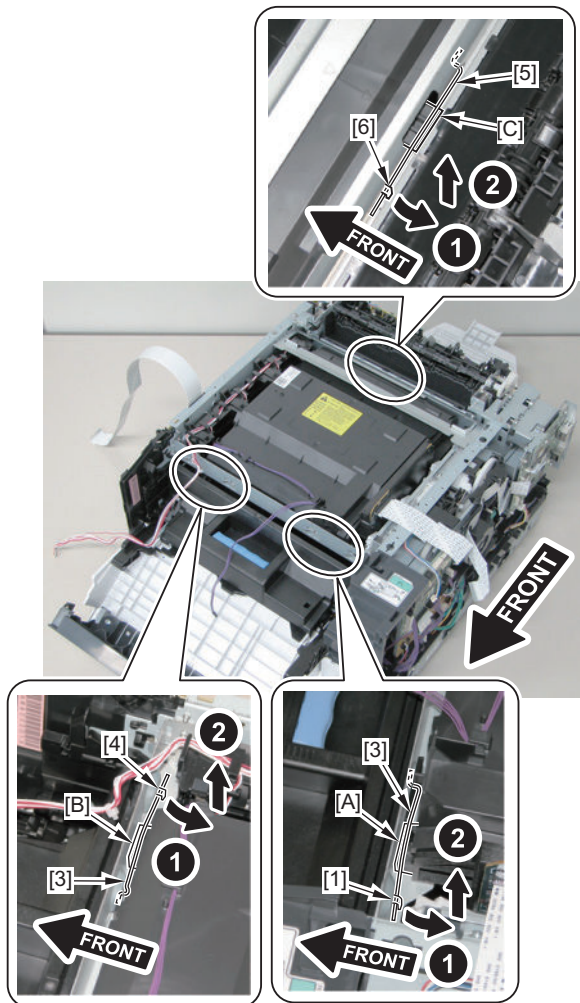


15. **Remove the Laser Scanner Unit [1].**
    - 2 Bosses [2]
    - 3 Protrusions [3]



## ■ After Replacing the Laser Scanner Unit

1. **Register values indicated on the label packaged with the Laser Scanner Unit in the following service mode items.**
   - COPIER > ADJUST > SCNR > SUB-S-Y0 (Laser output correction value, vertical scanning irradiation position0 Y)
   - COPIER > ADJUST > SCNR > SUB-S-M0 (Laser output correction value, vertical scanning irradiation position0 M)
   - COPIER > ADJUST > SCNR > SUB-S-C0 (Laser output correction value, vertical scanning irradiation position0 C)
   - COPIER > ADJUST > SCNR > SUB-S-K0 (Laser output correction value, vertical scanning irradiation position0 K)
   - COPIER > ADJUST > SCNR > SUB-S-Y1 (Laser output correction value, vertical scanning irradiation position1 Y)
   - COPIER > ADJUST > SCNR > SUB-S-M1 (Laser output correction value, vertical scanning irradiation position1 M)
   - COPIER > ADJUST > SCNR > SUB-S-C1 (Laser output correction value, vertical scanning irradiation position1 C)
   - COPIER > ADJUST > SCNR > SUB-S-K1 (Laser output correction value, vertical scanning irradiation position1 K)
   - COPIER > ADJUST > SCNR > SUB-S-Y2 (Laser output correction value, vertical scanning irradiation position2 Y)
   - COPIER > ADJUST > SCNR > SUB-S-M2 (Laser output correction value, vertical scanning irradiation position2 M)
   - COPIER > ADJUST > SCNR > SUB-S-C2 (Laser output correction value, vertical scanning irradiation position2 C)
   - COPIER > ADJUST > SCNR > SUB-S-K2 (Laser output correction value, vertical scanning irradiation position2 K)
   - COPIER > ADJUST > SCNR > MAI-S-Y0 (Laser output correction value, horizontal scanning irradiation position0 Y)
   - COPIER > ADJUST > SCNR > MAI-S-M0 (Laser output correction value, horizontal scanning irradiation position0 M)
   - COPIER > ADJUST > SCNR > MAI-S-C0 (Laser output correction value, horizontal scanning irradiation position0 C)
   - COPIER > ADJUST > SCNR > MAI-S-K0 (Laser output correction value, horizontal scanning irradiation position0 K)
   - COPIER > ADJUST > SCNR > MAI-S-Y1 (Laser output correction value, horizontal scanning irradiation position1 Y)
   - COPIER > ADJUST > SCNR > MAI-S-M1 (Laser output correction value, horizontal scanning irradiation position1 M)

- COPIER > ADJUST > SCNR > MAI-S-C1 (Laser output correction value, horizontal scanning irradiation position1 C)
- COPIER > ADJUST > SCNR > MAI-S-K1 (Laser output correction value, horizontal scanning irradiation position1 K)
- COPIER > ADJUST > SCNR > MAI-S-Y2 (Laser output correction value, horizontal scanning irradiation position2 Y)
- COPIER > ADJUST > SCNR > MAI-S-M2 (Laser output correction value, horizontal scanning irradiation position2 M)
- COPIER > ADJUST > SCNR > MAI-S-C2 (Laser output correction value, horizontal scanning irradiation position2 C)
- COPIER > ADJUST > SCNR > MAI-S-K2 (Laser output correction value, horizontal scanning irradiation position2 K)

2. **After values are registered, affix the label [1] packaged with the unit on the inside [2] of the right cover.**

# Image Formation System

## ● Location
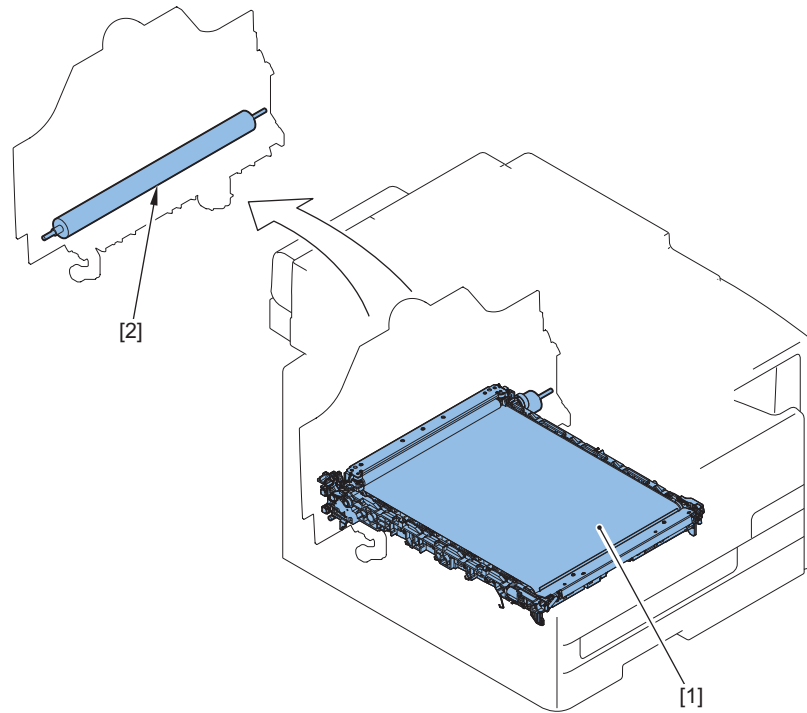


| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|-----|------------|-----------|---------|-----------|-------------------------------------|
| [1] | ITB Unit | Product Configuration | - | "Removing the ITB Unit" on page 179 | - |
| [2] | Secondary Transfer Outer Roller | Product Configuration | - | "Removing the Secondary Transfer Outer Roller" on page 183 | - |

# Image Formation System Disassembly/ Assembly Procedure

## 🔵 Removing the ITB Unit

### ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. **Remove the Left Cover. (Refer to "Removing the Left Cover" on page 109)**

3. **Remove the Rear Upper Cover. (Refer to "Removing the Rear Upper Cover" on page 116)**

### ■ Procedure

> **CAUTION:**
> Do not touch the ITB.

> **CAUTION:**
> While removing the cartridges, be sure not to scratch the drum surface, and be sure to cover the drum surface.

1. **Open the Front Cover [1].**

2. **Pull out the Cartridge Tray [1].**

> **CAUTION:**
> Since the Cartridge Tray interferes with the stopper when removing the stopper, do not pull out the Cartridge Tray until it hits the end.
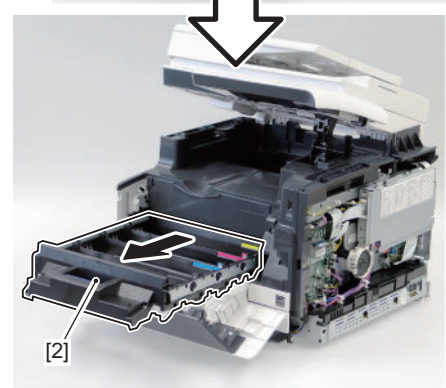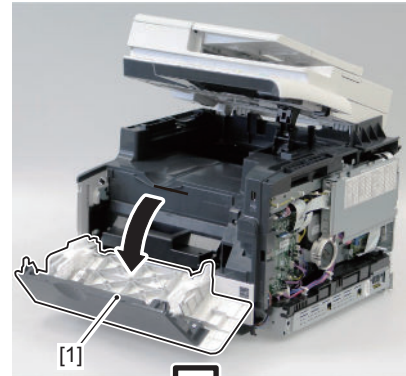


3. **Remove the cartridges**

4. **Insert a flat-blade screwdriver into the clearance [A] between the Right Stopper [1] and rail.**

5. **Remove the Right Stopper [1] while pushing the [B] part.**
   - 2 Claws [2]
   - 1 Protrusion [3]
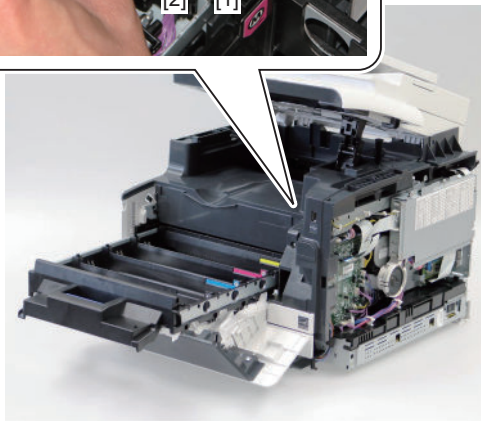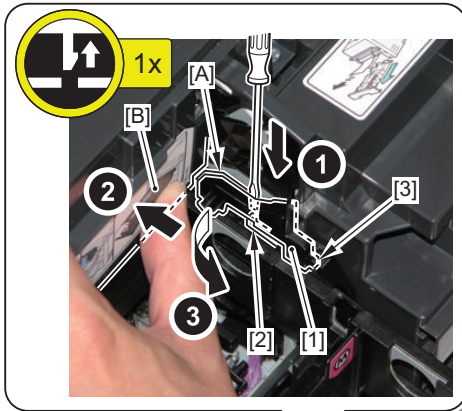


6. **Insert a flat-blade screwdriver into the clearance [A] between the Left Stopper [1] and rail.**

7. **Remove the Left Stopper [1] while pushing the [B] part.**
   - 2 Claws [2]
   - 1 Protrusion [3]
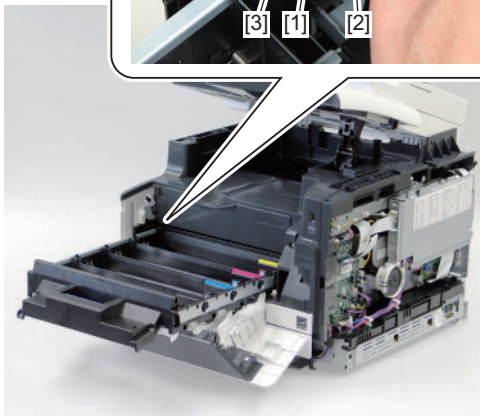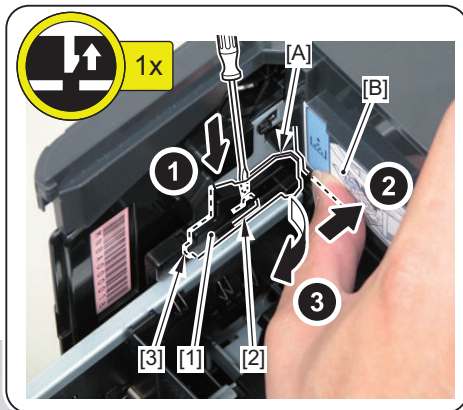


8. **Remove the Cartridge Tray [1].**
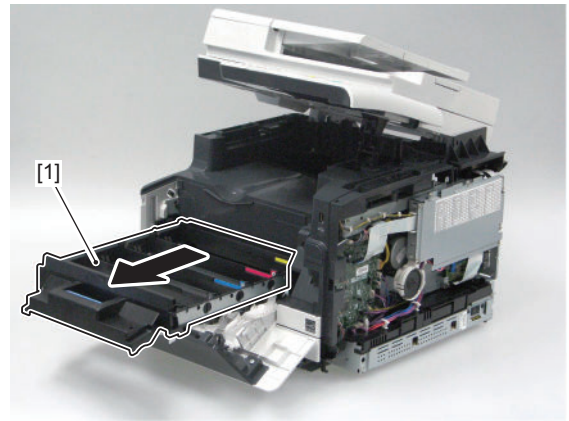


9. **Free the harness [1].**
   - 1 Connector [2]
   - 1 Harness Guide [A]
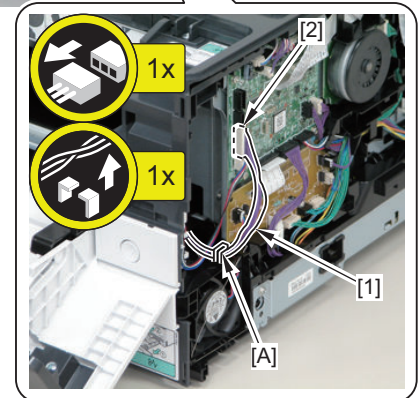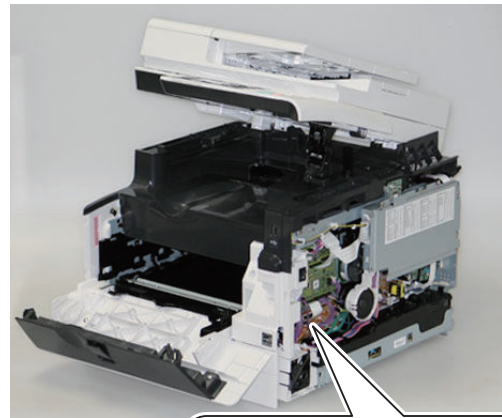
**10. Remove the ITB Fixing Holder [1].**

- 1 screw [2]
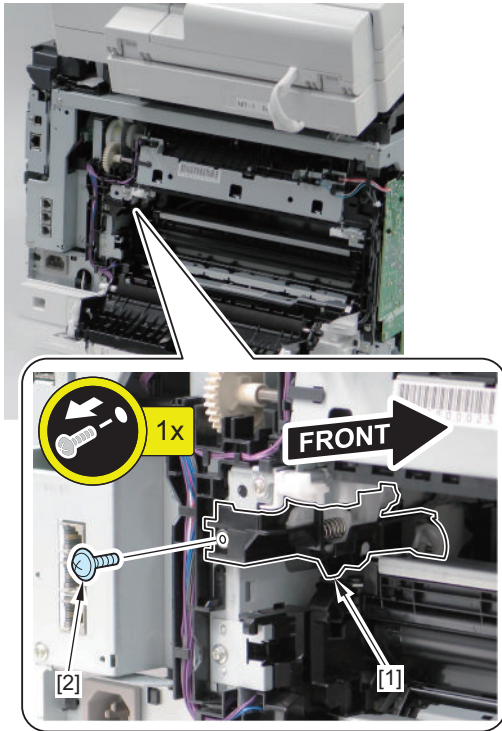


**CAUTION:**

When removing the ITB Unit [1], do not touch the Secondary Transfer Outer Roller [2].
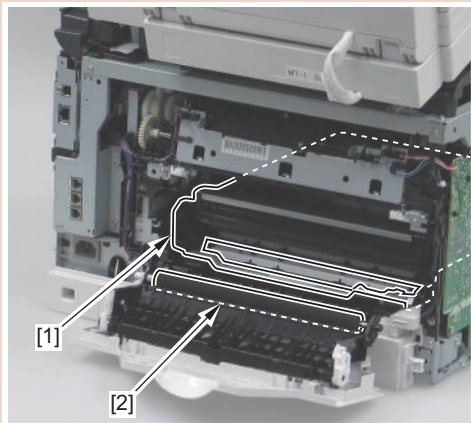


**CAUTION:**

Do not place the Drive Link [2] of the ITB Unit on the edge of the rail [B]; otherwise, the ITB Unit [1] falls.
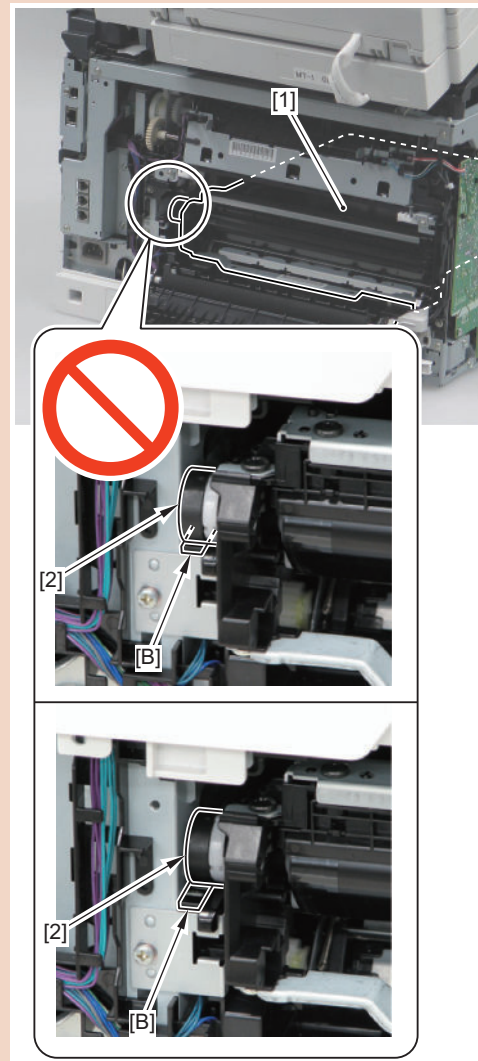
11. **Hold the 2 parts [A] of the ITB Unit to pull out the ITB Unit [1]. Then, place the ITB Drive Link [2] at the center of the rail [B].**
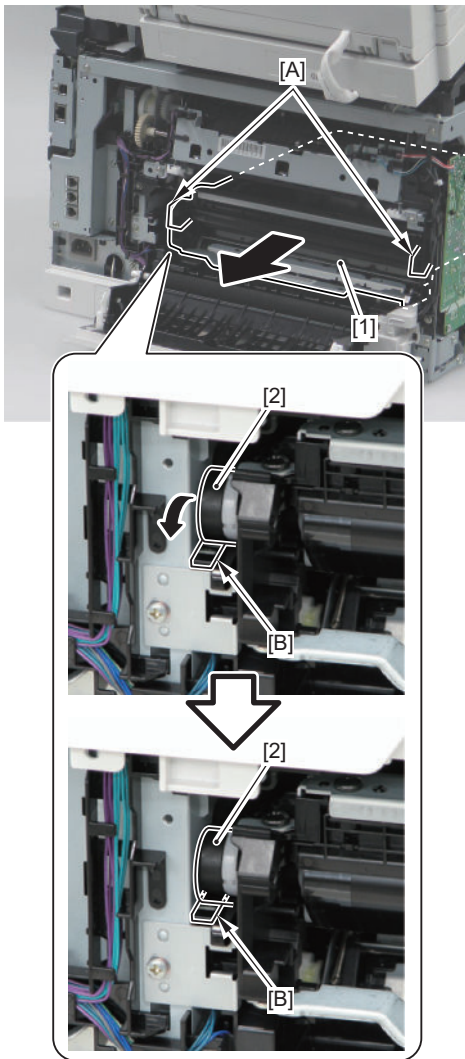


12. **Put the connector [1] through the hole [A] of the guide, and secure the harness [2] to the plate [3] of the ITB Unit using tapes [4].**

**CAUTION:**
When installing/removing the ITB Unit, be sure to secure the harness [2] using tapes to prevent it from being caught inside the host machine.
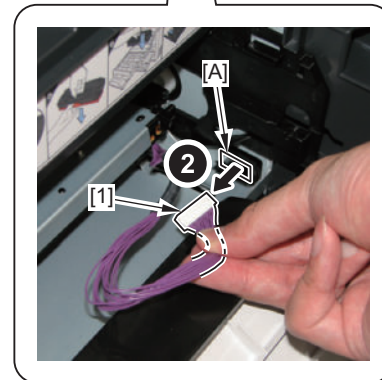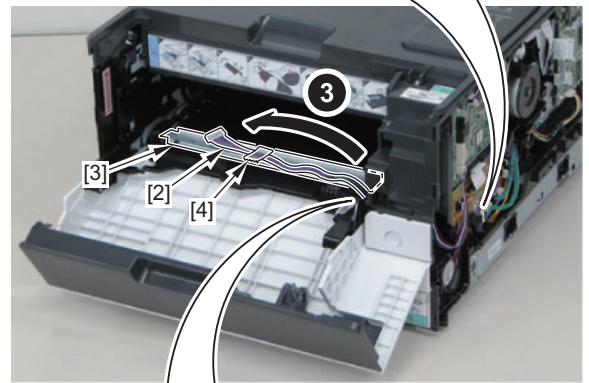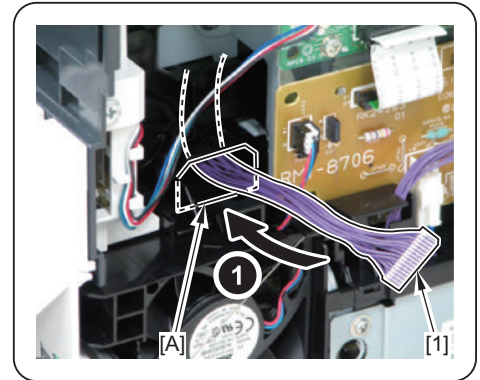
**CAUTION:**

- When holding the ITB Unit [1], be sure not to hold the plate [A] and [B]; otherwise, the plate [A] may be deformed.
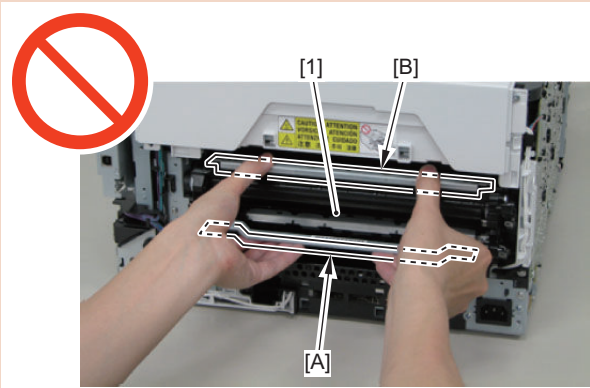


- When installing/removing the ITB Unit [1], be sure not to tilt it; otherwise, the surface [A] of the ITB may be damaged.
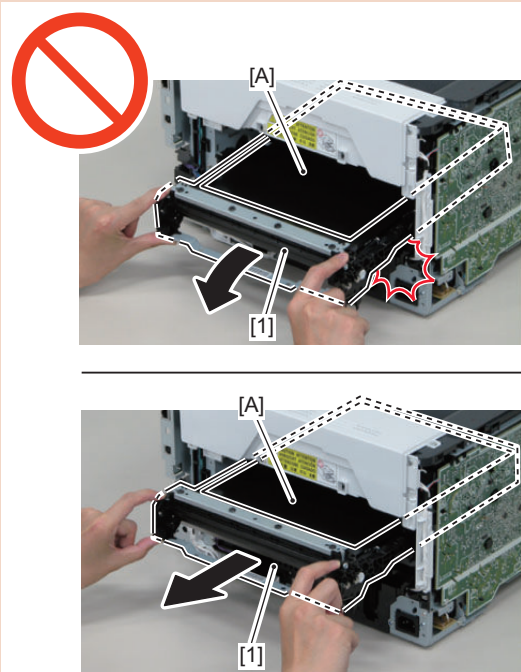




13. **Hold the 2 parts [A] of the ITB Unit and pull out the ITB Unit [1] horizontally by approx. 5 cm.**

14. **Hold the 2 guides [B] at the both ends of the ITB Unit, and remove the ITB Unit [1].**
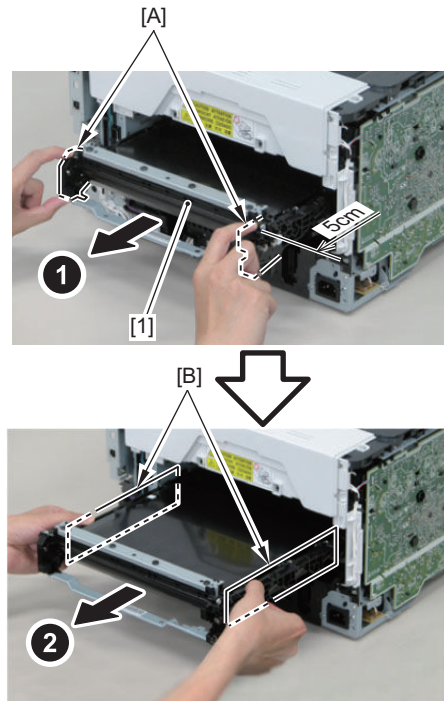


# Removing the Secondary Transfer Outer Roller

## ■ Procedure

1. **Open the Rear Cover [1].**
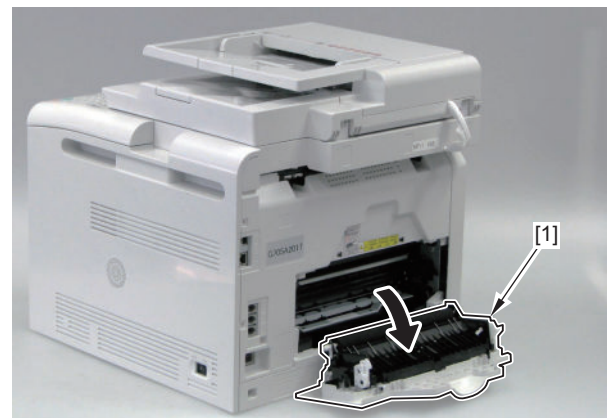


2. **Remove the 2 stoppers [1].**
   - 2 claws [2]

**3. Remove the Secondary Transfer Outer Roller [3].**
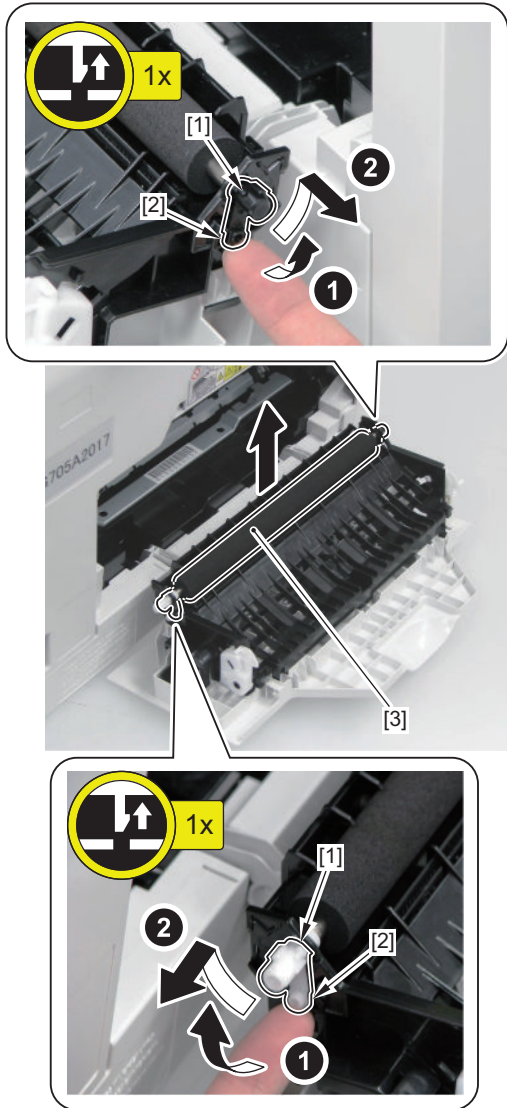


**CAUTION:**
When installing the Secondary Transfer External Roller, take note of the direction of the Secondary Transfer Roller [1].
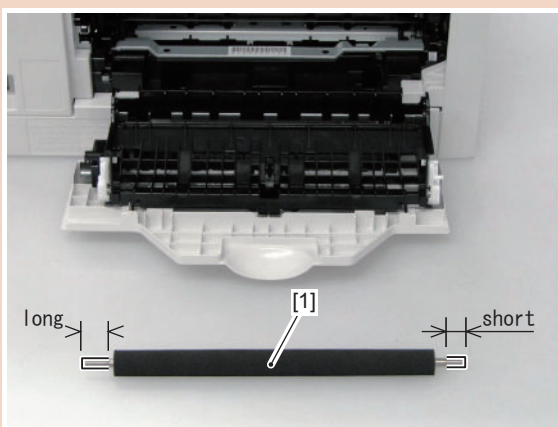
# Fixing System

## 🔵 Location
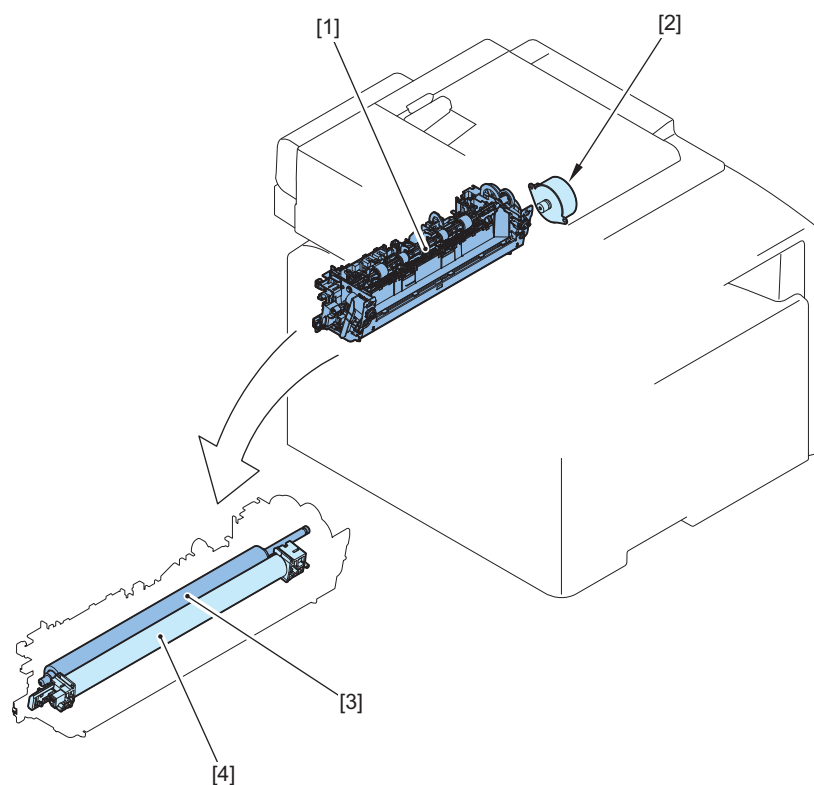


| No. | Parts Name | Main Unit | Re-marks | Reference | Adjustment during parts replacement |
|-----|-----------|-----------|----------|-----------|-------------------------------------|
| [1] | Fixing Assembly | Product Configuration | - | "Removing the Fixing Assembly" on page 186 | - |
| [2] | Fixing Motor | Product Configuration | M703 | "Removing the Fixing Motor" on page 191 | - |
| [3] | Fixing Pressure Roller | Fixing Assembly | - | "Removing the Fixing Pressure Roller" on page 190 | - |
| [4] | Fixing Film Unit | Fixing Assembly | - | "Replacing the Fixing Film Unit" on page 187 | - |

# Fixing System Disassembly/ Assembly Procedure
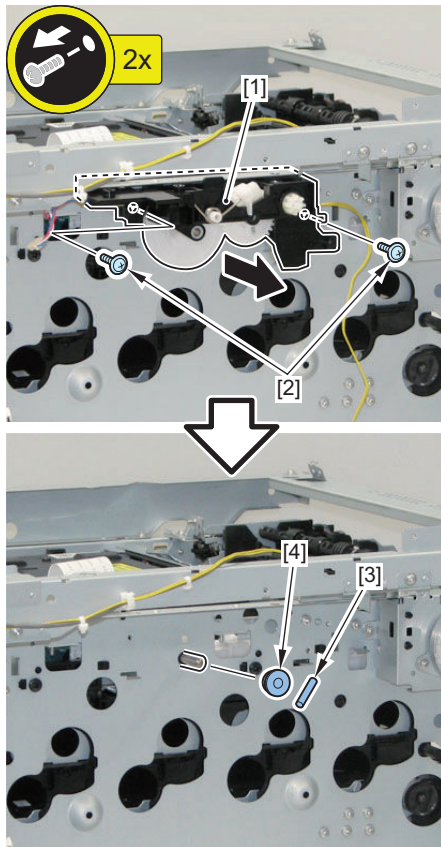
## 🔵 Removing the Fixing Assembly

### ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. **Remove the Left Cover. (Refer to "Removing the Left Cover" on page 109)**

3. **Remove the Rear Upper Cover. (Refer to "Removing the Rear Upper Cover" on page 116)**

4. **Remove the Rear Lower Cover. (Refer to "Removing the Rear Lower Cover" on page 116)**

### ■ Procedure

> **CAUTION:**
> Take some time until the fixing assembly gets cooler and then remove it because the fixing assembly right after the power supply is turned off is at high heat.

