



Dell 3010cn **Service Manual**

14 Jan 2010

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Cautions for operation

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1. About this manual

This manual is a standard service manual of Dell Inc. containing information required for maintenance of this laser printer (standard specifications).

2. Marks giving caution

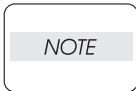
Maintenance operations requiring special cautions or additional information to descriptions of this manual are presented as "Warning", "Caution", or "Note", according to their nature.



If instructions are not observed, death or serious injury may be caused.



If instructions are not observed, injuries of workers or physical damages to assets (including this laser printer) may result.



Particularly important essentials for procedures, steps, rules, and others.

Reference *Incidental information to descriptions.*

3. Related documents

- Instruction manuals (standard manuals)
Describe operation and handling of this laser printer.
- Performance specifications
Describe in detail various specifications of this laser printer.
(In the event of discrepancy between this manual and the performance specifications, the performance specifications shall take preference.)
- Spare parts list
Information on maintenance parts (spare parts) for this laser printer

4. Safety

To prevent possible accidents during maintenance operation, you should observe strictly the "Warning" and "Caution" information in this manual.

Dangerous operations and operations out of range of this manual should be absolutely avoided.

Generally various processes not covered by this manual may be required in actual operation, which should be performed carefully always giving attention to safety.

4.1 Power source

Keep the power supply off during maintenance operation to prevent electric shock, burns and other damages. Keep the power plug disconnected during the maintenance operation.

If the power supply should be kept connected for measurement of voltage or other similar reasons, sufficient care should be given to prevent electric shock, by following the procedures of this manual.



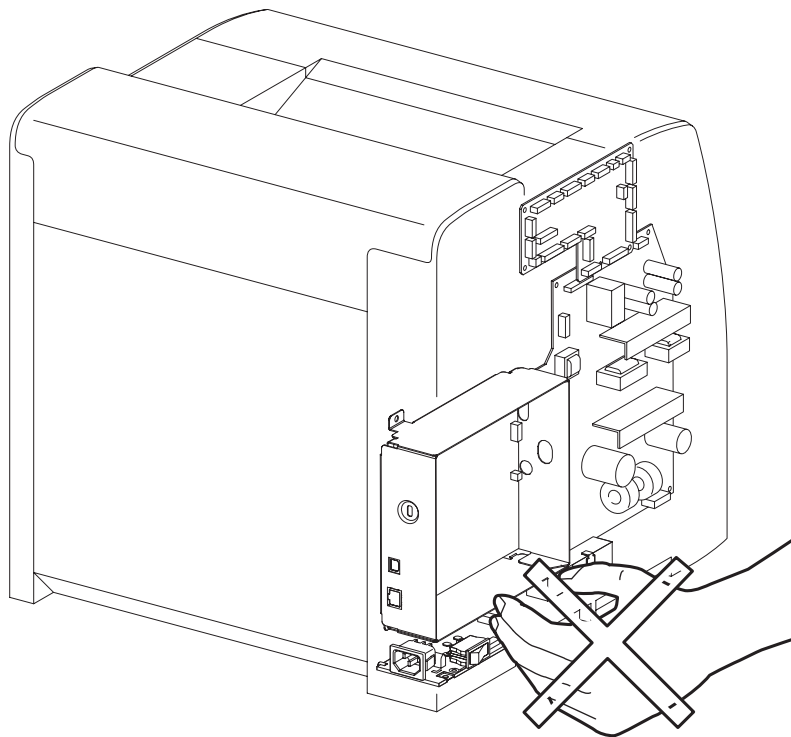
While the printer is ON, never touch live parts if not required absolutely.



Power is supplied to the power switch / inlet (PWBA FUSER CONT) even while the printer is off. Never touch its live components.



Do not touch live parts unless otherwise specified.



Leg_Sec001_202LA

4.2 Driving units

When servicing gears or other driving units, be sure to turn them OFF and plug off. Drive them manually when required.



Never touch the gears or other driving units while the printer is running.

4.3 High-temperature units

When servicing high-temperature units (securing unit, etc.), be sure to turn them OFF to prevent burns, injuries and other troubles, remove the power plug and start service processes after they have cooled down enough.

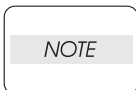


Immediately after completion of operation, they are still hot. Start services after more than 40 minutes.

4.4 Laser beams



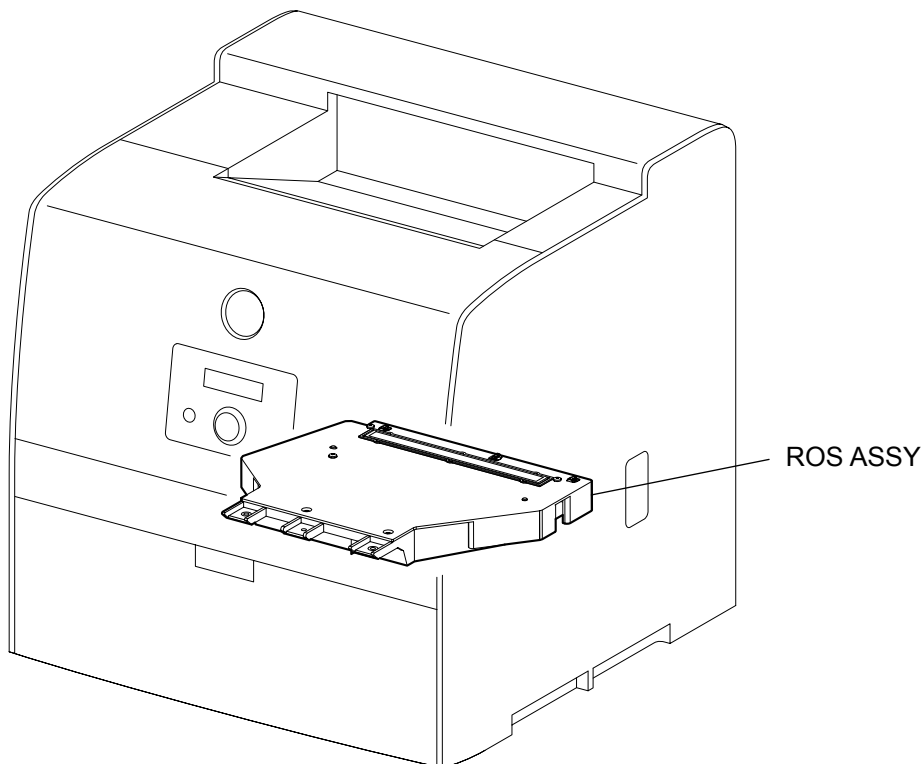
- *If your eyes are exposed to laser beams, you may lose your eyesight.*
- *Never open the cover if warning label for laser beams is attached there.*
- *Before disassembling and reassembling this laser printer, be sure to turn it OFF.*
- *When servicing this laser printer while it is running, be sure to follow the procedures specified in this manual.*
- *You should understand the features of the laser beams which are capable of having an injurious action on the human body, not to extend the danger over the workers as well as other people around the printer.*



Laser beams have features as follows:

- **Frequencies are smaller in width than other beams (sun and electric bulbs) and phases are uniform so that high monochromatic and convergence performance can be obtained and thin beams of light can reach places at a long distance.**
- **Due to the high convergence, beams are concentrated in high density and high temperature, which is dangerous to human body.**

Reference: *Laser beams of this laser printer is invisible rays which you cannot see.*

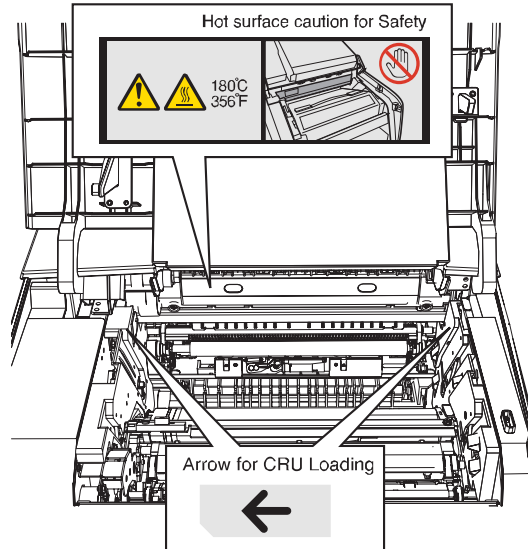


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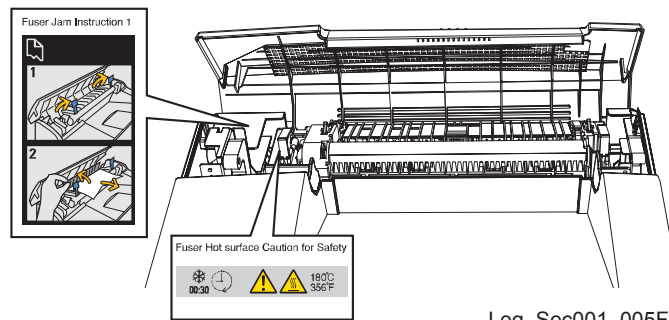
4.5 Warning/caution labels

Warning labels and caution labels are attached to this laser printer to prevent accidents. Check those labels for their peeling or stain when servicing the printer.

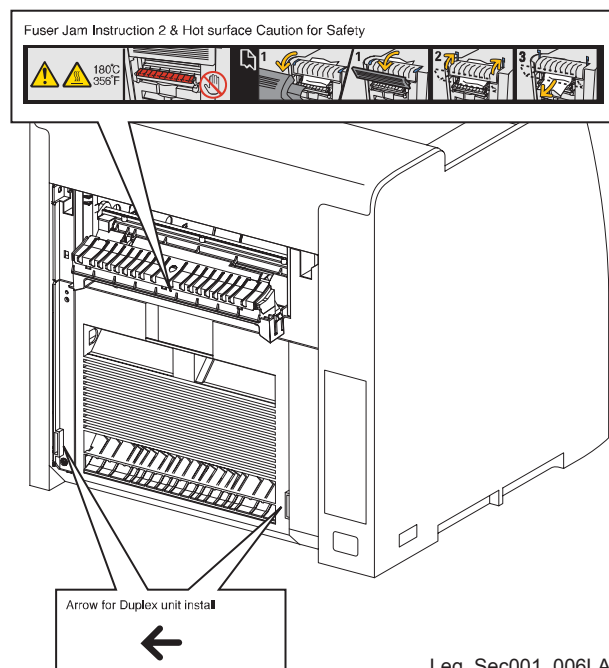
4.5.1 Caution label for high-temperature units



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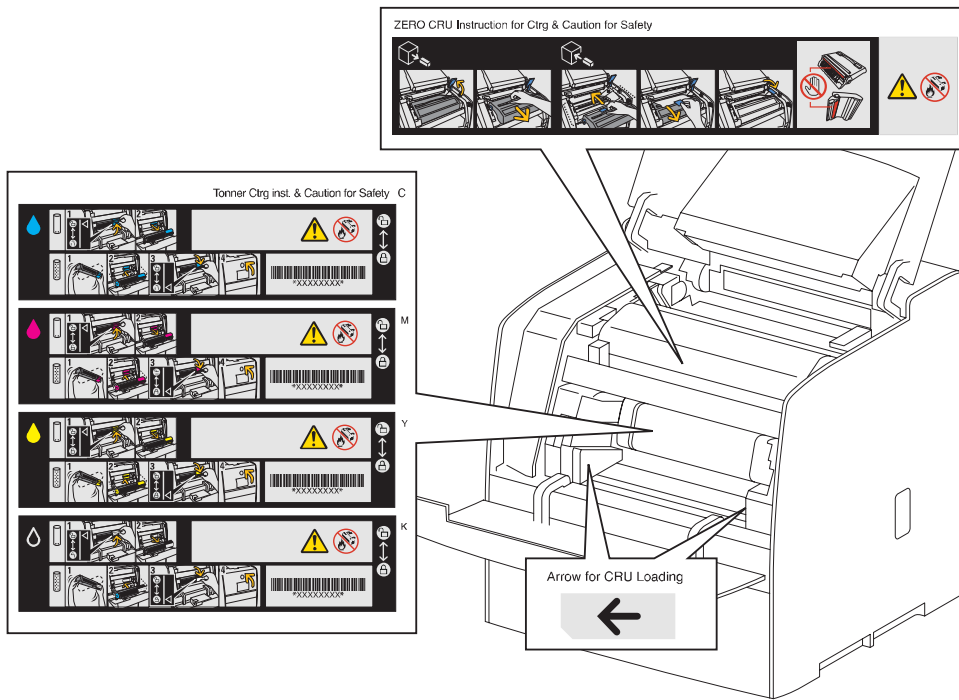


Leg_Sec001_005FA



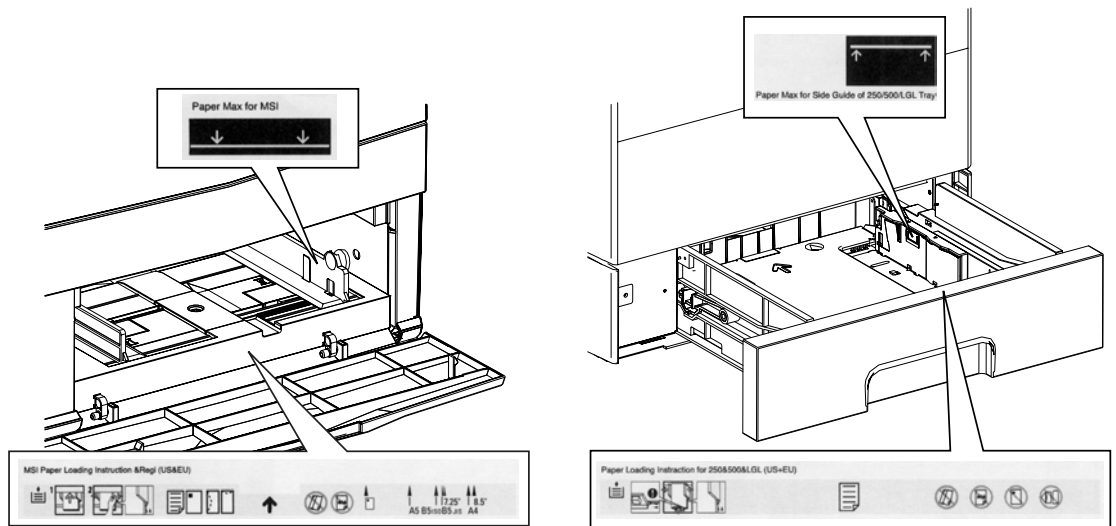
Leg_Sec001_006LA

4.5.2 Caution label regarding IBT ASSY and toner cartridge



Leg_Sec001_007LA

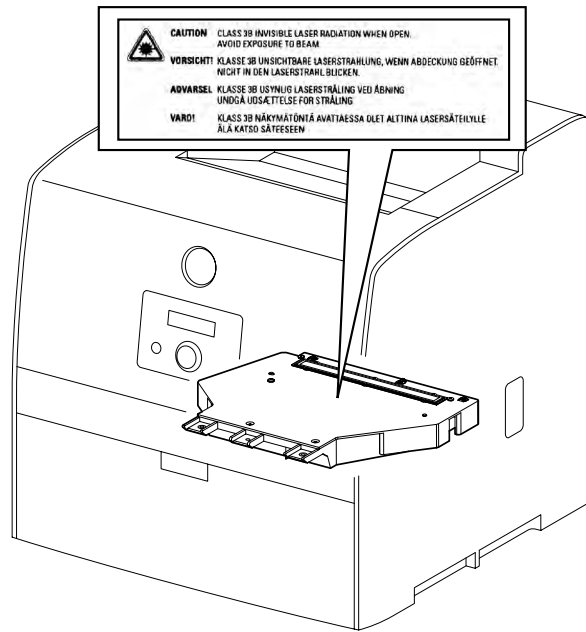
4.5.3 Caution label regarding MSI and paper tray



Leg_Sec001_008LA

Leg_Sec001_009FA

4.5.4 Caution label for ROS



Leg_Sec001_010LA

Unpacking the Printer



The printer must be carried horizontally with two or more persons.

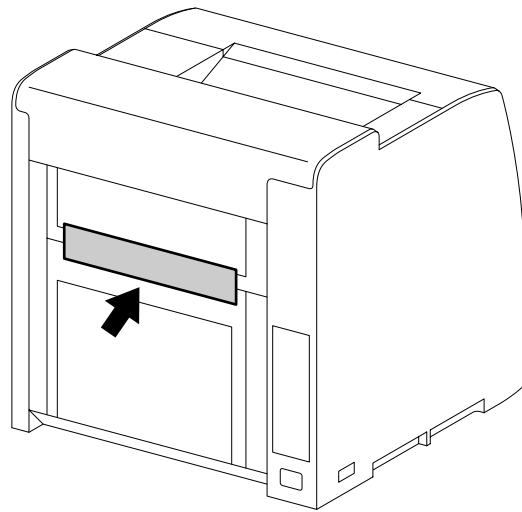
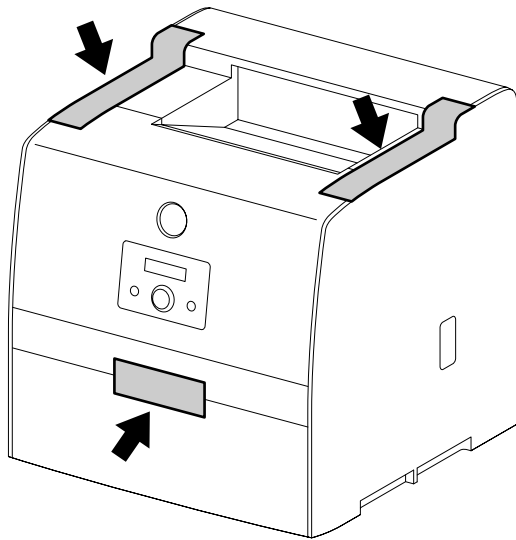


Extreme care must be taken to avoid personal injuries.