1. **Remove the Fixing Power Supply Cover [1].**
   - 2 screws [2]
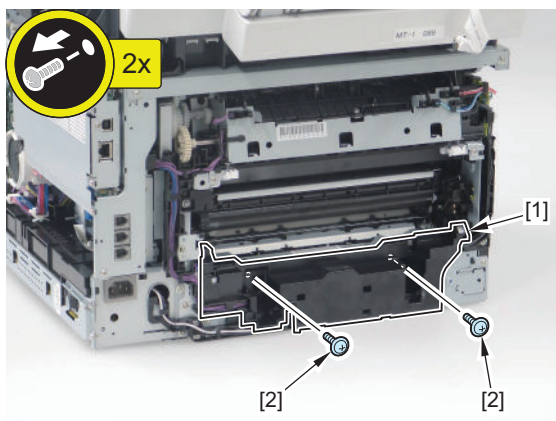


2. **Free the 1 harness [1].**
   - 2 connectors [2]
   - Harness guide [A]
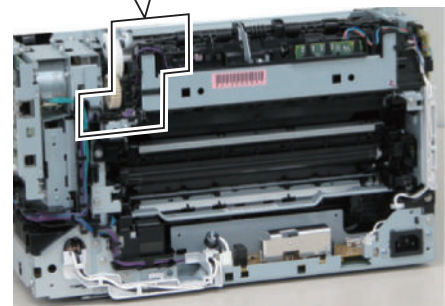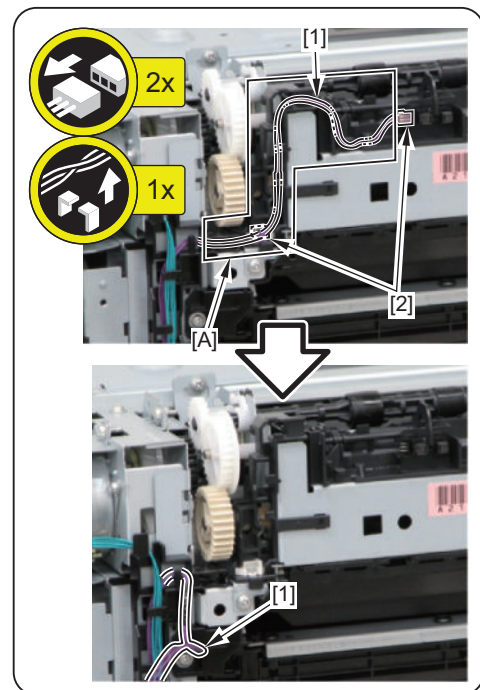
**3. Free the 2 harnesses [1].**
- 2 connectors [2]
- Guide [B]
- Guide [C]
- 1 Wire Saddle [3]
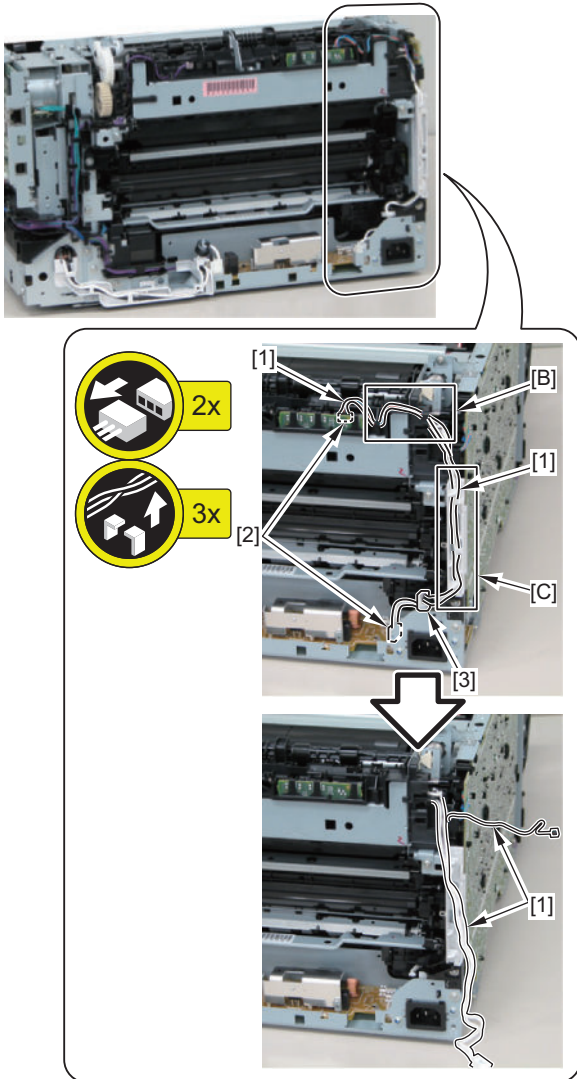


**4. Remove the Fixing Assembly [1].**
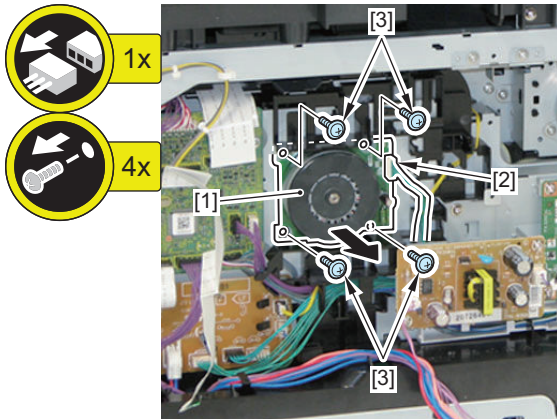- 4 screws [2]
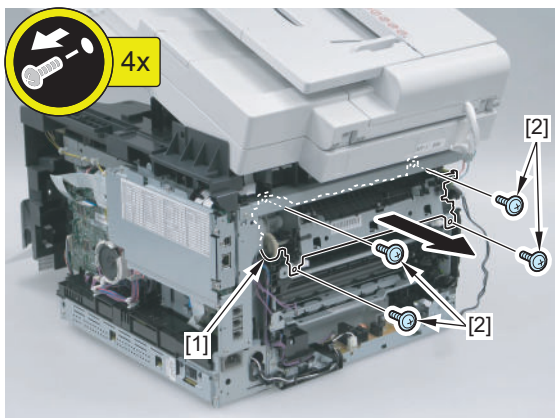


# Replacing the Fixing Film Unit

## ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

2. Remove the Left Cover. (Refer to **"Removing the Left Cover" on page 109**)

3. Remove the Rear Upper Cover. (Refer to **"Removing the Rear Upper Cover" on page 116**)

4. Remove the Rear Lower Cover. (Refer to **"Removing the Rear Lower Cover" on page 116**)

5. Remove the Fixing Assembly. (Refer to **"Removing the Fixing Assembly" on page 186**)

## ■ Procedure

**CAUTION:**
When installing/removing the Fixing Film Unit [1], be sure not to touch the Fixing Film [2].
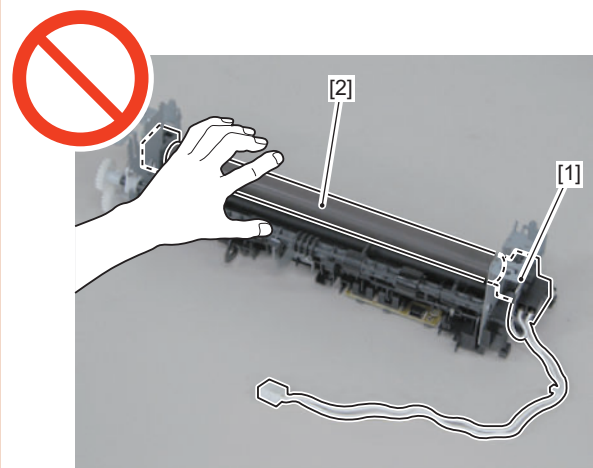
**CAUTION:**

When removing the Spring Retainer Holders [1] and the springs [2], be sure to hold them to prevent them from coming off because pressure is applied to them.
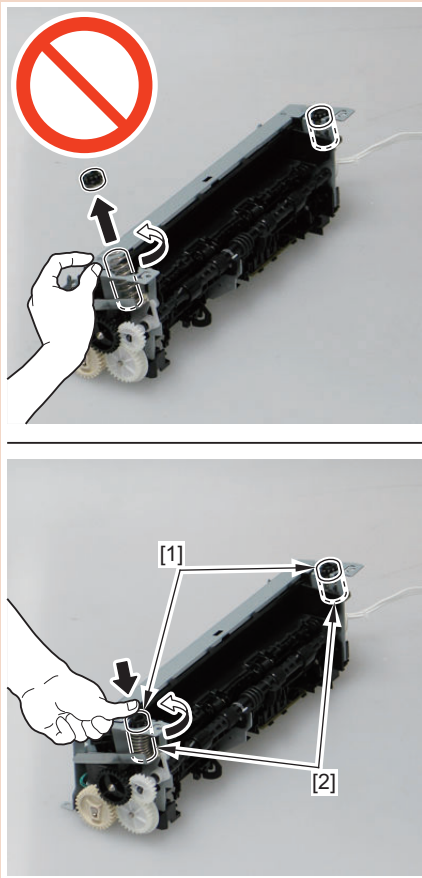


1. **Remove the 2 Spring Retainer Holders [1] (right and left) and the 2 springs [2].**

2. **Remove the 2 Pressure Plates [3] (right and left).**
   • 2 Protrusions [4]
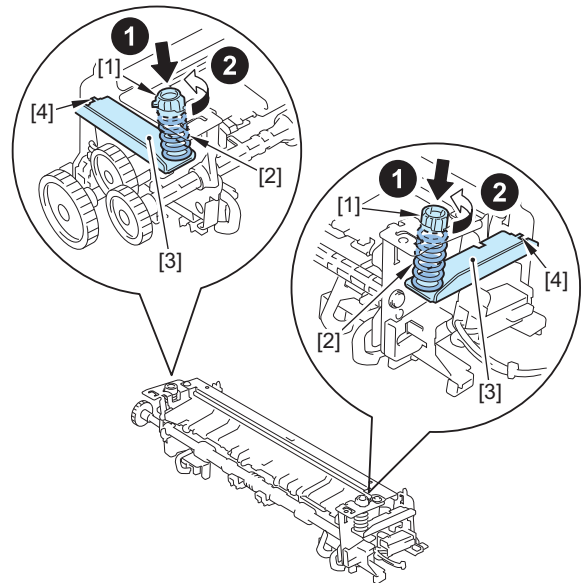


**CAUTION:**

At installation, be sure to match the protrusion [1] of the Spring Retainer Holder with the cut-off parts [2] of the Fixing Frame.
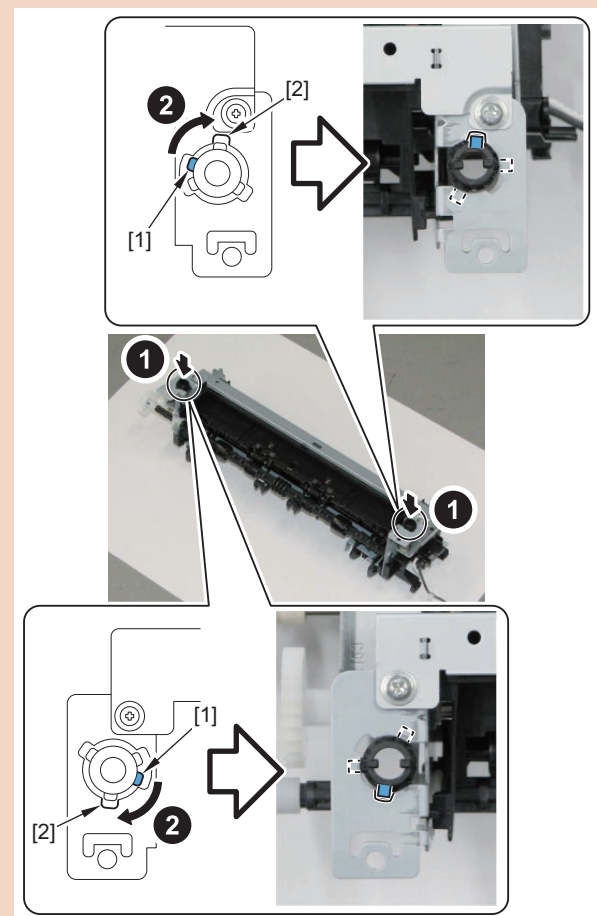


3. **Remove the gear [1].**
   • 1 Claw [2]

4. **Remove the Shaft Unit [3] and the bushing [4].**
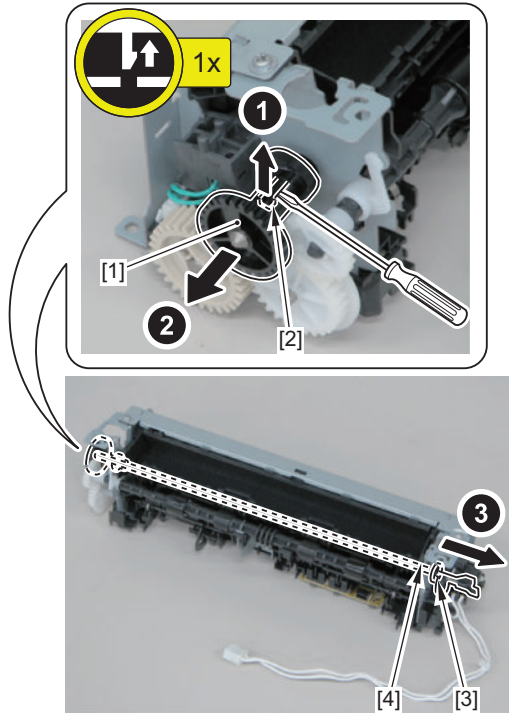


5. **Remove the Guide Retainer Plate [1] and the Fixing Guide (Upper) [2].**
   - 2 Screws [3]
   - 2 Protrusions [4]
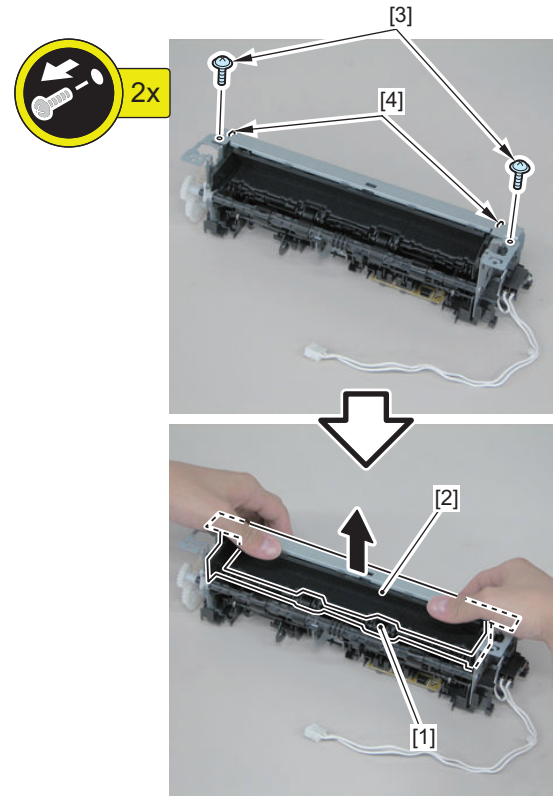


**CAUTION:**
At installation, be sure to combine the Guide Retainer Plate [1] with the Fixing Guide (Upper) [2] before installing them to the Fixing Assembly.
   - 3 Protrusions [3]
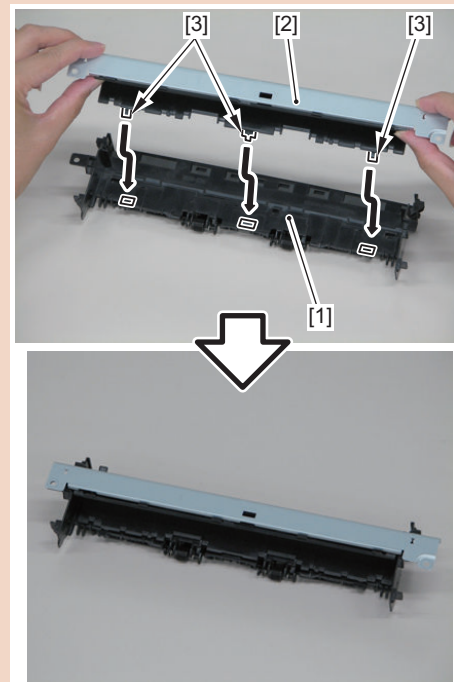
**6. Remove the gear [1].**
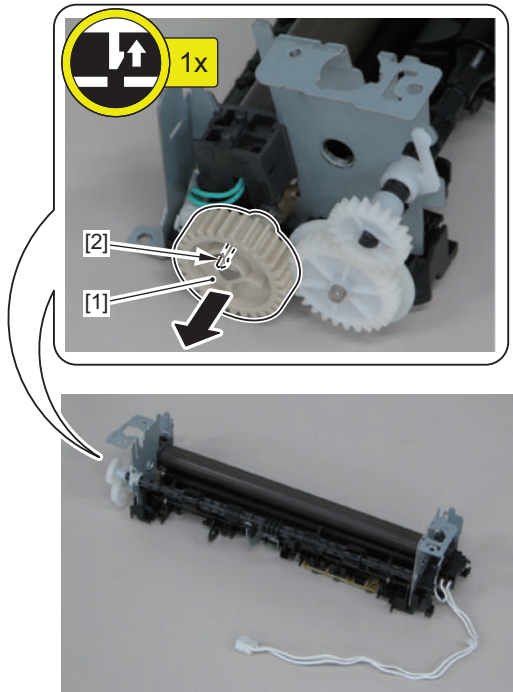
- 1 Claw [2]
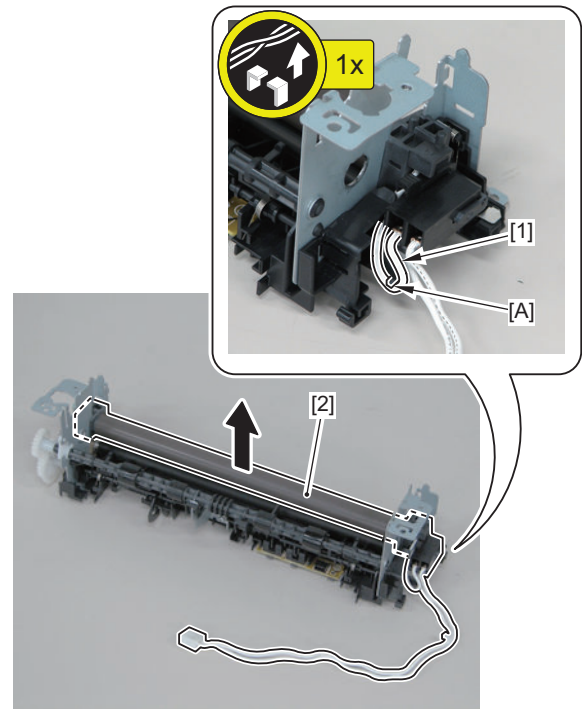


**7. Disconnect the connector [1].**



**8. Free the harness [1] from the guide [A].**

**9. Remove the Fixing Film Unit [2].**
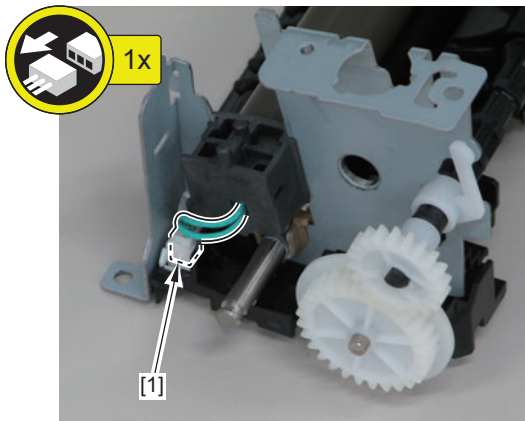


# Removing the Fixing Pressure Roller

## ■ Preparation

1. Remove the Right Cover. (Refer to **"Removing the Right Cover" on page 111**)

2. Remove the Left Cover. (Refer to **"Removing the Left Cover" on page 109**)

3. Remove the Rear Upper Cover. (Refer to **"Removing the Rear Upper Cover" on page 116**)

4. Remove the Rear Lower Cover. (Refer to **"Removing the Rear Lower Cover" on page 116**)

5. Remove the Fixing Assembly. (Refer to **"Removing the Fixing Assembly" on page 186**)

6. Remove the Fixing Film Unit. (Refer to **"Replacing the Fixing Film Unit" on page 187**)

## ■ Procedure

1. **Remove the Fixing Pressure Roller [1].**
   - 1 Bushing [2]
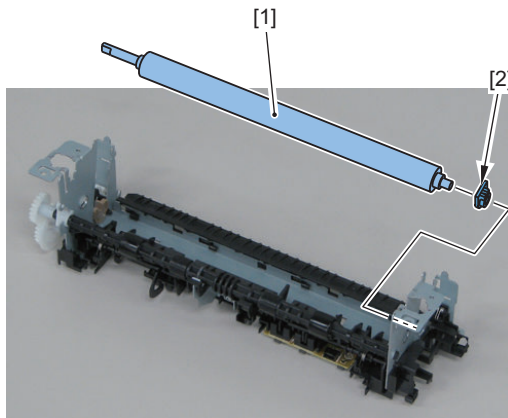


## ● Removing the Fixing Motor

### ■ Preparation

1. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

2. **Remove the Controller Cover. (Refer to "Removing the Controller Cover" on page 147)**

3. **Remove the Wireless LAN PCB. (MF628Cw/ 624Cw only) (Refer to "Removing the Wireless LAN PCB (MF628Cw/624Cw)" on page 147)**

4. **Remove the Main Controller PCB. (Refer to "Removing the Main Controller PCB" on page 147)**

### ■ Procedure

1. **Free the harness [1] and Flat Cable [2].**
   - Guide [A]

2. **Free the harness [3] and remove the Main Controller Support Plate [4].**
   - 1 Connector [5] (Fax model only)
   - Guide [B]
   - 6 Screws [6]
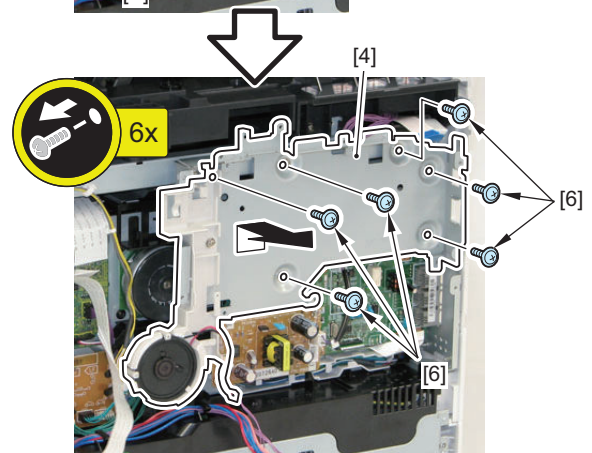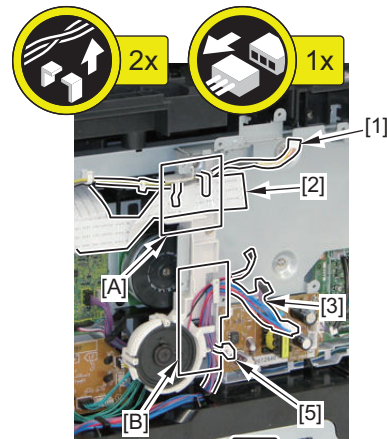


3. **Slide the Fixing Motor [1] in the upper right direction to remove.**
   - 1 connector [2]
   - 2 screws [3]



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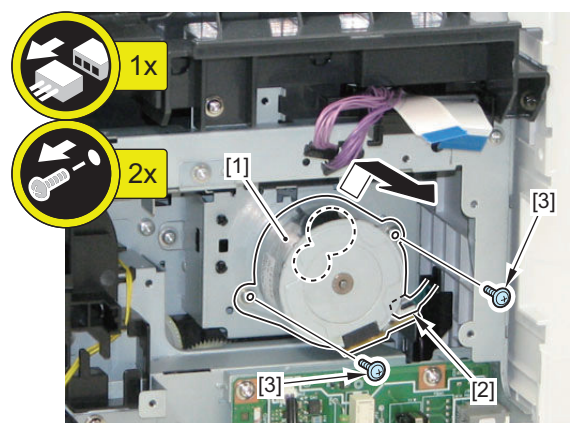
# Pickup Feeder System

## ⬤ Location
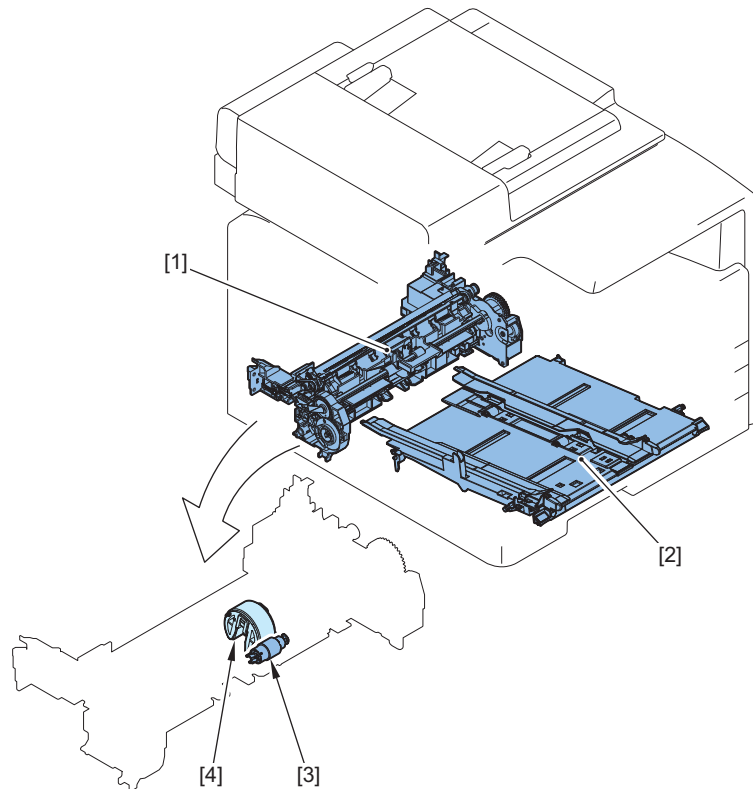


| No. | Parts Name | Main Unit | Remarks | Reference | Adjustment during parts replacement |
|---|---|---|---|---|---|
| [1] | Pickup Unit | Product Configuration | - | "Removing the Pickup Unit" on page 199 | - |
| [2] | Multi-purpose Tray Unit | Product Configuration | - | "Removing the Multi-purpose Tray Unit" on page 196 | - |
| [3] | Cassette Separation Roller | Pickup Unit | - | "Removing the Cassette Separation Roller" on page 194 | - |
| [4] | Cassette Pickup Roller | Pickup Unit | - | "Removing the Cassette Pickup Roller" on page 193 | - |

# Pickup Feeder System Disassembly/ Assembly Procedure

## 🔵 Removing the Cassette Pickup Roller

### ■ Procedure

**CAUTION:**
Be sure not to touch the surface of the Cassette Pickup Roller [1] and the Cassette Separation Roller [2].
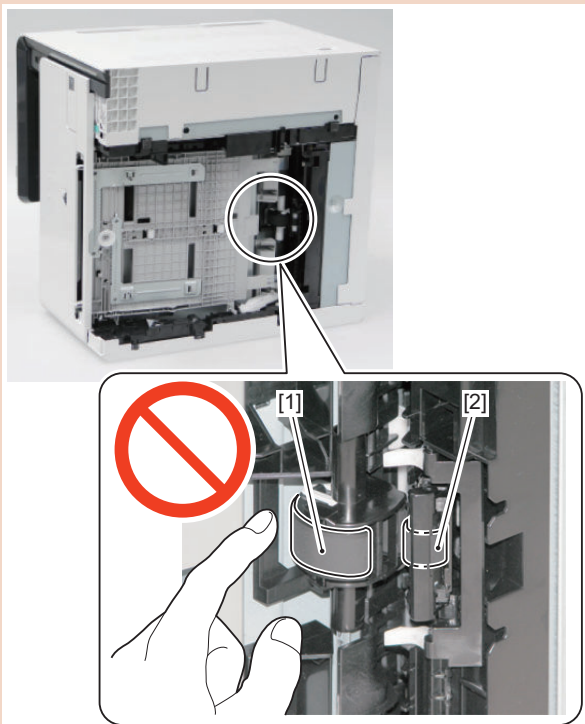


1. **Turn ON the power switch.**

2. **Execute the following items in Service mode.**
   COPIER > FUNCTION > VIFFNC > FD-R-CHG

3. **The Pickup Roller rotates and stops at the replacement position.**

4. **Turn OFF the power.**

**CAUTION:**
Before tilting a host machine, remove toner cartridges (Y, M, C, Bk).

5. **Remove the cassette [1].**
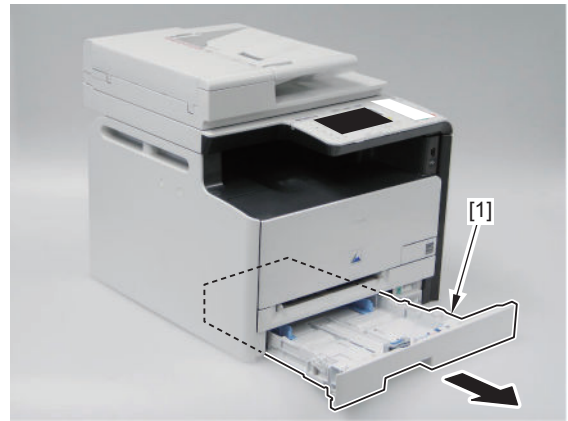


6. **Place a host machine [1] as the Left Cover faces to the bottom.**

**CAUTION:**
When laying down the main body, be sure to secure the ADF Unit with tape to prevent from opening.
In case that the ADF Unit is not secured with tape, when returning the main body to its original position, the ADF Unit is closed swiftly, so this might cause damage on the main body or injuries by catching the fingers.



BOTTOM VIEW
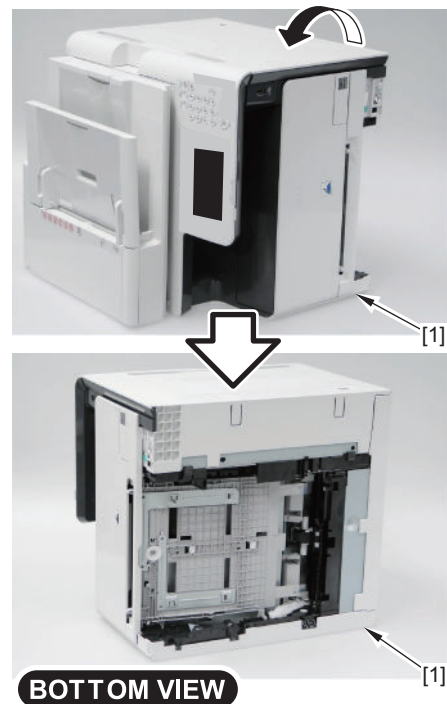
7. **Open 2 projections [1] of the holder in the arrow direction, and remove the cassette Pickup Roller [2].**
   - 2 Claws [3]
   - 2 Hooks [4]
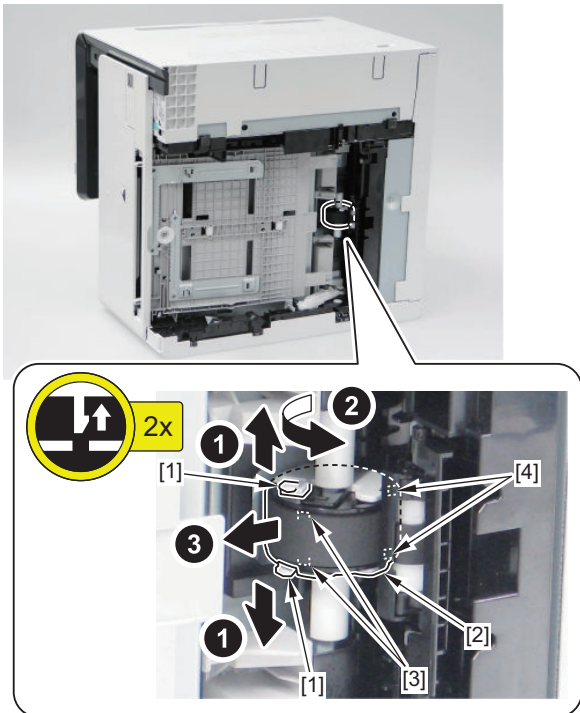


# Removing the Cassette Separation Roller

## ■ Procedure

**CAUTION:**
Be sure not to touch the surface of the Cassette Pickup Roller [1] and the Cassette Separation Roller [2].
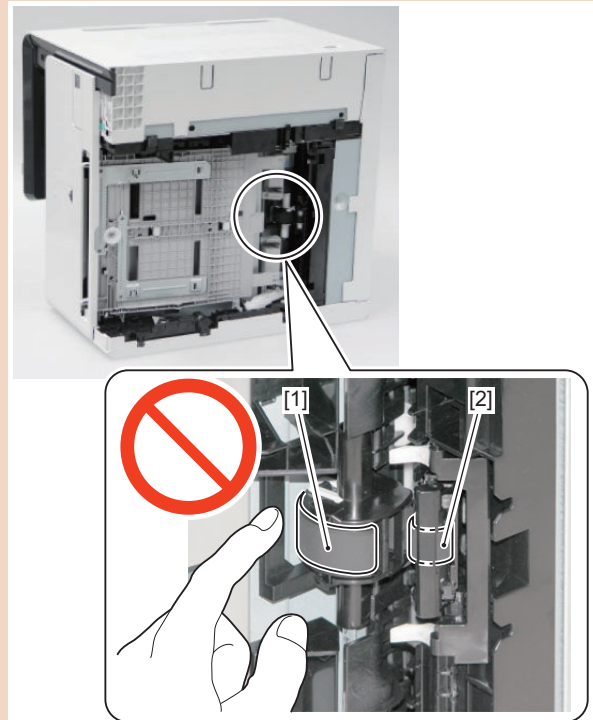


**CAUTION:**
Before tilting a host machine, remove toner cartridges (Y, M, C, Bk).

1. **Remove the cassette [1].**
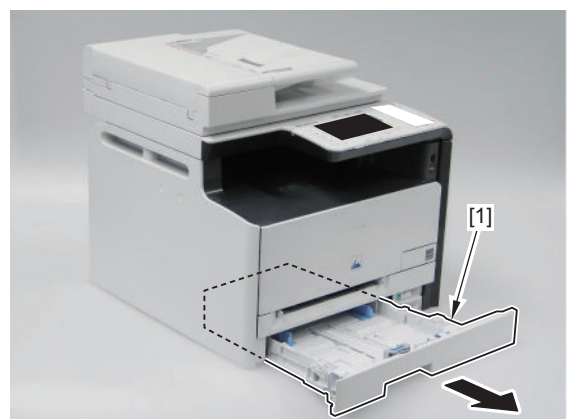
2. **Make the Left Cover face down and place the host machine [1].**

> **CAUTION:**
> When laying down the main body, be sure to secure the ADF Unit with tape to prevent from opening.
> In case that the ADF Unit is not secured with tape, when returning the main body to its original position, the ADF Unit is closed swiftly, so this might cause damage on the main body or injuries by catching the fingers.



**BOTTOM VIEW**
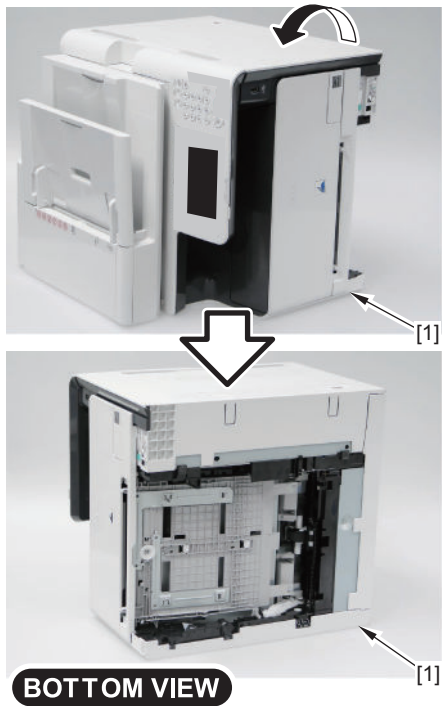
3. **Remove the 2 projections [1] to remove the Cover [2].**
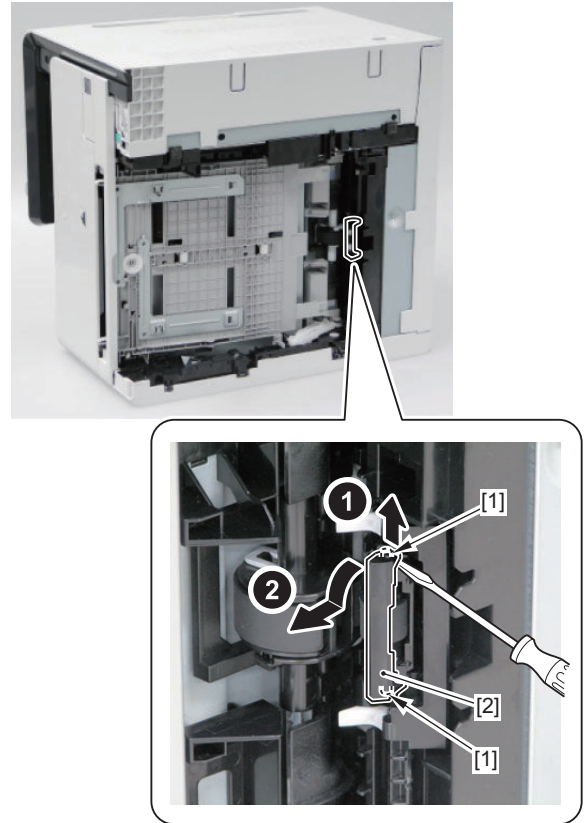
**4.** **While opening the holder [1], remove the Cassette Separation Roller [2].**

- 2 Claws [3]
- 1 Protrusion [4]
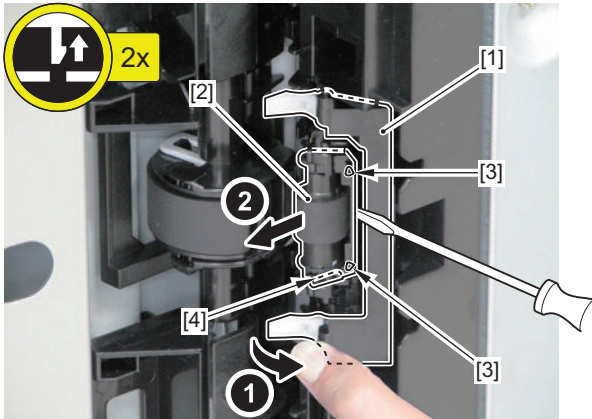


**CAUTION:**
At installation, be sure to align the protrusion [A] of the Cassette Separation Roller [2] with the groove [B] of the holder while opening the holder [1].
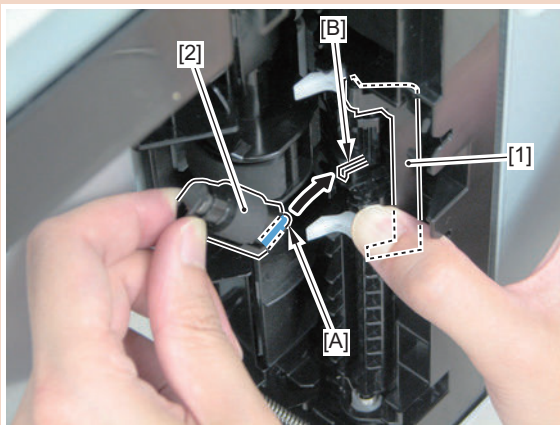


# 🔵 Removing the Multi-purpose Tray Unit

## ■ Preparation

**1.** **Remove the Toner Cartridges (Bk, C, M and Y).**

**CAUTION:**
When installing/removing the Toner Cartridge, be careful not to damage the Photosensitive Drum because it is exposed. Also, be sure to block light.