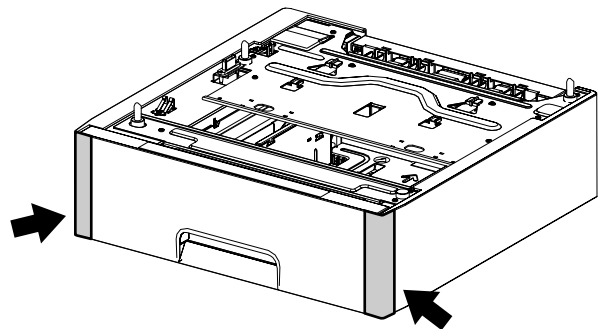
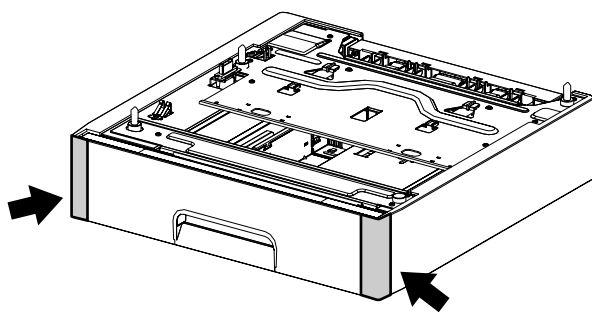
Check the printer visually for evidence of any damage.

Peel all tapes off the printer.

Remove protection parts (2 pieces) from the paper tray.



Leg_Sec001_011FA

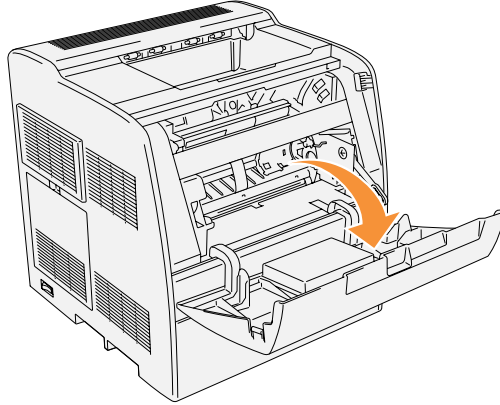


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Installing the Toner Cartridge

Install or replace the toner cartridge while the printer is on (if the power is not on, the cartridge carrier will not rotate).

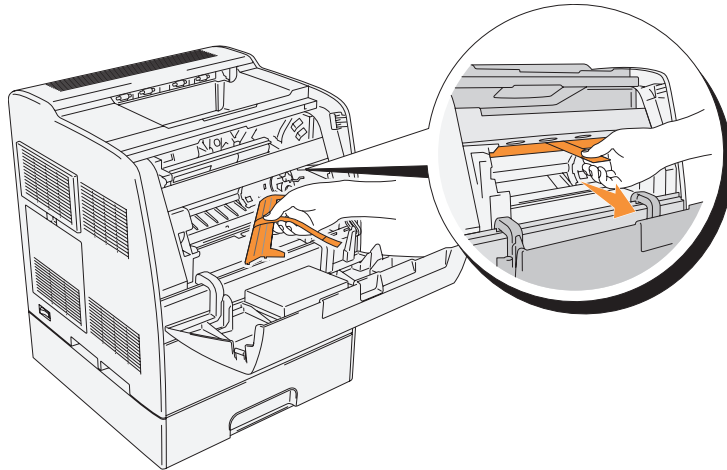
1. After confirming the "Insert Black Toner(K)" message, open the front door.



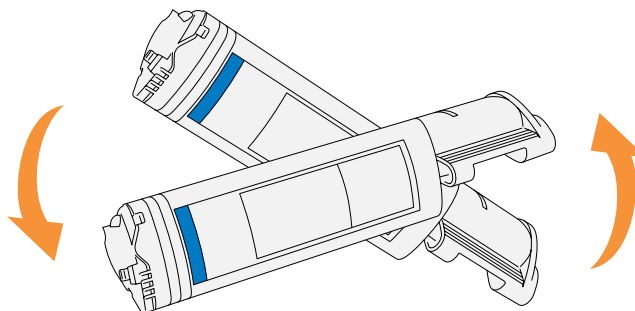
2. Hold the tape on the protective cover and pull it forward to remove the cover from each cartridge slot.

NOTE

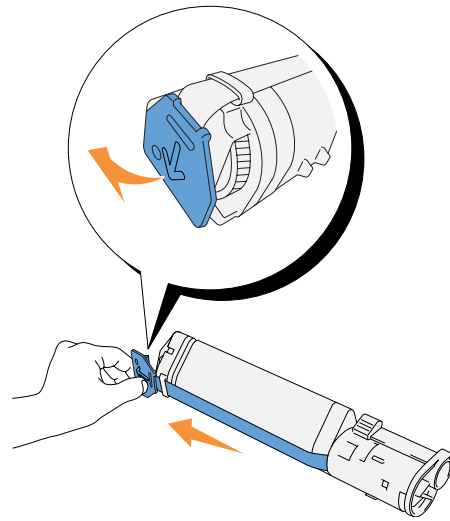
- You need to remove the protective cover only the first time that you install the toner.
- Dispose of the protective cover after you remove it.
- The protective cover is attached to each toner cartridge mount.



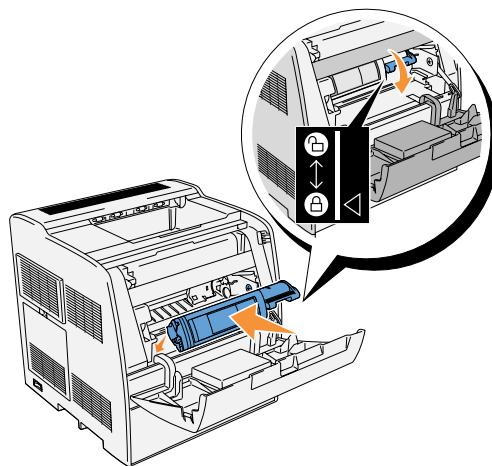
3. Make sure the color of the toner cartridge matches the slot on the toner cartridge carrier. The order is K, Y, M, C. Gently shake the cartridge to distribute the toner evenly.



4. Lift the tab up 90 degrees and pull the toner seal straight off, keeping it parallel with the toner cartridge.



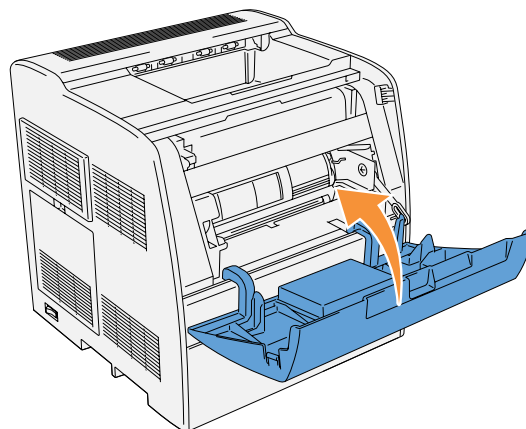
5. To insert the toner cartridges, align the arrows on the cartridge with the corresponding arrows on the printer. Guide the cartridge in until it snaps into place and then push down the handhold to lock the cartridge in place.



6. Close the front door.

NOTE

Make sure the toner cartridge is installed correctly. Otherwise, the front door cannot close firmly.

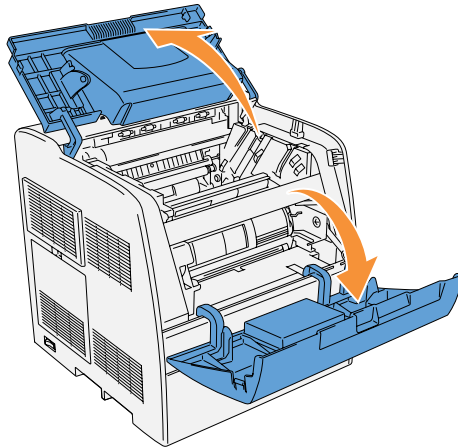


- 7. The toner cartridge carrier rotates to the next empty slot. When the color of the newly inserted cartridge appears on the display, followed by the Insert message, insert the next toner cartridge.**

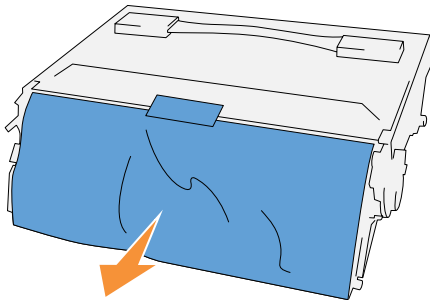
- 8. Repeat steps 1 through 7 when inserting the remaining cartridges.**

Installing the Drum Cartridge

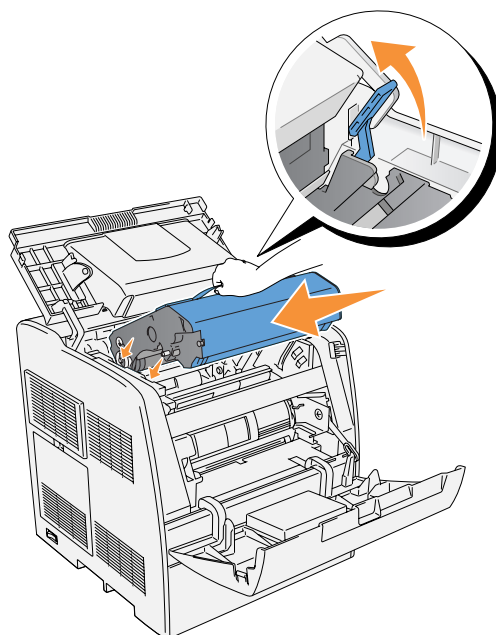
1. When the Insert Drum Cartridge message appears, open the front door, then lift and push back the top cover.



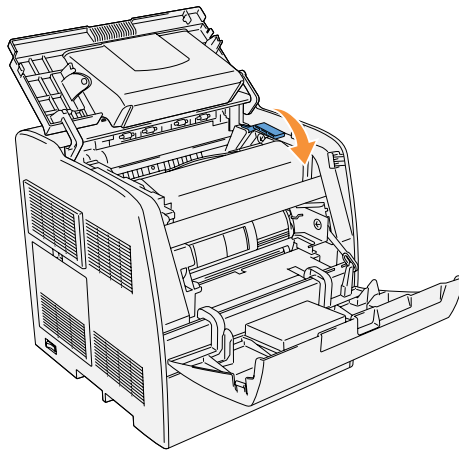
2. Remove the protective sheet from the drum cartridge.



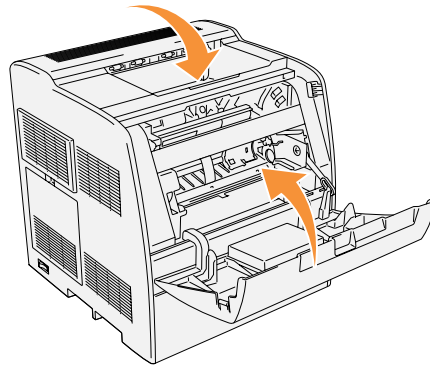
3. To insert the drum cartridge, push up the lever on the right side of the printer. With the lever in the upright position, hold the drum cartridge by the handle, align the arrows on the drum cartridge with the corresponding arrows on the printer and guide the cartridge in until it snaps into place.



4. Pull down the lever on the right to lock the drum cartridge in place.



5. Close the top cover, then the front door.



NOTE

After installing the drum cartridge, the printer makes an adjustment for about one to two minutes. Do not turn off the printer during this time.

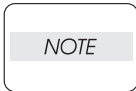
Installing the Optional Tray Module



If you are adding an optional 250-sheet tray module or 500-sheet tray module after setting up the printer, be sure to turn off the printer, unplug the power cable, and disconnect all cables from the back of the printer before completing these tasks.

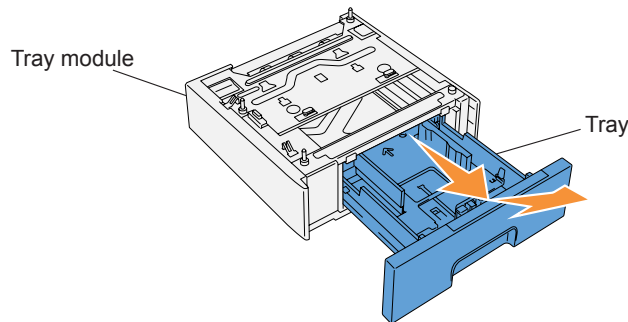
- Optional 250-sheet tray modules attach under the printer and up to two additional trays can be added.
- The optional 500-sheet tray module attaches under the optional 250-sheet tray module and only one additional tray can be added.

Some instructions may vary depending on the tray module configuration in your printer.

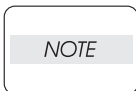


Some tray module configurations differ from those described in this manual.

1. Unpack the tray and remove all packing material and tape.

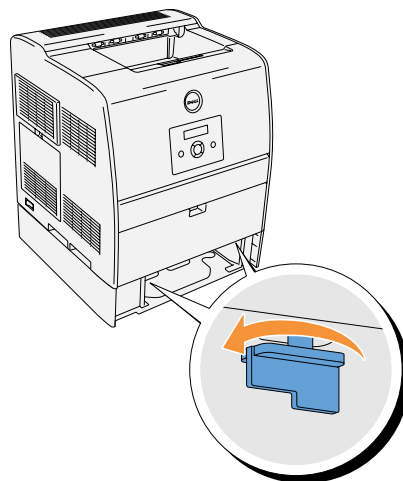


2. Place the tray module in the location that you would like the printer to be located.



You will place the printer on the tray in a later step.

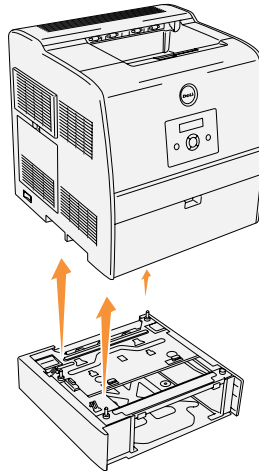
3. Turn off the printer.
4. If there are any trays already attached to the printer, unlock the tray from the printer by removing the tray from the tray module and turning the locking mechanism, inside the printer, as shown in the graphic.



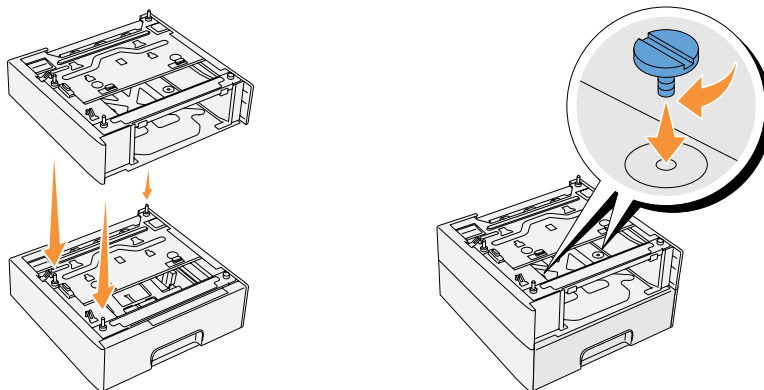
5. Remove the printer from the tray.



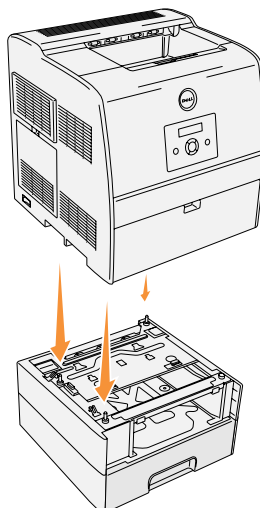
Lift the printer with two people, one facing the front of the printer (operator panel side) and the other facing the back. Never try to lift the printer while facing its right and left side.



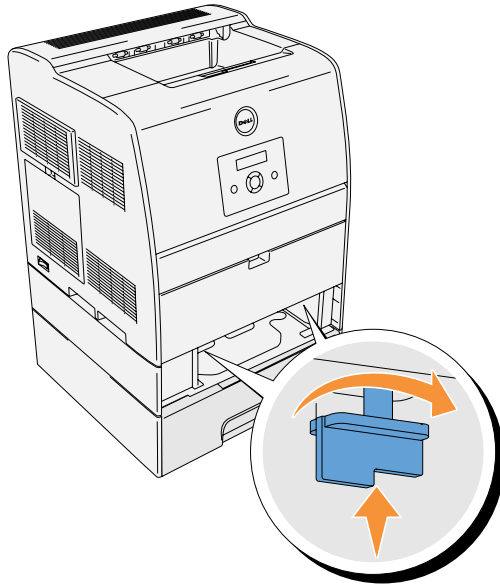
6. Attach the trays together by installing the optional tray you just removed on top and inserting the two screws provided. Tighten the screws with a coin until they are secure.



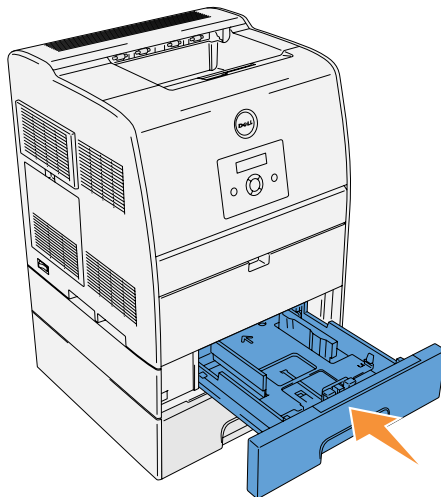
7. Place the printer on top of the tray module(s).



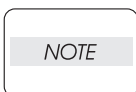
8. Lock the tray(s) into place by removing the top tray from the tray module and rotating the locking mechanism as shown in the graphic.



9. Replace all trays and load the paper.



10. Turn on the printer.



The printer will automatically detect the attached tray(s) but will not detect the paper type.

11. Print a Printer Settings page to verify the optional 250-sheet tray module or 500-sheet tray module is installed correctly.

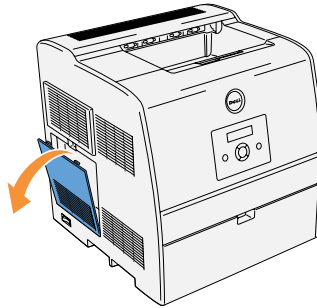
Installing a Memory Card

Your printer supports 64, 128, 256, and 512 MB additional memory cards.

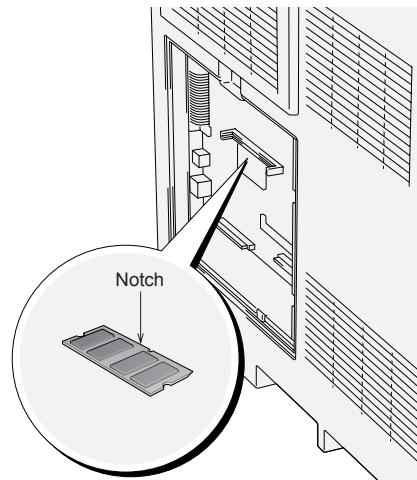
NOTE

The 64 MB memory card comes with the optional duplex module. Before you use the optional duplex module, you need to install the 64 MB memory card on the printer. If you already have an existing memory card installed on the printer, you do not have to use the 64 MB memory card provided with your duplex module.

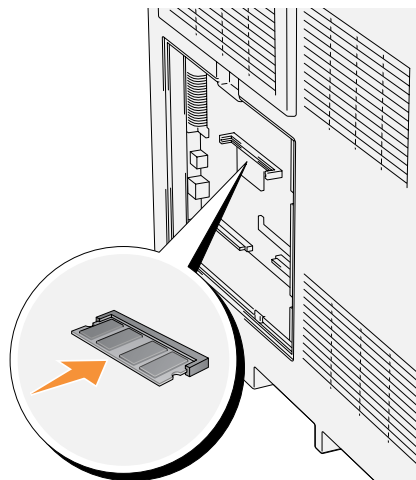
1. Make sure that the printer is turned off.
2. Remove the control board cover on the left side of the printer by pulling the notch.



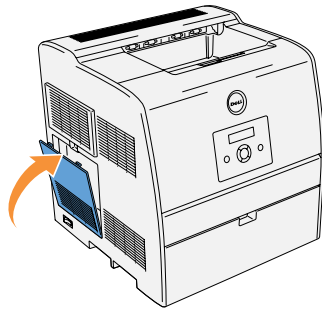
3. Hold the memory card so the notch is aligned with the projection on the slot.



4. Push the memory card into the slot firmly.



5. Reattach the control board cover to the printer.



Installing Printer Drivers

Connecting the Printer to the Computer Before Inserting the Drivers and Utilities CD

Windows 2000, XP, and Server 2003

1. Connect your printer to your computer.
2. When the Found New Hardware Wizard appears, click Cancel.
3. Insert the Drivers and Utilities CD into your computer.
4. Click Personal Installation.
5. Click Install. The Found New Hardware Wizard appears.
6. Click Next. The wizard automatically finds and installs the corresponding printer driver.
7. When the Complete the Found New Hardware Wizard screen appears, click Finish.
8. Select either the Typical Installation or Custom Installation checkbox, and then click Next.
If you select Custom Installation, you can select the specific software you want to install.
9. When the Congratulations! screen appears, in Windows 2000, Windows XP, and Server 2003, click Printer Test Page. Click Finish.
10. Click Cancel.

Network Set-Up

NOTE

For additional network set-up configurations, refer to your User's Guide.

Print and Check the Printer Settings Page

1. Print the Printer Settings page.
 - a. When ready to Print appears in the LCD, press **Menu**.
 - b. Press ▼ until Configure appears, and then press ► or ↵.
 - c. Press ▼ until Reports appears, and then press ► or ↵.
 - d. Printer Settings is displayed. Press ↵.
The Printer Settings page is printed.
2. Under the TCP/IP heading, verify the IP address.
If the IP address is 0.0.0.0, wait for a few minutes to resolve the IP address automatically, and then print the Printer Settings page again.

Run the Installation Software

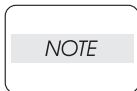
1. Insert the *Drivers and Utilities* CD into your computer.
2. The *Drivers and Utilities* CD should launch the installation software automatically.
If the CD does not automatically launch, click **Start** → **Run**, type D: \CDFE.exe (where D is the drive letter of your CD), and then click **OK**.
3. When the *Drivers and Utilities* CD screen appears, click **Network Installation - Install the printer for use on a network**. If using Windows XP, Windows 2000, Windows NT4.0, or Windows 2003 Server, go to step 4. For all other operating systems, go to step 5.
4. For local installation, select **Local Installation - Install printer on this computer**, and then click **Next**.
For remote installation:
 - a. Select **Remote Installation - Install printer on one or more remote computers**, and then click **Next**.
 - b. Enter your Administrator user name, password, and clients or servers and then click **Add**.
 - c. Click **Next**.
5. Select the network printer you would like to install. If you do not see your printer listed, click **Update** to refresh the list or click **Add Printer** to add a printer to the network. You may update the IP address and port name at this point. Click **Next**.
6. Select your printer from the list. If you would like to change the printer name listed, enter a new name in the Printer Name field.
7. If you want other users on the network to access this printer, select **Share this printer with other computers on the network**, and then enter a share name that users will easily identify.
8. If you want to set a printer as the default, select the printer and then click the **Set this printer as default** check box.
9. If you want to restrict color printing, select the appropriate **Color Track** option. Enter the password.
10. Click **Next**.

11. Select the software and documentation you want to install. You can specify the destination folder to install the Dell software and documentation. To change the destination folder, click **Browse...**

12. Click **Next**.

13. When the **Congratulations!** screen appears, select whether or not to restart your computer, and then click **Finish**.

Use the **Dell Printer Configuration Web Tool** to monitor the status of your network printer without leaving your desk. You can view and/or change the printer configuration settings, monitor toner level, and when it is time to order replacement toner cartridges, just click the Dell supplies link right from your Web browser.



The **Dell Printer Configuration Web Tool** is not available when the printer is locally attached to a computer or a print server.

To launch the **Dell Printer Configuration Web Tool**, type the network printer IP address in your Web browser, and the printer configuration appears on the screen. Refer to your User's Guide for more information.

You can set up the **Dell Printer Configuration Web Tool** to send you an email when the printer needs supplies or intervention.

To set up email alerts:

1. Launch the **Dell Printer Configuration Web Tool**.
2. Click **E-Mail Alert** link.
3. Under **Setup E-Mail Lists and Alerts**, enter the **Primary SMTP Gateway**, the **Reply Address**, and enter your email address or the key operator's email address in the email list box.
4. Click **Apply New Settings**.

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Chapter 2 Operation of Diag. CONTENTS

1. Overview

1.1 Position of the Diag. in the Whole System

Major functions of this diag. are as follows:

- ESS diagnosis to locate a chip which causes a problem
- IOT diagnosis
- Setting of parameters for registration in paper feeding direction and so on.

2. Configuration

The diagnosis provides three modes that have their respective uses (purposes), target operators, and functions.

Shipping Mode:

This mode intends to be used in the production line with the purpose to locate a chip that causes a problem.

Diagnosis time in the mode shall be as short as possible with consideration of production cost.

The mode shifts to the Developer mode (described later) after the ESS diagnosis.

This mode is protected password.

Customer Mode:

This mode intends to be used by customer who handle problems in field with the purpose to locate a replaceable unit that causes a problem.

Sorting problems on the basis of parts that can be replaced by the customer support center.

This is the base of this mode design, and that is why so many features.

The mode allows the user to execute the ESS diagnosis, test prints, parameter settings and so on through the control panel.

Developer/CE (Customer Engineer) Mode:

This mode is for debugging by developers or CEs. It intends to be partially used in the production line.

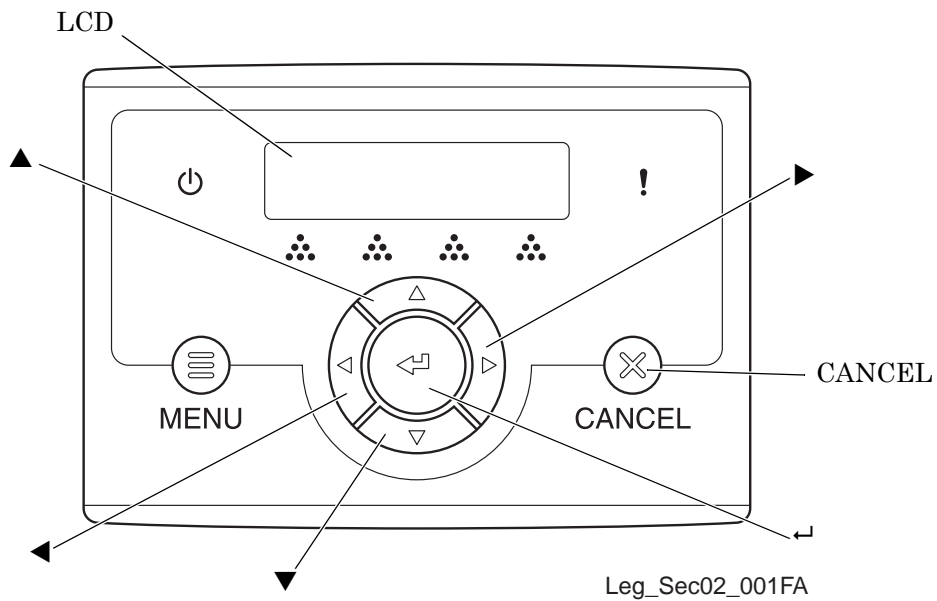
The mode allows the user to execute the ESS diagnosis, test prints, parameter settings and so on through the debug terminal.

The functions are activated by commands sent from the serial terminal. Special tool (FX internal debugging terminal) is required to operate Developer mode.

This mode is protected password.

3. How to use Diag. Customer Mode

3.1 Roles of the control panel in Diag.



[LCD]: Displaying a diagnosis item and its result

[▲], [▼]: Selecting a diagnosis item/Selecting data at parameter setting

[◀], [▶]: Key moves the cursor to the left/right

[↵]: Determining a diagnosis item/Executing a diagnosis/Determining a parameter at parameter setting

[CANCEL]: Resetting a diagnosis item (Returning to the menu one level higher)

Terminating each digital output

3.2 Entering diag. Customer mode

- 1) The power is turned off.
- 2) The power is turned on while holding down “▼” and “▲” keys.
- 3) Release the keys when “Diagnosing” is displayed.
- 4) The “Customer Mode” and “ESS” are displayed. (Entered the diag.)

3.3 Selecting Diag. item

The diag. setting items are configured as menus, which can be operated with the control panel keys. Arrow keys select menu items and “↵” key activates functions.

3.4 Change method parameters value

For parameter setting, pressing “↵” key after selecting an item from the menu displays the current setting value of the item. Then a numeric value selected by “▼” and “▲” keys are written into the NVM by “↵” key.

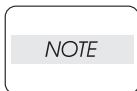
3.5 Executing/Exiting Diag. mode

The diagnosis can be executed by as follows.

- 1) A test item is displayed. “↵” key fixed the test item.
- 2) The display prompts the user to start the test. Press “↵” key and start the test.

The diagnosis can be stopped by as follows.

- 1) During the diagnosis test, press “CANCEL” key.
- 2) The diagnosis is stopped, and the display indicates the first item of the menu.

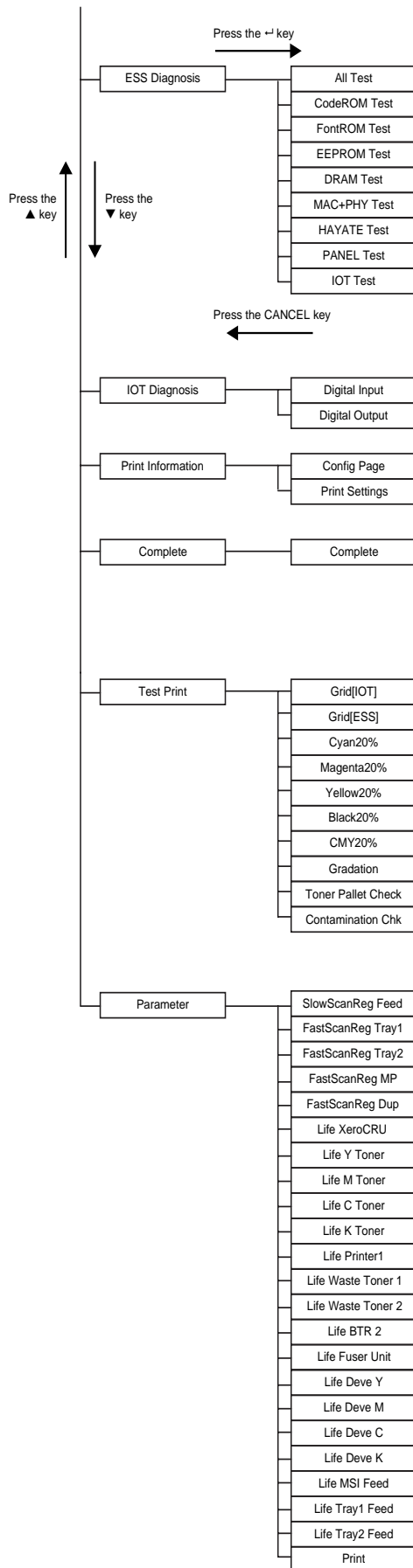


If an error occurs during the diag. sequence, the diagnosis displays the error and stops, leaving the remaining items unperformed.

Pressing “CANCEL” or “↵” key releases the error display, and then the menu items are displayed.

3.6 Diag. mode menu tree

Menu Tree of the Customer Mode is as follows



4. The kind of diag. and contents of a test

The diagnosis/setting items which can be performed in the Customer mode are as follows.

menu	Function	Description
ESS Diagnosis	CodeROM Test	Calculates the ROM checksum and compares it with the value stored in the ROM. Executes this test when the 016-317 error occurred. Test result: NG (Go to the FIP.) OK (Turn off/on the main power.)
	FontROM Test	Calculates the Font ROM checksum and compares it with the value stored in the FontROM. Executes this test when the 016-310 error occurred. Test result: NG (Go to the FIP.) OK (Turn off/on the main power.)
	EEPROM Test	Performs write/read/verify on the diag. area of the EEPROM . Executes this test when the 016-323 and 016-327 errors occurred. Test result: NG (Go to the each FIP.) OK (Turn off/on the main power.)
	DRAM Test	Tests OPEN/SHORT with the address line of the DRAM. Performs write/read/verify on the entire DRAM . Executes this test when the 016-315, 016-316, 016-318 and 016-332 errors occurred. Test result: NG (Go to the each FIP.) OK (Turn off/on the main power.)
	MAC+PHY Test MAC:Media Access Control PHY:Physical Layer	PHY Internal loopback test Executes this test when the 016-334, 016-340, 016-344 and 016-346 errors occurred. Test result: NG (Go to the each FIP.) OK (Turn off/on the main power.) Note:The connector is necessary to execute this test. (Refer to 4.1.5)
	HAYATE(ASIC) Test	Register check Executes this test when the 016-313 error occurred. Test result: NG (Go to the FIP.) OK (Turn off/on the main power.)
	Control panel Test	Tests the LED, LCD, and buttons of the control panel.
	IOT Test	Communication test with the IOT Executes this test when the 016-370 error occurred. Test result: NG (Go to the FIP.) OK (Turn off/on the main power.)

menu	Function	Description
ESS Diagnosis	ALL Test	Executes the ESS diagnosis except the following. MAC+PHY/Control panel
Test Print	Grid[IOT]	Prints the IOT built-in grid pattern. When the PQ problem occurred, this test enables to identify the problem as the printing process or the PWBA ESS-related. Compare the sample chart (refer to 4.2.2) with the print. Check result: NG (Check the printing process.) OK (Check the PWBA ESS-related.)
	Grid[ESS]	Prints the ESS built-in grid pattern. When the PQ problem occurred, this test enables to identify the problem as printer-related or otherwise. Compare the sample chart (refer to 4.2.3) with the print. Check result: NG (Check the printing process and the PWBA ESS-related.) OK (Check the network, the cable the PC and so on.)
	Cyan 20%	Outputs cyan 20% paint on the whole area of a paper. When the PQ problem occurred, this test enables to identify the problem as the cyan toner or another color. Compare the sample chart (refer to 4.2.4) with the print. Check result: NG (Check the cyan toner-related) OK (Check another color.)
	Magenta 20%	Outputs magenta 20% paint on the whole area of a paper. When the PQ problem occurred, this test enables to identify the problem as the magenta toner or another color. Compare the sample chart (refer to 4.2.4) with the print. Check result: NG (Check the magenta toner-related) OK (Check another color.)
	Yellow 20%	Outputs yellow 20% paint on the whole area of a paper. When the PQ problem occurred, this test enables to identify the problem as the yellow toner or another color. Compare the sample chart (refer to 4.2.4) with the print. Check result: NG (Check the yellow toner-related) OK (Check another color.)

menu	Function	Description
Test Print	Black 20%	<p>Outputs black 20% paint on the whole area of a paper.</p> <p>When the PQ problem occurred, this test enables to identify the problem as the black toner or another color.</p> <p>Compare the sample chart (refer to 4.2.4) with the print.</p> <p>Check result: NG (Check the black toner-related) OK (Check another color.)</p>
	CMY 20%	<p>Outputs C/M/Y 20% paint on the whole area of a paper.</p> <p>When the PQ problem occurred, this test enables to identify the problem as the balance of the three color toners or the otherwise.</p> <p>Compare the sample chart (refer to 4.2.4) with the print.</p> <p>Check result: NG (Check the problem toner-related) OK (Check another color.)</p>
	Gradation	<p>Outputs the tone pattern from 2% to 100% on a paper for each of 4 colors.</p> <p>When the PQ problem occurred, this test enables to identify the problem as the printing process or the PWBA ESS-related.</p> <p>Compare the sample chart (refer to 4.2.5) with the print.</p> <p>Check result: NG (Check the printing process.) OK (Check the PWBA ESS-related.)</p>
	Toner Pallet Check	<p>Outputs the Y/M/C/K 100% color band.</p> <p>When PQ problem occurred in the picture or photo printing, this test enables to identify the problem as the toner or another.</p> <p>Compare the sample chart (refer to 4.2.6) with the print.</p> <p>Check result: NG (Check the problem toner-related) OK (Check the print job or the print data.)</p>
	Contamination Check	<p>Allows you to check the print for any regular lines or toner spots when encountering print quality problems.</p> <p>From the difference in the interval of regular lines or spots, you can determine the parts that have caused the trouble.</p> <p>Page 1 to 4: Scales in vertical and horizontal directions for evaluating regularity and intervals.</p> <p>Page 5: List of intervals by component fault. (refer to 4.2.7)</p>

menu	Function	Description
IOT Diagnosis	DI Test	Digital input component test When a paper jam, the error message and code occurred, execute this test to locate the damaged parts. The test will execute the DI Test codes of the components that are supposed to be faulty from the error details. (Refer to Chapter 1 FIP) Test result: NG (Go to the FIP or replace the parts.) OK (Turn off/on the main power.)
	DO Test	Digital output component test When the paper jam, error message, the error code and the PQ problem occurred, this test enables to look for the broken or damaged parts. Test result: NG (Go to the FIP or replace the parts.) OK (Turn off/on the main power.)
Parameter Setting	Registration adjustment in scanning direction	Adjusts the registration in laser beam scanning direction for each of Tray 1, Tray 2, Duplex, and MSI. The Registration Adjustment regulates the printing position of the image to be printed on the sheet. The Fast Scan regulates the ROS as to the printing start position of the image data, and the Slow Scan regulates the toner image transfer position in accordance with the feed timing of the sheet.
	Life counter (Read only)	Reads the life counters of the Toner, BTR, Fuser, and printer. Allows you to check the current count reading of mandatory-replacement parts or consumables. By comparing the values on the Life Warning Table with the current count reading, you can check whether or not or how soon you need to replace the parts.
Print Information	Configuration Page	The version of software of IOT and the printer configuration can be confirmed by executing this test.
	Print Setting	The service tag, the printing count value and the error count value can be confirmed by executing this test.
Complete	Complete	Completes the diag. operation and reboot the data.