**2.** **Remove the cassette.**

## ■ Procedure

**1.** **Place the host machine with the Left Cover [1] down.**

**CAUTION:**
When laying down the main body, be sure to secure the ADF Unit with tape to prevent from opening.
In case that the ADF Unit is not secured with tape, when returning the main body to its original position, the ADF Unit is closed swiftly, so this might cause damage on the main body or injuries by catching the fingers.
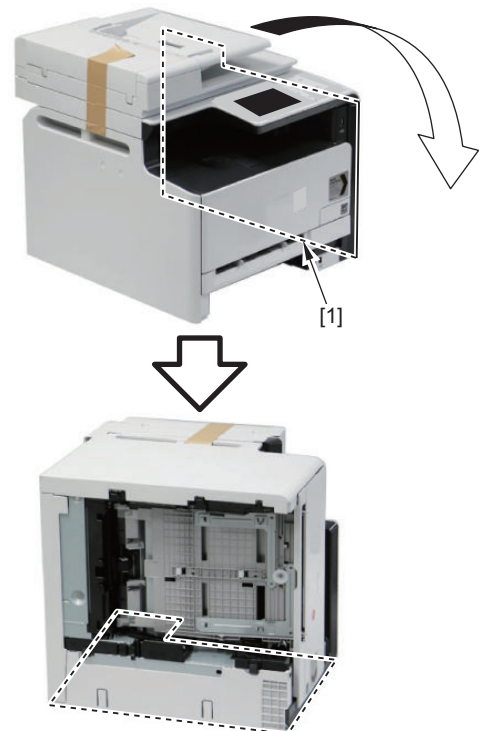


**2.** **Open the Multi-purpose Tray Pickup Cover.**

**3.** **Move the 2 Multi-purpose Tray Paper Width Guide Plates [1] to the center as shown in the figure below.**
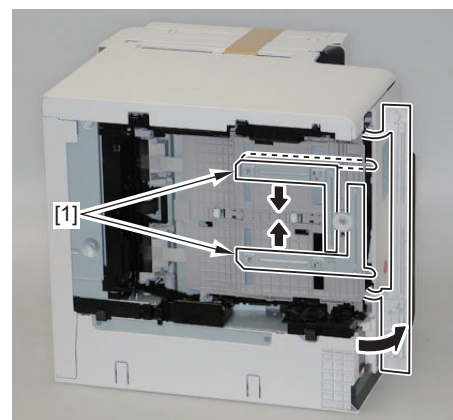


**4.** **Lower the claw [1], move the shaft [3] at the lower side of the Multi-purpose Tray Unit [2] to the leading edge [A] of the claw [1], and then push the shaft [4]**

at the upper side of the Multi-purpose Tray Unit all the way to the groove [B].
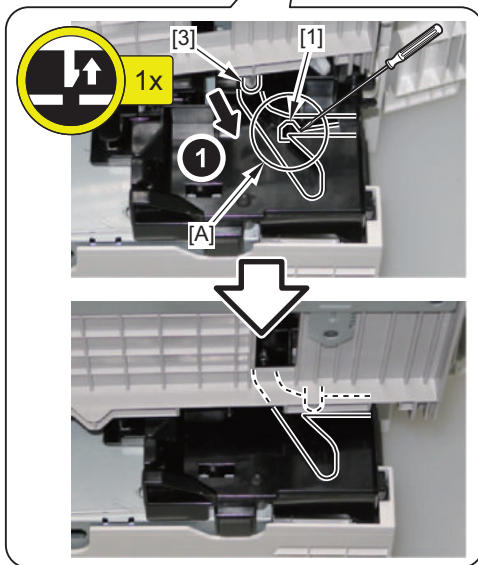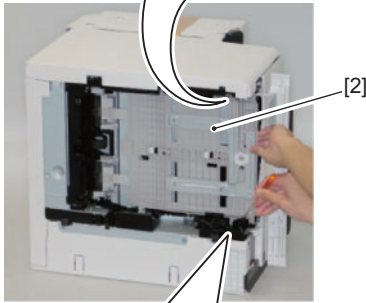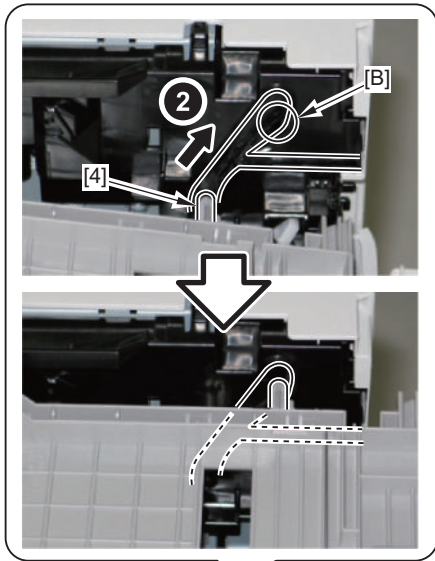


**5. While pushing the shaft [2] at the lower side of the Multi-purpose Tray Unit [1] down, remove the shaft**

[3] at the upper side of the Multi-purpose Tray Unit from the groove [B], and insert it into [C] part.
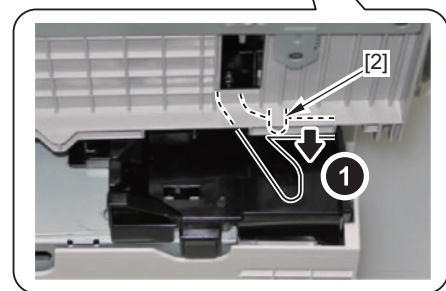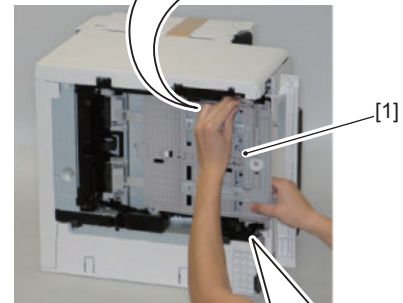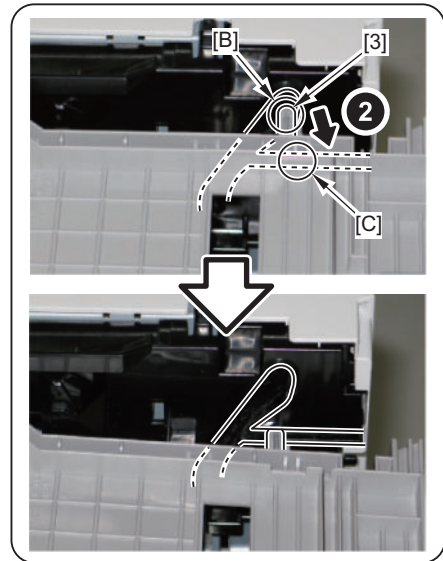


**6. Remove the Multi-purpose Tray Unit [1].**
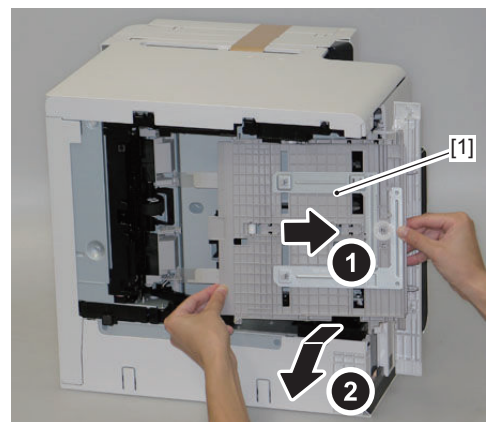
## ■ Installation Method

1. Set the 2 links [1] of the Multi-purpose Tray Unit as shown in the figure below.
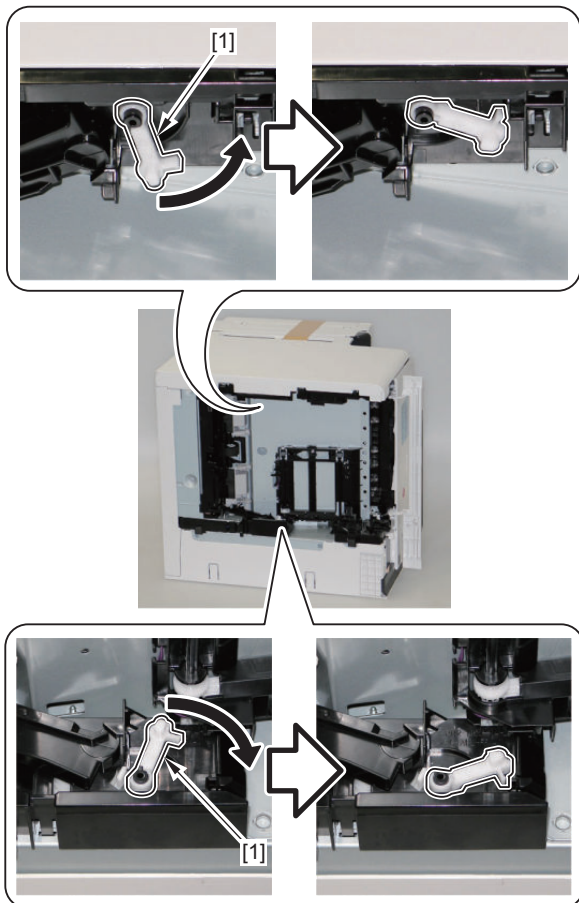


2. Insert the shaft [2] at the upper side of the Multi-purpose Tray Unit [1] into the groove [A], and the shaft [3] at the lower side of the Multi-purpose Tray Unit into the groove [B].
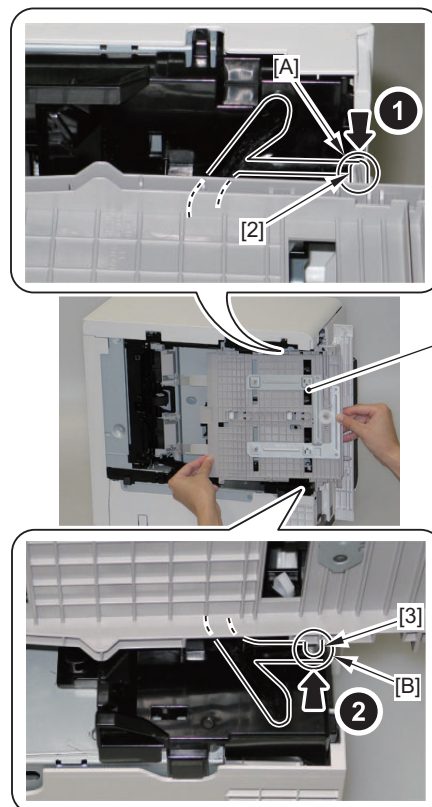


3. Fit the 2 grooves [2] of the Multi-purpose Tray Unit [1] to the 2 protrusions [3] of the links of the Multi-purpose Tray Unit.
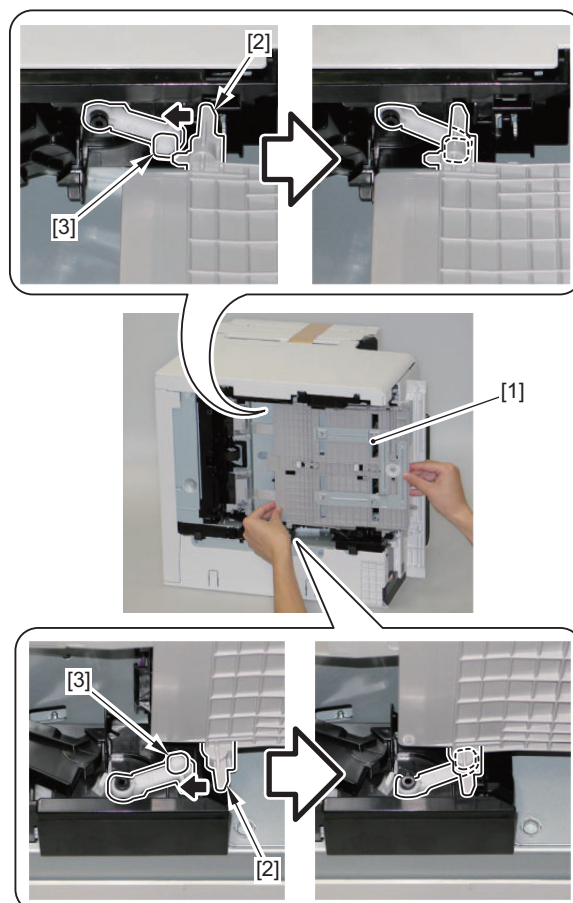
4. **Move the shaft [2] at the upper side of the Multi-purpose Tray Unit [1] to the groove [C], and the shaft [3] at the lower side of the Multi-purpose Tray Unit to the groove [D].**
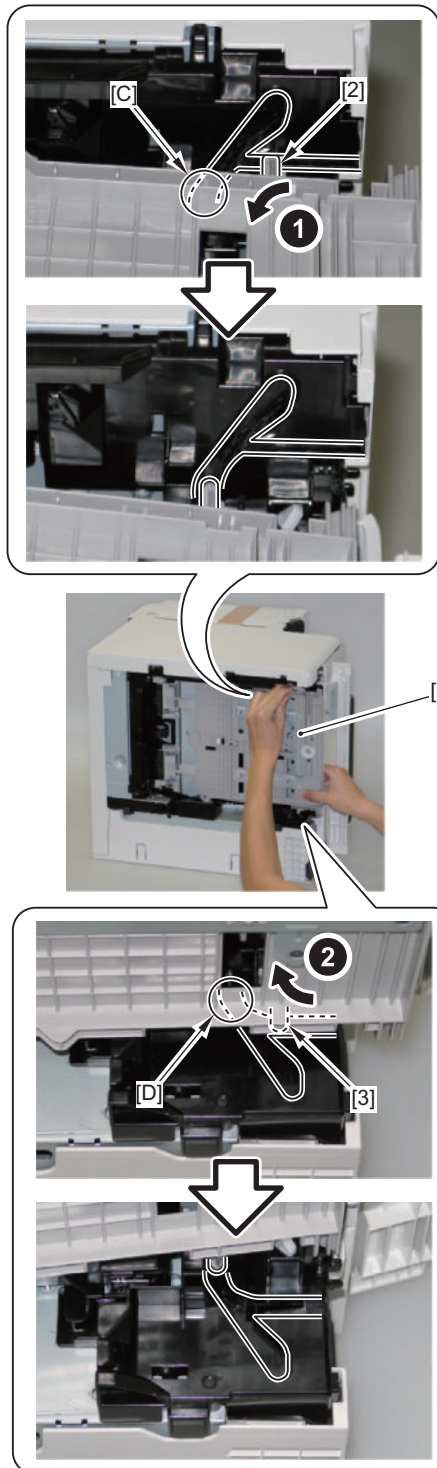


5. **Perform the step 3 and earlier steps of the Removing Procedure in reverse order.**

# Removing the Pickup Unit

## ■ Preparation

1. **Remove the Toner Cartridges (Bk, C, M and Y).**

> **CAUTION:**
> When installing/removing the Toner Cartridge, be careful not to damage the Photosensitive Drum because it is exposed. Also, be sure to block light.

2. **Remove the cassette.**

3. **Remove the Right Cover. (Refer to "Removing the Right Cover" on page 111)**

4. **Remove the Left Cover. (Refer to "Removing the Left Cover" on page 109)**

5. **Remove the Rear Upper Cover. (Refer to "Removing the Rear Upper Cover" on page 116)**

6. **Remove the Rear Lower Cover. (Refer to "Removing the Rear Lower Cover" on page 116)**

7. **Remove the ITB Unit. (Refer to "Removing the ITB Unit" on page 179)**

8. **Remove the Fixing Power Supply Unit. (Refer to "Removing the Fixing Power Supply Unit" on page 159)**

9. **Remove the Controller Cover. (Refer to "Removing the Controller Cover" on page 147)**

10. **Remove the Wireless LAN PCB. (MF628Cw/ 624Cw only) (Refer to "Removing the Wireless LAN PCB (MF628Cw/624Cw)" on page 147)**

11. **Remove the Main Controller PCB. (Refer to "Removing the Main Controller PCB" on page 147)**

12. **Remove the Off Hook PCB. (Fax model only) Refer to "Removing the Off Hook PCB (MF628Cw/ 626Cn)" on page 162)**

13. **Remove the Fax PCB. (Fax model only) (Refer to "Removing the FAX PCB (MF628Cw/ 626Cn)" on page 161)**

14. **Remove the Main Controller Support Plate. (Refer to "Removing the Main Controller Support Plate" on page 151)**

## ■ Procedure

1. **Remove the Fax PCB Mounting Plate [1].**
   - 4 Screws [2]
   - 2 Hooks [3]
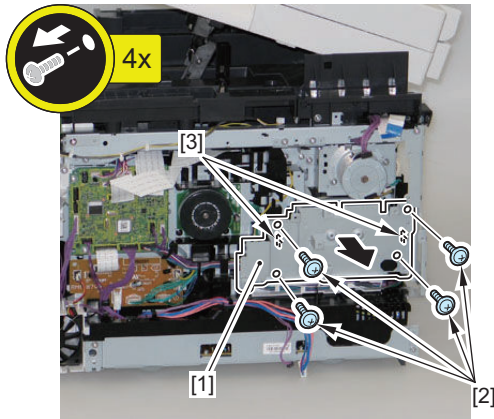


2. **Free the harness [1] from the guides [A], [B], and [C].**
   - 4 Connectors [2]
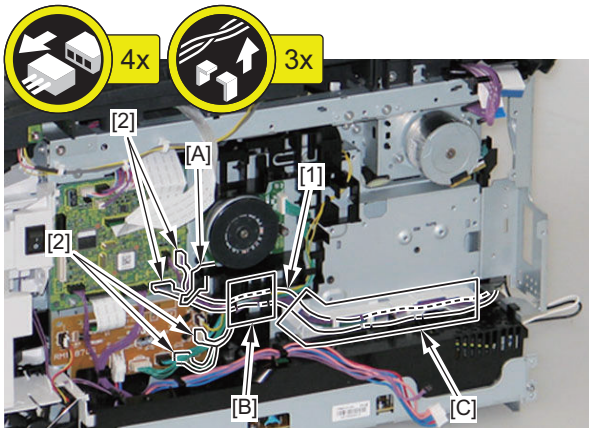


3. **Free the harness [1] from the guide [E] by putting it through the hole [D] of the plate.**

4. **Free the harness [2] from the guide [F].**
   - 1 Wire Saddle [3]
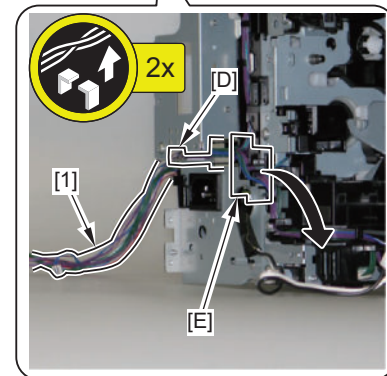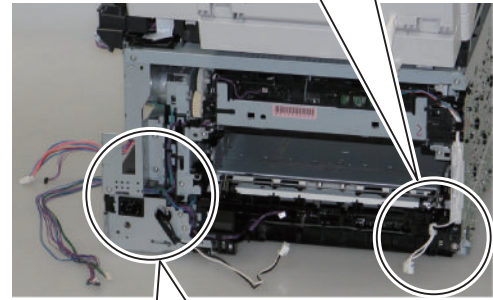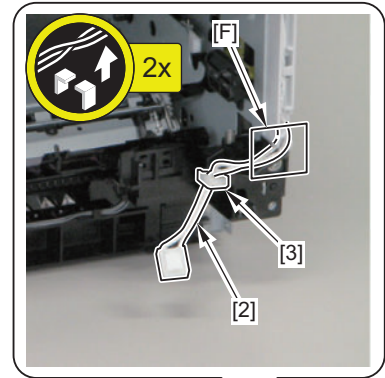


5. **Remove the Sensor Cover Plate [1].**
   - 1 Screw [2]
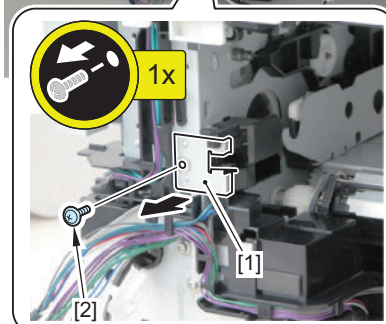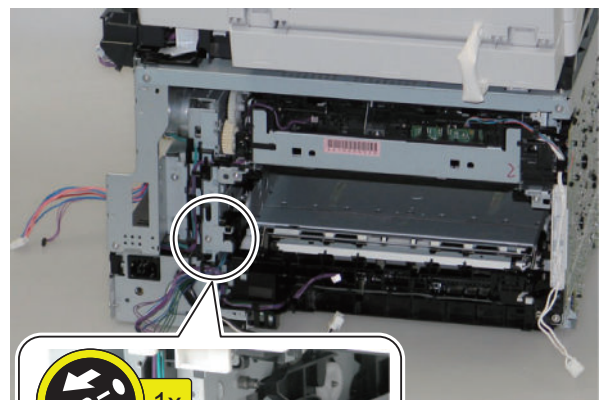
**6. Remove the Sensor Cover [1].**

- 1 Claw [2]
- 1 Hook [3]
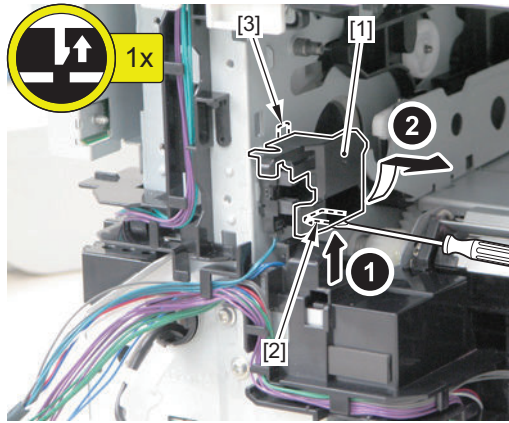


**7. Disconnect the connector [2] of the sensor [1].**

- 4 Claws [3]
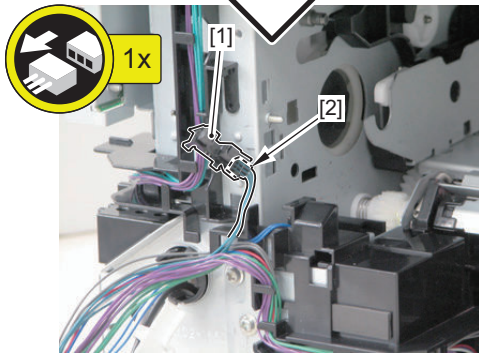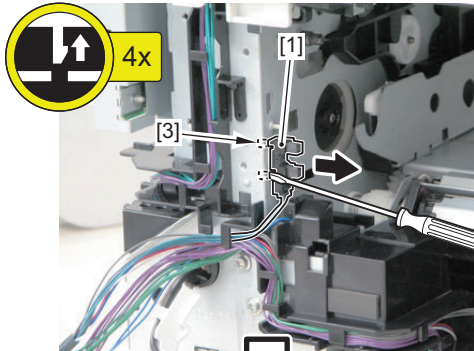


**8. Install the Right Cover [1], and close the Front Cover [2].**

- 9 Claws

**CAUTION:**
When installing the Right Cover [1], be careful not to trap the harness [2].
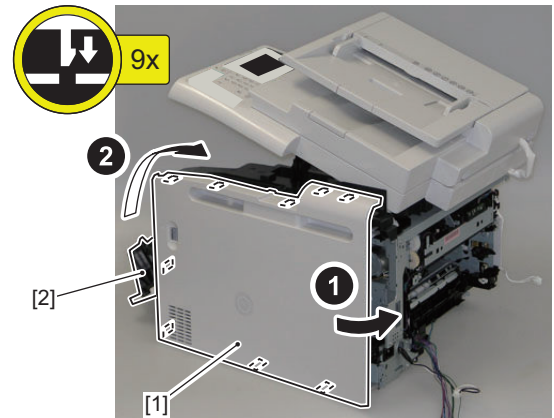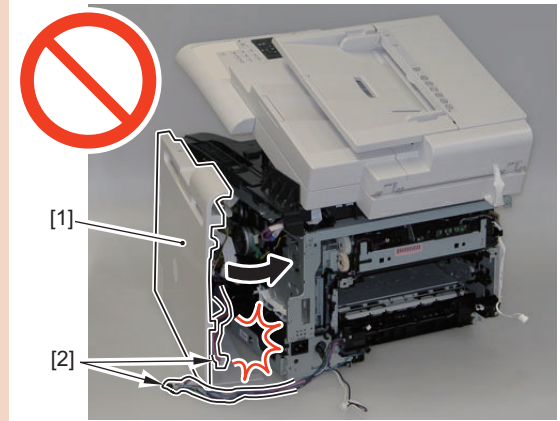
9. **Place the host machine with the Right Cover [1] down.**

> **CAUTION:**
>
> When laying down the main body, be sure to secure the ADF Unit with tape to prevent from opening.
> In case that the ADF Unit is not secured with tape, when returning the main body to its original position, the ADF Unit is closed swiftly, so this might cause damage on the main body or injuries by catching the fingers.
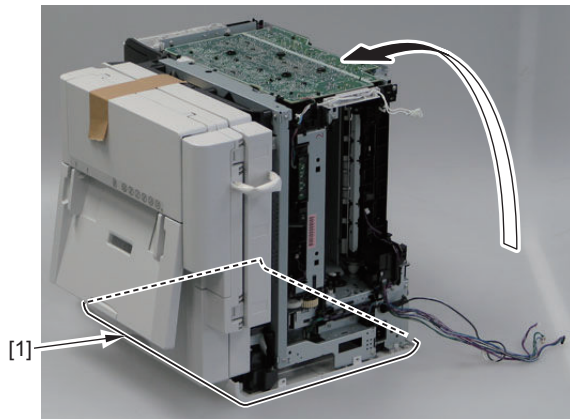


10. **Move the 2 Multi-purpose Tray Paper Width Guide Plates [1] to the inside as shown in the figure below.**
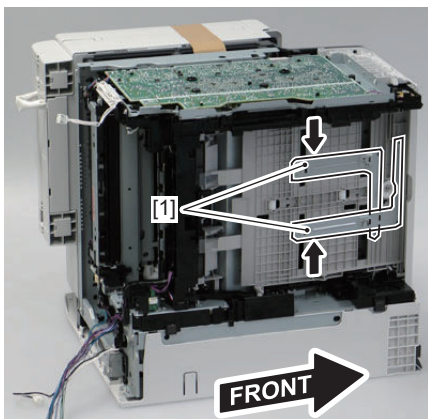


11. **Remove the 2 springs [1] using a pair of needlenose pliers.**
    - 4 Hooks [2]
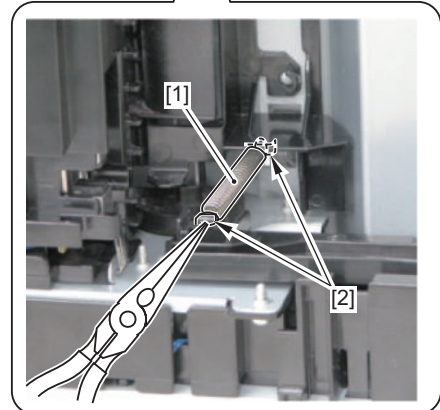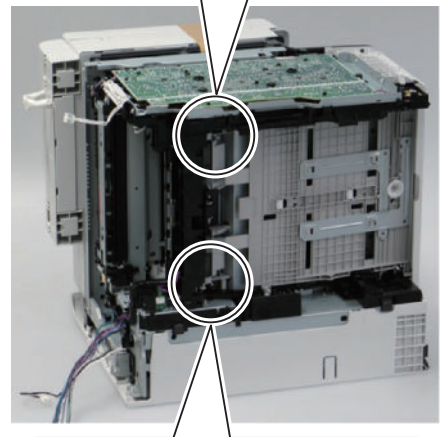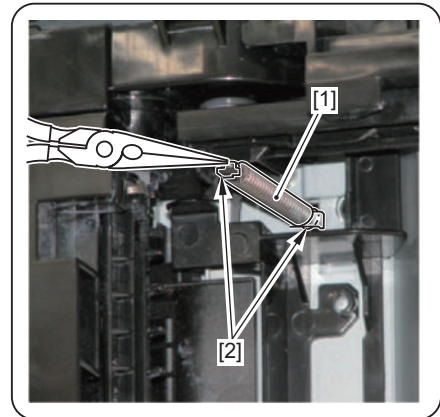
**12. Remove the Pickup Unit [1].**

- 2 Screws [2]
- 2 Bosses [3]
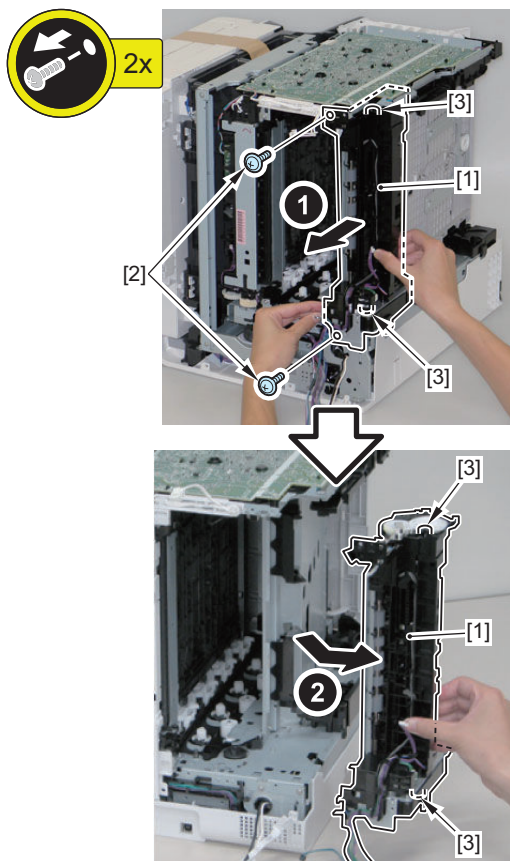


**NOTE:**
When assembling, push the lower side of the Pickup Unit [1], and fit the protrusion [2] of the host machine into the hole [A] of the plate.
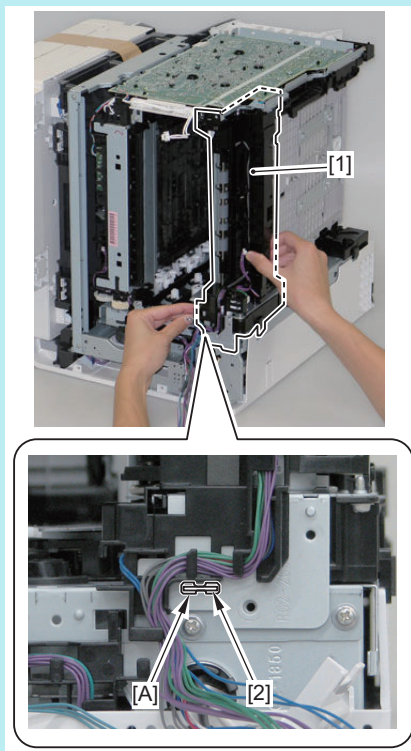


**NOTE:**
When assembling, align the 2 bosses [1] of the Pickup Unit with the 2 edges [A] of the cut-off of the host machine, and place the Pickup Unit [2] on the host machine.
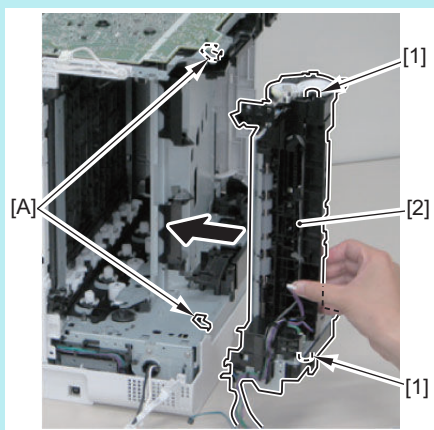
**NOTE:**
When assembling, push the upper side of the Pickup Unit [1] to fit the protrusion [2] of the host machine into the hole [B] of the plate, and secure with the 2 screws [3] removed previously.

# 5 Adjustment

# Overview

Adjustment required in the field service works when following parts are replaced. The parts are classified by 3 function blocks.

| Category | Parts | Reference |
|---|---|---|
| Document Exposure / Feed System | ADF Units | "After Replacing the ADF Units" on page 207 |
| | Reader Units | "After Replacing the Reader Unit" on page 208 |
| | Scoopup Sheet Holder | "After Replacing the Scoopup Sheet Holder" on page 214 |
| | Reader Upper Cover Unit | "After Replacing the Reader Upper Cover Unit" on page 211 |
| | CIS Units | "After replacing CIS units" on page 213 |
| Controller System | Main Controller PCB | "Main Controller PCBs" on page 215 |
| | DC Controller PCB | "DC Controller PCB" on page 219 |
| Laser Exposure System | Laser Scanner Unit | "After Replacing the Laser Scanner Unit" on page 220 |

# Adjustment at Parts Replacement

## ● Document Exposure / Feed System

### ■ After Replacing the ADF Units

1. **Adjust the white level in the following service mode, and write the final setting values on the service label.**
   1. Enter the values in the following service mode items respectively.
      - In COPIER > ADJUST > CCD > DFTAR-R, set "299".
      - In COPIER > ADJUST > CCD > DFTAR-G, set "309".
      - In COPIER > ADJUST > CCD > DFTAR-B, set "307" .
      - In COPIER > ADJUST > CCD > DFTAR-BW, set "315".
   2. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode (color))
   3. Place the same blank paper on the ADF, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode (color))
   4. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader again, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
   5. Place the same blank paper on the ADF again, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
   6. If the operation was successful, write the setting value on the service label.
   7. Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation is successful or not.
      - COPIER > ADJUST > CCD > DFTAR-R (Adjustment of shading target value (R) at ADF reading)
      - COPIER > ADJUST > CCD > DFTAR-G (Adjustment of shading target value (G) at ADF reading)
      - COPIER > ADJUST > CCD > DFTAR-B (Adjustment of shading target value (B) at ADF reading)
      Check the foregoing values, and if all the values remain the same with those you entered, the operation result is judged to be "failed".
   8. If the operation result is "failed", turn OFF and then ON the power, execute
      - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode: color)
      and then execute
      - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode: color)
      again.
   9. Checking the value of DFTAR-BW
      Check the value of
      - COPIER > ADJUST > CCD > DFTAR-BW (Adjustment of shading target value (B&W) at ADF reading)
      If the value remains the same as the value you entered, the operation result is judged to be "failed".
   10. If the operation result is "failed", turn OFF and then ON the power, execute
      - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
      and then execute
      - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
      again.