4.1 Details of ESS Diagnosis

This section describes what is performed in each test of the ESS diagnosis in detail.

4.1.1 Executing ESS Diagnosis

- 1) The power is turned off.
- 2) The power is turned on while holding down “▼” and “▲” keys.
- 3) Release the keys when “Diagnosing” is displayed.
- 4) The “Customer Mode” and “ESS Diagnosis” are displayed. (Entered the Diagnosis.)
- 5) Press “↵” key.
- 6) Press “▼” key to select the test item.
- 7) Press “↵” key twice. (Executed the test)

4.1.2 CodeROM Test

This test calculates the checksum of the each ROM, and compares it with the valid checksum value stored in the corresponding chip beforehand. When the checksum is identical to the stored value, this test judges the chip is normal.

Normal	Error
CHECK OK	CodeROM #* ERROR S=xxxx V=yyyy (xxxx:calculated value yyyy:ROM stored value #*:0,1)

4.1.3 FontROM Test

This test calculates the checksum of the each FontROM, and compares it with the valid checksum value stored in the corresponding chip beforehand. When the checksum is identical to the stored value, this test judges the chip is normal.

Normal	Error
CHECK OK	FontROM ERROR S=xxxx V=yyyy (xxxx:calculated value yyyy:ROM stored value)

4.1.4 EEPROM Test

When this test reads a predefined address of the EEPROM and does not find the initialization mark, it performs read/write/verify of the increment data for the whole area of the EEPROM. If the initialization is completed, the test performs read/write/verify of the test patterns (0xffffffff, 0xaaaaaaaa, 0x55555555, 0x00000000) for the area used by the diagnosis except the area for the mark.

Normal	Error
CHECK OK	EEPROM ID* ERROR (ID*:1,2)

4.1.5 DRAM Test

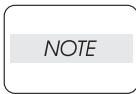
When the optional DRAM DIMM is checked and found, it checks the optional memory area.

First, the test performs read/write/verify of the increment data for the whole tested area by the word. Then, it performs read/write/verify of the test patterns (0xffffffff, 0xaaaaaaaa, 0x55555555, 0x00000000) for the whole tested area by the word.

Normal	Error
CHECK OK	DRAM slot* ERROR (* : 0,1)

4.1.6 MAC+PHY Test

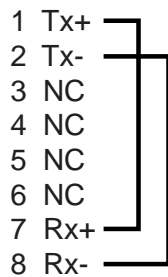
PHY Internal loopback test



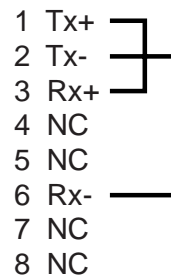
Loop back test shall be conducted with a jumper wire connected on the board or by connecting to an external general purpose connector. This test is for the technical staff.

A wiring example is shown below.

PIN location on the board

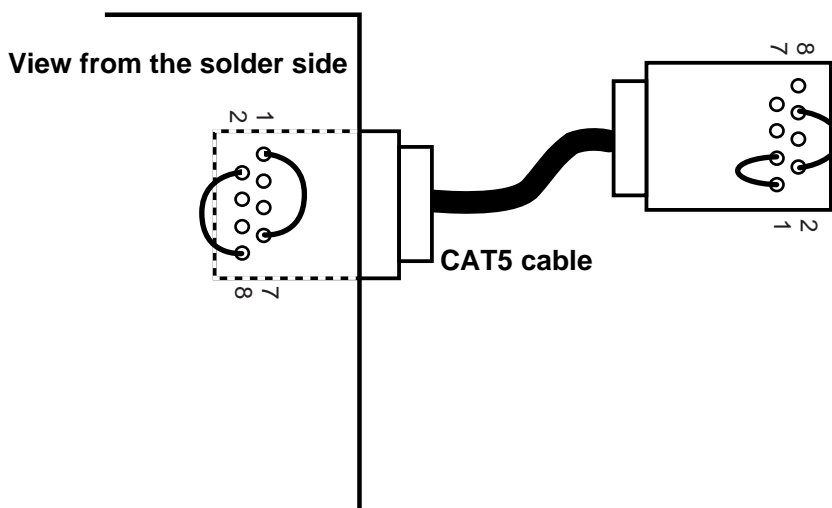


PIN location on the general purpose connector



In the case of installing a jumper wire on the board

In the case of connecting to a general purpose connector



4.1.7 HAYATE Test

HAYATE (ASIC) register (HAYATE Status Register) check.

Normal	Error
CHECK OK	HAYATE ERROR

4.1.8 Control Panel Test

This test checks input and output of the control panel. When buttons are pressed in the manner shown in the following table, the test displays the corresponding contents on the LED and LCD.

Button	LED	LCD
▲	■ ■	Displays " UP " on the LCD.
▼	■ ■	Displays " DOWN " on the LCD.
◀	■ □	Displays " LEFT " on the LCD.
▶	■ □	Displays " RIGHT " on the LCD.
↵	□ ■	Displays " SET " on the LCD.
MENU	□ ■	Displays " MENU " on the LCD.
CANCEL	□ □	Displays " CANCEL " on the LCD.
▲ ▼ pressed at the same time	- (The test is completed)	- (The test is completed)

□□ Indicates left side square is the Ready LED (Green) and right side square is the Alarm LED (Amber). □Not lighting ■lighting

4.1.9 IOT Test

This test checks communication with the IOT. Then it reads the status register of the IOT to check whether commands can be exchanged with the IOT.

It sends the following command to read the status register, and checks whether the appropriate response returns.

Read ROM Revision No

Normal	Error
CHECK OK	IOT ERROR

4.2 Test Print

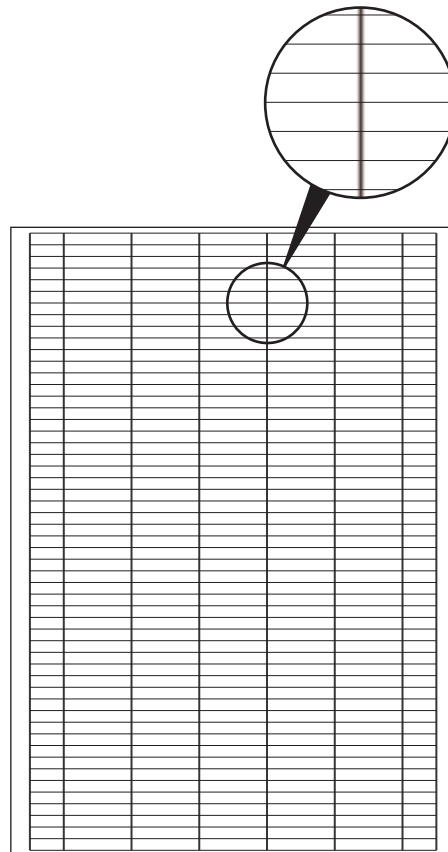
Printing an internal test pattern of the printer. If paper jam or paper empty occurs during the print, the test waits until they are resolved.

4.2.1 Executing Test Print

- 1) The power is turned off.
- 2) The power is turned on while holding down “▼” and “▲” keys.
- 3) Release the keys when “Diagnosing” is displayed.
- 4) The “Customer Mode” and “ESS Diagnosis” are displayed. (Entered the Diagnosis.)
- 5) Press “▼” key to display “Test Print” and then press the “↵” key.
- 6) Press “▼” key to select the test item.
- 7) Press “↵” key twice. (Executed the test)

4.2.2 Grid[IOT]

This function prints the MCU PWB built-in grid pattern. It checks the print function of the IOT.



Leg_Sec02_003FA

4.2.3 Grid[ESS]

This function prints the ESS PWB built-in grid pattern.

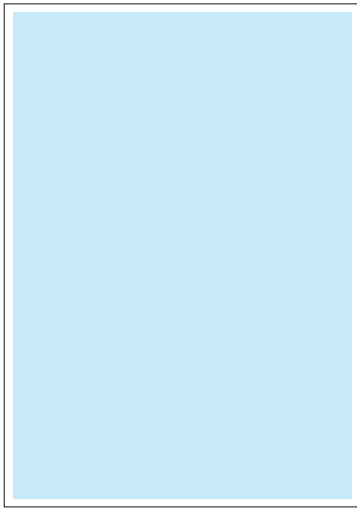


Leg_Sec02_004FA

4.2.4 20% Density Chart

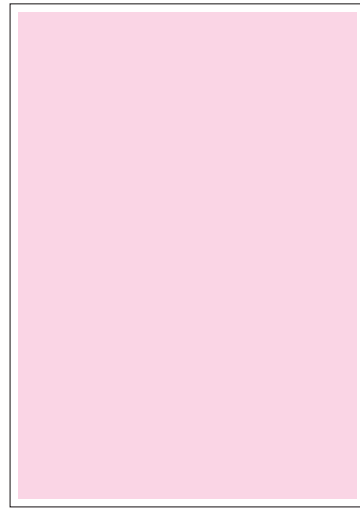
This function prints a 20% density paint pattern for each of cyan, magenta, yellow, black and mixed CMY on the whole area of the sheet.

Cyan 20%



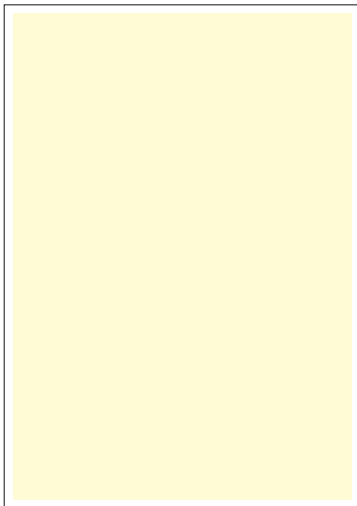
Leg_Sec02_005FA

Magenta 20%



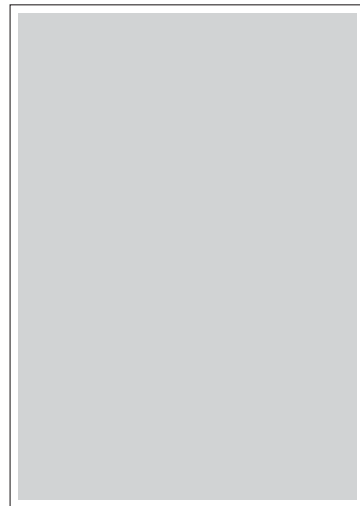
Leg_Sec02_006FA

Yellow 20%



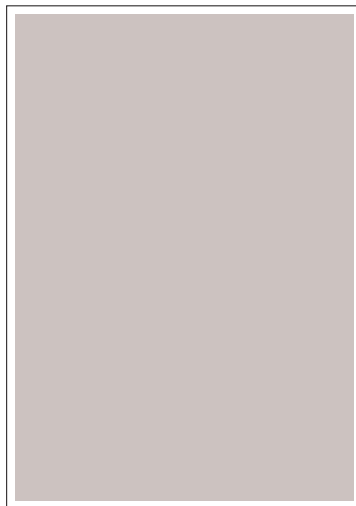
Leg_Sec02_007FA

Black 20%



Leg_Sec02_008FA

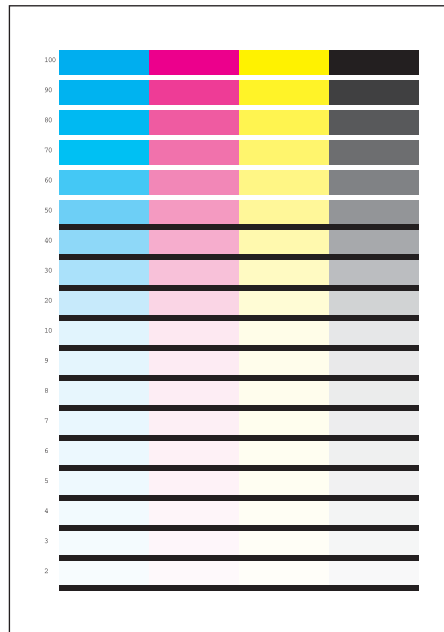
CMY 20%



Leg_Sec02_009FA

4.2.5 Gradation

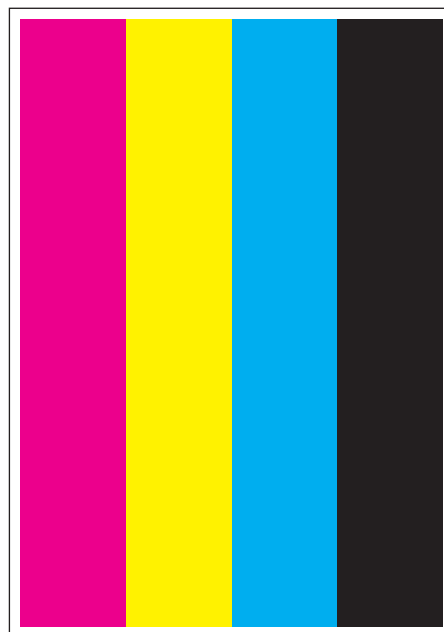
This function prints a pattern in which the density of each of cyan, magenta, yellow, or black is varied from 2 to 100%.



Leg_Sec02_010FA

4.2.6 Toner Pallet Check

This function prints a 100% density pattern for each of cyan, magenta, yellow and black on a sheet.

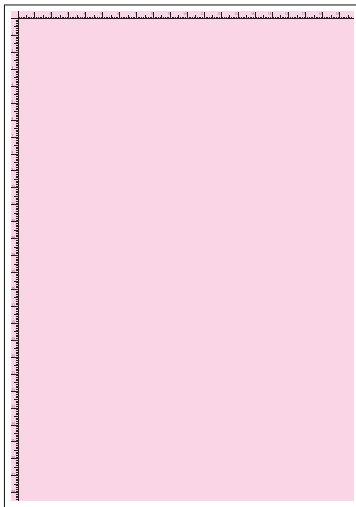


Leg_Sec02_011FA

4.2.7 Contamination Check

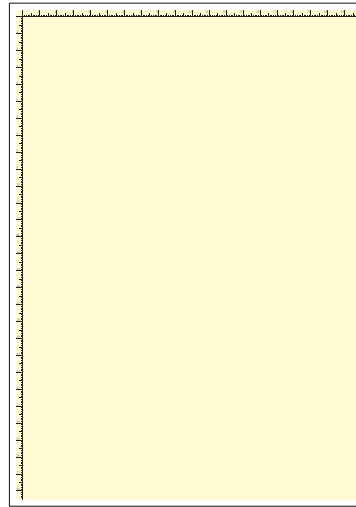
This function prints the scales of vertical and horizontal to a sheet.

Page 1



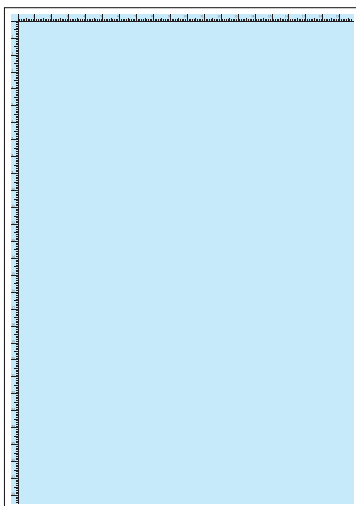
Leg_Sec02_012FA

Page 2



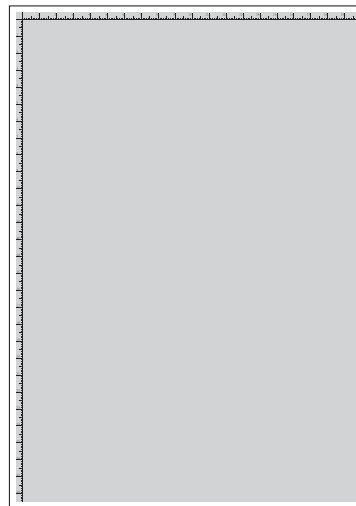
Leg_Sec02_071FA

Page 3



Leg_Sec02_072FA

Page 4



Leg_Sec02_073FA

Page 5

Color Laser 3000cn Components/CRU

Pitch (interval)	Dell Component Name
148mm	Drum Cartridge
38mm	Drum Cartridge
31mm	Drum Cartridge
26mm	Drum Cartridge
51mm	2 nd Bias Transfer Roll (BTR) Assembly
83mm	Fuser
94mm	Fuser
53mm	Fuser
26mm	Developer Housing
39mm	Developer Housing

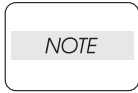
4.3 Printer Diag.

4.3.1 Digital Input (DI) Test

This function checks whether the DI components operate normally or not.

The DI test is performed for all the DI components.

Exit operation of the DI test makes the control panel display the Customer diag. function menu.



During the DI test, other Customer diag. functions can not be performed simultaneously.

Therefore, the printer does not accept any operation except operations for the DI components and exit operation of the DI test.

At the start of the DI test, number “ 0 ” is displayed on the control panel. This number is counted up when a DI component is turned on from off, therefore it allows the user to know the component is active.

4.3.2 Executing Digital Input (DI) Test

- 1) The power is turned off.
- 2) The power is turned on while holding down “▼” and “▲” keys.
- 3) Release the keys when “Diagnosing” is displayed.
- 4) The “Customer Mode” and “ESS Diagnosis” are displayed. (Entered the Diagnosis.)
- 5) Press “▼” key and display “IOT Diag” and press the “↵” key.
- 6) Press “▼” key to display “Digital Input” and then press “↵” key.
- 7) Press “▼” key to select the test item and then press “↵” key twice. (Executed the test)

Parameters for the Digital Input Test are as follows.

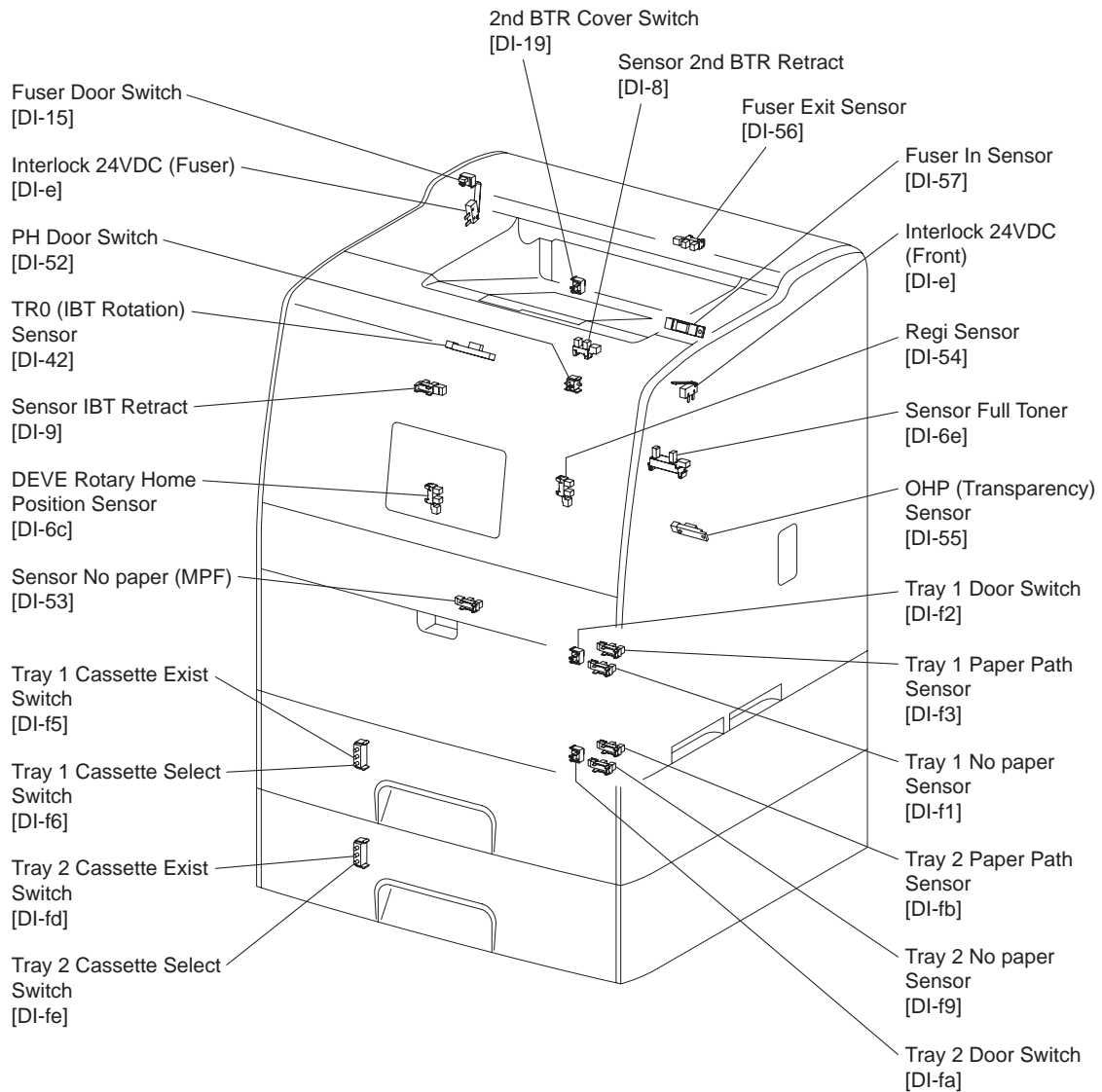
Code(HEX)	Code_DI	Menu No.
08	Sensor 2nd BTR Retract	DI- 8
09	Sensor IBT Rtract	DI- 9
0E	Interlock 24VDC	DI- e
15	Fuser Door Switch	DI-15
19	2nd BTR Cover Switch	DI-19
42	Sensor TR0	DI-42
52	PH Door Switch	DI-52
53	Sensor No Papaer (MPF)	DI-53
54	Regi Sensor	DI-54
55	OHP Sensor	DI-55
56	Fuser Exit Sensor	DI-56
57	Fuser In Sensor	DI-57
6C	Home Sensor	DI-6c
6E	Sensor Full Toner	DI-6e
F0	Tray1 Type (Internal signal)	DI-f0
F1	Tray1 No Paper Sensor	DI-f1
F2	Tray1 Door Switch	DI-f2
F3	Tray1 Paper Path Sensor	DI-f3
F5	Tray1 Cassette Exist	DI-f5
F6	Tray1 Cassette Select	DI-f6
F8	Tray2 Type (Internal signal)	DI-f8
F9	Tray2 No Paper Sensor	DI-f9
FA	Tray2 Door Switch	DI-fa
FB	Tray2 Paper Path Sensor	DI-fb
FD	Tray2 Cassette Exist	DI-fd
FE	Tray2 Cassette Select	DI-fe

4.3.3 Exiting Digital Input (DI) Test

- 1) Press “Cancel” key to stop the DI Test.
- 2) Press “Menu” key and “Cancel” key to exit DI Test mode. (“IOT Diag.” is displayed.)
It is a procedure for shifting from Diag. mode to the normal mode as follows.
- 3) Press “▼” key twice to display “Complete”
- 4) Press “↵” key three times to exit Diag.mode.

4.3.4 How to check sensors and switches

-Parts Location

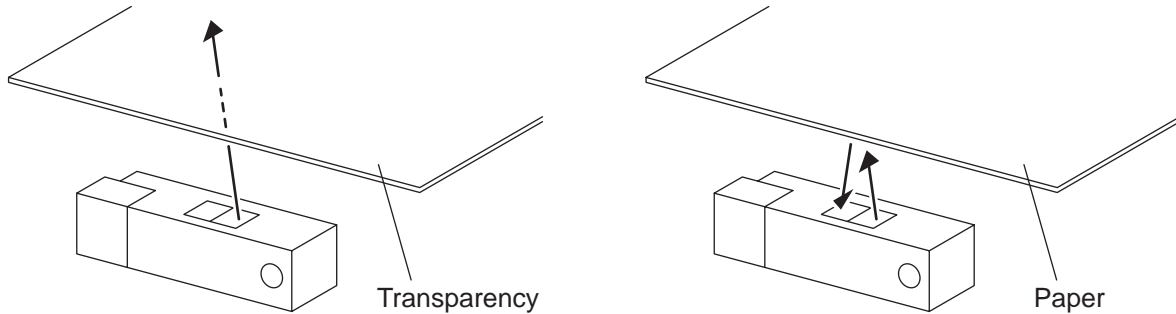


Leg_Sec02_013FA

-About Sensor

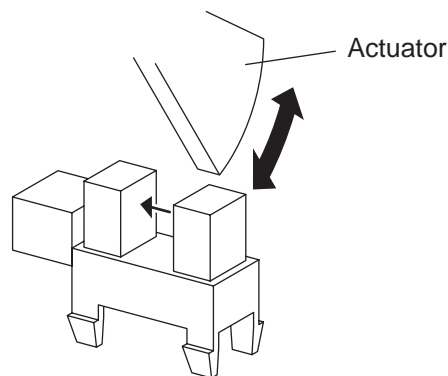
The sensors in the printer are reflective type and transmissive type.

A reflective sensor detects, on the basis of whether or not the light is reflected by the sheet, the paper absence/presence or the sheet type such as OHP transparency or others.



Leg_Sec02_015FA

A transmissive sensor is composed of the light-emitting side and the light-receiving side that are placed opposed to each other allowing the light to pass from the former to the latter. On the basis of whether or not the light path is blocked due to the actuator, etc., the sensor detects the paper absence/presence or the moving part position such as at the home position or elsewhere.



Leg_Sec02_016FA

Shown in the table below are the correspondence between the sensors and the types.

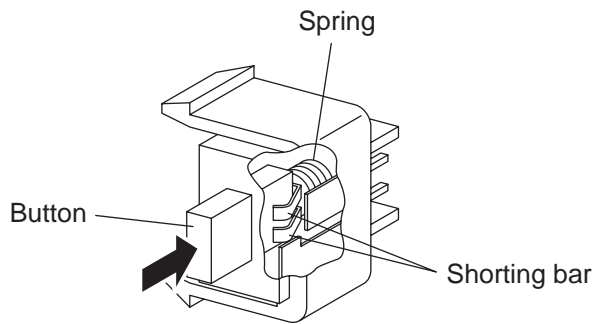
Reflective type (Diag. Code)	Transmissive type (Diag. Code)
TR0 (IBT Rotation) Sensor (DI-42) OHP (Transparency) Sensor (DI-55) Fuser In Sensor (DI-57)	Sensor 2nd BTR Retract(DI-8) Sensor IBT Retract (DI-9) Sensor No paper (MPF) (DI-53) Regi Sensor (DI-54) Fuser Exit Sensor (DI-56) DEVE Rotary Home Position Sensor (DI-6c) Sensor Full Toner (DI-6e) Tray 1 No paper Sensor (DI-f1) Tray 1 Paper Path Sensor (DI-f3) Tray 2 No paper Sensor (DI-f9) Tray 2 Paper Path Sensor (DI-fb)

-About the Switch

The switches provided in the printer are the push-switch detecting close/open of the door or cover and the micro-switch for safety interlock to safeguard the user.

A push-switch closes the internal contacts via the plunger that is pushed down by the actuator of the cover or door that is being closed.

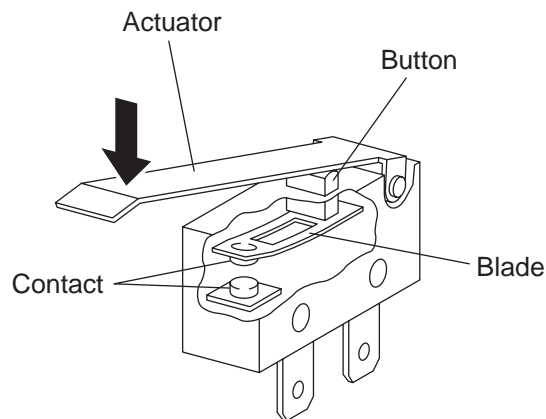
When the door or cover has been opened, the plunger is pushed up by the spring in the switch allowing the internal contacts to open.



Leg_Sec02_017FA

A micro-switch closes the internal contacts via the button which is pushed down under the provided leaf spring which is held down by the actuator of the cover or door that is being closed.

When the door or cover has been opened, the leaf spring returns to its original position and the button is pushed up by the spring in the switch, allowing the internal contacts to open.



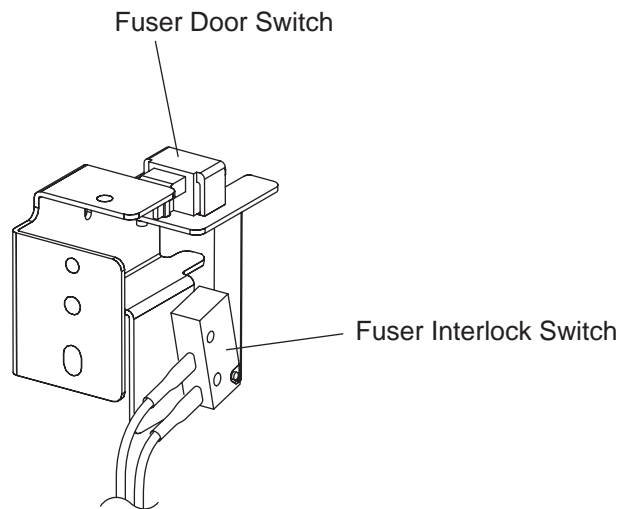
Leg_Sec02_018FA

Shown in the table below are the correspondence between the switches and the types.

Push Switch (Diag. Code)	Micro Switch (Diag. Code)
Fuser Door Switch (DI-15) 2nd BTR Cover Switch (DI-19) PH Door Switch (DI-52) Tray 1 Door Switch (DI-f2) Tray 1 Cassette Exist Switch (DI-f5) Tray 1 Cassette Select Switch (DI-f6) Tray 2 Door Switch (DI-fa) Tray 2 Cassette Exist Switch (DI-fd) Tray 2 Cassette Select Switch (DI-fe)	Front Interlock Switch (DI-e) Fuser Interlock Switch (DI-e)

NOTE

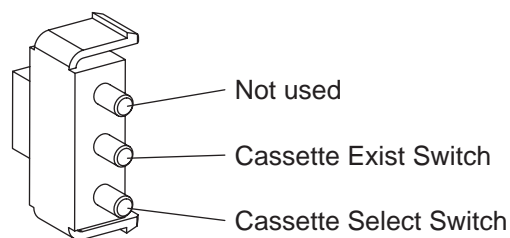
The Fuser Door Switch and Fuser Interlock Switch are ASSY components. Shown below is the operation of the actuator and switch.



Leg_Sec02_019FA

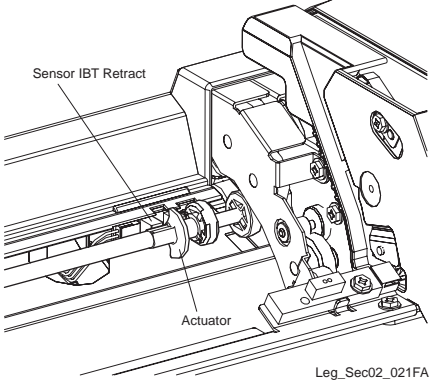
NOTE

The Switch Assy contains the Cassette Exist Switch and the Cassette Select Switch.



Leg_Sec02_020FA

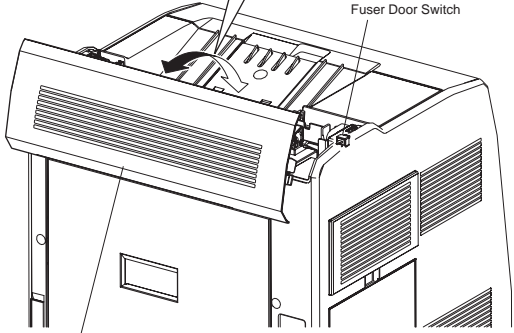
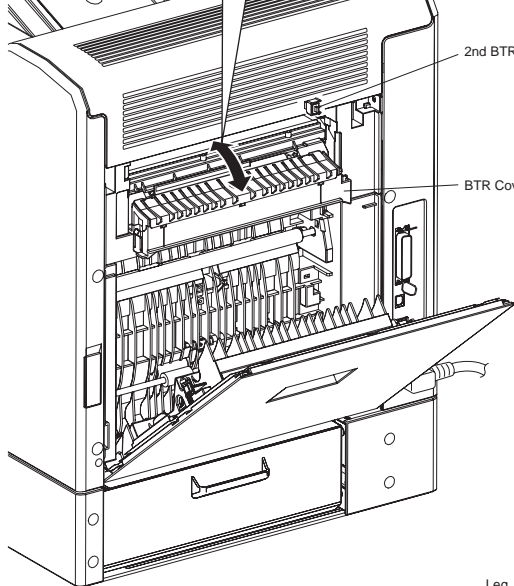
-Checking the Sensor and switch

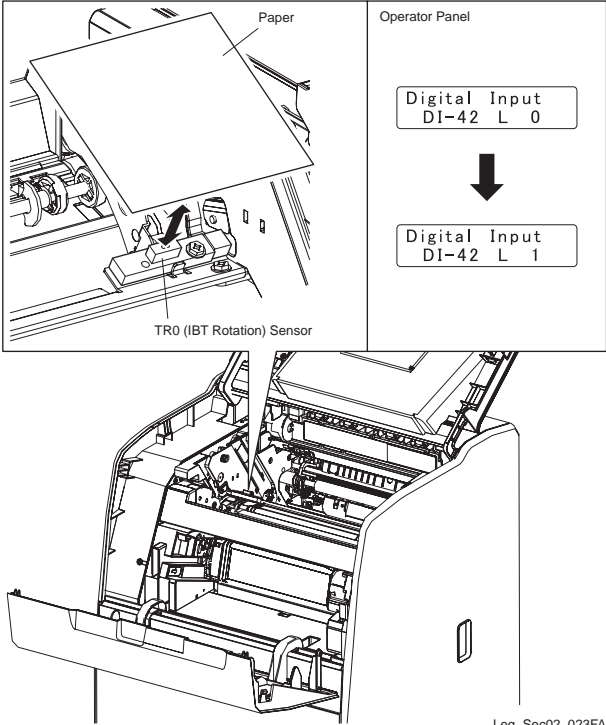
Sensor name (Diag. Code)	Confirmation procedure
Sensor 2nd BTR Retract(DI-8)	NOTE: Very difficult to check
Sensor IBT Retract (DI-9)	<p>NOTE: This procedure is for the technical staff.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Open the Front Door and the Top Cover. 3) Pull up the right side lever (Blue)of the printer. 4) Remove the drum cartridge. 5) Cheat the Safety Interlock System. 6) Execute the DO-1e. 7) When the actuator of the Sensor IBT Retract has reached the position shown in the figure below, press the “Cancel” key to stop the motor. <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_021FA</p> </div> <ol style="list-style-type: none"> 8) Press the “Manu” key to display the “Digital Output”. 9) Press the “▲” key to display the “Digital Input”. 10) Press the “←” key to enter the DI test. 11) Execute the DI-9.