2. **ADF geometric adjustment**
   1. On an image copied using the ADF, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.
      In the case of E353MGMH, perform 2-sided original reading from the ADF.
      If adjustment is needed, enter necessary adjustment values in the following service mode:
      - COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adj img pstn in ADF mode:horz scan)
      - FEEDER > ADJUST > DOCST (Fine adjustment of VSYNC timing at ADF reading [front side])
      - FEEDER > ADJUST > LA-SPD (Fine adjustment of magnification ratio in vertical scanning direction at ADF stream reading [front side])
   2. If you enter adjustment values, write the final values on the service label.

# ■ After Replacing the Reader Unit

1. **Release the 2 claws [1], remove the Scoop-up Sheet Holder [2], and check the setting values of the Standard White Plate indicated under the barcode that was hidden beneath the Scoop-up Sheet Holder.**



2. **Enter the X, Y, and Z values indicated under the barcode on the Copyboard Glass in**
   - COPIER > ADJUST > CCD > W-PLT-X (White level data (X) entry of white plate) ,
   - COPIER > ADJUST > CCD > W-PLT-Y (White level data (Y) entry of white plate) , and
   - COPIER > ADJUST > CCD > W-PLT-Z (White level data (Z) entry of white plate) ,

   and then write the entered values (the the X, Y, and Z values shown under 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

3. **Return the Scoop-up Sheet to its original position.**

4. **AGC adjustment**
   1. Entering a provisional value
      Change the foregoing values to "1,000".
      - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)
      Change the foregoing values to "1,200"
      - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)
   2. Adjust the white level in the following service mode.
      - COPIER > FUNCTION > CCD > BW-AGC (CIS intensity adjustment in ADF (B&W))
      - COPIER > FUNCTION > CCD > CL-AGC (CIS intensity adjustment in ADF (color))
   3. If the operation was "successful", this procedure is completed. (There is no need to write the value on the service label.)

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.
B&W mode
- COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
- COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
- COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)
Check the foregoing values. If all of them remain "1,000", the operation result is judged to be "failed".
If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > BW-AGC again.
Color mode
- COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
- COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
- COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)
Check the foregoing values. If all of them remain "1,200", the operation result is judged to be "failed".
If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > CL-AGC again.

5. **Automatic adjustment of the stream reading position**
1. Entering a provisional value
Set the value of
- COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)
to "-20".
2. Automatic adjustment of the stream reading position
Execute
- COPIER > FUNCTION > INSTALL > STRD-POS (Scan position auto adj in ADF mode)
If the operation was successful, write the value of STRD-POS on the service label.
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 value of
- COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)
If it remains "-20", the operation is judged to be "failed".
If the operation is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > INSTALL > STRD-POS again.

6. **Adjust the white level in the following service mode, and write the final setting values on the service label.**
1. Enter the values in the following service mode items respectively.
- In COPIER > ADJUST > CCD > DFTAR-R, set "299".
- In COPIER > ADJUST > CCD > DFTAR-G, set "309".
- In COPIER > ADJUST > CCD > DFTAR-B, set "307" .
- In COPIER > ADJUST > CCD > DFTAR-BW, set "315".
2. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader, and execute
- COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode (color))
3. Place the same blank paper on the ADF, and execute
- COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode (color))
4. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader again, and execute
- COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
5. Place the same blank paper on the ADF again, and execute
- COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
6. If the operation was successful, write the setting value on the service label.
7. Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation is successful or not.
- COPIER > ADJUST > CCD > DFTAR-R (Adjustment of shading target value (R) at ADF reading)
- COPIER > ADJUST > CCD > DFTAR-G (Adjustment of shading target value (G) at ADF reading)
- COPIER > ADJUST > CCD > DFTAR-B (Adjustment of shading target value (B) at ADF reading)
Check the foregoing values, and if all the values remain the same with those you entered, the operation result is judged to be "failed".

8. If the operation result is "failed", turn OFF and then ON the power, execute
   • COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode: color)
   and then execute
   • COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode: color)
   again.
9. Checking the value of DFTAR-BW
   Check the value of
   • COPIER > ADJUST > CCD > DFTAR-BW (Adjustment of shading target value (B&W) at ADF reading)
   If the value remains the same as the value you entered, the operation result is judged to be "failed".
10. If the operation result is "failed", turn OFF and then ON the power, execute
    • COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
    and then execute
    • COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
    again.

**7. Copyboard color displacement offset adjustment**

Enter the value shown on the label that comes with the part in the following service mode.
Enter the values of 50-RG, 50-GB, 100-RG, and 100-GB shown on the replacement label in the following service mode, and write the entered values on the service label.
   • COPIER > ADJUST > CCD > 50-RG (Color displacement (R and G lines) correction value in the vertical scanning direction (50%))
   • COPIER > ADJUST > CCD > 50-GB (Color displacement (G and B lines) correction value in the vertical scanning direction (50%))
   • COPIER > ADJUST > CCD > 100-RG (Color displacement (R and G lines) correction value in the vertical scanning direction (100%))
   • COPIER > ADJUST > CCD > 100-GB (Color displacement (G and B lines) correction value in the vertical scanning direction (100%))

**8. PASCAL adjustment**

Enter the values shown on the label that comes with the part in the following service mode items.
Enter the values of OFST-P-Y, OFST-P-M, OFST-P-C, and OFST-P-K in the following service mode, and write the entered values on the service label.
   • COPIER>ADJUST>PASCAL>OFST-P-Y (Y density adj at test print reading)
   • COPIER>ADJUST>PASCAL>OFST-P-M (M density adj at test print reading)
   • COPIER>ADJUST>PASCAL>OFST-P-C (C density adj at test print reading)
   • COPIER>ADJUST>PASCAL>OFST-P-B (Bk density adj at test print reading)

**9. Copyboard geometric adjustment**

Enter the values shown on the label that comes with the part in the following service mode items.
   • COPIER > ADJUST > ADJ-XY > ADJ-X (Adj of img pstn in book mode: vert scan)
   • COPIER > ADJUST > ADJ-XY > ADJ-Y (Adj of img pstn in book mode: (horizontal scanning direction)
   • COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine adj image ratio: vertical scanning)
Enter the values in the foregoing service mode.

**10. ADF geometric adjustment**

1. On an image copied using the ADF, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.
   In the case of E353MGMH, perform 2-sided original reading from the ADF.
   If adjustment is needed, enter necessary adjustment values in the following service mode:
      • COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adj img pstn in ADF mode:horz scan)
      • FEEDER > ADJUST > DOCST (Fine adjustment of VSYNC timing at ADF reading [front side])
      • FEEDER > ADJUST > LA-SPD (Fine adjustment of magnification ratio in vertical scanning direction at ADF stream reading [front side])
2. If you enter adjustment values, write the final values on the service label.

# ■ After Replacing the Reader Upper Cover Unit

**1. Enter the X, Y, and Z values indicated under the barcode on the Copyboard Glass in**



- COPIER > ADJUST > CCD > W-PLT-X (White level data (X) entry of white plate) ,
- COPIER > ADJUST > CCD > W-PLT-Y (White level data (Y) entry of white plate) , and
- COPIER > ADJUST > CCD > W-PLT-Z (White level data (Z) entry of white plate) ,

and then write the entered values (the the X, Y, and Z values shown under 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

**2. AGC adjustment**

1. Entering a provisional value
   Change the foregoing values to "1,000".
   - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)
   Change the foregoing values to "1,200"
   - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)
2. Adjust the white level in the following service mode.
   - COPIER > FUNCTION > CCD > BW-AGC (CIS intensity adjustment in ADF (B&W))
   - COPIER > FUNCTION > CCD > CL-AGC (CIS intensity adjustment in ADF (color))
3. If the operation was "successful", this procedure is completed. (There is no need to write the value on the service label.)
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.
   B&W mode
   - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)
   Check the foregoing values. If all of them remain "1,000", the operation result is judged to be "failed".
   If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > BW-AGC again.
   Color mode
   - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)
   Check the foregoing values. If all of them remain "1,200", the operation result is judged to be "failed".
   If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > CL-AGC again.

**3. Automatic adjustment of the stream reading position**

1. Entering a provisional value
   Set the value of
   - COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)
   to "-20".

2. Automatic adjustment of the stream reading position
   Execute
   - COPIER > FUNCTION > INSTALL > STRD-POS (Scan position auto adj in ADF mode)
   If the operation was successful, write the value of STRD-POS on the service label.

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 value of
   - COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)
   If it remains "-20", the operation is judged to be "failed".
   If the operation is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > INSTALL > STRD-POS again.

**4. Adjust the white level in the following service mode, and write the final setting values on the service label.**

1. Enter the values in the following service mode items respectively.
   - In COPIER > ADJUST > CCD > DFTAR-R, set "299".
   - In COPIER > ADJUST > CCD > DFTAR-G, set "309".
   - In COPIER > ADJUST > CCD > DFTAR-B, set "307" .
   - In COPIER > ADJUST > CCD > DFTAR-BW, set "315".

2. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode (color))

3. Place the same blank paper on the ADF, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode (color))

4. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader again, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))

5. Place the same blank paper on the ADF again, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))

6. If the operation was successful, write the setting value on the service label.

7. Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation is successful or not.
   - COPIER > ADJUST > CCD > DFTAR-R (Adjustment of shading target value (R) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-G (Adjustment of shading target value (G) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-B (Adjustment of shading target value (B) at ADF reading)
   Check the foregoing values, and if all the values remain the same with those you entered, the operation result is judged to be "failed".

8. If the operation result is "failed", turn OFF and then ON the power, execute
   - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode: color)
   and then execute
   - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode: color)
   again.

9. Checking the value of DFTAR-BW
   Check the value of
   - COPIER > ADJUST > CCD > DFTAR-BW (Adjustment of shading target value (B&W) at ADF reading)
   If the value remains the same as the value you entered, the operation result is judged to be "failed".

10. If the operation result is "failed", turn OFF and then ON the power, execute
    - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
    and then execute
    - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
    again.

**5. Copyboard geometric adjustment**

Enter the values shown on the label that comes with the part in the following service mode items.
- COPIER > ADJUST > ADJ-XY > ADJ-X (Adj of img pstn in book mode: vert scan)
- COPIER > ADJUST > ADJ-XY > ADJ-Y (Adj of img pstn in book mode: (horizontal scanning direction)
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine adj image ratio: vertical scanning)

Enter the values in the foregoing service mode.

## ■ After replacing CIS units

1. **AGC adjustment**
   1. Entering a provisional value
      Change the foregoing values to "1,000".
      - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)

      Change the foregoing values to "1,200"
      - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)
   2. Adjust the white level in the following service mode.
      - COPIER > FUNCTION > CCD > BW-AGC (CIS intensity adjustment in ADF (B&W))
      - COPIER > FUNCTION > CCD > CL-AGC (CIS intensity adjustment in ADF (color))
   3. If the operation was "successful", this procedure is completed. (There is no need to write the value on the service label.)
   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.
      B&W mode
      - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)

      Check the foregoing values. If all of them remain "1,000", the operation result is judged to be "failed".
      If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > BW-AGC again.
      Color mode
      - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)

      Check the foregoing values. If all of them remain "1,200", the operation result is judged to be "failed".
      If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > CL-AGC again.

2. **Automatic adjustment of the stream reading position**
   1. Entering a provisional value
      Set the value of
      - COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)

      to "-20".
   2. Automatic adjustment of the stream reading position
      Execute
      - COPIER > FUNCTION > INSTALL > STRD-POS (Scan position auto adj in ADF mode)

      If the operation was successful, write the value of STRD-POS on the service label.
   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 value of
      - COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)

      If it remains "-20", the operation is judged to be "failed".
      If the operation is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > INSTALL > STRD-POS again.

3. **Adjust the white level in the following service mode, and write the final setting values on the service label.**
   1. Enter the values in the following service mode items respectively.
      - In COPIER > ADJUST > CCD > DFTAR-R, set "299".
      - In COPIER > ADJUST > CCD > DFTAR-G, set "309".
      - In COPIER > ADJUST > CCD > DFTAR-B, set "307" .
      - In COPIER > ADJUST > CCD > DFTAR-BW, set "315".
   2. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode (color))
   3. Place the same blank paper on the ADF, and execute
      - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode (color))

4. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader again, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
5. Place the same blank paper on the ADF again, and execute
   - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
6. If the operation was successful, write the setting value on the service label.
7. Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation is successful or not.
   - COPIER > ADJUST > CCD > DFTAR-R (Adjustment of shading target value (R) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-G (Adjustment of shading target value (G) at ADF reading)
   - COPIER > ADJUST > CCD > DFTAR-B (Adjustment of shading target value (B) at ADF reading)
   Check the foregoing values, and if all the values remain the same with those you entered, the operation result is judged to be "failed".
8. If the operation result is "failed", turn OFF and then ON the power, execute
   - COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode: color)
   and then execute
   - COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode: color)
   again.
9. Checking the value of DFTAR-BW
   Check the value of
   - COPIER > ADJUST > CCD > DFTAR-BW (Adjustment of shading target value (B&W) at ADF reading)
   If the value remains the same as the value you entered, the operation result is judged to be "failed".
10. If the operation result is "failed", turn OFF and then ON the power, execute
   - COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
   and then execute
   - COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
   again.

4. **Copyboard geometric adjustment**

Enter the values shown on the label that comes with the part in the following service mode items.
- COPIER > ADJUST > ADJ-XY > ADJ-X (Adj of img pstn in book mode: vert scan)
- COPIER > ADJUST > ADJ-XY > ADJ-Y (Adj of img pstn in book mode: (horizontal scanning direction)
- COPIER > ADJUST > ADJ-XY > ADJ-X-MG (Fine adj image ratio: vertical scanning)

Enter the values in the foregoing service mode.

5. **ADF geometric adjustment**

1. On an image copied using the ADF, check the non-image width in the X and Y directions and the expansion/contraction in the X direction.
   In the case of E353MGMH, perform 2-sided original reading from the ADF.
   If adjustment is needed, enter necessary adjustment values in the following service mode:
   - COPIER > ADJUST > ADJ-XY > ADJ-Y-DF (Adj img pstn in ADF mode:horz scan)
   - FEEDER > ADJUST > DOCST (Fine adjustment of VSYNC timing at ADF reading [front side])
   - FEEDER > ADJUST > LA-SPD (Fine adjustment of magnification ratio in vertical scanning direction at ADF stream reading [front side])
2. If you enter adjustment values, write the final values on the service label.

## ■ After Replacing the Scoopup Sheet Holder

1. **Automatic adjustment of the stream reading position**

1. Entering a provisional value
   Set the value of
   - COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)
   to "-20".
2. Automatic adjustment of the stream reading position
   Execute
   - COPIER > FUNCTION > INSTALL > STRD-POS (Scan position auto adj in ADF mode)
   If the operation was successful, write the value of STRD-POS on the service label.

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 value of
  • COPIER > ADJUST > ADJ-XY > STRD-POS (Adjustment of reading position at ADF stream reading)
If it remains "-20", the operation is judged to be "failed".
If the operation is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > INSTALL > STRD-POS again.

**2. Adjust the white level in the following service mode, and write the final setting values on the service label.**

1. Enter the values in the following service mode items respectively.
  • In COPIER > ADJUST > CCD > DFTAR-R, set "299".
  • In COPIER > ADJUST > CCD > DFTAR-G, set "309".
  • In COPIER > ADJUST > CCD > DFTAR-B, set "307" .
  • In COPIER > ADJUST > CCD > DFTAR-BW, set "315".
2. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader, and execute
  • COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode (color))
3. Place the same blank paper on the ADF, and execute
  • COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode (color))
4. Place a sheet of A4 or LTR blank paper (paper recommended by Canon) on the Platen Glass of the reader again, and execute
  • COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
5. Place the same blank paper on the ADF again, and execute
  • COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
6. If the operation was successful, write the setting value on the service label.
7. Whether the operation was successful or failed is not shown on the UI, so perform the following procedure to judge if the operation is successful or not.
  • COPIER > ADJUST > CCD > DFTAR-R (Adjustment of shading target value (R) at ADF reading)
  • COPIER > ADJUST > CCD > DFTAR-G (Adjustment of shading target value (G) at ADF reading)
  • COPIER > ADJUST > CCD > DFTAR-B (Adjustment of shading target value (B) at ADF reading)
  Check the foregoing values, and if all the values remain the same with those you entered, the operation result is judged to be "failed".
8. If the operation result is "failed", turn OFF and then ON the power, execute
  • COPIER > FUNCTION > CCD > DF-WLVL1 (White level adj in book mode: color)
  and then execute
  • COPIER > FUNCTION > CCD > DF-WLVL2 (White level adj in ADF mode: color)
  again.
9. Checking the value of DFTAR-BW
  Check the value of
  • COPIER > ADJUST > CCD > DFTAR-BW (Adjustment of shading target value (B&W) at ADF reading)
  If the value remains the same as the value you entered, the operation result is judged to be "failed".
10. If the operation result is "failed", turn OFF and then ON the power, execute
  • COPIER > FUNCTION > CCD > DF-WLVL3 (White level adj in book mode (B&W))
  and then execute
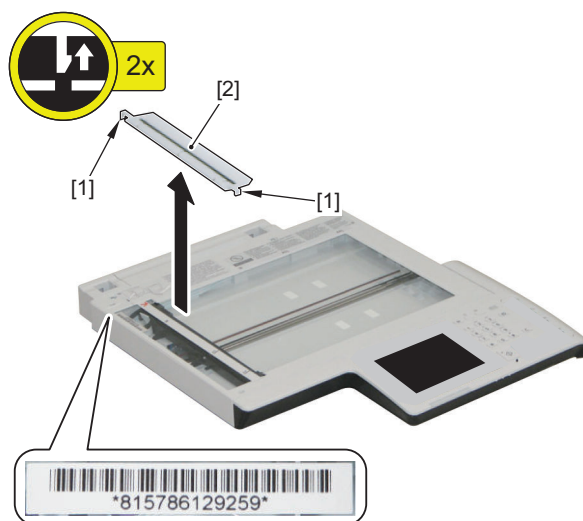  • COPIER > FUNCTION > CCD > DF-WLVL4 (White level adj in ADF mode (B&W))
  again.

# Controller System

## ■ Main Controller PCBs

### ● Before Replacing the Main Controller PCB

Back up user data (settings, registered data, etc.) and service mode data for setting and registration after PCB replacement. Take notes if data is unable to back up.

1. **Enter service mode, and set the following item to "1".**
   - COPIER > OPTION > USER > SMD-EXPT



**NOTE:**
The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

2. **Using the DCM function (Refer to "Setting Information Export/Import Function (DCM)" on page 57), export the following information.**
   - User data (the settings of the [Settings/Registration] menu and the address book)
   - Service mode setting information

3. **Write down the following information because these settings need to be configured (entered) after replacing the PCB.**
   - The default settings shown on the service label [1]
   - The machine's serial number
   - Settings/Registration > System Settings > Device Information> Location

**4. Enter service mode, and set the following item to "0".**
   - COPIER > OPTION > USER > SMD-EXPT
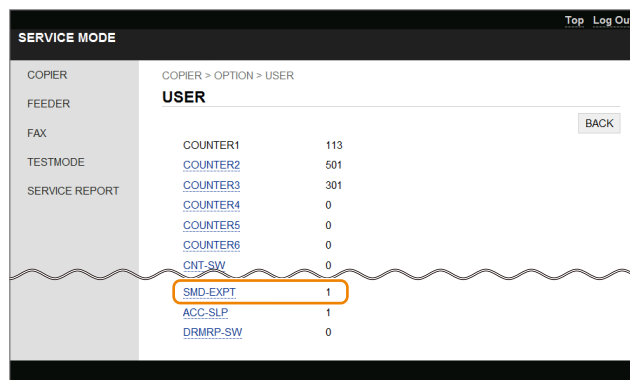


**NOTE:**
The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

## ● After Replacing the Main Controller PCB

**1. Setting of destination/paper size group**
   1. COPIER > OPTION > BODY > LOCALE (to set destination groups)
      [Settings]
      1: Japan, 2: North America, 3: Korea, 4: China, 5: Taiwan, 6: Europe, 7: Asia, 8: Oceania
   2. COPIER > OPTION > BODY > SIZE-LC (to set paper size groups)
      [Settings]
      1: AB series, 2: Inch series, 3: A series, 4: AB/Inch series

**2. Executing initial settings.**

Perform the following procedure to change the settings back to the initial settings.
   1. Execute the following service mode to initialize the data according to the setting values in step 1.
      COPIER > FUNCTION > CLEAR > ALL (to clear all data)
      - Setting / Registration data (the default value for each destination is set).
      - Service mode data (the default value for each destination is set).
      - Job IDs
      - Log data
      - Dates
   2. Execute the following service mode to clear the reader/DF-related factory adjustment values.
      COPIER > FUNCTION > CLEAR > R-CON

**3. AGC adjustment**
   1. Entering a provisional value
      Change the foregoing values to "1,000".
      - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
      - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)
      Change the foregoing values to "1,200"
      - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
      - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)
   2. Adjust the white level in the following service mode.
      - COPIER > FUNCTION > CCD > BW-AGC (CIS intensity adjustment in ADF (B&W))
      - COPIER > FUNCTION > CCD > CL-AGC (CIS intensity adjustment in ADF (color))
   3. If the operation was "successful", this procedure is completed. (There is no need to write the value on the service label.)

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.
   B&W mode
   - COPIER > ADJUST > CCD > LED-BW-R (Adjustment of LED light-up time (R) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-G (Adjustment of LED light-up time (G) at B&W reading)
   - COPIER > ADJUST > CCD > LED-BW-B (Adjustment of LED light-up time (B) at B&W reading)
   Check the foregoing values. If all of them remain "1,000", the operation result is judged to be "failed".
   If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > BW-AGC again.
   Color mode
   - COPIER > ADJUST > CCD > LED-CL-R (Adjustment of LED light-up time (R) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-G (Adjustment of LED light-up time (G) at color reading)
   - COPIER > ADJUST > CCD > LED-CL-B (Adjustment of LED light-up time (B) at color reading)
   Check the foregoing values. If all of them remain "1,200", the operation result is judged to be "failed".
   If the operation result is judged to be "failed", turn OFF and then ON the power, and execute COPIER > FUNCTION > CCD > CL-AGC again.

4. **Executing initial adjustment.**

   Follow the procedure shown below to execute initial adjustment and enter the factory adjustment values.
   1. Enter default setting values indicated on the service label in the corresponding service mode items.
   2. Execute the following service mode to back up the DC Controller setting values.
      COPIER > FUNCTION > VIFFNC > STOR-DCN
   3. The initial installation mode will be activated by turning OFF and then ON the power. Configure the following settings according to the instruction on the screen.
      - Setting of date/time
      - Auto-gradation correction
   4. Correction of coordinate position of Touch Panel in the following service mode.
      COPIER > ADJUST > PANEL > TOUCHCHK

5. **Migrating the serial number**

   1. Enter the serial number (8-digit alphanumeric) in Settings/Registration > System Settings > Device Information > Location.
   2. Execute the following service mode, and write the serial number entered in the previous step on the Main Controller PCB.
      COPIER > OPTION > SERIAL > SN-MAIN
      After it has been written, the serial number entered in "Location" is deleted.
   3. Turn OFF and then ON the main power.
   4. Execute the following service mode, and check the serial number on the System Management Data List that was output (Body. No.).
      COPIER > FUNCTION > MISC-P > SPEC

6. **Migrating user data and service mode data**

   1. Enter service mode, and set the following item to "1".
      - COPIER > OPTION > USER > SMD-EXPT

---

**NOTE:**
The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

---

   2. Using the DCM function (Refer to "Setting Information Export/Import Function (DCM)" on page 57), restore the following information.
      - User data (the settings of the [Settings/Registration] menu and the address book)
      - Service mode setting information
   3. Enter service mode, and set the following item to "0".
      - COPIER > OPTION > USER > SMD-EXPT

---

**NOTE:**
The [SMD-EXPT] setting can be specified either from the Control Panel or from the remote UI.

---

7. **Reinstall the drivers.**

     1. Uninstalling Old Drivers.
        - Printer Driver
        - FAX Driver
        - Scanner Driver
        - Network Scan Utility. (for machines with network connection)
           * As for the procedure, refer to "Uninstalling the Software" in the Starter Guide.
     2. Refer to the following items in the Startup Guide and install the drivers which were uninstalled.
        - In case of network connection: "Installing via Network Connection"
        - In case of USB connection: "Installing with USB Connection"

> **NOTE:**
> MAC address information is changed 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 the USB memory device, the PC will not be able to recognize the machine if the USB ID is changed. It becomes therefore necessary to reinstall the driver.

**In the case of a model without fax for EUR ( MF623Cn), perform the following works.**

> **NOTE:**
> After replacing the Main Controller PCB, the value of the service mode (SDTM-DSP) to set whether to display or hide the automatic shutdown menu becomes "0" (default value).
> In that case, the automatic shutdown menu is not displayed on the LUI of the machine.
> To display the automatic shutdown menu on the LUI of the machine, it is necessary to execute this process.

8. **Setting of automatic shutdown menu display**

     Set 1 for automatic shutdown menu display in service mode (default: 0).
     COPIER > OPTION > BODY > SDTM-DSP

9. **Turn OFF and then ON the main power.**

10. **Checking the setting of Auto Sleep Time**

     In setting menu, check that the setting value of Auto Sleep Time is 1. (If the setting value is 0, automatic shutdown does not work.)
     Menu > Timer Settings > Auto Shutdown Time

# ■ DC Controller PCB

## ● Before Replacing the DC Controller PCB

1. **Execute the following service mode to restore the DC Controller setting values that were backed up in the previous step.**

     COPIER > FUNCTION > VIFFNC > STOR-DCN

## ● After Replacing the DC Controller PCB

1. **In service mode, perform the following procedure to restore the DC Controller setting values.**

     COPIER > FUINCTION > VIFFNC > RSTR-DCN
     When restoration is executed, "ACTIVE" will be displayed, and then "OK!" will be displayed in about 2 minutes at the completion of restoration.

2. **When backup data cannot be uploaded before replacement due to reasons such as damage of the DC Controller PCB, enter the value of each service mode item described on the service label.**

3. **Turn OFF and then ON the power.**

4. **Configure the following settings from the Control Panel.**
     - Menu > Adjustment/Maintenance > Print Color Displacement Correction
     - Menu > Adjustment/Maintenance > Auto Gradation Correction > Quick Correction

5. **Turn OFF and then ON the power.**

# 🔵 Laser Exposure System

## ■ After Replacing the Laser Scanner Unit

1. **Register values indicated on the label packaged with the Laser Scanner Unit in the following service mode items.**
   - COPIER > ADJUST > SCNR > SUB-S-Y0 (Laser output correction value, vertical scanning irradiation position0 Y)
   - COPIER > ADJUST > SCNR > SUB-S-M0 (Laser output correction value, vertical scanning irradiation position0 M)
   - COPIER > ADJUST > SCNR > SUB-S-C0 (Laser output correction value, vertical scanning irradiation position0 C)
   - COPIER > ADJUST > SCNR > SUB-S-K0 (Laser output correction value, vertical scanning irradiation position0 K)
   - COPIER > ADJUST > SCNR > SUB-S-Y1 (Laser output correction value, vertical scanning irradiation position1 Y)
   - COPIER > ADJUST > SCNR > SUB-S-M1 (Laser output correction value, vertical scanning irradiation position1 M)
   - COPIER > ADJUST > SCNR > SUB-S-C1 (Laser output correction value, vertical scanning irradiation position1 C)
   - COPIER > ADJUST > SCNR > SUB-S-K1 (Laser output correction value, vertical scanning irradiation position1 K)
   - COPIER > ADJUST > SCNR > SUB-S-Y2 (Laser output correction value, vertical scanning irradiation position2 Y)
   - COPIER > ADJUST > SCNR > SUB-S-M2 (Laser output correction value, vertical scanning irradiation position2 M)
   - COPIER > ADJUST > SCNR > SUB-S-C2 (Laser output correction value, vertical scanning irradiation position2 C)
   - COPIER > ADJUST > SCNR > SUB-S-K2 (Laser output correction value, vertical scanning irradiation position2 K)
   - COPIER > ADJUST > SCNR > MAI-S-Y0 (Laser output correction value, horizontal scanning irradiation position0 Y)
   - COPIER > ADJUST > SCNR > MAI-S-M0 (Laser output correction value, horizontal scanning irradiation position0 M)
   - COPIER > ADJUST > SCNR > MAI-S-C0 (Laser output correction value, horizontal scanning irradiation position0 C)
   - COPIER > ADJUST > SCNR > MAI-S-K0 (Laser output correction value, horizontal scanning irradiation position0 K)
   - COPIER > ADJUST > SCNR > MAI-S-Y1 (Laser output correction value, horizontal scanning irradiation position1 Y)
   - COPIER > ADJUST > SCNR > MAI-S-M1 (Laser output correction value, horizontal scanning irradiation position1 M)
   - COPIER > ADJUST > SCNR > MAI-S-C1 (Laser output correction value, horizontal scanning irradiation position1 C)
   - COPIER > ADJUST > SCNR > MAI-S-K1 (Laser output correction value, horizontal scanning irradiation position1 K)
   - COPIER > ADJUST > SCNR > MAI-S-Y2 (Laser output correction value, horizontal scanning irradiation position2 Y)
   - COPIER > ADJUST > SCNR > MAI-S-M2 (Laser output correction value, horizontal scanning irradiation position2 M)
   - COPIER > ADJUST > SCNR > MAI-S-C2 (Laser output correction value, horizontal scanning irradiation position2 C)
   - COPIER > ADJUST > SCNR > MAI-S-K2 (Laser output correction value, horizontal scanning irradiation position2 K)

2. **After values are registered, affix the label [1] packaged with the unit on the inside [2] of the right cover.**

# 6

# Troubleshooting

# Test Print

## Engine test print

The engine test print is to check normal operation of the device.
Print the engine test chart in the following steps.

1. **Leave the front cover(1) and the rear cover(2) open to turn on the power.**
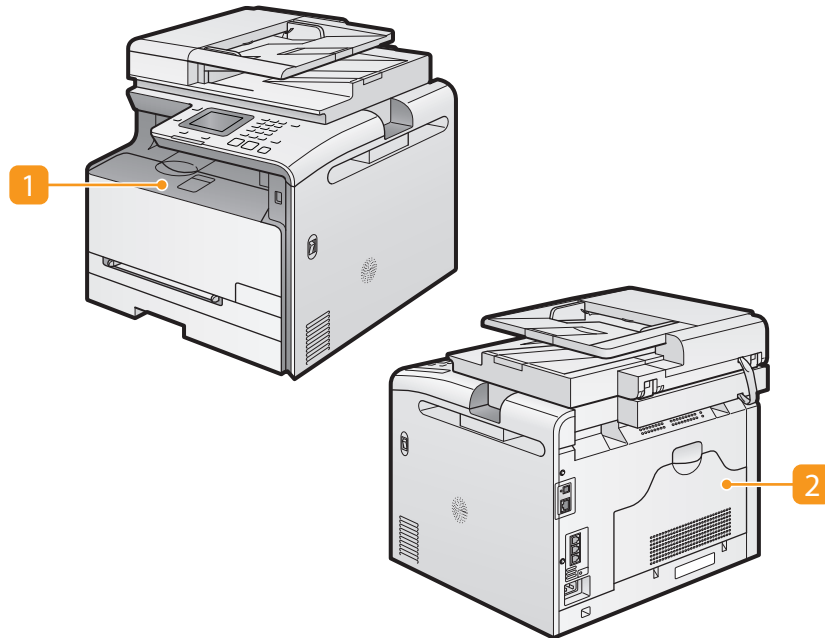


2. **Close the Front Cover (1) and the Rear Cover (2) within 5 seconds since the Control Panel lights up white.**

3. **The engine test chart is printed in the horizontal line patterns on a sheet as shown below.**
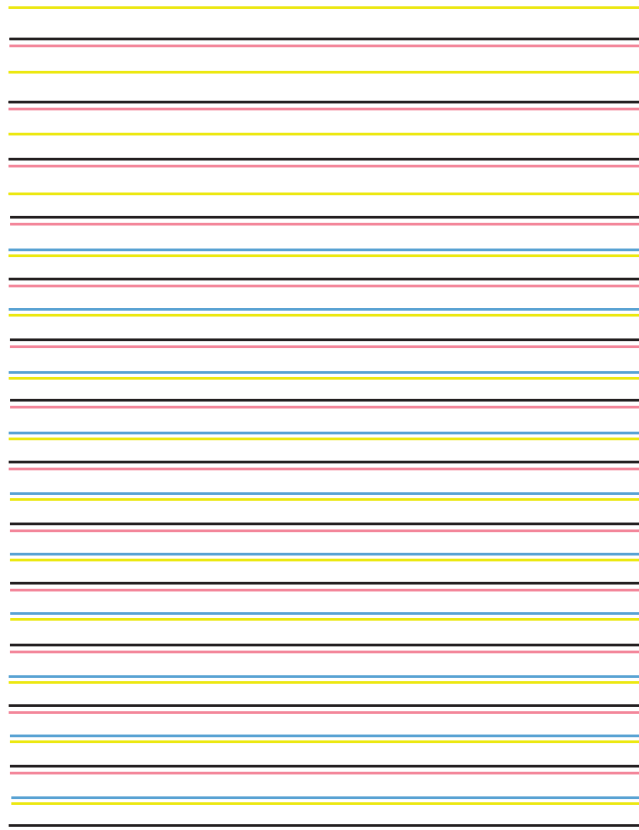
# ● Controller test print

## ■ Overview

This product provides the following 6 test chart types to determine causes of faulty images.

The data for test charts are created in the main controller. If no problem is found on the output test charts, the cause may lie in the PDL input or the reader.

| TYPE NO. | Test chart type | Purpose |
| --- | --- | --- |
| 0 | Pascal correction chart 1 | For checking density characteristic (Error diffusion) |
| 1 | Pascal correction chart 2 | For checking density characteristic (Screen) |
| 2 | Color chart | For checking color reproduction characteristic |
| 3 | Color displacement correction chart | For checking color displacement correction |
| 4 | Rainbow chart (vertical scanning direction) | For checking color displacement (Vertical scanning) |
| 5 | Rainbow chart (horizontal scanning direction) | For checking color displacement (Horizontal scanning) |
| 6 | Grid Bk | For checking geometric characteristics and thin lines |

## ■ Selecting test chart

1. **Select the following item in service mode.**
   - TESTMODE > PRINT > PG-TYPE

2. **Enter TYPE NO from the numeric keypad and press [Apply] key.**

3. **Setting for test print can be changed in the following service mode. If no setting is made in Service mode, the test chart is output based on the default value of each Service mode item.**

| Item | Description | Default value |
| --- | --- | --- |
| TESTMODE > PRINT > COUNT | Enter the number of sheets to output.<br>Settings: 1-99 | 1 |
| TESTMODE > PRINT > MODE | Specify how to form the image to be output.<br>Regardless of PG-TYPE settings (0 or 1), the image is processed in the fixed method.<br>Settings:<br>0: T-MIC<br>1: High LPI screen<br>2: Low LPI screen<br>3: T-BIC | 0 |
| TESTMODE > PRINT > THRU | Select ON or OFF for gamma correction.<br>Setting:<br>0: Normal gamma<br>1: Through (linear) gamma | 0 |
| TESTMODE > PRINT > NRKE | Flag to switch the color displacement correction processing 1<br>0: Adopt without processing<br>1: Adopt with processing | 0 |
| TESTMODE > PRINT > BLND | Flag to switch the color displacement correction processing 2<br>0: Adopt without processing<br>1: Adopt with processing | 0 |
| TESTMODE > PRINT > FEED | Select the paper source and press [Start] key to output in the specified settings as set in above steps.<br>When the multi-purpose tray is selected, the sheet is fed only when paper in the specified size is set in the tray. When Cassette 2 is selected but the device has only a cassette, paper is fed from Cassette 1.<br>*Any paper source with color paper is invalid for printing.<br>Setting:<br>0: MPTray<br>1: Cassette 1<br>2: Cassette 2 | 1 |

4. **Select the following item in service mode.**
   - TESTMODE > PRINT > PG-TYPE > START

## Troubleshooting items

### 🔵 Recurring faulty image

Foreign matters or lines on rollers along the paper feed path may cause faulty images in the vertical scanning direction.