Continue to next page.

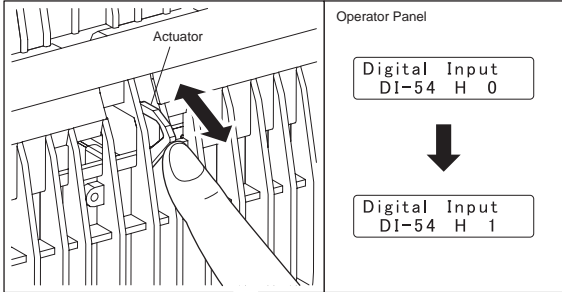
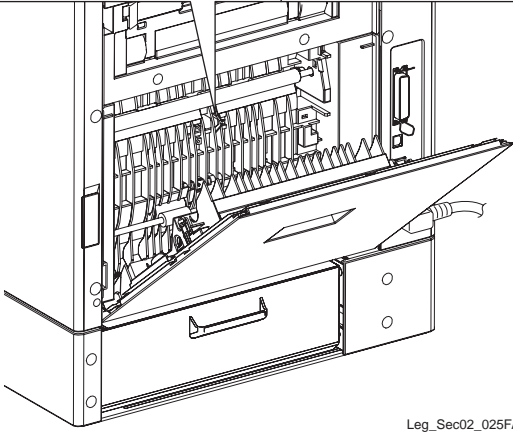
Sensor name (Diag. Code)	Confirmation procedure
<p>Sensor IBT Retract (DI-9) (continued)</p>	<p>12) Check the sensor.</p> <div style="border: 1px solid black; padding: 10px;"> <p style="text-align: right; font-size: small;">Leg_Sec02_022FA</p> </div> <p>13) Press the “Cancel” key to stop the test. 14) Remove the cheater. 15) Reseat the drum cartridge. 16) Set the right side lever (Blue) . 17) Close the Top Cover and the Front Door.</p>

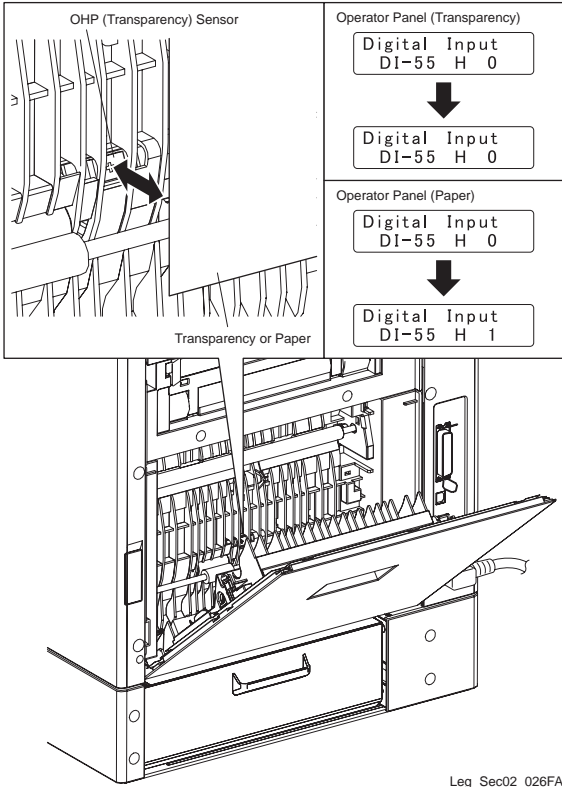
Sensor name (Diag. Code)	Confirmation procedure
<p>Front Interlock Switch (DI-e) Fuser Interlock Switch (DI-e)</p>	<p>NOTE: Two switches can be confirmed by this code.</p> <p>-Front Interlock Switch</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-e. 3) Open and close the Front Door. <div> <p>Operator Panel</p> <p>Digital Input DI-e H 0 → Digital Input DI-e H 1</p> <p>Interlock 24VDC (Front)</p> <p>Front Door</p> <p>Leg_Sec02_036FA</p> </div> <ol style="list-style-type: none"> 4) Press the “Cancel” key to stop the test. <p>-Fuser Interlock Switch</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI Test. 3) Open and close the Paper Cover. <div> <p>Operator Panel</p> <p>Digital Input DI-e H 0 → Digital Input DI-e H 1</p> <p>Interlock 24VDC (Fuser)</p> <p>Paper Cover</p> <p>Leg_Sec02_037FA</p> </div> <ol style="list-style-type: none"> 4) Press the “Cancel” key to stop the test.

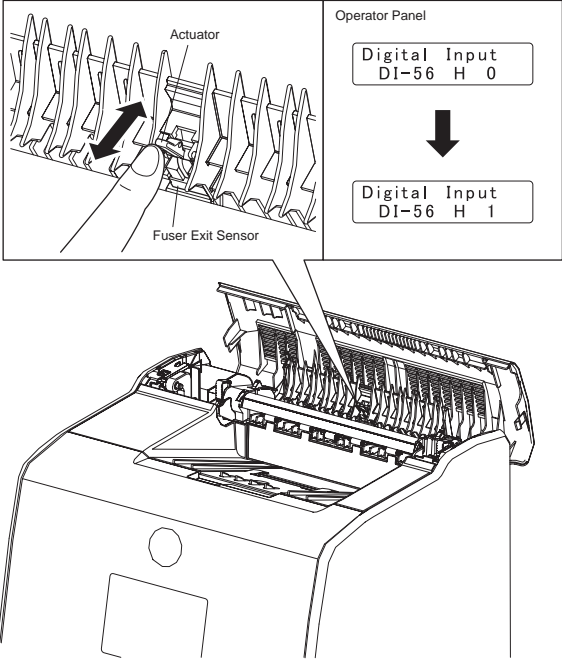
Sensor name (Diag. Code)	Confirmation procedure
<p>Fuser Door Switch (DI-15)</p>	<ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-15. 3) Open and close the Paper Cover. <div style="text-align: center;"> <p>Operator Panel</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">Digital Input DI-15 L 0</div> <div style="font-size: 2em;">➔</div> <div style="border: 1px solid black; padding: 2px;">Digital Input DI-15 L 1</div> </div>  <p>Paper Cover</p> <p>Fuser Door Switch</p> <p>Leg_Sec02_038FA</p> </div> <ol style="list-style-type: none"> 4) Press the “Cancel” key to stop the test.
<p>2nd BTR Cover Switch (DI-19)</p>	<ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-19. 3) Open the Inner Rear Cover. 4) Open and close the BTR Cover. <div style="text-align: center;"> <p>Operator Panel</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px;">Digital Input DI-19 L 0</div> <div style="font-size: 2em;">➔</div> <div style="border: 1px solid black; padding: 2px;">Digital Input DI-19 L 1</div> </div>  <p>2nd BTR Cover Switch</p> <p>BTR Cover</p> <p>Leg_Sec02_039FA</p> </div> <ol style="list-style-type: none"> 5) Press the “Cancel” key to stop the test.

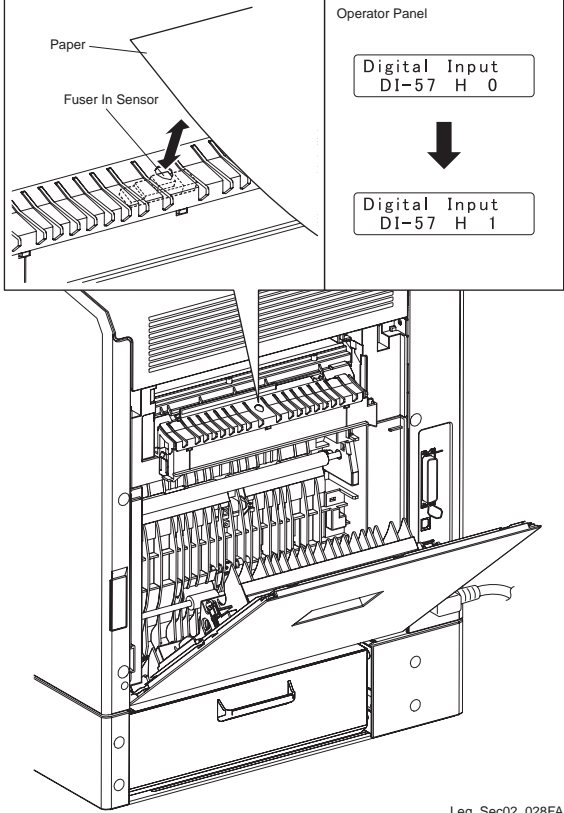
Sensor name (Diag. Code)	Confirmation procedure
<p>TR0 (IBT Rotation) Sensor (DI-42)</p>	<ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-42. 3) Open the Front Door and the Top Cover. 4) Pull up the right side lever (Blue)of the printer. 5) Remove the drum cartridge. 6) Check the sensor. <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_023FA</p> </div> <ol style="list-style-type: none"> 7) Press the “Cancel” key to stop the test.

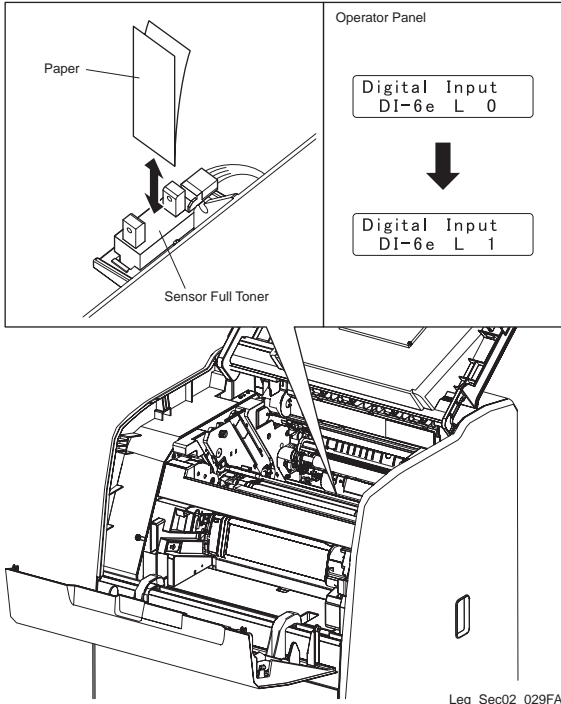
Sensor name (Diag. Code)	Confirmation procedure
<p>PH Door Switch (DI-52)</p>	<ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-52. 3) Open and close the Inner Rear Cover. <div style="text-align: center;"> <p>The diagram shows the operator panel with two digital input displays. The first display shows 'Digital Input DI-52 L 0' and the second shows 'Digital Input DI-52 L 1', with an arrow pointing from the first to the second. Below the panel is a cutaway view of the printer's rear section, highlighting the 'PH Door Switch' and the 'Inner Rear Cover'. An arrow points to the inner rear cover, indicating the action to be performed.</p> <p style="text-align: right; font-size: small;">Leg_Sec02_040FA</p> </div> <ol style="list-style-type: none"> 4) Press the “Cancel” key to stop the test.
<p>Sensor No paper (MPF) (DI-53)</p>	<ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Open the Multipurpose Feeder Cover and remove the paper of the MPF 3) Execute the DI-53. 4) Check the sensor. <div style="text-align: center;"> <p>The diagram shows the operator panel with two digital input displays. The first display shows 'Digital Input DI-53 H 0' and the second shows 'Digital Input DI-53 H 1', with an arrow pointing from the first to the second. Below the panel is a cutaway view of the multipurpose feeder cover, highlighting the 'Actuator'. An arrow points to the actuator, indicating the action to be performed.</p> <p style="text-align: right; font-size: small;">Leg_Sec02_024FA</p> </div> <ol style="list-style-type: none"> 5) Press the “Cancel” key to stop the test.

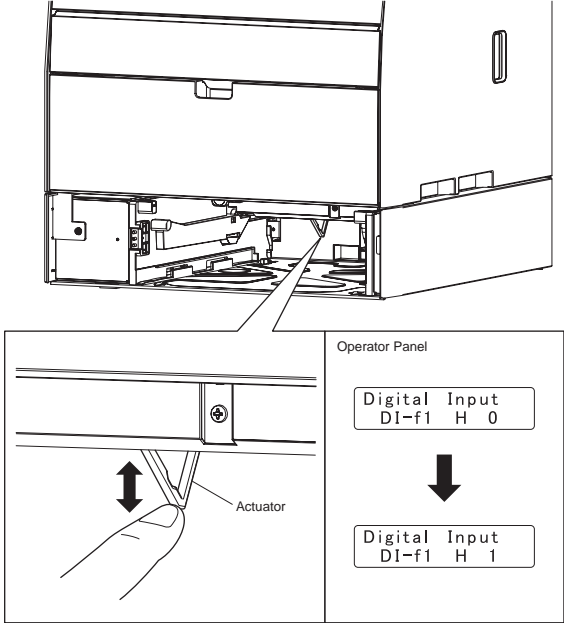
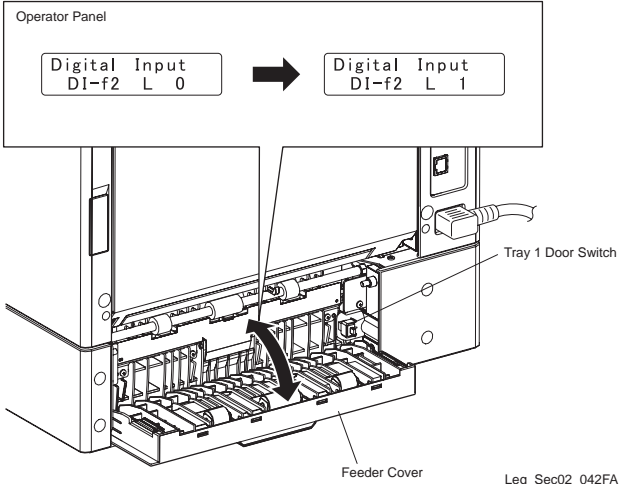
Sensor name (Diag. Code)	Confirmation procedure
Regi Sensor (DI-54)	<ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-54. 3) Open the Inner Rear Cover. 4) Check the sensor. <div style="text-align: center; margin: 10px 0;">  </div> <div style="text-align: center; margin: 10px 0;">  </div> <p style="text-align: right; margin-right: 50px; font-size: small;">Leg_Sec02_025FA</p> <ol style="list-style-type: none"> 5) Press the “Cancel” key to stop the test. 6) Close the Inner Cover.

Sensor name (Diag. Code)	Confirmation procedure
<p>OHP (Transparency) Sensor (DI-55)</p>	<p>NOTE: Prepare the plain paper and the transparency sheet.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-55. 3) Open the Inner Rear Cover. 4) Check the sensor. <div style="text-align: center;">  <p>The diagram illustrates the sensor location and the diagnostic procedure. It shows a cross-section of the OHP (Transparency) Sensor area, a flowchart of the operator panel commands, and a perspective view of the machine's rear cover. The flowchart shows the sequence of digital input commands: DI-55 H 0, followed by DI-55 H 0, then DI-55 H 0, and finally DI-55 H 1.</p> </div> <ol style="list-style-type: none"> 5) Press the "Cancel" key to stop the test. 6) Close the Inner Cover.

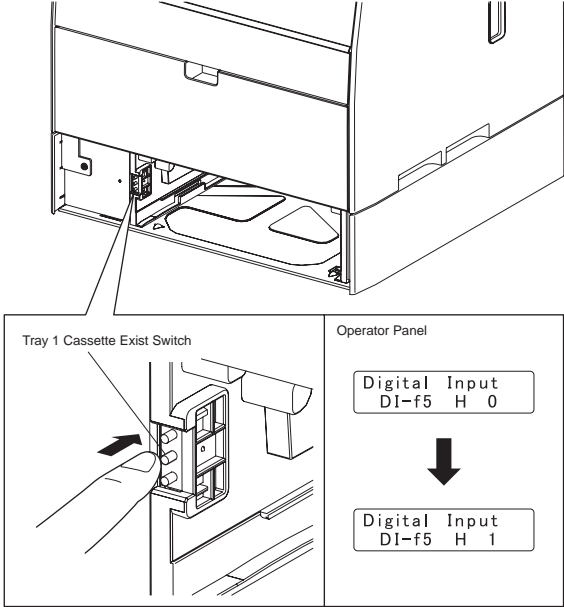
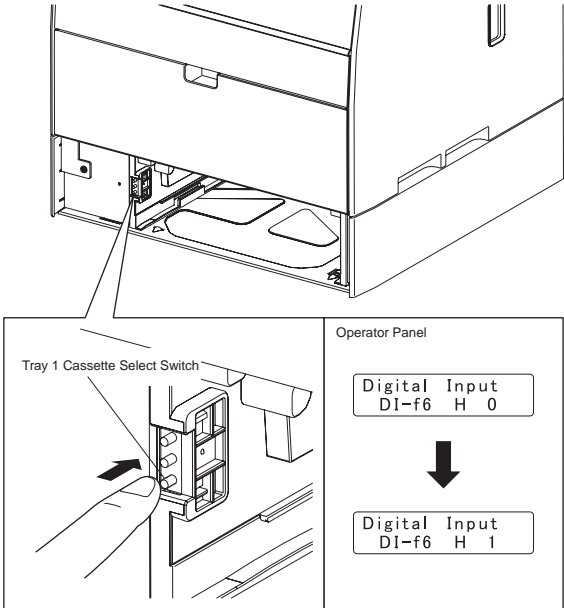
Sensor name (Diag. Code)	Confirmation procedure
Fuser Exit Sensor (DI-56)	<p>NOTE: Fuser is very hot, so pay sufficient attention at work to above burns, etc.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-56. 3) Open the Paper Cover. 4) Open the Fuser Chute. (Caution: Fuser is very hot. Do not touch the inside of the Fuser.) 5) Check the sensor. <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_027FA</p> </div> <ol style="list-style-type: none"> 6) Press the “Cancel” key to stop the test. 7) Close the Paper Cover.

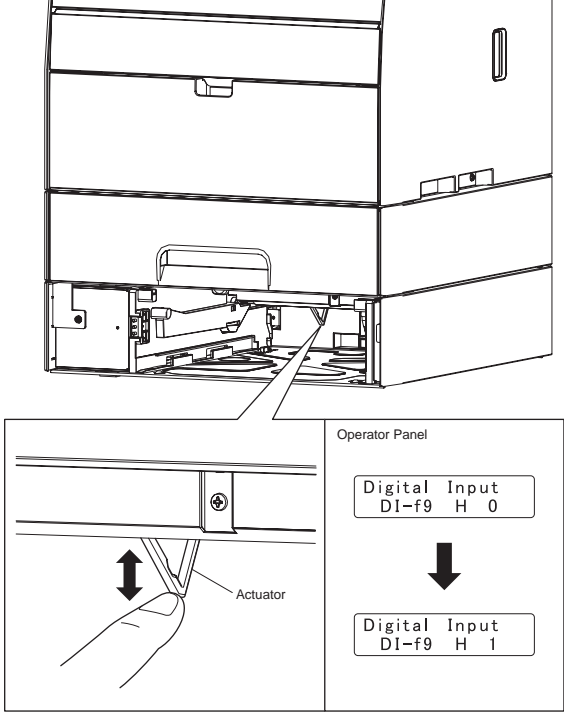
Sensor name (Diag. Code)	Confirmation procedure
<p>Fuser In Sensor (DI-57)</p>	<ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI Test. 3) Open the Inner Rear Cover. 4) Open the BTR cover. 5) Check the sensor. <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_028FA</p> </div> <ol style="list-style-type: none"> 6) Press the "Cancel" key to stop the test. 7) Close the BTR Cover and the Inner Rear Cover.
<p>DEVE Rotary Home Position Sensor (DI-6c)</p>	<p>NOTE: Very difficult to check</p>

Sensor name (Diag. Code)	Confirmation procedure
Sensor Full Toner (DI-6e)	<p>NOTE: Prepare the small paper (10mm x 50mm).</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-6e. 3) Open the Front Door and the Top Cover. 4) Pull up the right side lever (Blue)of the printer. 5) Remove the drum cartridge. 6) Check the sensor. (NOTE: Take care do not touch the developer.) <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_029FA</p> </div> <ol style="list-style-type: none"> 7) Press the “Cancel” key to stop the test. 8) Reseat the drum cartridge and set the lever. 9) Close the Front Door and the Top Cover.

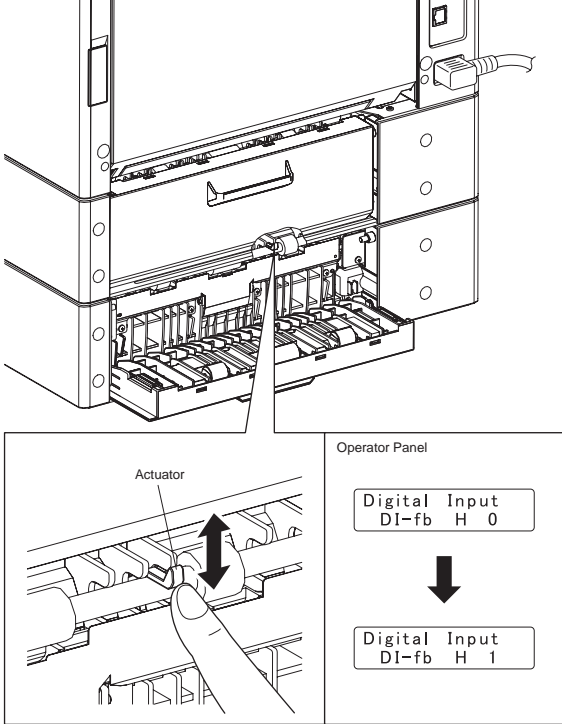
Sensor name (Diag. Code)	Confirmation procedure
<p>Tray 1 No paper Sensor (DI-f1)</p>	<p>NOTE: Test for the 250 Sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Remove the Tray. 3) Execute the DI-f1. 4) Check the sensor.  <p style="text-align: right; font-size: small;">Leg_Sec02_032FA</p> <ol style="list-style-type: none"> 5) Press the “Cancel” key to stop the test. 6) Reseat the Tray.
<p>Tray 1 Door Switch (DI-f2)</p>	<p>NOTE: Test for the 250 Sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-f2. 3) Open and close the Feeder Cover.  <p style="text-align: right; font-size: small;">Leg_Sec02_042FA</p> <ol style="list-style-type: none"> 4) Press the “Cancel” key to stop the test.

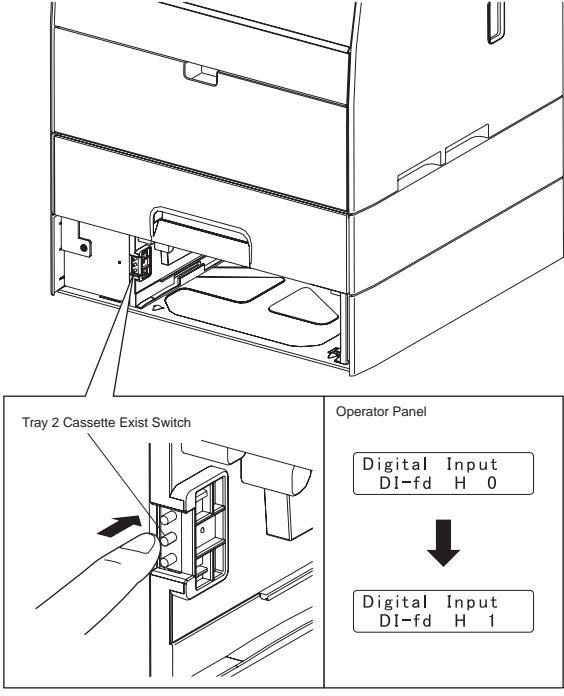
Sensor name (Diag. Code)	Confirmation procedure
Tray 1 Paper Path Sensor (DI-f3)	<p>NOTE: Test for the 250 Sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-f3. 3) Pull the Tray. 4) Open the Feeder Cover. 5) Check the sensor. <div style="text-align: center;"> <p>The diagram illustrates the sensor's operation. On the left, a hand is shown pushing an actuator up and down, with a double-headed arrow indicating the movement. On the right, the operator panel display shows the digital input DI-f3. The display initially shows 'Digital Input DI-f3 H 0', and after the actuator is pushed down, it changes to 'Digital Input DI-f3 H 1'. Below this, a larger diagram shows the entire feeder assembly with the tray pulled out.</p> <p style="text-align: right; font-size: small;">Leg_Sec02_033FA</p> </div> <ol style="list-style-type: none"> 6) Press the “Cancel” key to stop the test. 7) Push the Tray.

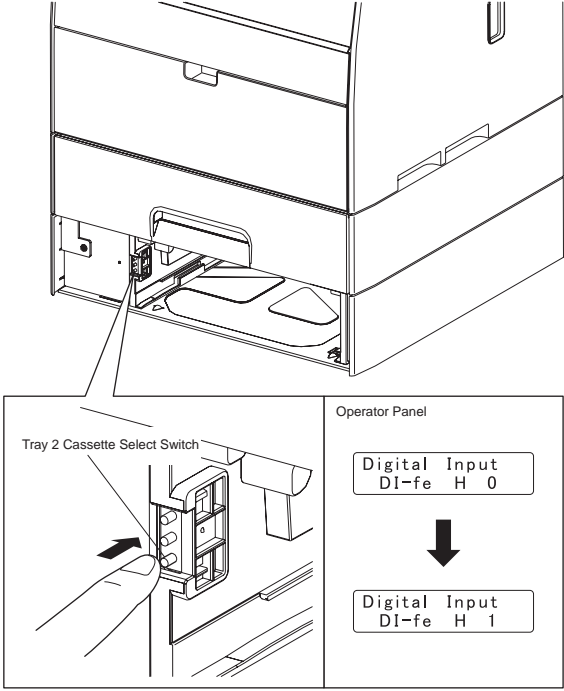
Sensor name (Diag. Code)	Confirmation procedure
<p>Tray 1 Cassette Exist Switch (DI-f5)</p>	<p>NOTE: Test for the 250 Sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Remove the Tray. 3) Execute the DI-f5. 4) Push and release the Tray 1 Cassette Exist Switch.  <p>The diagram consists of two parts. The top part is a perspective view of the printer's front panel with the tray open, showing the location of the Tray 1 Cassette Exist Switch. The bottom part is a close-up of the switch being pushed. To the right, the Operator Panel shows the digital input status changing from 'Digital Input DI-f5 H 0' to 'Digital Input DI-f5 H 1' after the switch is pushed. A downward arrow indicates the transition.</p> <p style="text-align: right; font-size: small;">Leg_Sec02_043FA</p> <ol style="list-style-type: none"> 5) Press the “Cancel” key to stop the test. 6) Reseat the Tray.
<p>Tray 1 Cassette Select Switch (DI-f6)</p>	<p>NOTE: Test for the 250 Sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Remove the Tray. 3) Execute the DI-f6. 4) Push and release the Tray 1 Cassette Select Switch.  <p>The diagram consists of two parts. The top part is a perspective view of the printer's front panel with the tray open, showing the location of the Tray 1 Cassette Select Switch. The bottom part is a close-up of the switch being pushed. To the right, the Operator Panel shows the digital input status changing from 'Digital Input DI-f6 H 0' to 'Digital Input DI-f6 H 1' after the switch is pushed. A downward arrow indicates the transition.</p> <p style="text-align: right; font-size: small;">Leg_Sec02_044FA</p> <ol style="list-style-type: none"> 5) Press the “Cancel” key to stop the test. 6) Reseat the Tray.

Sensor name (Diag. Code)	Confirmation procedure
Tray 2 No paper Sensor (DI-f9)	<p>NOTE: Test for the 250 or 500 Sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Remove the Tray. 3) Execute the DI-f9. 4) Remove the Tray. 5) Check the sensor. <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_034FA</p> </div> <ol style="list-style-type: none"> 6) Press the "Cancel" key to stop the test. 7) Reseat the Tray.

Sensor name (Diag. Code)	Confirmation procedure
Tray 2 Door Switch (DI-fa)	<p>NOTE: Test for the 250 or 500 Sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DI-fa. 3) Open and close the Feeder Cover. <div style="text-align: center;"> <p>The diagram illustrates the test procedure. At the top, an 'Operator Panel' display shows a transition from 'Digital Input DI-fa L 0' to 'Digital Input DI-fa L 1' via a right-pointing arrow. Below this, a 3D cutaway view of the machine's feeder assembly is shown. A curved arrow indicates the 'Feeder Cover' being opened and then closed. A label 'Tray 2 Door Switch' points to a component on the right side of the feeder. The reference code 'Leg_Sec02_045FA' is located at the bottom right of the diagram area.</p> </div> <ol style="list-style-type: none"> 4) Press the “Cancel” key to stop the test.

Sensor name (Diag. Code)	Confirmation procedure
Tray 2 Paper Path Sensor (DI-fb)	<p>NOTE: Test for the 250 or 500 Sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Pull the Tray. 3) Execute the DI-fb. 4) Open the Feeder Cover. 5) Check the sensor. <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_035FA</p> </div> <ol style="list-style-type: none"> 6) Press the “Cancel” key to stop the test. 7) Close the Feeder Cover. 8) Push the Tray.

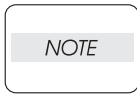
Sensor name (Diag. Code)	Confirmation procedure
Tray 2 Cassette Exist Switch (DI-fd)	<p>NOTE: Test for the 250 Sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Remove the Tray. 3) Execute the DI-fd. 4) Push and release the Tray 2 Cassette Exist Switch.  <p>The diagram illustrates the physical location of the Tray 2 Cassette Exist Switch and the resulting change in the Operator Panel display. The top part shows a perspective view of the machine's front panel with the cassette tray open. A callout points to the switch mechanism. Below this, a close-up shows a hand pressing the switch. To the right, the Operator Panel display shows the status of the DI-fd sensor changing from 'H 0' to 'H 1' after the switch is pressed.</p> <p style="text-align: right; font-size: small;">Leg_Sec02_046FA</p> <ol style="list-style-type: none"> 5) Press the "Cancel" key to stop the test. 6) Reseat the Tray.

Sensor name (Diag. Code)	Confirmation procedure
<p>Tray 2 Cassette Select Switch (DI-fe)</p>	<p>NOTE: Test for the 250 Sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Remove the Tray. 3) Execute the DI-fe. 4) Push and release the Tray 2 Cassette Select Switch. <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_047FA</p> </div> <ol style="list-style-type: none"> 5) Press the "Cancel" key to stop the test. 6) Reseat the Tray.

4.3.5 Digital Output (DO) Test

This function checks whether the DO components operate.

When the interlock is opened while the DO test is performed, each component ends to operate.



The function can turn on each of the DO components individually. Therefore it allows the user to check a component's operation from outside and judge whether the component is normal or not.

When all the diag. functions are stopped, all the DO components can be turned off.

DO test can make each of the DO components operate simultaneously.

4.3.6 Executing Digital Output (DO) Test

- 1) The power is turned off.
- 2) The power is turned on while holding down the “▼” and the “▲” keys.
- 3) Release the keys when the “Diagnosing” is displayed.
- 4) The “Customer Mode” and “ESS Diagnosis” are displayed. (Entered the Diagnosis.)
- 5) Press the “▼” key to display “IOT Diag” and then press the “↵” key.
- 6) Press the “▼” key to display “Digital Output” and then press the “↵” key.
- 7) Press the “▼” key to select the test item and then press the “↵” key twice. (Executed the test)

Parameters for the Digital Output Test are as follows.

Code(HEX)	Code_DO	Menu No.
12	Feed Solenoid	DO-12
13	Dispense Clutch	DO-13
14	2nd BTR Retract Motor	DO-14
1C	Sensor ADC Solenoid Nip	DO-1c
1D	Sensor ADC Solenoid Release	DO-1d
1E	IBT Cleaner Retract Motor	DO-1e
3A	BCR Retract Solenoid (not used)	DO-3a
50	Regi Clutch	DO-50
51	Pre Regi Clutch	DO-51
60	Magnet Roll Motor Start	DO-60
64	PH Motor Start	DO-64
65	PH Motor Speed0	DO-65
66	PH Motor Speed1	DO-66
70	Photoreceptor Motor Start	DO-70
71	Photoreceptor Motor Speed0	DO-71
72	Photoreceptor Motor Speed1	DO-72
74	Fuser Drive Motor Start	DO-74
75	Fuser Drive Motor Speed0	DO-75
76	Fuser Drive Motor Speed1	DO-76
80	IBT Brush Motor Start	DO-80
81	IBT Brush Motor Speed0	DO-81
82	IBT Brush Motor Speed1	DO-82
96	Polygon Start	DO-96
D8	Tray1 clutch	DO-d8
D9	Tray2 clutch	DO-d9

Code(HEX)	Code_DO	Menu No.
DB	Tray1 solenoid	DO-db
DC	Tray2 solenoid	DO-dc
E0	Tray1 motor	DO-e0
E8	Tray2 motor	DO-e8

4.3.7 Exiting Digital Output (DO) Test

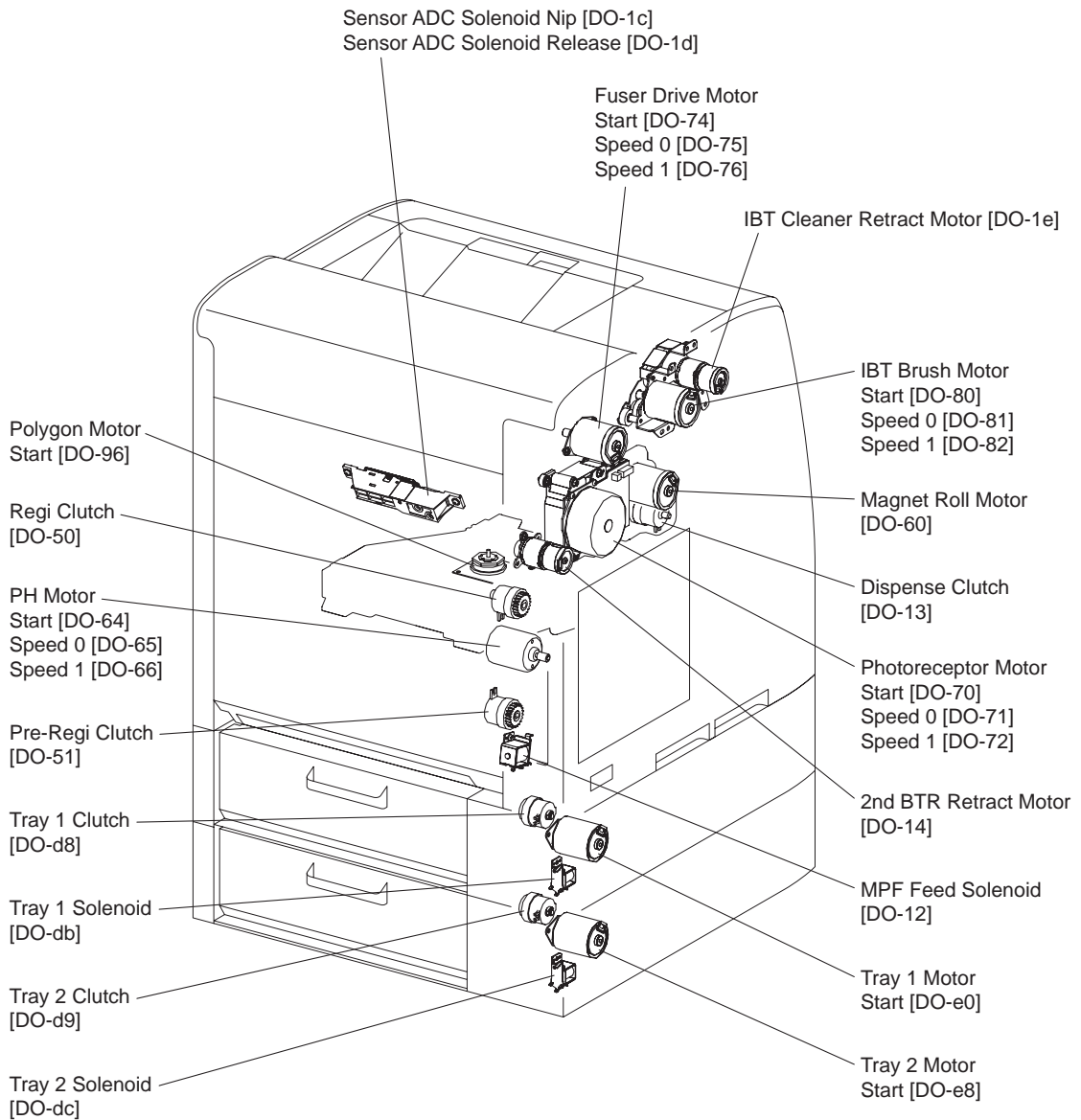
- 1) Press the “Cancel” key to stop the DO Test.
- 2) Press the “Menu” key and the “Cancel” key to exit the DO Test mode. (“IOT Diag.” is displayed.)