**Field action**

See the roller pitches listed in the tables below to clean and/or replace the corresponding parts.

| Roller pitch | Parts |
|---|---|
| about 44 mm | Registration roller |
| about 57 mm | Secondary transfer external roller |
| about 27 mm | Primary transfer roller |
| about 76 mm | Photosensitive drum |
| about 22 mm | Developing cylinder |
| about 57 mm | Fixing film |
| about 57 mm | Pressure roller |
| about 634 mm | ITB |

### 🔵 Confirming nip width

This product does not provide the function to adjust nip width. Improper nip width, however, may cause faulty fixing.
To avoid potential faults, confirm the nip width of the fixing assembly in the following steps.
1. Output a A4 sheet printed in solid black using the cartridges for this product and bring it to the customer site.
2. Set the solid black sheet face-down to the cassette of this product.
3. Use an external device to print out a solid white image on the sheet.
4. Open the front door after about 25 seconds from the step above and leave it for 10 seconds or more in the device to take out the printed sheet.
5. Measure the glossy part on the printed sheet as shown in the figure below to confirm if the width is in the tolerable ranges.
   - Center (a): 6.0+-1mm
   - Sides (b), (c): 5.0-7.5mm
   - Difference (b-c): 1.0mm or less
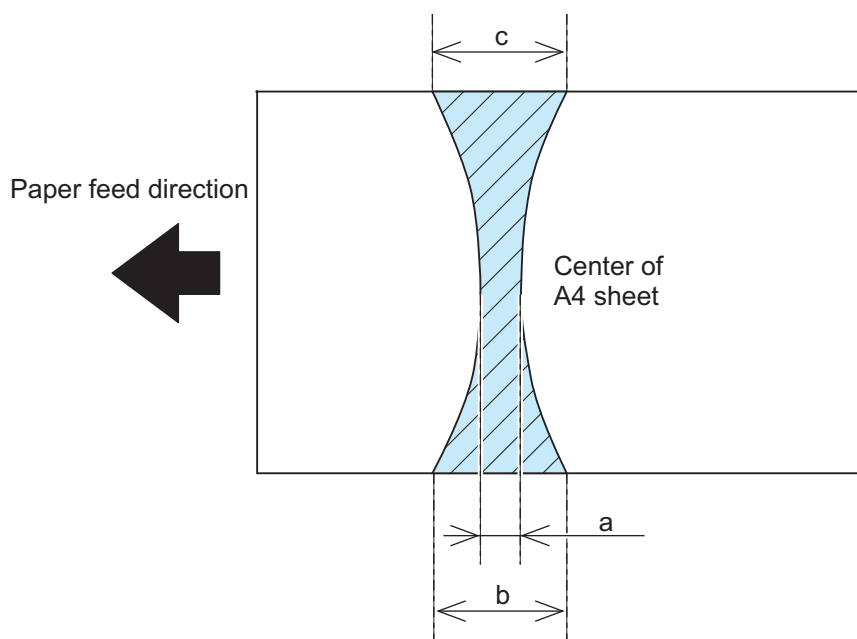
# Version Upgrade

## Overview

This machine supports the following two methods for upgrading the firmware.
1. User Support Tool (UST)
2. Via Internet

## Upgrading by UST
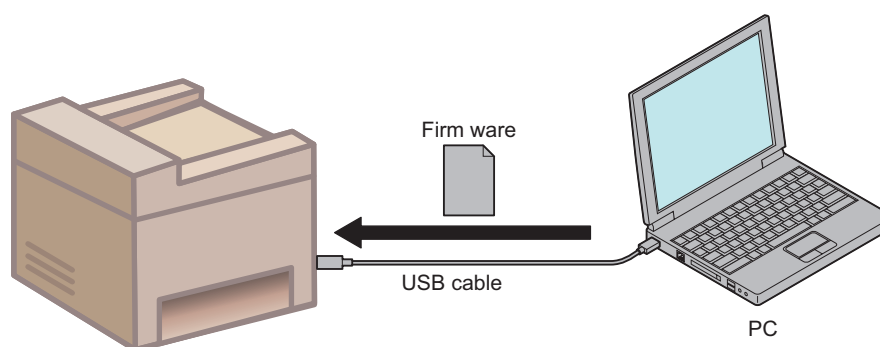


### Firmware configuration

| Firmware | Function | Stored in |
|---|---|---|
| Boot ROM | Start the main controller. | Main controller PCB |
| Main Controller | Control overall performance. | Main controller PCB |
| LANGUAGE | Manage languages used in panel / Remote UI and font data. | Main controller PCB |
| DCON | Control the printer unit. | DC controller PCB |

Some UST versions meet less numbers of firmware than those listed above.

## Preparation

### ■ System Requirements

- OS (one of the following)
    - Microsoft Windows Server 2003
    - Microsoft Windows Vista
    - Microsoft Windows Server 2008
    - Microsoft Windows 7
    - Microsoft Windows Server 2012
    - Microsoft Windows 8
- PC
    - Compatible to the selected
    - OSMemory (RAM): 32MB or more free space
    - Hard Disk: 100MB or more free space
    - Display: 640x480 pixels or more in resolution, 256 tones or more
    - With USB ports
- UST file for this product*
  *: Download the corresponding file from the system CD or the service site (ask the service technician in charge for details)
- USB cable (USB1.1/2.0)

### ■ Preparation

1. **Start the PC.**

2. **Connect the device to the PC with the USB cable.**

3. **Turn on the device on standby.**

4. **Press [Menu] key to upgrade firmware in User mode.**

   System Management Settings > Update Firmware > Via PC
   The message, "Will you restart the device to upgrade firmware?", is shown on the display. Select [Yes].

5. **Press [OK] to automatically restart the device. "***DOWNLOAD MODE***" is shown on the display.**

6. **Wait for the motor of the host machine to stop.**

---

**NOTE:**
Press STOP key to cancel Download mode and return to the normal operation.

---

# ⬤ Downloading System Software

1. **Open UST.**



USTUPD.exe

2. **Take a note of the firmware version to upgrade and click [Next] button.**
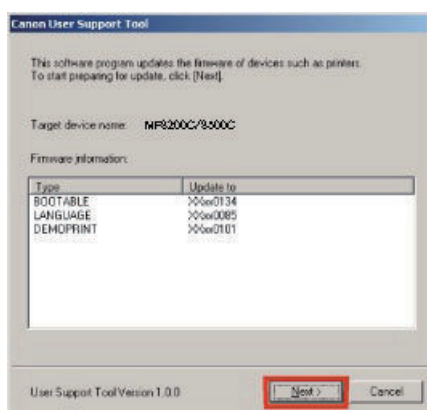


3. **Click [Next] button.**
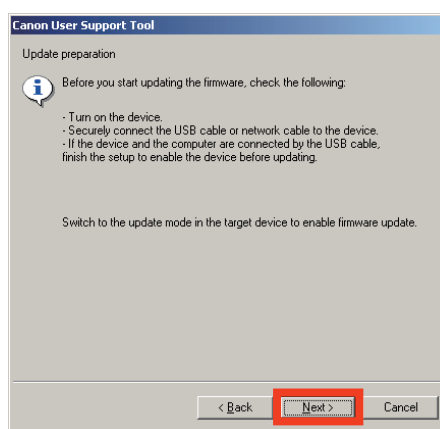
**4. Select [USB Device] and click [Next] button.**
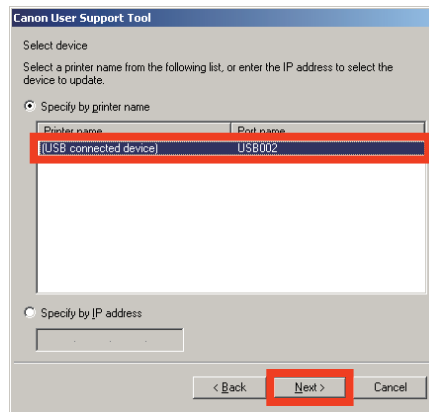


**5. Click [Start] button.**
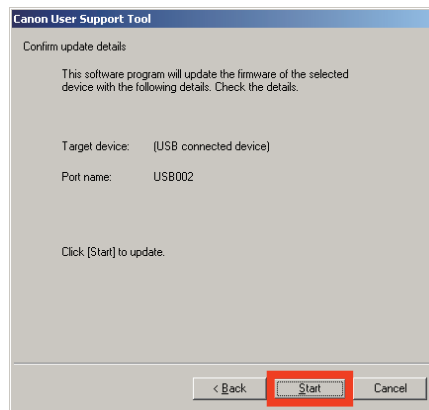


**6. Click [Yes] button for the warning message to start download.**
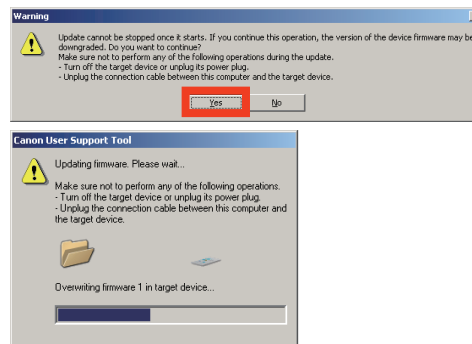


**7. Click [OK] button when download is completed.**
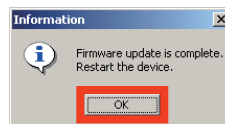


**8. Turn off and on the power to restart the device.**

**9. Output the spec report from Service mode to confirm if the firmware version is the same as that on the note taken in Step 2).**
COPIER> FUNCTION> MISC-P> SPEC

**227**

# 🔵 Upgrading via Internet

## ■ Overview

Select to automatically install the firmware update without using a computer.

## ■ Preparation

1. **Check that there are no other jobs being executed.**

2. **In an environment where access is obtained via a proxy server, the proxy setting is made from the remote UI.**
   Settings/Registration > System Management Settings > Network Settings >TCP/IP Settings > Proxy Settings > Edit... > Use Proxy(select)Select the [Use Proxy] check box and specify the required settings.

3. **Check that the serial number of the host machine is shown on the Main Controller PCB.**

> **NOTE:**
> To upgrade the firmware of the host machine via Internet, the serial number of the machine need to be written on the Main Controller PCB.
> Execute COPIER > FUNCTION > MISC-P > SPEC, and check that the BODY No. is registered.
> If the BODY No. has not been registered, register the serial number.

## ■ Procedure

1. **Press the [Menu] key, and update the firmware via the Internet in user mode.**
   System Management Settings > Update Firmware > Via Internet

> **NOTE:**
> • Refer to the User's Manual of the device for how to connect the device to the external network.
> • This is applicable either in a wired LAN environment or a wireless LAN environment.

## ■ Messages

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

| No. | Error message | The timing of oc-currence | 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 ADRESS 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 | - |

# 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.

**NOTE:**
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
- With sufficient free space (of several MB)
- 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.**

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. **Remove the USB flash drive by the correct procedure.**
   Connect the USB flash memory to the PC, and check that the log file (SUBLOG.TXT) has been saved.

**CAUTION:**
The debug log file (SUBLOG.TXT) that can be collected from the machine is saved in clear text data that is not encrypted.
As this data may contain information attributed to the user, it is necessary to gain approval from the user before collecting it.
Also, the collected file needs to be handled in the same manner as that for user data necessary for reproduction.

**NOTE:**
The following information is not included in the debug log of the machine:
- Job list (job name, user name, address)
- Communications log (address, user name)
- Job log (user name, job name)

# 7

# Error/Jam/Alarm

# Outline

This section describes codes shown in case any problem is occurred.
Since this product does not collect logs for jams and alarms, no alarm code is shown.

| Code type | Description | Reference |
|---|---|---|
| Error code | Shown for any problem occurred in the device. | List of error codes |
| Jam code | This code is displayed when a jam occurs inside the machine. | List of jam codes |
| Alarm code | N/A | - |

## Outline

This section describes codes shown in case any problem is occurred.
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| Code type | Description | Reference |
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| Alarm code | N/A | - |

## Jam code

### ■ Location code

Location information is displayed as 1-digit number as follows.

| Device | Location code |
|---|---|
| Host machine | 3 |
| ADF | 4 |

### ■ Position code

When jam occurs, pickup location is indicated with the following pickup position code.

| Device | Position code |
|---|---|
| ADF | 0 |
| MP Tray | 0 |
| Cassette 1 | 1 |

# Error Codes

Whenever an error occurs, firstly turn off and on the power to check if the error is persistent.(Controller-related errors tend to recover by power-OFF/ON.)

* : Supported by model with FAX only

| E Code | Detail Code | Item | Description |
|---|---|---|---|
| E000 | 0000 | Title | Error in temperature rising of Fixing Assembly |
| | | Description | Temperature of the Fixing Assembly did not reach a certain temperature within the specified period of time. |
| | | Remedy | 1. Check the connector connection between the Fixing Assembly and the DC Controller PCB.<br>2. Replace the Fixing Assembly.<br>3. Replace the DC Controller PCB. |
| E001 | 0000 | Title | Abnormal high temperature of Fixing Assembly |
| | | Description | It was detected that the temperature of the Fixing Assembly was abnormally high. |
| | | Remedy | 1. Check the connector between the Fixing Assembly and the DC Controller PCB.<br>2. Replace the Fixing Assembly.<br>3. Replace the DC Controller PCB. |
| E003 | 0000 | Title | Abnormal low temperature of Fixing Assembly |
| | | Description | It was detected that the temperature of the Fixing Assembly was abnormally low. |
| | | Remedy | 1. Check the connector between the Fixing Assembly and the DC Controller PCB.<br>2. Replace the Fixing Assembly.<br>3. Replace the DC Controller PCB. |
| E004 | 0000 | Title | Error in fixing power supply drive circuit |
| | | Description | The zero cross signal was not detected for the specified period of time or more. |
| | | Remedy | 1. Check the connector connection between the Fixing Assembly and the DC Controller PCB.<br>2. Replace the Fixing Assembly.<br>3. Replace the DC Controller PCB. |
| E012 | 0000 | Title | Revolution of the ITB Motor did not reach the specified value |
| | | Description | The cycle of the ITB Motor speed detection signal did not become the specified cycle since the ITB Motor started to be driven. |
| | | Remedy | 1. Check the connector between the ITB Motor and the DC Controller PCB.<br>2. Replace the ITB Motor.<br>3. Replace the DC Controller PCB. |
| E012 | 0001 | Title | Revolution of the ITB Motor was out of the specified range |
| | | Description | After the cycle of the ITB Motor speed detection signal became the specified cycle once, it deviated from the specified cycle. |
| | | Remedy | 1. Check the connector between the ITB Motor and the DC Controller PCB.<br>2. Replace the ITB Motor.<br>3. Replace the DC Controller PCB. |
| E015 | 0001 | Title | Error in Developing Disengagement Motor |
| | | Description | Change in signal status of the Developing Home Position Sensor could not be detected although a specified period of time has passed after rotating the Main Motor for engagement/disengagement operation of the Developing Cylinder. |
| | | Remedy | 1. Check the connectors connecting the Developing Home Position Sensor, Main Motor and the DC Controller PCB.<br>2. Replace the Developing Home Position Sensor.<br>3. Replace the Main Motor.<br>4. Replace the DC Controller PCB. |
| E020 | 0000 | Title | Density Sensor error |
| | | Description | Sufficient amount of light could not be received when detecting image density. |
| | | Remedy | 1. Check the connector of the DC Controller PCB.<br>2. Replace the ITB Unit.<br>3. Replace the DC Controller PCB.<br>4. Replace the Toner Cartridge. |
| E066 | 0000 | Title | Environment Sensor error |
| | | Description | Environment Sensor error |

| E Code | Detail Code | Item | Description |
|--------|-------------|------|-------------|
| E066 | 0000 | Remedy | 1. Check the connector between the Environment Sensor and DC Controller PCB.<br>2. Replace the Environment Sensor.<br>3. Replace the DC Controller PCB. |
| E070 | 0000 | Title | ITB/TOP Sensor error |
|      |      | Description | ITB/TOP Sensor error |
|      |      | Remedy | 1. Check the connector between the ITB Unit and DC Controller PCB.<br>2. Replace the ITB Unit.<br>3. Replace the DC Controller PCB. |
| E100 | 0000 | Title | Error in Laser Scanner Motor or Laser Scanner Unit (Y) |
|      |      | Description | Error in the BD detection value in the Laser Scanner Motor or the Laser Scanner Unit (Y) |
|      |      | Remedy | 1. Check the connector between the Laser Scanner Unit and the DC Controller PCB.<br>2. Replace the Laser Scanner Unit.<br>3. Replace the DC Controller PCB. |
| E100 | 0001 | Title | Error in Laser Scanner Motor or Laser Scanner Unit (Y) |
|      |      | Description | Error in the BD detection value in the Laser Scanner Motor or the Laser Scanner Unit (Y) |
|      |      | Remedy | 1. Check the connector between the Laser Scanner Unit and the DC Controller PCB.<br>2. Replace the Laser Scanner Unit.<br>3. Replace the DC Controller PCB. |
| E100 | 0002 | Title | Error in Laser Scanner Motor or Laser Scanner Unit (C) |
|      |      | Description | Error in the BD detection value in the Laser Scanner Motor or the Laser Scanner Unit (C) |
|      |      | Remedy | 1. Check the connector between the Laser Scanner Unit and the DC Controller PCB.<br>2. Replace the Laser Scanner Unit.<br>3. Replace the DC Controller PCB. |
| E100 | 0003 | Title | Error in Laser Scanner Motor or Laser Scanner Unit (Bk) |
|      |      | Description | Error in the BD detection value in the Laser Scanner Motor or the Laser Scanner Unit (Bk) |
|      |      | Remedy | 1. Check the connector between the Laser Scanner Unit and the DC Controller PCB.<br>2. Replace the Laser Scanner Unit.<br>3. Replace the DC Controller PCB. |
| E110 | 0000 | Title | Laser Scanner error |
|      |      | Description | The Laser Scanner Motor did not become ready although a specified period of time had passed. |
|      |      | Remedy | 1. Replace the Laser Scanner Unit.<br>2. Replace the DC Controller PCB. |
| E196 | 0000 | Title | DCON ROM error |
|      |      | Description | The ROM of the DC Controller PCB failed to be updated. |
|      |      | Remedy | 1. Install the set of the controller firmware.<br>2. Replace the DC Controller PCB. |
| E196 | 1000 | Title | Main Controller PCB writing/reading error |
|      |      | Description | Error in writing/reading of main program in the Main Controller PCB |
|      |      | Remedy | 1. Install the set of the controller firmware.<br>2. Replace the Main Controller PCB. |
| E196 | 2000 | Title | Main Controller PCB writing/reading error |
|      |      | Description | Error in writing/reading of the setting values storage area in the Main Controller PCB |
|      |      | Remedy | 1. Install the set of the controller firmware.<br>2. Replace the Main Controller PCB. |
| E198 | 0000 | Title | DC Controller memory error |
|      |      | Description | Error in the nonvolatile memory on the DC Controller |
|      |      | Remedy | Replace the DC Controller PCB. |
| E202 | 0001 | Title | CIS Unit HP error (outward) |
|      |      | Description | The CIS Unit did not move to HP even it moved backward. Reader HP Sensor error, Reader Motor error, CIS Unit error |
|      |      | Remedy | 1. Replace the Reader HP Sensor.<br>2. Replace the Reader Motor.<br>3. Replace the CIS Unit.<br>4. Replace the Reader Unit. |
| E202 | 0002 | Title | CIS Unit HP error (homeward) |
|      |      | Description | The CIS Unit did not move to HP even it moved forward. Reader HP Sensor error, Reader Motor error, CIS Unit error |

| E Code | Detail Code | Item | Description |
|---|---|---|---|
| E202 | 0002 | Remedy | 1. Replace the Reader HP Sensor.<br>2. Replace the Reader Motor.<br>3. Replace the CIS Unit.<br>4. Replace the Reader Unit. |
| E225 | 0001 | Title | Light intensity of the CIS Unit below the reference level |
| | | Description | When the light intensity is below the reference level at shading |
| | | Remedy | 1. Disconnect and then connect the Flexible Cable.<br>2. Replace the Flexible Cable.<br>3. Replace the CIS Unit.<br>4. Replace the Main Controller PCB (PCB2). |
| E248 | 0001 | Title | Error in access to backup data for Reader (reading error at power-on) |
| | | Description | The Reader-related adjustment values could not be read. |
| | | Remedy | 1. Clear the backup RAM of RCON. Execute COPIER > FUNCTION > CLEAR > RCON.<br>2. Enter all the values written on the service label in service mode again.<br>3. Turn OFF and then ON the main power. |
| E250 | 0000 | Title | Error in the One-Touch Key Cover Sensor |
| | | Description | Error in the One-Touch Key Cover Sensor |
| | | Remedy | 1. Check the One-Touch Key Cover Sensor.<br>2. Turn OFF and then ON the power.<br>3. Replace the Control Panel. |
| E351 | 0000 | Title | System error |
| | | Description | System error |
| | | Remedy | 1. Install the set of the controller firmware.<br>2. Replace the Main Controller PCB. |
| E732 | 0000 | Title | Scanner communication error |
| | | Description | Scanner communication error |
| | | Remedy | 1. Check the connector connection between the Engine Controller PCB and the Main Controller PCB.<br>2. Install the set of the controller firmware.<br>3. Replace the Main Controller PCB.<br>4. Replace the Engine Controller PCB. |
| E733 | 0000 | Title | Printer communication error |
| | | Description | Communication error between the Engine Controller PCB and the Main Controller PCB occurred. |
| | | Remedy | 1. Check the connector connection between the Engine Controller PCB and the Main Controller PCB.<br>2. Install the set of the controller firmware.<br>3. Replace the Main Controller PCB.<br>4. Replace the Engine Controller PCB. |
| E736 * | 0000 | Title | Communication error with CCU/modem |
| | | Description | Communication error with CCU/modem NCU PCB type error |
| | | Remedy | 1. Install the set of the controller firmware.<br>2. Replace the NCU PCB.<br>3. Replace the Main Controller PCB. |
| E736 * | 0001 | Title | Error in ROM for backing up fax data |
| | | Description | An error occurred in ROM for backing up fax data |
| | | Remedy | 1. Install the set of the controller firmware.<br>2. Replace the Main Controller PCB. |
| E744 | 0001 | Title | Language file version error |
| | | Description | Language file version was not matched with the main program. |
| | | Remedy | Install the set of the controller firmware. |
| E744 | 0002 | Title | Language file size error |
| | | Description | The size of the language file exceeded the upper limit. |
| | | Remedy | Install the set of the controller firmware. |
| E744 | 1001 | Title | Firmware version error |
| | | Description | Versions of the main program and the start-up program were not matched. |
| | | Remedy | Install the set of the controller firmware. |
| E744 | 4000 | Title | Engine ID error |

| E Code | Detail Code | Item | Description |
|---|---|---|---|
| E744 | 4000 | Description | Invalid engine connection was detected. |
| | | Remedy | 1. Turn OFF and then ON the main power.<br>2. Check the DC Controller PCB.<br>3. Install the DC Controller PCB.<br>4. Install the set of the controller firmware.<br>5. Check the model code. (When the model code and the engine code are mismatched, E744-4000 occurs.) |
| E744 | 5000 | Title | Error in the Control Panel PCB |
| | | Description | Error in the Control Panel PCB (microcomputer) |
| | | Remedy | 1. Check the Control Panel PCB, and install the firmware (PANEL).<br>2. Install the set of the controller firmware.<br>3. Replace the Main Controller PCB. |
| E744 | 6000 | Title | Communication error with Wireless LAN PCB |
| | | Description | Communication with the Wireless LAN PCB could not be established. |
| | | Remedy | 1. Turn OFF and then ON the main power.<br>2. Check the connection of the Wireless LAN PCB.<br>3. Install the set of the controller firmware.<br>4. Replace the Main Controller PCB. |
| E744 | 7000 | Title | Main Controller PCB error |
| | | Description | An error in the microcomputer which retains fax job information of the Main Controller PCB |
| | | Remedy | 1. Install the firmware of BKUP.<br>2. Install the set of the controller firmware.<br>3. Replace the Main Controller PCB. |
| E746 | 0000 | Title | Main Controller PCB error |
| | | Description | Main Controller communication error occurred (other than scan). |
| | | Remedy | 1. Install the set of the controller firmware.<br>2. Replace the Main Controller PCB. |
| E766 | xxxx[*1] | Title | Firmware error |
| | | Description | An error in connection occurred due to controller software. |
| | | Remedy | Due to firmware error, the possibility of solving the error by replacing the Main Controller PCB is low. Check the installed engine again. |
| E766 | 8000 | Title | Firmware error |
| | | Description | Information at color displacement correction could not be obtained. |
| | | Remedy | 1. Install the DC Controller firmware.<br>2. Install the set of the controller firmware.<br>3. Replace the DC Controller PCB. |
| E766 | 9000 | Title | Scanner power state error (firmware-dependent) |
| | | Description | Error in power state of the Laser Scanner Unit (firmware-dependent) |
| | | Remedy | 1. Install the set of the controller firmware.<br>2. Replace the Laser Scanner Unit. |
| E806 | 0000 | Title | Fixing Power Supply Cooling Fan error |
| | | Description | The Fixing Power Supply Cooling Fan failed to rotate at the specified revolution. |
| | | Remedy | 1. Check the connector between the Fixing Power Supply Cooling Fan and the DC Controller PCB.<br>2. Replace the Fixing Power Supply Cooling Fan.<br>3. Replace the DC Controller PCB. |
| E840 | 0000 | Title | Error in pressure release mechanism of the Fixing Assembly |
| | | Description | Although the Fixing Assembly started moving to the home position, it failed to be at the position. |
| | | Remedy | 1. Replace the Fixing Drive Assembly.<br>2. Replace the Fixing Pressure Release Cam. |

# Jam Code
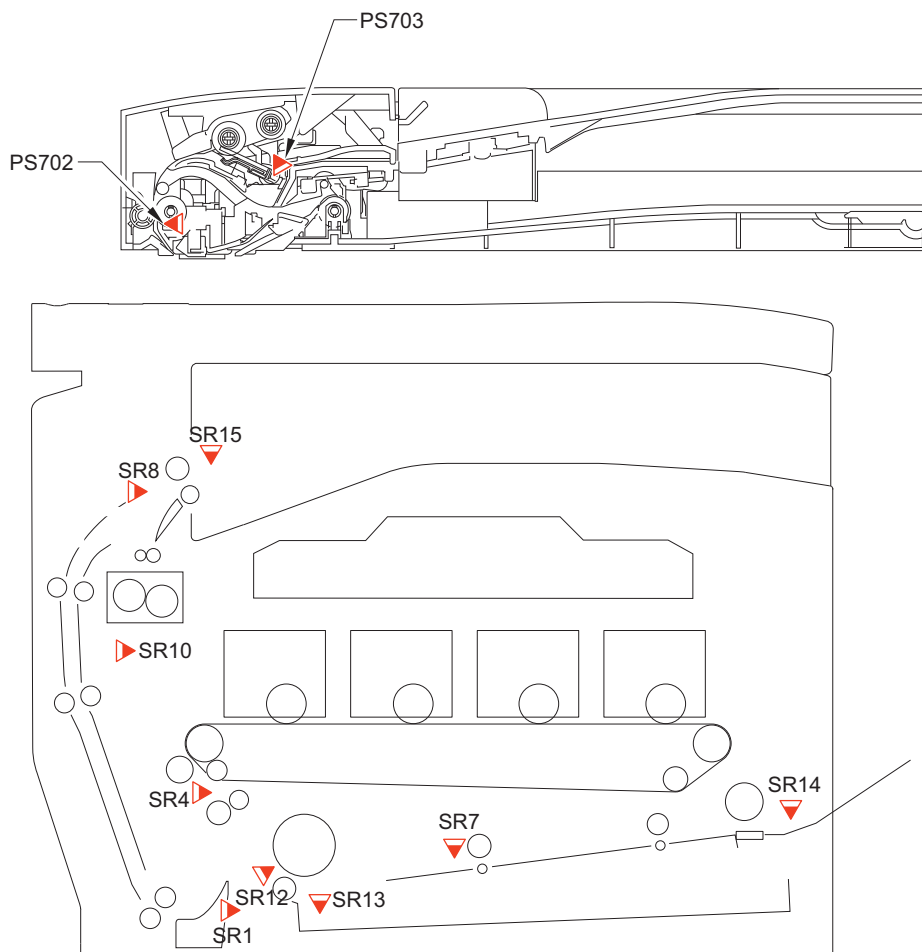


| ACC ID | JamCode | Type | Sensor Name/Detection Contents | Sensor ID |
|--------|---------|------|-------------------------------|-----------|
| 04 | 0001 | Delay | Document End Sensor Delay | PS702 |
| 04 | 0002 | Stationary | Document End Sensor | PS702 |
| 03 | 0040 | Size error | Size error | - |
| 03 | 0060 | Size error | Size error | - |
| 04 | 0071 | Sequence | Sequence Error | - |
| 04 | 0094 | Power ON | Document End Sensor / Document Sensor | PS702/PS703 |
| 03 | 0104 | Delay | Registration Detection Sensor | SR602 |
| 03 | 010C | | Fixing Delivery Sensor | SR609 |
| 03 | 014C | | | |
| 03 | 0184 | | Registration Detection Sensor | SR602 |
| 03 | 0208 | Stationary | Registration Detection Sensor | SR602 |
| 03 | 0210 | | Fixing Delivery Sensor | SR609 |
| 03 | 0217 | | Registration Detection Sensor<br>Fixing Delivery Sensor<br>MP Tray Pre-Registration Detection Sensor | SR602/SR605/SR609 |
| 03 | 021C | Wrap | Fixing Delivery Sensor | SR609 |
| 03 | 0248 | Stationary | Registration Detection Sensor | SR602 |
| 03 | 0250 | | Fixing Delivery Sensor | SR609 |
| 03 | 0257 | | Registration Detection Sensor<br>Fixing Delivery Sensor<br>MP Tray Pre-Registration Detection Sensor | SR602/SR605/SR609 |
| 03 | 025C | Wrap | Fixing Delivery Sensor | SR602 |
| 03 | 1014 | Power ON | Registration Detection Sensor | SR602/SR603/SR609 |
| 03 | 1054 | | Fixing Delivery Sensor<br>Fixing Loop Sensor | |

| ACC ID | JamCode | Type | Sensor Name/Detection Contents | Sensor ID |
|--------|---------|------|-------------------------------|-----------|
| 03 | 1094 | Power ON | Registration Detection Sensor<br>Fixing Delivery Sensor<br>Fixing Loop Sensor | SR602/SR603/SR609 |
| 03 | 10D4 | | | |
| 03 | 1118 | Door Open | Registration Detection Sensor<br>Fixing Delivery Sensor<br>Front Cover Sensor<br>Rear Cover Sensor | SR602/SR609/SR612/SR613 |
| 03 | 1158 | | | |
| 03 | 1198 | | | |
| 03 | 11D8 | | | |

# 8

# Service Mode

# Overview

## Service Mode Menu
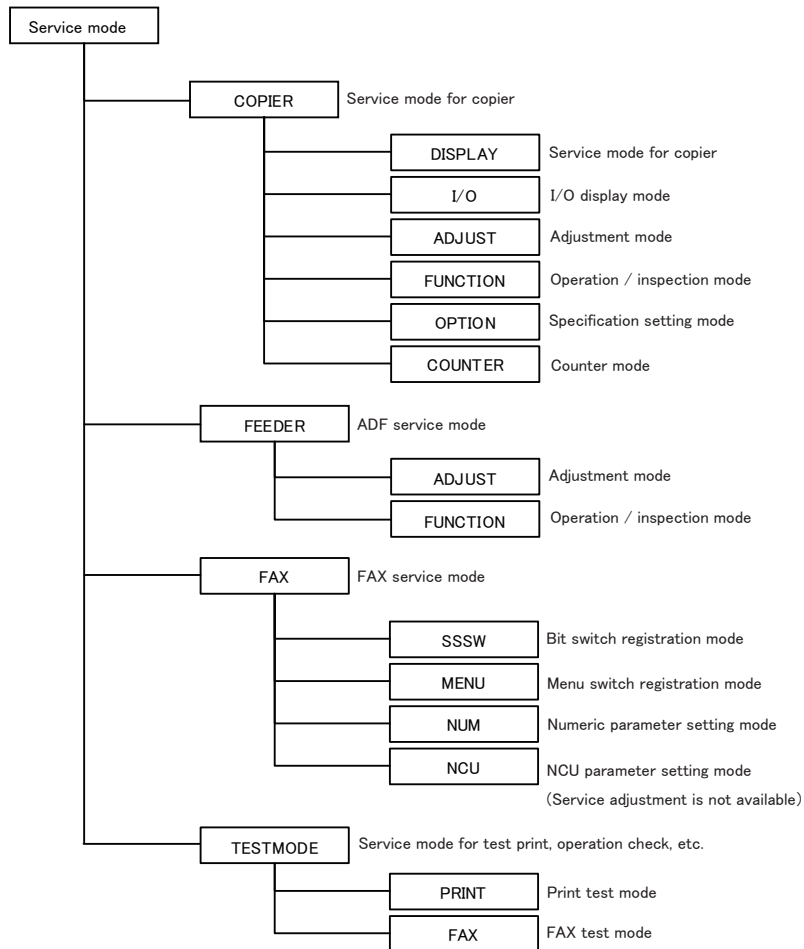


## Backing up Service Mode

Each device is tuned at the time of shipment and the tuned values are written on the service label.
However, when replacing the main controller PCBs / DC controller PCBs or clearing RAM, tuned ADJUST and OPTION values are reset to defaults. Each service technician should adjust these values in field and ensure to write values after changes in the service label. If the corresponding item is not found on the service label, enter the value in the blank space.

Service label position [1]



# Screen flow of Service mode

• Initial screen

| Scroll the screen. | : Flick the screen. |
| Go to Category / Sub category selection screen | : Tap the screen. |
| Go to Up category screen | : Return key |

```
SERVICE MODE
COPIER
FEEDER
FAX
TESTMODE
```
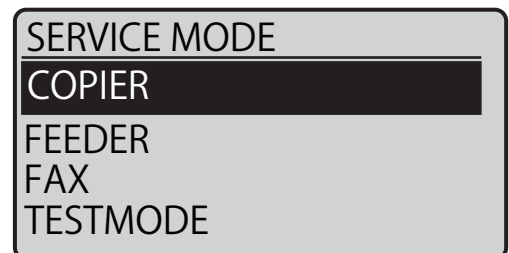
• Category / Sub category selection screen

| Scroll the screen. | : Flick the screen. |
| Go to Item selection screen | : Tap the screen. |
| Go to Initial screen | : Return key |

```
DISPLAY
IO
ADJUST
FUNCTION
OPTION
```

• Item selection screen

| Select the item | : Flick the screen. |
| Go to Numeric value entry screen | : Tap the screen. |
| Go to Category / Sub category selection screen | : Return key |

```
ADJ-XY
CCD
PASCAL
VIFADJ
SCNR
```

241
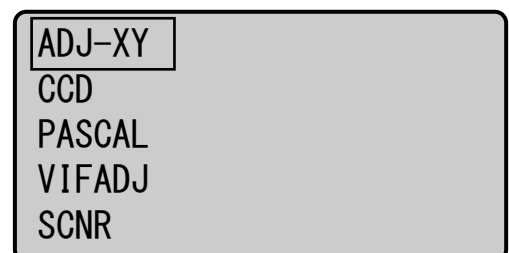
- Numeric value entry screen

| | |
|---|---|
| Enter the setting value. | : numeric keypad |
| Switch the sign (+/-) of the value | : [*] Key |
| Increment the setting value one by one | : [▲] (Tap the screen ) |
| Decrease the setting value one by one | : [▼] (Tap the screen ) |
| Change the setting | : [Apply] Key (Tap the screen ) |
| Change no settings | : Return key |

```
ADJ-XY
          ┌──────────┐
          │    0     │
          └──────────┘
         (-30 - 30)
              ∧
              ∨
 ┌──────────┐  ┌──────────┐
 │          │  │  Apply   │
 └──────────┘  └──────────┘
```
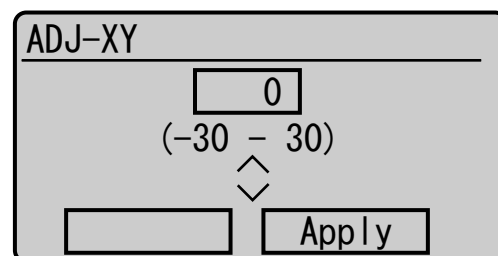
- Method to display the setting value of switch
  - On decimal display format, display is left aligned. (Comma is put every 3 digits.)
  - On binary display format, the most significant bit is placed at the leftmost position and the least significant bit is placed at the rightmost position.

# 🔵 Remote UI service mode

## ■ Function Overview

Remote UI can be used to display, set and implement various service mode in addition to rebooting the machine. In this case, machine's UI displays "Remote service mode".

## ■ Operating condition

Operation of service mode using remote UI becomes possible in the following cases:
- Service mode is not used on LUI.
- There is no user who has been logged in to the remote UI service mode (this function).
- Remote UI is enabled in the setting of LUI.
  Setting Menu > System Management Settings > Remote UI On/Off
- "RMT-SW" is enabled in service mode (Enabled when the setting value is "1".)
  COPIER > OPTION > BODY > RMT-SW (remote UI service mode function)
  0: OFF, 1: ON (default)

## ■ Usage method

1. **Activate the Web browser.**

2. **Enter the following URL in the address input field.**
   http://<IP address of the machine or host name>/servicemode.html

3. **Enter the password and click "Log In".**
   * Password required for authentication differs depending on the service mode setting.
   COPIER > OPTION > BODY > PSWD-SW
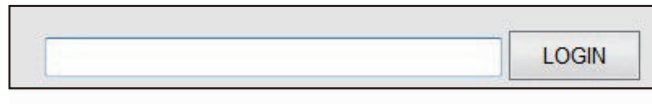
| PSWD-SW | Password required for authentication |
|---|---|
| 0 | 1. Password of RUI service mode |
| 1 | 1. Password of RUI service mode<br>2. Password of service mode |
| 2 | 1. Password of RUI service mode<br>2. User's system administrator ID<br>3. Password of system administrator<br>4. Password of service mode |

* Password of service mode can be changed in COPIER > OPTION > BODY > SM-PSWD.
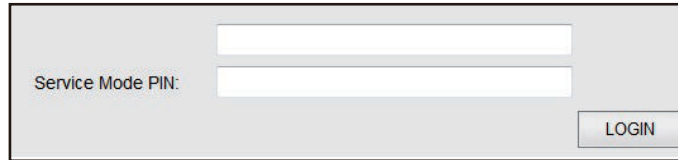
## ● Authentication screen

1. PSWD-SW: 0
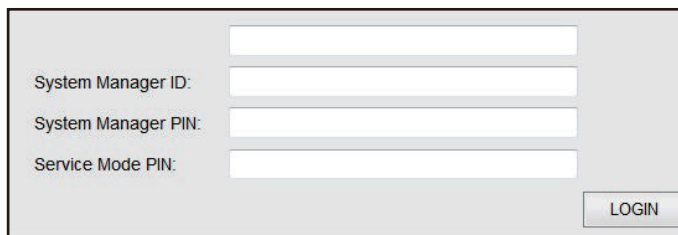


2. PSWD-SW: 1



3. PSWD-SW: 2



4. Click "Logout" to end the operation.

**NOTE:**
After login, if you close the browser without "logout", it is recognized that you have been "logged in". Therefore, in order to log in to service mode again, you must wait for a certain period of time (3 minutes) from the last access to make the system timeout or turn OFF/ON the power.

# COPIER

## 🔵 DISPLAY

### ■ VERSION

| COPIER > DISPLAY > VERSION | |
|---|---|
| **Item** | **Description** |
| MAIN | |
| Title | Display of MAIN (main program) version |
| Details | To display the firmware version of Main Controller PCB. |
| Use case | When upgrading the firmware |
| Adj/set/operate method | N/A (Display only) |
| Display/adj/set range | 00.00 to 99.99 |
| BOOT | |
| Title | Boot ROM version |
| Details | 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 | 00.01 to 99.99 |
| LANG | |
| Title | Language pack version |
| Details | 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 |
| DEMODATA | |
| Title | Demo print data version |
| Details | To display the version of demo print data. Since this machine does not have 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 | 00.01 to 99.99 |
| ECONT | |
| Title | ECONT version |
| Details | To display the version of Engine Controller PCB. |
| Use case | When upgrading the firmware |
| Adj/set/operate method | N/A (Display only) |
| Display/adj/set range | 00.01 to 99.99 |
| PANEL | |
| Title | Dspl of Control Panel CPU PCB ROM ver |
| Details | To display the ROM version of Control Panel CPU PCB. |
| Use case | When upgrading the firmware |
| Adj/set/operate method | N/A (Display only) |
| Display/adj/set range | 00.00 to 99.99 |
| Related service mode | COPIER > FUNCTION > SYSTEM > PANEL-UP |
| ECO | |
| Title | For R&D |

### ■ ERR

Error code display screen
Up to 20 E codes and detailed codes for system errors can be shown.

## ■ JAM

Jam code display screen
Up to 20 Jam codes and detailed codes for system errors can be shown.

## ■ CCD

| COPIER > DISPLAY > CCD | |
|---|---|
| **Item** | **Description** |
| TARGET-B | |
| Title | Shading target value (B) |
| Details | To display the shading target value of Blue.<br>Continuous display of 128 (minimum) or 384 (maximum) is considered a failure of the CIS Unit. |
| Use case | At scanned image failure |
| Adj/set/operate method | N/A (Display only) |
| Display/adj/set range | 128 to 384 |
| Default value | 269 |
| Related service mode | COPIER > ADJUST > CCD > DFTAR-B |
| TARGET-G | |
| Title | Shading target value (G) |
| Details | To display the shading target value of Green.<br>Continuous display of 128 (minimum) or 384 (maximum) is considered a failure of the CIS Unit. |
| Use case | At scanned image failure |
| Adj/set/operate method | N/A (Display only) |
| Display/adj/set range | 128 to 384 |
| Default value | 270 |
| Related service mode | COPIER > ADJUST > CCD > DFTAR-G |
| TARGET-R | |
| Title | Shading target value (R) |
| Details | To display the shading target value of Red.<br>Continuous display of 128 (minimum) or 384 (maximum) is considered a failure of the CIS Unit. |
| Use case | At scanned image failure |
| Adj/set/operate method | N/A (Display only) |
| Display/adj/set range | 128 to 384 |
| Default value | 263 |
| Related service mode | COPIER > ADJUST > CCD > DFTAR-R |
| TARGETBW | |
| Title | Shading target value (BW) |
| Details | To display the shading target value at B&W jobs.<br>Continuous display of 128 (minimum) or 384 (maximum) is considered a failure of the Main Controller PCB. |
| Use case | At scanned image failure |
| Adj/set/operate method | N/A (Display only) |
| Display/adj/set range | 128 to 384 |
| Default value | 276 |
| Related service mode | COPIER > ADJUST > CCD > DFTAR-BW |

## ● I/O

## ■ R-CON

| COPIER>IO>R-CON | | | |
|---|---|---|---|
| **Address** | **BIT** | **Description** | **Remarks** |
| P001 | 0 | Display sensor status (Document end sensor) | While the screen is open, the values are updated periodically (with an interval of 1 second). |
| | 1 | Display sensor status (Document sensor) | |

| COPIER>IO>R-CON | | | |
|---|---|---|---|
| **Ad-dress** | **BIT** | **Description** | **Remarks** |
| P001 | 2 | Display sensor status (HPS) | While the screen is open, the values are updated periodically (with an interval of 1 second). |
| P002 | - | No sensor allocated; 0 is always shown | While the screen is open, the values are updated periodically (with an interval of 1 second). |

# 🔵 ADJUST

## ■ ADJ-XY

| COPIER > ADJUST > ADJ-XY | |
|---|---|
| **Item** | **Description** |
| ADJ-X | |
| Title | Adj of img pstn in book mode: vert scan |
| Details | 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>When the non-image width is larger than the standard value, set the smaller value.<br>When out of original area is copied, set the larger value.<br>As the value is incremented by 1, the image position moves to the trailing edge side by 0.1mm. |
| Use case | • When replacing the Reader Unit<br>• When replacing the CIS Unit (Scanner Unit)<br>• When replacing the Main Controller PCB |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Caution | After the setting value is changed, write the changed value in the service label. |
| Display/adj/set range | -30 to 30 |
| Unit | 0.1 mm |
| Default value | 0 |
| ADJ-Y | |
| Title | Adjustment of image position at copyboard reading (horizontal scanning direction) |
| Details | 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>When the non-image width is larger than the standard value, set the smaller value.<br>When out of original area is copied, set the larger value.<br>As the value is incremented by 1, the image position moves to the front by 0.1mm. |
| Use case | • When replacing the Reader Unit<br>• When replacing the CIS Unit (Scanner Unit)<br>• When replacing the Main Controller PCB |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Caution | After the setting value is changed, write the changed value in the service label. |
| Display/adj/set range | -10 to 10 |
| Unit | 0.1 mm |
| Default value | 0 |
| ADJ-Y-DF | |
| Title | Adj img pstn in ADF mode:horz scan |
| Details | To adjust the image reading start position in the horizontal scanning direction at ADF 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 moves to the front by 0.1mm. |
| Use case | • When replacing the ADF<br>• When replacing the CIS Unit (Scanner Unit)<br>• When replacing the Main Controller PCB |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Caution | After the setting value is changed, write the changed value in the service label. |
| Display/adj/set range | -10 to 10 |
| Unit | 0.1 mm |
| Default value | 0 |

| COPIER > ADJUST > ADJ-XY | |
|---|---|
| **Item** | **Description** |
| ADJ-X-MG | |
| Title | Fine adj image ratio: vertical scanning |
| Details | To make a fine adjustment of image magnification ratio in the vertical scanning direction by changing the reading cycle of CIS<br>When replacing the Engine Controller PCB / clearing the 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>+: Reduce<br>-: Enlarge |
| Use case | • When replacing the ADF<br>• When replacing the CIS Unit (Scanner Unit)<br>• When replacing the Main Controller PCB |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Caution | After the setting value is changed, write the changed value in the service label. |
| Display/adj/set range | -200 to 200 |
| Unit | 0.01% |
| Default value | 0 |
| STRD-POS | |
| Title | Adjustment of reading position at ADF stream reading |
| Details | To adjust the reading position at ADF stream reading.<br>When replacing the Main Controller PCB, enter the value of service label. |
| Use case | • When replacing the ADF<br>• When replacing the CIS Unit (Scanner Unit)<br>• When replacing the Main Controller PCB |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Caution | After the setting value is changed, write the changed value in the service label. |
| Display/adj/set range | -20 to 20 |
| Unit | 0.1 mm |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > INSTALL > STRD-POS |

## ■ CCD

| COPIER > ADJUST > CCD | |
|---|---|
| **Item** | **Description** |
| OFST-BW0 | |
| Title | Adjustment of CIS (Rear) at B&W reading |
| Details | To adjust the offset of the CIS (Rear) when reading B&W original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 255 |
| Default value | 8 |
| Related service mode | COPIER > FUNCTION > CCD > BW-AGC |
| OFST-BW1 | |
| Title | Adjustment of CIS (Center) at B&W reading |
| Details | To adjust the offset of the CIS (Center) when reading B&W original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 255 |
| Default value | 8 |
| Related service mode | COPIER > FUNCTION > CCD > BW-AGC |
| OFST-BW2 | |
| Title | Adjustment of CIS (Front) at B&W reading |

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| COPIER > ADJUST > CCD | |
|---|---|
| **Item** | **Description** |
| Details | To adjust the offset of the CIS (Front) when reading B&W original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 255 |
| Default value | 8 |
| Related service mode | COPIER > FUNCTION > CCD > BW-AGC |
| OFST-CL0 | |
| Title | Adjustment of CIS (Rear) at color reading |
| Details | To adjust the offset of the CIS (Rear) when reading color original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 255 |
| Default value | 8 |
| Related service mode | COPIER > FUNCTION > CCD > CL-AGC |
| OFST-CL1 | |
| Title | Adjustment of CIS (Center) at color reading |
| Details | To adjust the offset of the CIS (Center) when reading color original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 255 |
| Default value | 8 |
| Related service mode | COPIER > FUNCTION > CCD > CL-AGC |
| OFST-CL2 | |
| Title | Adjustment of CIS (Front) at color reading |
| Details | To adjust the offset of the CIS (Front) when reading color original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 255 |
| Default value | 8 |
| Related service mode | COPIER > FUNCTION > CCD > CL-AGC |
| GAIN-BW0 | |
| Title | Adjustment of gain at B&W reading |
| Details | To adjust the gain when reading B&W original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 1 to 255 |
| Default value | 64 |
| Related service mode | COPIER > FUNCTION > CCD > BW-AGC |
| GAIN-CL0 | |
| Title | Adjustment of gain at color reading |
| Details | To adjust the gain when reading color original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 1 to 255 |
| Default value | 64 |
| Related service mode | COPIER > FUNCTION > CCD > CL-AGC |
| LED-BW-R | |
| Title | Adjustment of LED light-up time (R) at B&W reading |

| COPIER > ADJUST > CCD | |
|---|---|
| **Item** | **Description** |
| Details | To adjust the red color LED lighting time when reading B&W original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 2432 |
| Default value | 1000 |
| Related service mode | COPIER > FUNCTION > CCD > CL-AGC |
| **LED-BW-G** | |
| Title | Adjustment of LED light-up time (G) at B&W reading |
| Details | To adjust the green color LED lighting time when reading B&W original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 2432 |
| Default value | 1000 |
| Related service mode | COPIER > FUNCTION >CCD > BW-AGC |
| **LED-BW-B** | |
| Title | Adjustment of LED light-up time (B) at B&W reading |
| Details | To adjust the blue color LED lighting time when reading B&W original.<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 2432 |
| Default value | 1000 |
| Related service mode | COPIER > FUNCTION > CCD > BW-AGC |
| **LED-CL-R** | |
| Title | Adjustment of LED light-up time (R) at color reading |
| Details | To adjust the red color LED lighting time when reading color original. When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 2432 |
| Default value | 1200 |
| Related service mode | COPIER > FUNCTION > CCD > BW-AGC |
| **LED-CL-G** | |
| Title | Adjustment of LED light-up time (G) at color reading |
| Details | To adjust the green color LED lighting time when reading color original. When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 2432 |
| Default value | 1200 |
| Related service mode | COPIER > FUNCTION > CCD > BW-AGC |
| **LED-CL-B** | |
| Title | Adjustment of LED light-up time (B) at color reading |
| Details | To adjust the blue color LED lighting time when reading color original. When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 2432 |
| Default value | 1200 |
| Related service mode | COPIER > FUNCTION > CCD > BW-AGC |

## ■ PASCAL

| COPIER > ADJUST > PASCAL | |
|---|---|
| **Item** | **Description** |
| OFST-P-Y | |
| Title | Y density adj at test print reading |
| Details | To adjust the offset of Y color test print reading signal at Auto Adjust Gradation (Full Adjust).<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label.<br>As the greater value is set, the image after adjustment gets darker. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Caution | After the setting value is changed, write the changed value in the service label. |
| Display/adj/set range | -32 to 32 |
| Default value | 0 |
| OFST-P-M | |
| Title | M density adj at test print reading |
| Details | To adjust the offset of M color test print reading signal at Auto Adjust Gradation (Full Adjust).<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label.<br>As the greater value is set, the image after adjustment gets darker. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Caution | After the setting value is changed, write the changed value in the service label. |
| Display/adj/set range | -32 to 32 |
| Default value | 0 |
| OFST-P-C | |
| Title | C density adj at test print reading |
| Details | To adjust the offset of C color test print reading signal at Auto Adjust Gradation (Full Adjust).<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label.<br>As the greater value is set, the image after adjustment gets darker. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Caution | After the setting value is changed, write the changed value in the service label. |
| Display/adj/set range | -32 to 32 |
| Default value | 0 |
| OFST-P-K | |
| Title | Bk density adj at test print reading |
| Details | To adjust the offset of Bk color test print reading signal at Auto Adjust Gradation (Full Adjust).<br>When replacing the Main Controller PCB / clearing the RAM data, enter the value of service label.<br>As the greater value is set, the image after adjustment gets darker. |
| Use case | When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Caution | After the setting value is changed, write the changed value in the service label. |
| Display/adj/set range | -32 to 32 |
| Default value | 0 |

## ■ VIFADJ

| COPIER > ADJUST > VIFADJ | |
|---|---|
| **Item** | **Description** |
| DEV-HV-Y | |
| Title | Adjustment of developing bias setting value (Y) |
| Details | To adjust the setting value of Y-color developing bias. |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |

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| COPIER > ADJUST > VIFADJ | |
|---|---|
| **Item** | **Description** |
| Related service mode | COPIER > ADJUST > VIFADJ > DEV-HV-M<br>COPIER > ADJUST > VIFADJ > DEV-HV-C<br>COPIER > ADJUST > VIFADJ > DEV-HV-K |
| DEV-HV-M | |
| Title | Adjustment of developing bias setting value (M) |
| Details | To adjust the setting value of M-color developing bias. |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |
| Related service mode | COPIER > ADJUST > VIFADJ > DEV-HV-Y<br>COPIER > ADJUST > VIFADJ > DEV-HV-C<br>COPIER > ADJUST > VIFADJ > DEV-HV-K |
| DEV-HV-C | |
| Title | Adjustment of developing bias setting value (C) |
| Details | To adjust the setting value of C-color developing bias. |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |
| Related service mode | COPIER > ADJUST > VIFADJ > DEV-HV-Y<br>COPIER > ADJUST > VIFADJ > DEV-HV-M<br>COPIER > ADJUST > VIFADJ > DEV-HV-K |
| DEV-HV-K | |
| Title | Adjustment of developing bias setting value (Bk) |
| Details | 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 press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |
| Related service mode | COPIER > ADJUST > VIFADJ > DEV-HV-Y<br>COPIER > ADJUST > VIFADJ > DEV-HV-M<br>COPIER > ADJUST > VIFADJ > DEV-HV-C |
| TR1-HV-Y | |
| Title | Adjustment of primary transfer bias setting value (Y) |
| Details | To adjust the setting value of Y-color primary transfer bias. |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |
| Related service mode | COPIER > ADJUST > VIFADJ > TR1-HV-M<br>COPIER > ADJUST > VIFADJ > TR1-HV-C<br>COPIER > ADJUST > VIFADJ > TR1-HV-K |
| TR1-HV-M | |
| Title | Adjustment of primary transfer bias setting value (M) |
| Details | To adjust the setting value of M-color primary transfer bias. |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |
| Related service mode | COPIER > ADJUST > VIFADJ > TR1-HV-Y<br>COPIER > ADJUST > VIFADJ > TR1-HV-C<br>COPIER > ADJUST > VIFADJ > TR1-HV-K |
| TR1-HV-C | |
| Title | Adjustment of primary transfer bias setting value (C) |

| COPIER > ADJUST > VIFADJ | |
|---|---|
| **Item** | **Description** |
| Details | To adjust the setting value of C-color primary transfer bias. |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |
| Related service mode | COPIER > ADJUS T > VIFADJ > TR1-HV-Y<br>COPIER > ADJUS T > VIFADJ > TR1-HV-M<br>COPIER > ADJUS T > VIFADJ > TR1-HV-K |
| **TR1-HV-K** | |
| Title | Adjustment of primary transfer bias setting value (Bk) |
| Details | To adjust the setting value of Bk-color primary transfer bias. |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |
| Related service mode | COPIER > ADJUST > VIFADJ > TR1-HV-Y<br>COPIER > ADJUST > VIFADJ > TR1-HV-M<br>COPIER > ADJUST > VIFADJ > TR1-HV-C |
| **TR2SF-HV** | |
| Title | Adjustment of secondary transfer bias setting value (front side) |
| Details | To adjust the setting value of secondary transfer bias (front side). |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |
| Related service mode | COPIER > ADJUST > VIFADJ > TR2BK-HV |
| **TR2BK-HV** | |
| Title | Adjustment of secondary transfer bias setting value (back side) |
| Details | To adjust the setting value of secondary transfer bias (back side). |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |
| Related service mode | COPIER > ADJUST > VIFADJ > TR2SF-HV |
| **ICL-HV** | |
| Title | Adjustment of bias setting value for ITB cleaning |
| Details | To adjust the bias setting value to be used for ITB cleaning. |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -5 to 5 |
| Default value | 0 |
| **FU-TMP** | |
| Title | Adjustment of setting value of Fixing Roller surface temperature |
| Details | To adjust the setting value of the surface temperature of the Fixing Roller. |
| Use case | When an image failure occurs |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -2 to 2 |
| Default value | 0 |

## ■ SCNR

| COPIER > ADJUST > SCNR | |
|---|---|
| **Item** | **Description** |
| SUB-S-Y0 | |
| Title | Adjustment of emitting position 1 (Y) in the vertical scanning direction |
| Details | To adjust the Y-color emitting position 1 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-M0 | |
| Title | Adjustment of emitting position 1 (M) in the vertical scanning direction |
| Details | To adjust the M-color emitting position 1 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-C0 | |
| Title | Adjustment of emitting position 1 (C) in the vertical scanning direction |
| Details | To adjust the C-color emitting position 1 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-K0 | |
| Title | Adjustment of emitting position 1 (Bk) in the vertical scanning direction |
| Details | To adjust the Bk-color emitting position 1 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-Y1 | |
| Title | Adjustment of emitting position 2 (Y) in the vertical scanning direction |
| Details | To adjust the Y-color emitting position 2 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-M1 | |
| Title | Adjustment of emitting position 2 (M) in the vertical scanning direction |
| Details | To adjust the M-color emitting position 2 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-C1 | |
| Title | Adjustment of emitting position 2 (C) in the vertical scanning direction |
| Details | To adjust the C-color emitting position 2 in the vertical scanning position. |

| COPIER > ADJUST > SCNR | |
|---|---|
| **Item** | **Description** |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-K1 | |
| Title | Adjustment of emitting position 2 (Bk) in the vertical scanning direction |
| Details | To adjust the Bk-color emitting position 2 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-Y2 | |
| Title | Adjustment of emitting position 3 (Y) in the vertical scanning direction |
| Details | To adjust the Y-color emitting position 3 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-M2 | |
| Title | Adjustment of emitting position 3 (M) in the vertical scanning direction |
| Details | To adjust the M-color emitting position 3 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-C2 | |
| Title | Adjustment of emitting position 3 (C) in the vertical scanning direction |
| Details | To adjust the C-color emitting position 3 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| SUB-S-K2 | |
| Title | Adjustment of emitting position 3 (Bk) in the vertical scanning direction |
| Details | To adjust the Bk-color emitting position 3 in the vertical scanning position. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -1023 to 1023 |
| Default value | 0 |
| MAI-S-Y0 | |
| Title | Adjustment of scan time 1 (Y) in the horizontal scanning direction |
| Details | To adjust the Y-color scan time 1 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -511 to 511 |
| Default value | 0 |
| MAI-S-M0 | |

| COPIER > ADJUST > SCNR | |
|---|---|
| **Item** | **Description** |
| Title | Adjustment of scan time 1 (M) in the horizontal scanning direction |
| Details | To adjust the M-color scan time 1 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -511 to 511 |
| Default value | 0 |
| MAI-S-C0 | |
| Title | Adjustment of scan time 1 (C) in the horizontal scanning direction |
| Details | To adjust the C-color scan time 1 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -511 to 511 |
| Default value | 0 |
| MAI-S-K0 | |
| Title | Adjustment of scan time 1 (Bk) in the horizontal scanning direction |
| Details | To adjust the Bk-color scan time 1 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -511 to 511 |
| Default value | 0 |
| MAI-S-Y1 | |
| Title | Adjustment of scan time 2 (Y) in the horizontal scanning direction |
| Details | To adjust the Y-color scan time 2 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -511 to 511 |
| Default value | 0 |
| MAI-S-M1 | |
| Title | Adjustment of scan time 2 (M) in the horizontal scanning direction |
| Details | To adjust the M-color scan time 2 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -511 to 511 |
| Default value | 0 |
| MAI-S-C1 | |
| Title | Adjustment of scan time 2 (C) in the horizontal scanning direction |
| Details | To adjust the C-color scan time 2 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -511 to 511 |
| Default value | 0 |
| MAI-S-K1 | |
| Title | Adjustment of scan time 2 (Bk) in the horizontal scanning direction |
| Details | To adjust the Bk-color scan time 2 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -511 to 511 |

| COPIER > ADJUST > SCNR | |
|---|---|
| **Item** | **Description** |
| Default value | 0 |
| MAI-S-Y2 | |
| Title | Adjustment of scan time 3 (Y) in the horizontal scanning direction |
| Details | To adjust the Y-color scan time 3 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -127 to 127 |
| Default value | 0 |
| MAI-S-M2 | |
| Title | Adjustment of scan time 3 (M) in the horizontal scanning direction |
| Details | To adjust the M-color scan time 3 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -127 to 127 |
| Default value | 0 |
| MAI-S-C2 | |
| Title | Adjustment of scan time 3 (C) in the horizontal scanning direction |
| Details | To adjust the C-color scan time 3 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -127 to 127 |
| Default value | 0 |
| MAI-S-K2 | |
| Title | Adjustment of scan time 3 (Bk) in the horizontal scanning direction |
| Details | To adjust the Bk-color scan time 3 in the horizontal scanning direction. |
| Use case | When replacing the Laser Scanner Unit, enter the value written on the label included in the package of the Laser Scanner Unit |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -127 to 127 |
| Default value | 0 |

## ■ PANEL

| COPIER > ADJUST > PANEL | |
|---|---|
| **Item** | **Description** |
| TOUCHCHK | |
| Title | Correction of coordinate position of Touch Panel |
| Details | To correct the coordinate on the Touch Panel. |
| Use case | When a problem occurs to the coordinate position in such a way that a position different from the one that was touched reacts. |
| Adj/set/operate method | Touch the "+ (plus)" mark displayed on the Touch Panel with something with a sharp tip such as a pen. |
| TOUCHCHK-R | |
| Title | Flag to check whether the correction of coordinates on the Touch Panel was properly executed |
| Details | To check whether the correction of coordinates on the Touch Panel was properly executed. 1 is displayed when the correction of coordinates is properly executed. 0 is displayed when it fails. |
| Use case | When executing the correction of coordinates after replacing the Touch Panel with a new one |
| Display/adj/set range | 0 to 1<br>0: Not executed<br>1: Executed |
| Default value | 0 |

# ⬤ FUNCTION

## ■ CCD

| COPIER > FUNCTION > CCD | |
|---|---|
| **Item** | **Description** |
| DF-WLVL1 | |
| Title | White level adj in book mode: color |
| Details | To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass. |
| Use case | • When replacing the Copyboard Glass<br>• When replacing the CIS Unit<br>• When replacing the ADF / Reader Unit |
| Adj/set/operate method | 1. Set paper on the Copyboard Glass.<br>2. Select the item, and then press Yes key. |
| Caution | Be sure to execute DF-WLVL2 in a row. |
| Related service mode | COPIER > ADJUST > CCD > DFTAR-R<br>COPIER > ADJUST > CCD > DFTAR-G<br>COPIER > ADJUST > CCD > DFTAR-B<br>COPIER > FUNCTION > CCD > DF-WLVL2 |
| DF-WLVL2 | |
| Title | White level adj in ADF mode: color |
| Details | To adjust the white level for ADF scanning automatically by setting the paper which is usually used by the user on the ADF. |
| Use case | • When replacing the Copyboard Glass<br>• When replacing the CIS Unit<br>• When replacing the ADF / Reader Unit |
| Adj/set/operate method | 1. Set paper on the ADF.<br>2. Select the item, and then press Yes key. |
| Caution | Be sure to execute this item after DF-WLVL1. |
| Related service mode | COPIER > ADJUST > CCD > DFTAR-R<br>COPIER > ADJUST > CCD > DFTAR-G<br>COPIER > ADJUST > CCD > DFTAR-B<br>COPIER > FUNCTION > CCD > DF-WLVL1 |
| DF-WLVL3 | |
| Title | White level adj in book mode (B&W) |
| Details | To adjust the white level for copyboard scanning automatically by setting the paper which is usually used by the user on the Copyboard Glass. |
| Use case | • When replacing the Copyboard Glass<br>• When replacing the CIS Unit<br>• When replacing the ADF / Reader Unit |
| Adj/set/operate method | 1. Set paper on the Copyboard Glass.<br>2. Select the item, and then press Yes key. |
| Caution | Be sure to execute DF-WLVL4 in a row. |
| Related service mode | COPIER > ADJUST > CCD > DFTAR-BW<br>COPIER > FUNCTION > CCD > DF-WLVL4 |
| DF-WLVL4 | |
| Title | White level adj in ADF mode (B&W) |
| Details | To adjust the white level for ADF scanning automatically by setting the paper which is usually used by the user on the DADF. |
| Use case | • When replacing the Copyboard Glass<br>• When replacing the CIS Unit<br>• When replacing the ADF / Reader Unit |
| Adj/set/operate method | 1. Set paper on the ADF.<br>2. Select the item, and then press Yes key. |
| Caution | Be sure to execute this item after DF-WLVL3. |
| Related service mode | COPIER > ADJUST > CCD > DFTAR-BW<br>COPIER > FUNCTION > CCD > DF-WLVL3 |
| CL-AGC | |

| COPIER > FUNCTION > CCD ||
|---|---|
| **Item** | **Description** |
| Title | CIS intensity adjustment in ADF (color) |
| Details | To adjust the black/white level of the CIS for ADF scanning automatically by setting the paper which is usually used by the user on the ADF. (For color scanning) |
| Use case | • When replacing the Reader Unit<br>• When replacing the CIS Unit |
| Adj/set/operate method | 1. Set paper on the ADF.<br>2. Select the item, and then press Yes key. |
| Related service mode | COPIER > FUNCTION > CCD > BW-AGC |
| **BW-AGC** ||
| Title | CIS intensity adjustment in ADF (B&W) |
| Details | To adjust the black/white level of the CIS for ADF scanning automatically by setting the paper which is usually used by the user on the ADF. (For B&W scanning)<br>Setting values of the following service modes are automatically calculated:<br>   COPIER > ADJUST > CCD > OFST-BW0<br>   COPIER > ADJUST > CCD > OFST-BW1<br>   COPIER > ADJUST > CCD > OFST-BW2<br>   COPIER > ADJUST > CCD > GAIN-BW0<br>   COPIER > ADJUST > CCD > LED-BW-R<br>   COPIER > ADJUST > CCD > LED-BW-G<br>   COPIER > ADJUST > CCD > LED-BW-B |
| Use case | • When replacing the Reader Unit<br>• When replacing the CIS Unit |
| Related service mode | COPIER > FUNCTION > CCD > CL-AGC<br>COPIER > ADJUST > CCD > OFST-BW0<br>COPIER > ADJUST > CCD > OFST-BW1<br>COPIER > ADJUST > CCD > OFST-BW2<br>COPIER > ADJUST > CCD > GAIN-BW0<br>COPIER > ADJUST > CCD > LED-BW-R<br>COPIER > ADJUST > CCD > LED-BW-G<br>COPIER > ADJUST > CCD > LED-BW-B |

## ■ CLEAR

| COPIER > FUNCTION > CLEAR ||
|---|---|
| **Item** | **Description** |
| **R-CON** ||
| Title | Initialization of Reader / ADF |
| Details | To initialize the factory adjustment values of the Reader / ADF. |
| Use case | When clearing RAM data of the Main Controller PCB |
| Adj/set/operate method | Press Yes key. |
| **SRVC-DAT** ||
| Title | Clearing of service mode setting values |
| Details | To clear the service mode setting values.<br>The user mode setting values are not cleared.<br>The factory adjustment values of the Reader / ADF are not initialized. |
| Adj/set/operate method | 1. Press Yes key.<br>2. Turn OFF / ON the main power switch. |
| **COUNTER** ||
| Title | Clearing of service counter |
| Details | To clear the counter by maintenance / part/mode.<br>The numerator printed on a system dump list becomes 0. |
| Adj/set/operate method | 1. Press Yes key.<br>2. Turn OFF / ON the main power switch. |
| **HIST** ||
| Title | Clear of logs |
| Details | To clear the communication management / print / jam / error log. |
| Use case | When clearing logs |

| COPIER > FUNCTION > CLEAR | |
|---|---|
| **Item** | **Description** |
| Adj/set/operate method | 1. Press Yes key.<br>2. Turn OFF / ON the main power switch. |
| CARD | |
| Title | Clearing of Card Reader connection info |
| Details | To clear the information on connection of the Copy Card Reader-F1.<br>The data related to the card ID (department) is cleared, and the ID and password of the system administrator are initialized. |
| Use case | When removing the Card Reader-F1 |
| Adj/set/operate method | When removing the Card Reader-F1<br>1. Disable the department ID management.<br>2. Press Yes key.<br>3. In COPIER > FUNCTION > CLEAR > CARD, clear the information on connection of the Copy Card Reader-F1.<br>4. Execute COPIER > FUNCTION > CLEAR > E719-CLR.<br>5. Turn OFF the main power.<br>6. Remove the Card Reader-F1.<br>7. Turn ON the main power. |
| Caution | • Execute this item after disabling the department ID management via LUI or RUI<br>• Then, clear the information on connection of the Copy Card Reader-F1 and execute E719-CLR (clear E71 ) |
| Related service mode | COPIER > FUNCTION > CLEAR > E719-CLR |
| E719-CLR | |
| Title | Clearing of E719 error |
| Details | To clear E719 error (communication error with the Card Reader). |
| Use case | When removing the Card Reader-F1 |
| Adj/set/operate method | When removing the Card Reader-F1<br>1. Disable the department ID management.<br>2. Press Yes key.<br>3. In COPIER > FUNCTION > CLEAR > CARD, clear the information on connection of the Copy Card Reader-F1.<br>4. Execute COPIER > FUNCTION > CLEAR > E719-CLR.<br>5. Turn OFF the main power.<br>6. Remove the Card Reader-F1.<br>7. Turn ON the main power. |
| Related service mode | COPIER > FUNCTION > CLEAR > CARD |
| ALL | |
| Title | Clearing of setting information |
| Details | Clear/initialize the following setting information according to the location set in COPIER > OPTION > BODY > LOCALE, SIZE-LC:<br>• User mode setting values<br>• Service mode setting values (excluding service counter)<br>• ID and password of the system administrator<br>• Communication management / printing / jam / error history<br>• E719-CLR (counter meter-installed models only) The following is not initialized:<br>• Service counter<br>• Factory adjustment values of the Reader / ADF |
| Use case | At installation |
| Adj/set/operate method | 1. Press Yes key.<br>2. Turn OFF / ON the main power switch. |
| Related service mode | COPIER > OPTION > BODY > LOCALE, SIZE-LC |
| ERDS-DAT | |
| Title | Initialization of Embedded-RDS setting value |
| Details | To initialize the Embedded-RDS setting values.<br>ON / OFF of Embedded-RDS, UGW (remote monitoring service system) port number, and communication error log set in service mode are initialized. |
| Use case | When upgrading the version of Bootable in the Embedded-RDS environment |
| Adj/set/operate method | Press Yes key. |
| Caution | Use of the SRAM in Embedded-RDS differs depending on the Bootable version.<br>Therefore, unless initialization is executed at the time of version upgrade, data inconsistency occurs. |

| COPIER > FUNCTION > CLEAR | |
|---|---|
| **Item** | **Description** |
| Related service mode | COPIER > FUNCTION > INSTALL > E-RDS, RGW-PORT, COM-LOG |
| Supplement/memo | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol UGW (Universal Gate Way):<br>Remote monitoring service system |

## ■ MISC-R

| COPIER > FUNCTION > MISC-R | |
|---|---|
| **Item** | **Description** |
| SCANLAMP | |
| Title | Lighting check of CIS Unit LED |
| Details | To light up CIS Unit LED for 3 seconds. It lights up in the order of R, G, B, R, G and B. |
| Use case | When replacing the CIS Unit LED |
| Adj/set/operate method | Select the item, and then press Yes key. |
| Display/adj/set range | 0 to 1 |
| Default value | 0 |
| Required time | 3 seconds |
| SCAN-ON | |
| Title | Execution of copyboard reading |
| Details | To execute reading of the original on the Copyboard Glass. |
| Adj/set/operate method | 1. Place paper on the Copyboard Glass.<br>2. Select the item, and then press Yes key. |
| Display/adj/set range | 0 to 1 |
| Default value | 0 |

## ■ MISC-P

| COPIER > FUNCTION > MISC-P | |
|---|---|
| **Item** | **Description** |
| SRVC-DAT * | |
| Title | Output of system data list/system dump list |
| Details | To execute report output of the system data list and the system dump list.<br>System data list: The service software switches and parameters used in FAX function 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. |
| Adj/set/operate method | Select the item, and then press Yes key. |
| SYS-DAT * | |
| Title | Output of system data list |
| Details | To execute report output of the system data list.<br>The service software switches and parameters used in FAX function are output. |
| Adj/set/operate method | Select the item, and then press Yes key. |
| SYS-DMP * | |
| Title | Output of system dump list |
| Details | To execute report output of the system dump list.<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. |
| Adj/set/operate method | Select the item, and then press Yes key. |
| CNTR | |
| Title | Output of counter report |
| Details | To output the counter report.<br>The usage of functions (reading, recording, communication and copy) is output. |
| Adj/set/operate method | Select the item, and then press Yes key. |
| ERR-LOG | |
| Title | Output of error log report |

| COPIER > FUNCTION > MISC-P | |
|---|---|
| **Item** | **Description** |
| Details | To output the error log report. |
| Adj/set/operate method | Select the item, and then press Yes key. |
| SPEC | |
| Title | Output of spec report |
| Details | To output the spec report.<br>The current device specifications such as the location, model information, and ROM version are output. |
| Adj/set/operate method | Select the item, and then press Yes key. |
| ERDS-LOG | |
| Title | Output of Embedded-RDS log |
| Details | To execute report output of the log relating to Embedded-RDS.<br>The date, time, code, and details (up to 130 characters) of each error that occurred are output. |
| Use case | When using Embedded-RDS |
| Adj/set/operate method | Select the item, and then press Yes key. |
| Related service mode | COPIER> FUNCTION> INSTALL> COM-LOG |
| Supplement/memo | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol<br>UGW (Universal Gate Way): Remote monitoring service system |
| KEY-HIST * | |
| Title | Output of key log report |
| Details | To output the key log report.<br>The key log up to the time the FAX transmission task was input (the [START] key was pressed) is output. |
| Adj/set/operate method | Select the item, and then press Yes key. |

*: Fax model only

## ■ SYSTEM

| COPIER > FUNCTION > SYSTEM | |
|---|---|
| **Item** | **Description** |
| PANEL-UP | |
| Title | Download from USB memory (PANEL) |
| Details | To perform downloading when PANEL exists in the root directory of the USB memory. |
| Use case | At upgrade |
| Adj/set/operate method | 1. Install the USB memory.<br>2. Select the item, and then select Yes.<br>3. Turn OFF and the ON the main power. |
| Caution | Do not turn OFF / ON the power before "Executing..." disappears. |
| Display/adj/set range | Yes / No |
| Related service mode | COPIER > FUNCTION > SYSTEM > DOWNLOAD, BKUP-UP |
| LOGWRITE | |
| Title | Writing sublog to USB memory |
| Details | To write sublog that includes the following information to the USB memory.<br>• Job list (job name, user name, address book)<br>• Communications log (address book, user name)<br>• Job log (user name, job name) |
| Use case | When analyzing the cause of a problem |
| Adj/set/operate method | 1. Install the USB memory.<br>2. Select the item, and then select Yes.<br>3. Turn OFF and the ON the main power. |
| Caution | Do not turn OFF / ON the power before "Executing..." disappears. |
| Display/adj/set range | Yes / No |
| IMPORT | |
| Title | Reading of service mode setting value from USB memory |
| Details | To write the service mode setting values (excluding those related to Reader / ADF) to the USB memory. |
| Use case | After replacing the Main Controller PCB |

| COPIER > FUNCTION > SYSTEM | |
|---|---|
| **Item** | **Description** |
| Adj/set/operate method | 1. Install the USB memory. <br> 2. Select the item, and then press Yes. <br> 3. Turn OFF and the ON the main power. |
| Caution | Do not turn OFF / ON the power before "Executing..." disappears. |
| EXPORT | |
| Title | Writing of service mode setting value to USB memory |
| Details | To write the service mode setting values (excluding those related to Reader/ADF) to the USB memory. |
| Use case | When replacing the Main Controller PCB as a measure against failures |
| Adj/set/operate method | 1. Install the USB memory. <br> 2. Select the item, and then press Yes. |
| Caution | "Executing..." disappears when writing is completed. |

## ■ VIFFNC

| COPIER > FUNCTION > VIFFNC | |
|---|---|
| **Item** | **Description** |
| SMEAR-PV | |
| Title | Execution of image smear prevention mode |
| Details | To execute the image smear prevention mode. Depending on the paper type or environment (especially in a high humidity environment), thin line or fine halftone may become lighter. <br> In this case, execute the image smear prevention mode (rotate the drum for 60 seconds after toner ejection of all colors). |
| Use case | When thin line or fine halftone becomes lighter |
| Adj/set/operate method | Enter the value, and then press Apply key. |
| Display/adj/set range | 0 to 1 0 : OFF 1 : ON |
| Default value | 0 |
| FEED-IMP | |
| Title | Execution of pickup jam reduction mode |
| Details | When using paper with which double feed is more likely to occur, pickup operation cannot be performed at the appropriate timing because of double feed. As a result of that, pickup delay jam may occur. <br> In this case, extend the pickup interval. <br> Jam occurrence can be prevented, but productivity decreases. |
| Use case | When pickup jam occurs with paper with which double feed is more likely to occur |
| Adj/set/operate method | Enter the value, and then press Apply key. |
| Caution | Be sure to get approval from the user by telling that the productivity decreases to prevent jam occurrence. |
| Display/adj/set range | 0 to 1 0 : OFF 1 : ON |
| Default value | 0 |
| ICL-IMP | |
| Title | Execution of ITB cleaning failure prevention 1 |
| Details | To alleviate cleaning failure by increasing the current (bias) applied to the Cleaning Blade and Primary Transfer Roller. |
| Use case | When an image that was on 2 sheets before appears lightly depending on paper type and print pattern (especially high printing ratio) In such a case, image failure can be prevented by setting this mode. |
| Adj/set/operate method | Enter the value, and then press Apply key. |
| Display/adj/set range | 0 to 1 0 : OFF 1 : ON |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > SPLMAN > SPL50288 |
| FD-R-CHG | |
| Title | Execution of Pickup Roller replacement mode |
| Details | To move the Pickup Roller to the replacement position by executing this mode. |
| Use case | When replacing the Pickup Roller |
| Adj/set/operate method | Select the item, and then press Yes key. |
| STOR-DCN | |
| Title | Backup of Engine Controller PCB NVRAM |

| COPIER > FUNCTION > VIFFNC | |
|---|---|
| **Item** | **Description** |
| Details | To back up the setting data in NVRAM of the Engine Controller PCB to NVRAM of the Main Controller PCB. |
| Use case | Before replacing the Engine Controller PCB |
| Adj/set/operate method | Select the item, and then press Yes key. |
| Caution | During operation, the setting data changes by manual or automatic adjustment.<br>When backup data which has been left for a long period of time is restored, it is overwritten with the old setting data and the new data is deleted. |
| Related service mode | COPIER > FUNCTION > SYSTEM > RSTR-DCN |
| **RSTR-DCN** | |
| Title | Restoration of Engine Controller PCB NVRAM |
| Details | To restore backup information of the Engine Controller PCB NVRAM stored in the Main Controller PCB NVRAM to the Engine Controller PCB NVRAM. |
| Use case | After replacing the Engine Controller PCB |
| Adj/set/operate method | 1. Select the item, and then press Yes key.<br>2. Turn OFF / ON the main power switch. |
| Caution | During operation, the setting data changes by manual or automatic adjustment.<br>When backup data which has been left for a long period of time is restored, it is overwritten with the old setting data and the new data is deleted. |
| Related service mode | COPIER > FUNCTION > SYSTEM > STOR-DCN |

## ■ SPLMAN

| COPIER > FUNCTION > SPLMAN | |
|---|---|
| **Item** | **Description** |
| **SPL14159** | |
| Title | Fixing of USB device ID |
| Details | To fix the USB device ID to "000000000000".<br>Driver for each machine is installed to a PC.<br>However, by fixing the serial number, the PC considers that any connected machine to be the same machine; thus, there will be no need to install the drivers many times. |
| Adj/set/operate method | 1. Enter the value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |
| Display/adj/set range | 0 to 1 0 : OFF 1 : ON |
| Default value | 0 |
| **SPL27767** | |
| Title | Setting of highly-resistive paper |
| Details | To increase the secondary transfer bias. |
| Use case | When a trace which looks like toner scattering occurs around the text or print pattern depending on the paper type or environment (especially in a low humidity environment) |
| Adj/set/operate method | Select the item, and then press Apply key. |
| Display/adj/set range | 0 to 1<br>  0 : OFF<br>  1 : ON |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > SPL26535 |
| **SPL23846** | |
| Title | Setting of moist paper |
| Details | To increase the secondary transfer bias. |
| Use case | When color text or pattern using 2 or more colors of toner becomes lighter depending on the paper type or environment (especially in a high humidity environment) |
| Adj/set/operate method | Select the item, and then press Apply key. |
| Display/adj/set range | 0 to 1<br>  0 : OFF<br>  1 : ON |
| Default value | 0 |
| **SPL26433** | |
| Title | Execution of drum idle rotation mode |

| COPIER > FUNCTION > SPLMAN | |
|---|---|
| **Item** | **Description** |
| Details | To execute idle rotation of the drum. |
| Use case | When thin, sharp horizontal lines appear in halftone images after a long downtime |
| Adj/set/operate method | Select the item, and then press Apply key. |
| Display/adj/set range | 0 to 1<br>  0 : OFF<br>  1 : ON |
| Default value | 0 |
| SPL14682 | |
| Title | Execution of image fogging prevention mode 1 |
| Details | To change the developing bias. |
| Use case | When toner is lightly transferred to the white area in case of printing an image with large white area using glossy paper |
| Adj/set/operate method | Select the item, and then press Apply key. |
| Display/adj/set range | 0 to 1<br>  0 : OFF<br>  1 : ON |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > VIFFNC > FOG-PV |
| SPL83279 | |
| Title | Setting of Chinese paper |
| Details | To change the transfer bias. |
| Use case | When a trace which looks like toner scattering occurs around the text or print pattern in case of using Chinese paper |
| Adj/set/operate method | Select the item, and then press Apply key. |
| Display/adj/set range | 0 to 1<br>  0 : OFF<br>  1 : ON |
| Default value | 0 |
| SPL50288 | |
| Title | Execution of ITB cleaning failure prevention 2 |
| Details | To alleviate cleaning failure by increasing the current (bias) applied to the Cleaning Blade and Primary Transfer Roller. |
| Use case | When an image that was on 2 sheets before appears lightly depending on paper type and print pattern (especially high printing ratio)<br>When the trailing edge of paper is soiled In such a case, image failure can be prevented by setting this mode. |
| Adj/set/operate method | Select the item, and then press Apply key. |
| Display/adj/set range | 0 to 1<br>  0 : OFF<br>  1 : ON |
| Default value | 0 |
| SPL37510 | |
| Title | ON / OFF of ITB cleaning at paper size mismatch |
| Details | Normally, when paper other than that of the specified size is fed, ITB cleaning is executed to remove toner. When 1 is set, ITB cleaning is not executed even if paper size is mismatched. Productivity improves, but toner soiling may occur. |
| Use case | When paper size is mismatched |
| Adj/set/operate method | Enter the value, and then press Apply key. |
| Caution | Be sure to get approval from the user by telling that toner soiling may occur to improve productivity. |
| Display/adj/set range | 0 to 1<br>  0 : OFF<br>  1 : ON |
| Default value | 0 |
| SPL65677 | |
| Title | Increase of paper leading edge margin |

| COPIER > FUNCTION > SPLMAN | |
|---|---|
| **Item** | **Description** |
| Details | 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>The value obtained by adding this value and SPL68676 (decrease of the margin) is applied. |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 20 |
| Unit | 0.1 mm |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > SPLMAN > SPL68676 |
| SPL68676 | |
| Title | Decrease of paper leading edge margin |
| Details | To decrease the margin on the leading edge of paper.As the value is incremented by 1, the margin is decreased by 0.1 mm.<br>The value obtained by adding this value and SPL65677 (increase of the margin) is applied. |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 20 |
| Unit | 0.1 mm |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > SPLMAN > SPL65677 |
| SPL68677 | |
| Title | Increase of paper right and left margins |
| Details | To increase the margin on the right and left of paper.<br>As the value is incremented by 1, the margin is increased by 0.1 mm.<br>The value obtained by adding this value and SPL25607 (decrease of the margin) is applied. |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 20 |
| Unit | 0.1 mm |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > SPLMAN > SPL25607 |
| SPL25607 | |
| Title | Decrease of paper right and left margins |
| Details | To decrease the margin on the right and left of paper.<br>As the value is incremented by 1, the margin is decreased by 0.1 mm.<br>The value obtained by adding this value and SPL68677 (increase of the margin) is applied. |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 20 |
| Unit | 0.1 mm |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > SPLMAN > SPL68677 |
| SPL93822 | |
| Title | Setting of department ID count all clear |
| Details | To set whether to disable clearing of all department ID counts. |
| Adj/set/operate method | 1. Enter the value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |
| Caution | Be sure to perform this mode after consulting with the system administrator at user's site. |
| Display/adj/set range | 0 to 1<br>  0: Disabled<br>  1: Enabled |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > SPLMAN > SPL78788 |
| SPL78788 | |
| Title | Setting of department ID count clear |
| Details | To set whether to disable clearing of department ID count. |

| COPIER > FUNCTION > SPLMAN | |
| --- | --- |
| **Item** | **Description** |
| Adj/set/operate method | 1. Enter the value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |
| Caution | Be sure to perform this mode after consulting with the system administrator at user's site. |
| Display/adj/set range | 0 to 1<br>    0: Disabled<br>    1: Enabled |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > SPLMAN > SPL93822 |
| SPL41250 | |
| Title | Reset of calibration |
| Details | When the user allows printing at absence of toner, calibration using toner is disabled.<br>As a remedy, calibration reset is executed by this switch. |
| Use case | When the user allows printing after absence of toner is displayed. |
| Adj/set/operate method | Select the item, and then press Yes key. |
| Display/adj/set range | 0 to 1<br>    0 : OFF<br>    1 : ON |
| Default value | 0 |
| SPL15176 | |
| Title | Extension of detection on absence of toner |
| Details | Error occurs when the drum running distance reaches a certain point in the case of toner absence.<br>Turning this switch ON delays the occurrence of error (threshold value is changed). |
| Use case | When delaying the display of "absence of toner" message |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 1<br>    0 : OFF<br>    1 : ON |
| Default value | 0 |
| SPL89821 | |
| Title | Shop demonstration mode |
| Details | To display image data on color UI repeatedly to appeal the product features to potential users. |
| Use case | When appealing the product features to users at shops |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 1 |
| Default value | 0 |
| Supplement/memo | When the setting value is 1 at startup, the shop demonstration mode is enabled. |
| SPL58122 | |
| Title | Wrinkle prevention mode |
| Details | To prevent envelope from getting wrinkles by keeping the speed of the Fixing Motor constant and feeding an envelope with a little pulling tension applied to it. When this setting is set to 1, "Wrinkle prevention mode" for alleviating the wrinkles on the envelope is turned ON. |
| Use case | When wrinkle occurs in envelope |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 1 |
| Default value | 0 |
| SPL71100 * | |
| Title | Setting of the duty of Off-hook PCB |
| Details | This is the mode to make handsets of particular manufacturers to ring when fax reception mode is set to "Fax / Tel (Auto Switch)". |
| Use case | When fax reception mode is set to FAX/TEL switching |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 1 to 99 |

| COPIER > FUNCTION > SPLMAN | |
|---|---|
| **Item** | **Description** |
| Default value | 50 |
| SPL00171 | |
| Title | To change the maximum auto sleep shift time. |
| Details | To change the maximum value of auto sleep shift time in Settings/Registration > Timer Settings > Auto Sleep Time. |
| Use case | When changing the setting time to shift to auto sleep mode |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | From 0 (Default for Europe) to 60 min From 1 (Default for locations other than Europe) to Maximum value for each model |
| Default value | 1 |
| SPL80100 | |
| Title | Mask setting at copyboard scanning |
| Details | To cancel the image mask occurs on the left edge at copyboard scanning. |
| Use case | Upon request from user who does not satisfy with the mask on the left edge |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0: Mask value according to the specifications of each job<br>1: No mask (0 mm) |
| Default value | 0 |
| SPL27354 | |
| Title | PC-less update, RMDS environment setting |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0: Production environment / Release environment<br>1: Production 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 |
| Default value | 0 |
| SPL84194 | |
| Title | ON / OFF of E-RDS function |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 1 |
| Default value | 0 |
| SPL32620 | |
| Title | Switching to enable / disable PC-less update |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Details | To switch whether to enable the PC-less update function. |
| Display/adj/set range | 0 to 1<br>0 : Disabled<br>1 : Enabled (default) |
| Default value | 1 |
| SPL60061 | |
| Title | Switching to display the connection destination URL setting of GoogleCloudPrint on the remote UI |
| Details | To display the connection destination URL setting of GoogleCloudPrint on the remote UI. |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 1<br>0: Do not display<br>1: Display |
| Default value | 0 |

*: FAX model only

## ■ INSTALL

| COPIER > FUNCTION > INSTALL | |
|---|---|
| **Item** | **Description** |
| STRD-POS | |
| Title | Scan position auto adj in ADF mode |
| Details | To adjust the ADF scanning position automatically. |
| Use case | At ADF installation/uninstallation |
| Adj/set/operate method | 1. Set a paper for stream reading position adjustment, and then close the ADF.<br>2. Select the item, and then press Yes key. The operation automatically stops after the adjustment.<br>3. Write the value displayed by COPIER > ADJUST > ADJ-XY > STRD-POS in the service label. |
| Caution | Write the adjusted value in the service label. |
| Related service mode | COPIER > ADJUST > ADJ-XY > STRD-POS |
| E-RDS | |
| Title | ON / OFF of Embedded-RDS |
| Details | To set ON / OFF of Embedded-RDS function. |
| Use case | When using Embedded-RDS |
| Adj/set/operate method | 1. Select the item, and then press Yes key.<br>2. Turn OFF / ON the main power switch. |
| Caution | Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set. |
| Display/adj/set range | 0 to 1 0 : OFF 1 : ON |
| Default value | 0 |
| Related service mode | COPIER > FUNCTION > INSTALL ><br>COPIER > FUNCTION > INSTALL > RGW-PORT<br>COPIER > FUNCTION > INSTALL > COM-TEST<br>COPIER > FUNCTION > INSTALL > COM-RSLT<br>COPIER > FUNCTION > INSTALL > COM-LOG |
| Supplement/memo | Embedded-RDS: Function to send device information such as the device counter, failure, and con-sumables to UGW via SOAP protocol<br>UGW (Universal Gate Way): Remote monitoring service system |
| RGW-PORT | |
| Title | Setting of UGW port number when using Embedded-RDS |
| Details | To set the port number of UGW to be used for Embedded-RDS. |
| Use case | When using Embedded-RDS |
| Adj/set/operate method | 1. Select the item, and then press Yes key.<br>2. Turn OFF / ON the main power switch. |
| Caution | Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set. |
| Display/adj/set range | 1 to 65535 |
| Default value | 443 |
| Related service mode | COPIER > FUNCTION > INSTALL > ERDS<br>COPIER > FUNCTION > INSTALL > COM-TEST<br>COPIER > FUNCTION > INSTALL > COM-RSLT<br>COPIER > FUNCTION > INSTALL > COM-LOG |
| Supplement/memo | Embedded-RDS: Function to send device information such as the device counter, failure, and con-sumables to UGW via SOAP protocol<br>UGW (Universal Gate Way): Remote monitoring service system |
| COM-TEST | |
| Title | Execution of Embedded-RDS communication test |
| Details | To execute Embedded-RDS communication test. If the connection fails, the information is added to the communication error log. |
| Use case | When using E-RDS |
| Adj/set/operate method | Select the item, and then press Yes key. |
| Caution | Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set. |
| Display/adj/set range | 0 to 1 |
| Default value | 0 |

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| COPIER > FUNCTION > INSTALL | |
|---|---|
| **Item** | **Description** |
| Related service mode | COPIER > FUNCTION > INSTALL > ERDS<br>COPIER > FUNCTION > INSTALL > RGW-PORT<br>COPIER > FUNCTION > INSTALL > COM-RSLT<br>COPIER > FUNCTION > INSTALL > COM-LOG |
| Supplement/memo | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol<br>UGW (Universal Gate Way): Remote monitoring service system |
| COM-RSLT | |
| Title | Embedded-RDS communication test result |
| Details | To display the Embedded-RDS communication test result. |
| Use case | When using E-RDS |
| Adj/set/operate method | N/A (Display only) |
| Caution | Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set. |
| Display/adj/set range | When not in execution : Unknown, When connection is completed : OK, When connection is failed : NG |
| Default value | Unknown |
| Related service mode | COPIER > FUNCTION > INSTALL > ERDS<br>COPIER > FUNCTION > INSTALL > RGW-PORT<br>COPIER > FUNCTION > INSTALL > COM-TEST<br>COPIER > FUNCTION > INSTALL > COM-LOG |
| Supplement/memo | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol<br>UGW (Universal Gate Way): Remote monitoring service system |
| COM-LOG | |
| Title | Embedded-RDS communication error log |
| Details | To display the Embedded-RDS communication error log. The dates, times, and error codes of the latest 5 errors that occurred are displayed. As for the error detail information, the report can be output by executing COPIER > FUNCTION > MISC-P > ERDS-LOG. |
| Use case | When using Embedded-RDS |
| Caution | Be sure to use ERDS, RGW-PORT, COM-TEST, COM-RSLT, and COM-LOG as a set. |
| Display/adj/set range | Date : 6 digits Time : 4 digits Error code : 8 digits |
| Related service mode | COPIER > FUNCTION > INSTALL > ERDS<br>COPIER > FUNCTION > INSTALL > RGW-PORT<br>COPIER > FUNCTION > INSTALL > COM-TEST<br>COPIER > FUNCTION > INSTALL > COM-RSLT<br>COPIER > FUNCTION > MISC-P > ERDS-LOG |
| Supplement/memo | Embedded-RDS: Function to send device information such as the device counter, failure, and consumables to UGW via SOAP protocol<br>UGW (Universal Gate Way): Remote monitoring service system |

# ◉ OPTION

## ■ BODY

| COPIER > OPTION > BODY | |
|---|---|
| **Item** | **Description** |
| LOCALE | |
| Title | Setting of location |
| Details | To set the location. At installation in areas other than Japan, perform the following procedure to match the setting information with that of the location. |
| Use case | • At installation<br>• When changing the location information |
| Adj/set/operate method | 1. Enter the setting value under LOCALE, and then press Apply key.<br>2. Set the paper size configuration under SIZE-LC.<br>3. Execute COPIER > FUNCTION > CLEAR > ALL.<br>4. Turn OFF/ON the main power switch. |

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| COPIER > OPTION > BODY | |
|---|---|
| **Item** | **Description** |
| Caution | Since COPIER> FUNCTION> CLEAR> ALL is executed when changing the location, the setting information of user mode, service mode, etc. is initialized. The setting information of this item is not initialized. |
| Display/adj/set range | 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 |
| Default value | 1 |
| Related service mode | COPIER> FUNCTION> CLEAR> ALL<br>COPIER> OPTION> BODY> SIZE-LC |
| **SIZE-LC** | |
| Title | Setting of paper size configuration |
| Details | To set the paper size configuration. At installation in areas other than Japan, perform the following procedure to match the setting information with that of the location. |
| Use case | • At installation<br>• Upon user's request |
| Adj/set/operate method | 1. Set the location under LOCALE.<br>2. Set the paper size configuration under SIZE-LC, and then press Apply key.<br>3. Execute COPIER > FUNCTION > CLEAR > ALL.<br>4. Turn OFF / ON the main power switch. |
| Caution | Since COPIER > FUNCTION > CLEAR > ALL is executed when changing the location, the setting information of user mode, service mode, etc. is initialized. The setting information of this item is not initialized. |
| Display/adj/set range | 1 to 4<br>    1 : AB configuration<br>    2 : Inch configuration<br>    3 : A configuration<br>    4 : AB / Inch configuration |
| Related service mode | COPIER > FUNCTION > CLEAR > ALL COPIER > OPTION > BODY > LOCALE |
| **NS-CMD5** | |
| Title | Setting of CRAM-MD5 authentication method at SMTP authentication |
| Details | Restriction of the use of CRAM-MD5 authentication method at SMTP authentication When 1 is set, CRAM-MD5 authentication method is not used. |
| Use case | Upon user's request |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |
| Display/adj/set range | 0 to 1<br>    0 : Used (SMTP server-dependent),<br>    1 : Not used |
| Default value | 0 |
| Supplement/memo | SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated. |
| **NS-PLN** | |
| Title | Setting of plaintext authentication at SMTP authentication |
| Details | To restrict use of PLAIN / LOGIN authentication, which is plaintext authentication, at the time of SMTP authentication under the environment where the communication packet is not encrypted. When 1 is set, plaintext authentication is not used. |
| Use case | Upon user's request |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |

| COPIER > OPTION > BODY | |
|---|---|
| **Item** | **Description** |
| Display/adj/set range | 0 to 1<br>   0 : Used (SMTP server-dependent),<br>   1 : Not used |
| Default value | 0 |
| Supplement/memo | SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated. |
| NS-LGN | |
| Title | Setting of LOGIN authentication at SMTP authentication |
| Details | Restriction of the use of LOGIN authentication method at SMTP authentication When 1 is set, LOGIN authentication method is not used. |
| Use case | Upon user's request |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |
| Display/adj/set range | 0 to 1<br>   0 : Used (SMTP server-dependent),<br>   1 : Not used |
| Default value | 0 |
| Supplement/memo | SMTP authentication: Protocol in which user authentication function is added to SMTP, which is the protocol to be used for e-mail transmission. At the time of e-mail transmission, this protocol executes authentication of the user account and the password between the SMTP server and the user to approve e-mail transmission only when it's authenticated. |
| SLPMODE | |
| Title | Setting of shift to sleep mode |
| Details | To restrict shift to sleep mode 1/sleep mode 3. When 1 is set, the machine does not shift to sleep mode. |
| Use case | When sleep failure occurs |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |
| Display/adj/set range | 0 to 1<br>   0 : Shift is available.<br>   1 : Shift is not available. |
| Default value | 0 |
| SDTM-DSP | |
| Title | Setting of automatic shutdown menu display |
| Details | It is a new function added to support LOT6. To display the auto shutdown menu in the machine supporting LOT6. |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |
| Caution | Even the models not supporting auto shutdown function display the service mode item (In such case, the menu will not be displayed even 1 is set). |
| Display/adj/set range | 0 to 1<br>   0 : Hide the menu<br>   1 : Display the menu |
| Default value | 0 |
| RMT-SW | |
| Title | ON/OFF of RUI service mode function |
| Details | To set whether to enable the service mode function that can be used on remote UI. |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |
| Display/adj/set range | 0 to 1<br>   0 : OFF<br>   1 : ON |
| Default value | 1 |
| PSWD-SW | |
| Title | Service mode password level |
| Details | To change the service mode password level. |

| COPIER > OPTION > BODY | |
|---|---|
| **Item** | **Description** |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |
| Display/adj/set range | 0 to 2<br>　0: Password is not required<br>　1: Password for service engineer is required<br>　2: Passwords for service engineer and system administrator at user's site are required |
| Default value | 0 |
| SM-PSWD | |
| Title | Password for service engineer |
| Details | To set the password for service technician in 8-digit decimal number. |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF / ON the main power switch. |
| Display/adj/set range | 1 to 99999999 |
| Default value | 11111111 |

## ■ FNC-SW

| COPIER > OPTION > FNC-SW | |
|---|---|
| **Item** | **Description** |
| CRG-PROC | |
| Title | Setting of the operation at the end of CRG life |
| Details | To set the following 3 kinds of operations at the end of CRG life: Not stopped / Stopped once/Completely stopped. |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 2<br>　0 : Not stopped (default of B&W machine)<br>　1 : Stopped once (default for color machine)<br>　2 : Completely stopped |
| Default value | 1 |
| CRGLF-K | |
| Title | Reference value of components other than toner included in the CRG life (for K) |
| Details | Reference value of the life of the components other than toner (Drum / Developing Assembly / waste toner) included in the life of CRG (for K) |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 100 to 200 |
| Default value | 100 |
| CRGLF-CL | |
| Title | Reference value of component other than toner included in the CRG life (for CMY) |
| Details | Reference value of the life of the components other than toner (Drum / Developing Assembly / waste toner) included in the life of CRG (for CMY) |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 100 to 200 |
| Default value | 100 |

## ■ DSPL-SW

| COPIER > OPTION > DSPL-SW | |
|---|---|
| **Item** | **Description** |
| CRGLW-LV | |
| Title | SW to display / hide the setting menu (user mode) of toner low threshold value |
| Details | To switch whether to display the menu to set the threshold value in user mode which generates toner low. |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 1 |
| Default value | 1 |

## ■ IMG-MCON

| COPIER > OPTION > IMG-MCON | |
|---|---|
| **Item** | **Description** |
| TMIC-BK | |
| Title | ON/OFF of TMIC Bk PASCAL gamma LUT trailing edge correction |
| Details | To set ON/OFF of the trailing edge correction of Bk color PASCAL gamma LUT used by TMIC. When 1 is set, the density of the high density area is high. Therefore, while text and thin lines are clear, gradation of photos may become unnatural. When 0 is set, the density of the high density area becomes low. Therefore, while the gradation is improved, thin lines may be partly missing or characters may be faded. |
| Use case | • When gradation of photos become unnatural<br>• When thin lines are partly missing or characters are faded |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 1<br>0: OFF, 1: ON |
| Default value | 1 |
| Supplement/memo | TMIC: Error diffusion correction of photo/high image quality. |
| TMIC-CMY | |
| Title | ON/OFF of TMIC Y/M/C PASCAL gamma LUT trailing edge correction |
| Details | To set ON/OFF of the trailing edge correction of Y/M/C color PASCAL gamma LUT used by TMIC. When 1 is set, the density of the high density area is high. Therefore, while text and thin lines are clear, the hue of gradation area of photos may change. When 0 is set, the density of the high density area becomes low. Therefore, while the gradation is improved, thin lines may be partly missing or characters may be faded. |
| Use case | • When gradation of photos become unnatural<br>• When thin lines are partly missing or characters are faded |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 0 to 1<br>0: OFF, 1: ON |
| Default value | 1 |
| Supplement/memo | TMIC: Error diffusion correction of photo/high image quality. |

## ■ USER

| COPIER > OPTION > USER | |
|---|---|
| **Item** | **Description** |
| SMD-EXPT | |
| Title | Export of service mode |
| Details | To enable the export of service mode setting values from RUI. |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 1<br>0: Disabled<br>1: Enabled |
| Default value | 0 |

## ■ ACC

| COPIER > OPTION > ACC | |
|---|---|
| **Item** | **Description** |
| WLAN | |
| Title | Presence/absence of the wireless LAN function |
| Details | To set whether to enable the wireless LAN function. |
| Use case | Upon user's request |

| COPIER > OPTION > ACC | |
|---|---|
| **Item** | **Description** |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 1<br>　0: Disabled<br>　1: Enabled |
| Default value | 0 (Model where wireless LAN is provided as an option)<br>1 (Wireless LAN model) |
| WLANMODE | |
| Title | Setting of IEEE802.11n |
| Details | To set whether to enable IEEE802.11n which is the wireless LAN standard. |
| Use case | Upon user's request |
| Adj/set/operate method | 1. Enter the setting value, and then press Apply key.<br>2. Turn OFF/ON the main power switch. |
| Display/adj/set range | 0 to 1<br>　0: Disabled<br>　1: Enabled |
| Default value | 1 (All models) |

## ■ SERIAL

| COPIER > OPTION > SERIAL | |
|---|---|
| **Item** | **Description** |
| SN-MAIN | |
| Title | Entry of serial number |
| Details | To write the serial number of this machine in the Main Controller PCB.<br>When this item is executed, the 8-digit alphanumeric entered in System Settings > Device Information > Location in user mode is written in the Main Controller PCB.<br>When replacing the Main Controller PCB, be sure to write the serial number in the new PBC to prepare for trouble since the serial number of the device is not succeeded. |
| Use case | When replacing the Main Controller PCB |
| Adj/set/operate method | 1. Write down the current data in System Settings > Device Information > Location in user mode.<br>2. After turning OFF the main power, replace the Main Controller PCB.<br>3. Enter the serial number (8-digit alphanumeric) in "Location" of step 1.<br>4. Execute SN-MAIN. After writing, the serial number entered in step 3 is deleted.<br>5. Turn OFF and the ON the main power.<br>6. Execute COPIER > FUNCTION > MISC-P> SPEC to output the spec report to check the serial number.<br>7. Enter the data backed up in step 1 in "Location". |
| Caution | Since the above "Location" is only temporarily used to store data, back up the data before input and enter it again after writing is completed. |
| Related service mode | COPIER > FUNCTION > MISC-P > SPEC |
| Related user mode | System Settings > Device Information> Location |

# ◉ COUNTER

## ■ TOTAL

| COPIER > COUNTER > TOTAL | |
|---|---|
| **Item** | **Description** |
| SERVICE1 | |
| Title | Service-purposed total counter 1 |
| Details | To advance the counter when a paper is delivered outside the printer.<br>The counter is advanced regardless of the original size. The counter is not advanced by delivery in service mode. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |

| COPIER > COUNTER > TOTAL | |
|---|---|
| **Item** | **Description** |
| SERVICE2 | |
| Title | Service-purposed total counter 2 |
| Details | To advance the counter when a paper is delivered outside the printer.<br>The counter is advanced regardless of the original size. The counter is not advanced by delivery in service mode. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |
| TTL | |
| Title | Total counter |
| Details | To display the total of counters of COPY, PDL-PRT, FAX-PRT, RPT-PRT, and MD-PRT. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |
| Related service mode | COPIER > COUNTER > TOTA L> COPY<br>COPIER > COUNTER > TOTA L> PDL-PRT<br>COPIER > COUNTER > TOTA L> FAX-PRT<br>COPIER > COUNTER > TOTA L> RPT-PRT<br>COPIER > COUNTER > TOTA L> MD-PRT |
| COPY | |
| Title | Total copy counter |
| Details | To advance the counter when a paper is delivered outside the printer.<br>The counter is advanced regardless of the original size.<br>The counter is not advanced by delivery in service mode. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |
| Related service mode | COPIER > COUNTER > TOTAL > TTL |
| PDL-PRT | |
| Title | PDL print counter |
| Details | To count up when the PDL print is delivered outside the machine/2-sided printout is stacked.<br>The counter is advanced regardless of the original size.<br>The counter is not advanced by blank paper or delivery in service mode. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |
| Related service mode | COPIER > COUNTER > TOTAL > TTL |
| FAX-PRT* | |
| Title | FAX reception print counter |
| Details | To count up when the FAX reception print is delivered outside the machine/2-sided printout is stacked.<br>The counter is advanced regardless of the original size.<br>The counter is not advanced by blank paper or delivery in service mode. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |
| Related service mode | COPIER > COUNTER > TOTAL > TTL |
| RPT-PRT | |
| Title | Report print counter |
| Details | To count up when the report print is delivered outside the machine/2-sided printout is stacked.<br>The counter is advanced regardless of the original size. The counter is not advanced by blank paper or delivery in service mode. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |
| Related service mode | COPIER > COUNTER > TOTAL > TTL |
| MD-PRT | |

| COPIER > COUNTER > TOTAL ||
|---|---|
| **Item** | **Description** |
| Title | Media print counter |
| Details | To count up when the media print is delivered outside the machine.<br>The counter is advanced regardless of the original size. The counter is not advanced by blank paper or delivery in service mode. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |
| Related service mode | COPIER > COUNTER > TOTAL > TTL |
| SCAN ||
| Title | Scan counter |
| Details | To count up the number of scan operations when the scanning operation is complete.<br>The counter is advanced regardless of the original size. The counter is not advanced by delivery in service mode. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of times |
| Default value | 0 |

*: FAX model only

## ■ PICK-UP

| COPIER > COUNTER > PICK-UP ||
|---|---|
| **Item** | **Description** |
| C1 ||
| Title | Cassette 1 pickup total counter |
| Details | To count up the number of sheets picked up from the Cassette 1 (standard Pickup Cassette).<br>The counter is advanced regardless of the original size.<br>The counter is advanced by printout in service mode. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |
| MF ||
| Title | Multi-purpose Tray pickup total counter |
| Details | To count up the number of sheets picked up from the Multi-purpose Tray Pickup Unit.<br>The counter is advanced regardless of the original size.<br>The counter is advanced by printout in service mode. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |

## ■ FEEDER

| COPIER > COUNTER > FEEDER ||
|---|---|
| **Item** | **Description** |
| FEED ||
| Title | ADF original pickup total counter |
| Details | To count up the number of originals picked up from the ADF.<br>The counter is advanced regardless of the original size. |
| Use case | When checking the total counter of original pickup by ADF |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |

## ■ JAM

| COPIER > COUNTER > JAM | |
|---|---|
| **Item** | **Description** |
| TOTAL | |
| Title | Printer total jam counter |
| Details | To count up the number of total jam occurrences. |
| Use case | When checking the total jam counter of printer |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of times |
| Default value | 0 |
| FEEDER | |
| Title | ADF total jam counter |
| Details | When checking the total jam counter of ADF |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of times |
| Default value | 0 |
| MF | |
| Title | Multi-purpose Pickup Tray jam counter |
| Details | To count up the number of jam occurrences in the Multi-purpose Tray Pickup Unit. The counter is advanced by paper size mismatch or misprint. |
| Use case | When checking the jam counter of Multi-purpose Pickup Tray |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of times |
| Default value | 0 |
| C1 | |
| Title | Cassette 1 pickup jam counter |
| Details | To count up the number of jam occurrences in the Cassette 1 (standard Pickup Cassette). The counter is advanced by paper size mismatch or misprint. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of times |
| Default value | 0 |

## ■ DRBL-2

| COPIER > COUNTER > DRBL-2 | |
|---|---|
| **Item** | **Description** |
| DF-SP-PD | |
| Title | Separation Pad parts counter: ADF |
| Details | To count up the number of sheets to be fed regardless of 1-sided/2-sided mode. Accumulated counter value |
| Use case | When checking the consumption level of parts/replacing the parts |
| Adj/set/operate method | To clear the counter value: Select the item, and then enter 0. Press Apply key. |
| Caution | Clear the counter value after replacement. |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |
| DF-SP-RL | |
| Title | ADF Pickup Roller parts counter |
| Details | To count up the number of sheets to be fed regardless of 1-sided/2-sided mode. Accumulated counter value |
| Use case | When checking the consumption level of parts/replacing the parts |
| Adj/set/operate method | To clear the counter value: Select the item, and then enter 0. Press Apply key. |
| Caution | Clear the counter value after replacement. |

| COPIER > COUNTER > DRBL-2 | |
|---|---|
| **Item** | **Description** |
| Display/adj/set range | 0 to 99999999 |
| Unit | Number of sheets |
| Default value | 0 |

# FEEDER

## ◉ ADJUST

| FEEDER > ADJUST | |
|---|---|
| **Item** | **Description** |
| DOCST | |
| Title | Fine adjustment of VSYNC timing at ADF reading [front side] |
| Details | To make a fine adjustment of the VSYNC timing when reading the front side of original with ADF. Execute this item when the output image after ADF installation is displaced. When replacing the Main Controller PCB / clearing RAM, enter the value of service label. As the value is incremented by 1, the margin at the leadgin edge of image is reduced by 0.1%.(The image moves in the direction of the leading edge of the sheet.) |
| Use case | • When installing the ADF<br>• When replacing the Main Contoroller PCB/ clearing RAM data |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -30 to 30 |
| Unit | 0.1 mm |
| Default value | 0 |
| LA-SPD | |
| Title | Fine adjustment of magnification ratio in vertical scanning direction at ADF stream reading [front side] |
| Details | To make a fine adjustment of the image magnification ratio in vertical scanning direction when stream reading the front side of original with ADF. As the value is incremented by 1, the image is reduced by 0.01% in vertical scanning direction. (The feeding speed increases, and the image is reduced.) |
| Use case | • When installing the ADF<br>• When replacing the Main Controller PCB/ clearing RAM data |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -200 to 200 |
| Unit | 0.01% |
| Default value | 0 |
| DOCST-R | |
| Title | Fine adjustment of trailing edge at ADF reading |
| Details | To make a fine adjustment of trailing edge when reading original with ADF. Execute this item when the output image after ADF installation is displaced. When replacing the Main Controller PCB / clearing RAM, enter the value of service label. As the value is incremented by 1, the margin at the trailing edge of the image is decreased by 0.1mm. (The image moves in the direction of the trailing edge of the sheet.) |
| Use case | • When installing the ADF<br>• When replacing the Main Controller PCB / clearing RAM data |
| Adj/set/operate method | Enter the setting value (switch negative / positive by * key) and press Apply key. |
| Display/adj/set range | -30 to 30 |
| Unit | 0.1 mm |
| Default value | 0 |

## ◉ FUNCTION

| FEEDER > FUNCTION | |
|---|---|
| **Item** | **Description** |
| MTR-ON | |
| Title | Operation check of ADF Motor |
| Details | To start operation check of ADF Motor (M702). |
| Use case | At operation check |

| FEEDER > FUNCTION | |
|---|---|
| **Item** | **Description** |
| Adj/set/operate method | 1. Select the item, and then press Yes key. It is driven for approximately 5 seconds and is automatically stopped.<br>2. Press Yes key. The operation check is completed. |
| Required time | 5 secons |
| FEED-ON | |
| Title | Operation check of ADF individual feed |
| Details | To start operation check of the ADF individual feed in the mode specified by FEED-CHK. |
| Use case | At operation check |
| Adj/set/operate method | Select the item, and then press Yes key. |
| Related service mode | FEEDER > FUNCTION > FEED-CHK |

# FAX

## Lis of SSSW

| 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 |
| SW 02 | | (Switch relating to settings for network connection condition) |
| | Bit 7 | Connect the terminal as F network type 2 |
| SW 03 | | (Switch relating to echo prevention) |
| | Bit 0 | TCF EQM check |
| | Bit 7 | Output 1080Hz before CED |
| SW 04 | | (Switch relating to prevention of communication problems) |
| | Bit 1 | Frequency check of CI signal |
| | 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 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 |
| SW 06 | | (Switch relating to settings for reading condition) |
| | Bit 4 | Scan width 0: A4, 1: LTR |
| SW 07 to 11 | | Not in use |
| SW 12 | | (Switch relating to settings for page timer) |
| | Bit 0 | Timeout period for 1 page (transmission) |
| | Bit 1 | Timeout period for 1 page (transmission) |
| | Bit 2 | Timeout period for 1 page (Halftone transmission) |
| | Bit 3 | Timeout period for 1 page (Halftone transmission) |
| | Bit 4 | Timeout period for 1 page (Reception) |
| | Bit 5 | Timeout period for 1 page (Reception) |
| | Bit 7 | Timeout period for 1 page |
| SW 13 | Bit 2 | Execution of mm/inch conversion when sending the received image |
| 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 4 | Declaration of inch-configuration resolution |
| SW 16 | | Not in use |
| SW 17 | Bit 1 | Range of selection of transmission level of modem (0 : 8 to 15, 1 : 0 to 15) |
| 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 |
| SW 19 to 21 | | Not in use |
| SW 22 | Bit 3 | Prohibition of manual polling operation |
| SW 23 to 24 | | Not in use |
| SW 25 | | (Setting for report display function) |
| | Bit 0 | Prioritize the received abbreviated name to the dialed abbreviated name |
| SW 26 to 27 | | Not in use |

| SSSW No. | Bit No. | Function |
|---|---|---|
| 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 |
| SW 29 to 35 | | Not in use |

## ● List of MENU

| No. | Parameter | Selection |
|---|---|---|
| 01 to 05 | Not in use | |
| 06 | Telephone line monitor | 0 to 3<br>　0: DIAL<br>　1: SERVICEMAN1<br>　2: SERVICEMAN2<br>　3: OFF |
| 07 | Transmission level (ATT) | 0 to 15 |
| 08 | Upper limit of V.34 modulation speed | 0 to 5<br>　0: 3429 BAUD<br>　1: 3200 BAUD<br>　2: 3000 BAUD<br>　3: 2800 BAUD<br>　4: 2743 BAUD<br>　5: 2400 BAUD |
| 09 | 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 |
| 11 to 20 | Not in use | |

## ● List of NUM

| Numeric parameter setting mode | | |
|---|---|---|
| No. | Parameter | Allowable setting range |
| 01 | Not in use | |
| 02 | RTN transmission criteria X | 1 to 99 % |
| 03 | RTN transmission criteria n | 2 to 99 times |
| 04 | RTN transmission criteria m | 1 to 99 lines |
| 05 | NCC pause (before ID code) | 1 to 60 sec |
| 06 | NCC pause (after ID code) | 1 to 60 sec |

| No. | Parameter | Allowable setting range |
|---|---|---|
| | **Numeric parameter setting mode** | |
| 07 | Spare | |
| 08 | STORED_DIAL_MODE wait timer | 0 to 65 sec |
| 09 | Not in use | |
| 10 | T.30 T0 timer | 55 sec principally |
| 11 | T.30 T1 timer (for incoming transmission) | 0 to 9999 (France: 3500, Others: 3000) |
| 12 | Maximum incoming lines | 0 to 65535 (line)0: without limitation |
| 13 | T.30 EOL timer | 500 to 3000 (set to 55 sec by default) |
| 14 | Not in use | |
| 15 | Threshold between hooking and on-hook | 0 to 999 |
| 16 | Lead time to the first response when switching between FAX and TEL | 0 to 9 |
| 17 | Duration to activate pseudo-RBT cadence | 0 to 999 |
| 18 | Duration to deactivate pseudo-RBT cadence (short) | 0 to 999 |
| 19 | Duration to deactivate pseudo-RBT cadence (long) | 0 to 999 |
| 20 | Duration to activate pseudo-ring cadence | 0 to 999 |
| 21 | Duration to deactivate OFF Hook cadence (short) | 0 to 999 |
| 22 | Duration to deactivate OFF Hook cadence (long) | 0 to 7 |
| 23 to 24 | Not in use | |
| 25 | CNG monitor duration while the answering device is activated | 0 to 999 |
| 26 to 28 | Not in use | |
| 29 | Off-hook PCB duty settings(For NAC, setting can be made with SPL71100 in special management mode.) | 20 (*10ms) |
| 30 to 48 | Not in use | |
| 49 | NSX MODEL ID | 0 to 4095 |
| 50 | Not in use | |
| 51 | Threshold to detect hook | 10 to 9999 |
| 52 | Not in use | |
| 53 | Set DTMF calling counts when receiving FAX remotely | 10 to 9999 (default 25) |
| 54 | Set Busy Tone outgoing duration when using handset | |
| 55 to 80 | Not in use | |

# Setting of NCU Parameters

## ■ TONE/PULSE

Operation Method
1. Setting of Tone Parameters

   Operate as follows, and change to the parameter setting mode.
   1. While "#NCU" is displayed, press "OK" key
   2. Press "#TONE" key
   3. Press "OK" key
2. Setting of Pulse Parameters

   Operate as follows, and change to the pulse setting mode.
   1. While "#NCU" is displayed, press "OK" key
   2. Press "#PULSE" key
   3. press "OK" key

| Item | | | Function | Setting range |
|---|---|---|---|---|
| TONE | | 01; | Tone signal sending time (PSTN) | 10 to 9999 (msec) |
| | | 02; | Minimum pause time (PSTN) | 10 to 9999 (msec) |
| PULSE | PULSE FORM | | Pulse digit format | 0 to DP ( N )<br>1 to DP ( N+1 )<br>2 to DP ( 10-N ) |
| | PULSE NUM | 01; | Not in use | |
| | | 02; | Not in use | |
| | | 03; | Pulse dial make ratio | 10 to 90 (%) |

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| Item | | | Function | Setting range |
|---|---|---|---|---|
| PULSE | PULSE NUM | 04; | Minimum pause time | 10 to 9999 (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 |
|---|---|---|
| 01; | T0 timer | 0 to 9999 (x 10 msec) |
| 02; | T1 timer | 0 to 9999 (x 10 msec) |
| 03; | T2 timer | 0 to 9999 (x 10 msec) |
| 04; | T3 timer | 0 to 9999 (x 10 msec) |
| 05; | T4 timer | 0 to 9999 (x 10 msec) |
| 06; | Signal detection table | 0 to 16 |
| 07; | Signal detection level | 0 to 7 |
| 08; | Number of signal frequency | 0 to 9999 |

## ■ 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 No. | Function | 1 | 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 |
|---------------|----------|---------------|
| 01; | - | - |
| 02; | T1 timer | 0 to 9999 (x 10 msec) |
| 03; | T2 timer | 0 to 9999 (x 10 msec) |
| 04; | T3 timer | 0 to 9999 (x 10 msec) |
| 05; | T4 timer | 0 to 9999 (x 10 msec) |
| 06; | Signal detection table | 0 to 16 |
| 07; | Signal detection level | 0 to 7 |
| 08; | Number of signal frequency | 0 to 9999 |

# ■ REORDER TONE

## ● Bit Switch

| Bit No. | Function | 1 | 0 |
|---------|----------|---|---|
| Bit 0 | - | - | - |
| Bit 1 | - | - | - |
| 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 |
|---------------|----------|---------------|
| 01; | - | - |
| 02; | T1 timer | 0 to 9999 (x 10 msec) |
| 03; | T2 timer | 0 to 9999 (x 10 msec) |
| 04; | T3 timer | 0 to 9999 (x 10 msec) |
| 05; | T4 timer | 0 to 9999 (x 10 msec) |
| 06; | Signal detection table | 0 to 16 |
| 07; | Signal detection level | 0 to 7 |
| 08; | Number of signal frequency | 0 to 9999 |

# ■ MULTI

Not in use

## ■ AUTO RX

### ● Numeric value parameter

| Parameter No. | Function | Setting range |
|---|---|---|
| 01; | CI ON time | 0 to 9999 (x 10 msec) |
| 02; | CI LONG ON time | 0 to 9999 (x 10 msec) |
| 03; | CI OFF time | 0 to 9999 (x 10 msec) |
| 04; | CI LONG OFF time | 0 to 9999 (x 10 msec) |
| 05; | CI MAX OFF time | 0 to 9999 (x 10 msec) |
| 06; | CI WAIT time | 0 to 9999 (x 10 msec) |
| 07; | CI frequency | 0 to 9999 (cycle) |
| 08; | CI frequency lower limit | 0 to 9999 (Hz) |
| 09; | CI frequency upper limit | 0 to 9999 (Hz) |

## ■ CNG DETECT

### ● Numeric value parameter

| Parameter No. | Description | | Setting range |
|---|---|---|---|
| 01; | At F/T switching | CNG MIN ON time | 0 to 9999 (x10 msec) |
| 02; | | CNG MAX ON time | 0 to 9999 (x 10 msec) |
| 03; | | - | - |
| 04; | | - | - |
| 05; | | - | - |
| 06; | | - | - |
| 07; | At direct connecting to answering phone | CNG MIN ON time | 0 to 9999 (x 10 msec) |
| 08; | | CNG MAX ON time | 0 to 9999 (x 10 msec) |
| 09; | | Tolerable time of instantaneous interruption | 0 to 9999 (x 10 msec) |
| 10; | | - | - |
| 11; | | Number of detection | 0 to 9999 (times) |
| 12; | | Hit ratio | 0 to 9999 (%) |

## ■ RKEY

### ● Numeric value parameter

| Parameter No. | Function | Setting range |
|---|---|---|
| 01; | Connection time of flash | 0 to 9999 (x 10 msec) |
| 02; | Connection time of grounding wire | 0 to 9999 (x 10 msec) |

## ■ PBX DIAL TONE 1

Not in use

## ■ PBX BUSY TONE

Not in use

# TESTMODE

## ⬤ PRINT

| TESTMODE > PRINT | |
|---|---|
| **Item** | **Description** |
| PG-TYPE | |
| Title | Setting of PG number |
| Details | 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 6<br>　　0 : PASCAL correction chart 1<br>　　1 : PASCAL correction chart 2<br>　　2 : Color chart<br>　　3 : Skew correction chart<br>　　4 : Rainbow chart (vertical scanning direction)<br>　　5 : Rainbow chart (horizontal scanning direction)<br>　　6 : Grid Bk |
| Default value | 0 |
| COUNT | |
| Title | Setting of PG output quantity |
| Details | To set the number of sheets for PG output. |
| Use case | At trouble analysis |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Display/adj/set range | 1 to 99 |
| Unit | 1 sheet |
| Default value | 1 |
| MODE | |
| Title | Setting of test print image formation method |
| Details | To set the image formation method for the test print.<br>If PG-TYPE is 0/1, 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 3<br>　• 0 : T-MIC(T-MIC)<br>　• 1 : High screen ruling (SCA)<br>　• 2 : Low screen ruling (SCB)<br>　• 3 : TBIC |
| Default value | 0 |
| THRU | |
| Title | Setting of image correction table at test print |
| Details | It is possible to check the density characteristics due to the density correction process when normal gamma LUT is used, and the density characteristics of the engine when the linear gamma LUT is used. |
| 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 : Normal gamma LUT<br>　　1 : Through (linear) gamma LUT |
| Default value | 0 |
| Supplement/memo | Gamma LUT: Density gradation characteristic table |
| NRKE | |
| Title | ON/OFF of laser scanning transfer process of test print |
| Details | To perform line transfer process for skew correction of test print engine's laser scanning. |
| Use case | At trouble analysis |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |

| TESTMODE > PRINT | |
|---|---|
| **Item** | **Description** |
| Display/adj/set range | 0 to 1<br>    0 : OFF<br>    1 : ON |
| Default value | 0 |
| Supplement/memo | Transfer process: A process to correct skew of laser scanning toward vertical scanning direction |
| BLND | |
| Title | ON/OFF of interpolation process at test print |
| Details | To set ON/OFF of interpolation process at test print (linked with NSC).<br>When 1 is set, interpolation process is performed (no phase shift). |
| 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 : OFF<br>    1 : ON |
| Default value | 0 |
| Supplement/memo | Interpolation process: A process to predict, for pixels holding no color information, color based on the surrounding pixels, and then set up the color information. |
| FEED | |
| Title | Setting of paper source at test print |
| Details | 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). |
| 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 : MP Tray<br>    1 : Cassette1<br>    2 : Cassette2<br>    3 : Cassette3<br>    4 : Cassette4 |
| Default value | 1 |
| START | |
| Title | Output of test print |
| Details | To output a test print with the PG pattern set in PG-TYPE, MODE, etc. |
| Use case | At trouble analysis |
| Adj/set/operate method | Press Apply key. |
| Display/adj/set range | 0 to 1 |
| Default value | 0 |

# FAX

## ■ MODEM

FAX model only

| TESTMODE > FAX > MODEM | |
|---|---|
| **Item** | **Description** |
| RELAY-1 | |
| Title | NCU relay test 1 |
| Details | N 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. |
| Use case | When analyzing the cause of a problem |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Caution | Be sure to set the value back to 0 after the test. |

| TESTMODE > FAX > MODEM | |
|---|---|
| **Item** | **Description** |
| Display/adj/set range | 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 |
| Default value | 0 |
| Related service mode | TESTMODE > FAX > MODEM > RELAY-2 |
| RELAY-2 | |
| Title | NCU relay test 2 |
| Details | 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. |
| Use case | When analyzing the cause of a problem |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Caution | Be sure to set the value back to 0 after the test. |
| Display/adj/set range | 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 |
| Default value | 0 |
| Related service mode | TESTMODE > FAX > MODEM > RELAY-1 |
| FREQ | |
| Title | 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. |
| Details | When analyzing the cause of a problem |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Caution | Be sure to set the value back to 0 after the test. |
| Display/adj/set range | 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, 7: 2100 Hz |
| Default value | 0 |
| G3TX | |
| Title | G3 signal transmission test |
| Details | 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. |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Caution | Be sure to set the value back to 0 after the test. |

| TESTMODE > FAX > MODEM | |
|---|---|
| **Item** | **Description** |
| Display/adj/set range | 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 |
| Default value | 0 |
| DTMFTX | |
| Title | DTMF transmission test |
| Details | 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. |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Caution | Be sure to set the value back to 0 after the test. |
| Display/adj/set range | 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: # |
| Default value | 0 |
| Supplement/memo | DTMF (Dual Tone Multi Frequency): Signal method combining two specific frequencies like a push-tone phone. |
| V34G3TX | |
| Title | V.34 G3 signal transmission test |
| Details | 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.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).<br>A value other than the specified numerical value is invalid. |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Caution | Be sure to set the value back to 0 after the test. |

| TESTMODE > FAX > MODEM | |
|---|---|
| **Item** | **Description** |
| Display/adj/set range | 0 to 614<br>0: OFF<br>    • First digit (Modulation speed/baud rate)<br>        1: 2400 baud<br>        2: 2743 baud<br>        3: 2800 baud<br>        4: 3000 baud<br>        5: 3200 baud<br>        6: 3429 baud<br>    • Last 2 digits (Transmission speed)<br>        01: 2400 bps<br>        02: 4800 bps<br>        03: 7200 bps<br>        04: 9600 bps<br>        05: 12000 bps<br>        06: 14400 bps<br>        07: 16800 bps<br>        08: 19200 bps<br>        09: 21600 bps<br>        10: 24000 bps<br>        11: 26400 bps<br>        12: 28800 bps<br>        13: 31200 bps<br>        14: 33600 bps |
| Default value | 0 |

## ■ FACULTY

FAX model only

| TESTMODE > FAX > FACULTY | |
|---|---|
| **Item** | **Description** |
| G34800TX | |
| Title | G3 4800 bps signal transmission test |
| Details | 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. |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Caution | Be sure to set the value back to 0 after the test. |
| Display/adj/set range | 0 to 1<br>   0: OFF<br>    1: ON |
| Default value | 0 |
| DETECT1 | |
| Title | Ring detection |
| Details | To check the ON/OFF state of CI, FC, and hook from the line.<br>The detection results are displayed on the console (UART). |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Caution | Be sure to set the value back to 0 after the test. |
| Display/adj/set range | 0 to 1<br>   0: OFF<br>    1: ON |
| Default value | 0 |
| Supplement/memo | CI (Calling Identification): Ring signal UART (Universal Asynchronous Receiver Transmitter): Console |
| DETECT2 | |
| Title | Calling tone detection test 1 |

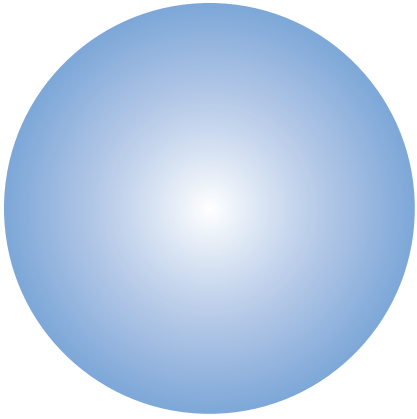| TESTMODE > FAX > FACULTY | |
|---|---|
| **Item** | **Description** |
| Details | To check calling tone signal and FED.<br>Set the CML relay to ON and detect the calling tone.<br>The detection results are displayed on the console (UART). |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Caution | Be sure to set the value back to 0 after the test. |
| Display/adj/set range | 0 to 1<br>    0: OFF<br>    1: ON |
| Default value | 0 |
| Supplement/memo | CML (Connect Modem to Line) relay: Relay installed at the NCU (Network Control Unit) Board to switch between the telephone and fax. |
| DETECT3 | |
| Title | Calling tone detection test 2 |
| Details | 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). |
| Adj/set/operate method | Enter the setting value, and then press Apply key. |
| Caution | Be sure to set the value back to 0 after the test. |
| Display/adj/set range | 0 to 1<br>    0: OFF<br>    1: ON |
| Default value | 0 |
| Supplement/memo | CML (Connect Modem to Line) relay: Relay installed at the NCU (Network Control Unit) Board to switch between the telephone and fax. |
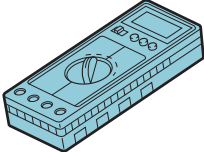
# APPENDICES

# Service Tools

## Special Tools

In addition to the standard tools set, the following special tools are required when servicing the machine:

| Name of Tool | Parts.No | Use |
|---|---|---|
| Digital Multimeter | FY9-2002 | Used as a probe extension when making electrical checks. |

## Solvents and Oils

The table below lists the standard tools required in service works for this product.

| No. | Name of Tool | Use | Remarks |
|---|---|---|---|
| 1 | Alcohol | Cleaning:<br>Plastic<br>Rubber<br>Metal part<br>Oil stain<br>Toner stain | • Keep away from flame<br>• Purchase locally |
| 2 | Lubricant | Apply to gear | • HY9-0007 (MOLYCOTE EM-50L) |
| 3 | Lubricant | Apply to ADF scanning area | • FY9-6020(Oil glass cleaner) |

# General Circuit Diagram
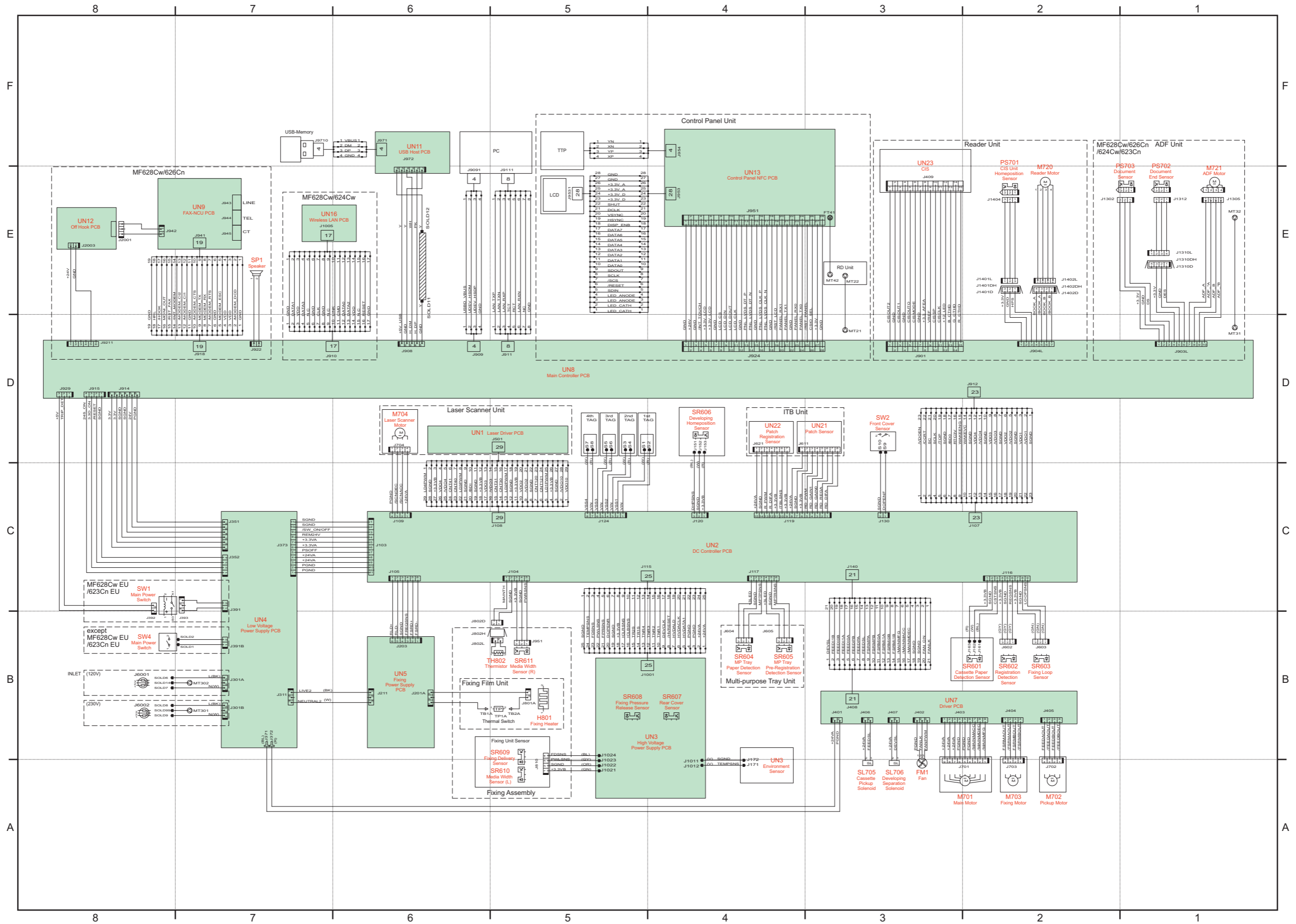
# Print Sequence

Full-color print on A4 plain paper (3 pages)

| | Operation | STBY | INTR | PRNT | LSTR | STBY |
|---|---|---|---|---|---|---|
| 1 | Fixing temperature control | | | | | |
| 2 | Main motor (M701) | | | | | |
| 3 | Pickup motor (M702) | | 3.5 | | | |
| 4 | Fixing motor (M703) | | 3.9 | | | |
| 5 | Scanner motor (M704) | | 2.0 | | | |
| 6 | Cassette pickup solenoid (SL705) | | 6.1 | | | |
| 7 | Development contact solenoid (SL706) | | 4.4 | | | |
| 8 | Paper leading edge sensor (SR602) | | 7.6 | | | |
| 9 | Fixing/delivery sensor (SR609) | | 21.2 | | | |
| 10 | Vertical sync signal (/TOP) | | 6.1 | | | |
| 11 | Primary charging bias | | 1.6 | | | |
| 12 | Development bias (Y, M, C) | | 4.4 | | | |
| 13 | Development bias (Bk) | | 4.4 | | | |
| 14 | Primary transfer bias (Y) | | 2.1    4.7 | | | |
| 15 | Primary transfer bias (M, C) | | 6.1 | | | |
| 16 | Primary transfer bias (Bk) | | 0.5    10.5 | | | |
| 17 | Secondary transfer bias | | 3.7    14.7 | | | |
| 18 | | | | ATVC    Print bias    Sheet-to-sheet bias | | |
| 19 | | | | | | |
| 20 | | | | | | |

Print command

(second)

# Backup Data

| Data | | Location | Replace | | Delete | | | | | | | | Backup by User | | | Backup by Service | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Menu > System Management Settings | | | | COPIER > FUNCTION > CLEAR | | | | | | | | | |
| | | | Engine Controller PCB | Main Controller PCB *1 | Initializing Address Book | Initializing Key and Certificate | Initializing Menu | System Management Settings | R-CON *2 | SRVC-DAT *3 | COUNTER | HIST *4 | ALL *5 | Yes/No | Method | Location to be stored | Yes/No | Method | Location to be stored |
| Address Book | | Main Controller | - | Clear | Clear | - | Clear | - | - | - | - | - | Clear | Yes | Remote UI | PC, USB memory | No | - | - |
| Settings Menu | Preferences | Main Controller | - | Clear | - | - | Clear | - | - | - | - | - | Clear | Yes | Remote UI | PC, USB memory | No | - | - |
| | Timer Settings | Main Controller | - | Clear | - | - | Clear | - | - | - | - | - | Clear | Yes | Remote UI | PC, USB memory | No | - | - |
| | Common Settings | Main Controller | - | Clear | - | - | Clear | - | - | - | - | - | Clear | Yes | Remote UI | PC, USB memory | No | - | - |
| | Copy Settings | Main Controller | - | Clear | - | - | Clear | - | - | - | - | - | Clear | Yes | Remote UI | PC, USB memory | No | - | - |
| | Fax Settings | Main Controller | - | Clear | - | - | Clear | - | - | - | - | - | Clear | Yes *6 | Remote UI | PC, USB memory | No | - | - |
| | Scan Settings | Main Controller | - | Clear | - | - | Clear | - | - | - | - | - | Clear | Yes | Remote UI | PC, USB memory | No | - | - |
| | Memory Media Print Settings | Main Controller | - | Clear | - | - | Clear | - | - | - | - | - | Clear | Yes | Remote UI | PC, USB memory | No | - | - |
| | Printer Settings | Main Controller | - | Clear | - | - | Clear | - | - | - | - | - | Clear | Yes | Remote UI | PC, USB memory | No | - | - |
| | System Management Settings | Main Controller | - | Clear | - | - | Clear | Clear | - | - | - | - | Clear *8 | Yes | Remote UI | PC, USB memory | No | - | - |
| Key and Certificate | | Main Controller | - | Clear | - | Clear *7 | - | - | | | | | Clear | No | - | - | No | - | - |
| Serial Number | | Main Controller | - | Clear | - | - | - | - | - | - | - | - | - | No | - | - | No | - | - |
| Job History | | Main Controller | - | Clear | - | - | - | - | - | - | - | Clear | Clear | No | - | - | No | - | - |
| Service mode | Service mode setting values (Reader) | Main Controller | - | Clear | - | - | - | - | Clear | - | - | - | - | No | - | - | No | - | - |
| | Service mode setting values(Main Controller) | Main Controller | - | Clear | - | - | - | - | - | Clear | - | - | Clear | No | - | - | Yes | Service mode *9 | USB memory |
| | Service mode setting values (Engine Controller) | Engine Controller | Clear | - | - | - | - | - | - | - | - | - | - | No | - | - | Yes | Service mode *10 | Main Controller |
| To clear the counter by maintenance / part/mode. ( Including the fax-related counters shown in the system dump list) | | Main Controller | Clear | Clear | - | - | - | - | - | - | Clear | - | - | No | - | - | No | - | - |

*1: Log data such as Mac address, USB serial number, printer-related setting values, scanner-related setting values, user data, and logs are initialized.

*2: The factory adjustment values of the Reader and ADF are initialized.

*3: Service data is cleared. User data is not cleared. The factory adjustment values of the Reader and ADF are not initialized.

*4: The logs (communication management, print, jam, error, and alarm) are cleared.

*5: The user data, service data, logs, and system administrator are initialized. (The system manager ID and password are changed back to the default values.) The factory adjustment values of the Reader and ADF are not initialized.

*6: Excluding Fax Setup Guide

*7: When the key and certificate are initialized, TLS authentication of IEEE802.1X and the SSL setting are changed to "OFF".

*8: The system administrator ID and the password are changed back to the default values. ID: 0 / PWD: 0.

*9: FUNCTION > SYSTEM > IMPORT / FUNCTION > SYSTEM > EXPORT

*10: FUNCTION > VIFFNC > STOR-DCN / FUNCTION > VIFFNC > STOR-DCN