It is a procedure for shifting from Diag. mode to the normal mode as follows.

- 3) Press the “▼” key twice to display the “Complete”
- 4) Press the “↵” key three times to exit the Diag mode.

4.3.8 How to check the motors, the clutches and the solenoids

-Parts Location



Leg_Sec02_048FA

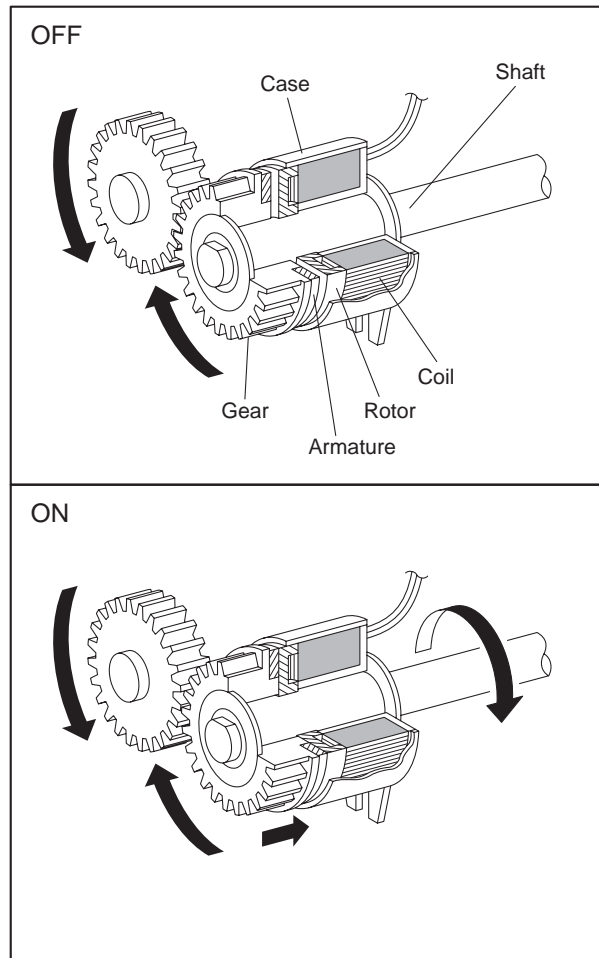
-About Clutch

The electromagnetic clutch in the printer controls the rotation of the roller by transferring or cutting the torque from the motor to the roller.

The electromagnetic clutch becomes an electromagnet by the passage of electric current through the coil inside the case and attracts the armature and gear to the rotating rotor, thereby rotating the gear.

Upon the loss of power to the coil, electromagnetic force is lost and the armature comes off the rotor, and the gear comes to rest.

The clutch makes soft noises that you must be close to the component to audibly confirm the operation of the component.



Leg_Sec02_050FA

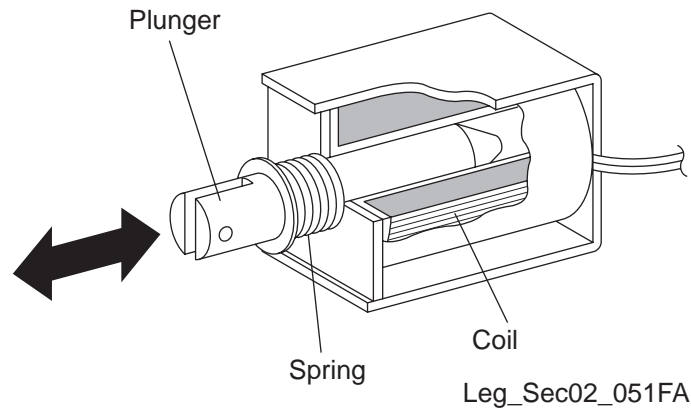
-About Solenoid

The solenoid in the printer opens/closes the shutter or controls the position of the gear for transferring the torque of the motor to the roller.

A solenoid becomes an electromagnet by the passage of electric current through the coil inside the case and attracts the plunger.

Upon the loss of power to the coil, electromagnetic force is lost and the plunger is returned to its original position by spring action, thereby allowing the shutter to operate or the gear to move to the predefined position.

Unlike a clutch, a solenoid generates a loud operation noise.

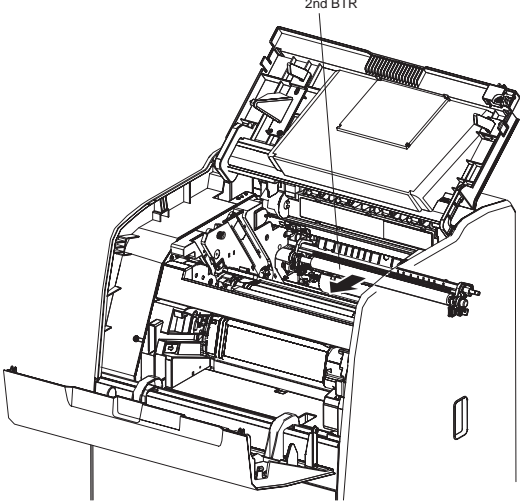


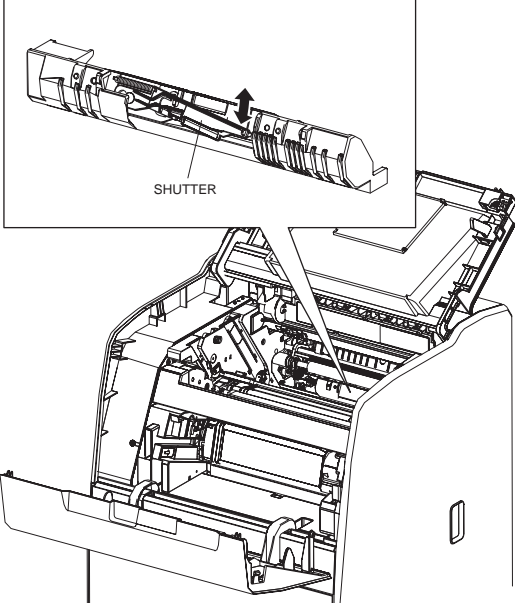
-Checking Clutch and Solenoid

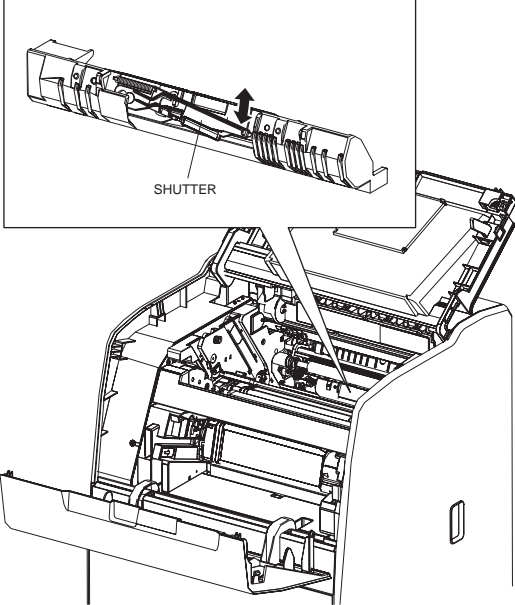
NOTE

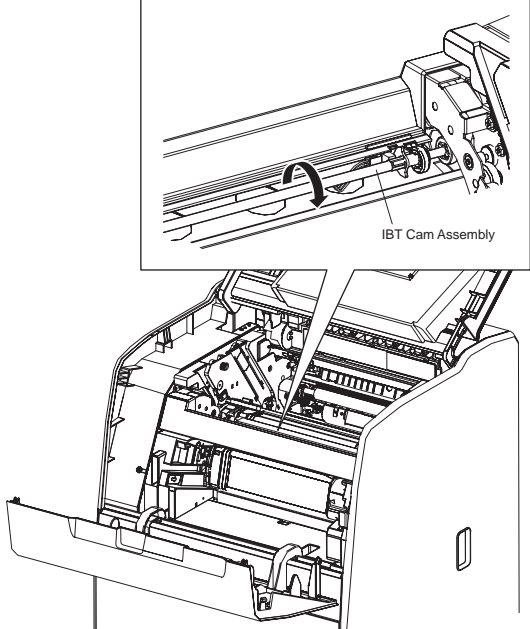
Before entering the diagnostic, close the all covers and the doors.

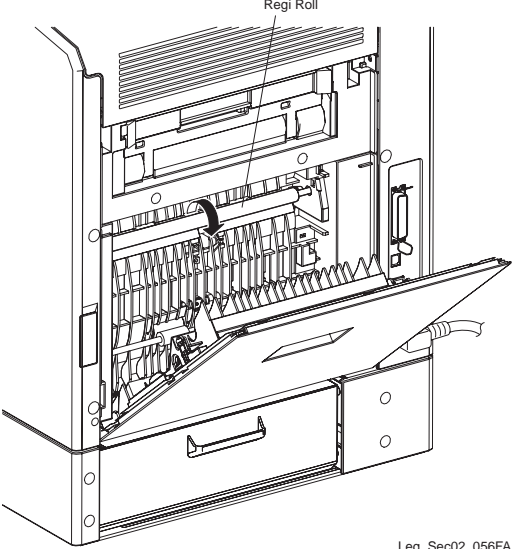
Clutch and Solenoid name (Diag. Code)	Confirmation procedure
<p>MPF Feed Solenoid (DO-12)</p>	<ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-12. Upon hitting the “↵” key, the operating noise of the solenoid will be heard. 3) Press the “Cancel” key to stop the solenoid. <p>Combination test is as follows.</p> <p>NOTE: The Multipurpose Roller rotates once when the DO-12 and the DO-64 are executed. Before executing the combination test, remove the paper of the MPF.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-12 and the DO-64. Confirm the roll rotation from the MPF Tray. <div style="text-align: center;"> <p>The diagram shows a cross-section of the MPF roll mechanism. A large roller is labeled 'MPF Roll' and is positioned between two plates. The lower plate is labeled 'Bottom Plate'. Arrows indicate the direction of rotation for the MPF Roll.</p> </div> <div style="text-align: center;"> <p>The diagram shows the MPF tray assembly, which is a large rectangular component with a handle. It is shown in a partially open position, revealing the internal rollers and the MPF roll mechanism.</p> </div> <p style="text-align: right; font-size: small;">Leg_Sec02_052FA</p> <ol style="list-style-type: none"> 3) Press the “Cancel” key to stop the motor. 4) Press the “▼” key to display the DO-12. 5) Press the “Cancel” key to stop the solenoid.
<p>Dispense Clutch (DO-13)</p>	<ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-13. Upon hitting the “↵” key, the operating noise of the clutch will be heard. 3) Press the “Cancel” key to stop the clutch.

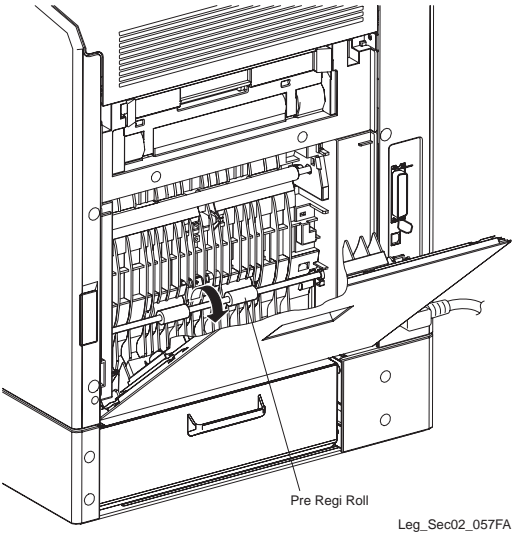
Clutch and Solenoid name (Diag. Code)	Confirmation procedure
2nd BTR Retract Motor (DO-14)	<p>NOTE: This procedure is for the technical staff. The customer's procedure is the 1, 5 and 6.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Open the Front door and the Top Cover and then remove the IBT. 3) Cheat the safety Interlock System. 4) Execute the DO-12 and confirm the moving of 2nd BTR. (The customer can confirm the motor noise only.) <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_053FA</p> </div> <ol style="list-style-type: none"> 5) Press the "Cancel" key to stop test. 6) Remove the cheater and reseal the IBT. 7) Close the Top Cover and the Front Door.

Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Sensor ADC Solenoid Nip (DO-1c)	<p>NOTE: If the solenoid noise is not heard, execute the DO-1d. This procedure is for the technical staff. The customer's procedure is the 1, 5 and 6.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Open the Front door and the Top Cover, and then remove the IBT. 3) Cheat the safety Interlock System. 4) Execute the DO-1c. Upon hitting the “↵” key, the operating noise of the solenoid will be heard. <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_054FA</p> </div> <ol style="list-style-type: none"> 5) Press the “Cancel” key to stop test. 6) Remove the cheater and reset the IBT. 7) Close the top cover and the Front Door.

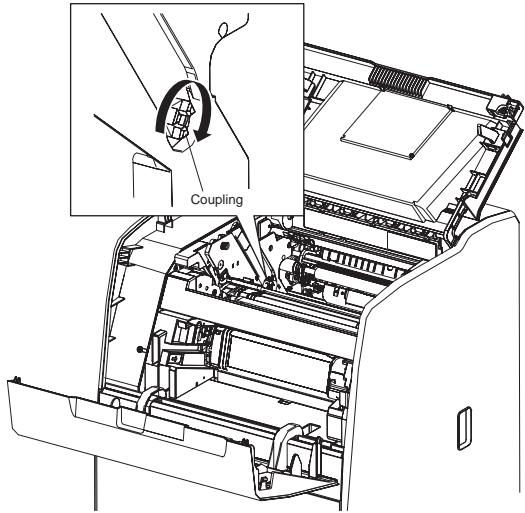
Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Sensor ADC Solenoid Release (DO-1d)	<p>NOTE: If the solenoid noise is not heard, execute the DO-1c. This procedure is for the technical staff. The customer's procedure is the 1, 5 and 6.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Open the Front door and the Top Cover, and then remove the IBT. 3) Cheat the safety Interlock System. 4) Execute the DO-1d. Upon hitting the “↵” key, the operating noise of the solenoid will be heard. <div style="text-align: center;">  <p>The diagram illustrates the internal components of the Sensor ADC Solenoid Release (DO-1d). A callout box shows a detailed view of the shutter mechanism, with a vertical arrow indicating its movement and the label 'SHUTTER' below it. The main diagram shows the solenoid assembly within the printer's chassis, with the front door and top cover open.</p> <p style="text-align: right; font-size: small;">Leg_Sec02_054FA</p> </div> <ol style="list-style-type: none"> 5) Press the “Cancel” key to stop test. 6) Remove the cheater and reseat the IBT. 7) Close the Top Cover and the Front Door.

Clutch and Solenoid name (Diag. Code)	Confirmation procedure
IBT Cleaner Retract Motor (DO-1e)	<p>NOTE: This procedure is for the technical staff. The customer's procedure is the 1, 5 and 6.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode.. 2) Open the Front door and the Top Cover, and then remove the IBT. 3) Cheat the safety Interlock System. 4) Execute the DO-1e. Confirm the moving of the IBT Cleaner Retract. (The customer can confirm the motor noise only.) <div style="text-align: center;">  <p>The diagram consists of two parts. The upper part is a close-up view of the IBT Cam Assembly, showing a cam mechanism with a curved arrow indicating its rotation. The lower part is a larger view of the printer's internal mechanism with the front door open, showing the location of the IBT Cleaner Retract Motor (DO-1e) and the IBT assembly. A label 'IBT Cam Assembly' points to the upper part of the diagram, and 'Leg_Sec02_055FA' is printed at the bottom right of the diagram area.</p> </div> <ol style="list-style-type: none"> 5) Press the "Cancel" key to stop motor. 6) Remove the cheater and reseal the IBT. 7) Close the Top Cover and the Front Door.

Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Regi Clutch (DO-50)	<ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-50. Upon hitting the “↵” key, the operating noise of the clutch will be heard. 3) Press the “Cancel” key to stop test. <p>Combination test is as follows.</p> <p>NOTE: The regi roll rotates when the DO-50 and the DO-64 are executed. This procedure is for the technical staff.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Open the Inner Rear Cover. 3) Cheat the Safety Interlock System and the PH Door Switch. 4) Execute the DO-50 and DO-64. Confirm the rotation of the Regi Roll. <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_056FA</p> </div> <ol style="list-style-type: none"> 5) Press the “Cancel” to stop the motor. 6) Press the “▼” key to display the DO-50. 7) Press the “Cancel” to stop the clutch. 8) Remove the cheater, close the Inner Cover and the Duplex Module.

Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Pre-Regi Clutch (DO-51)	<ol style="list-style-type: none"> 1) Execute the DO-51. Upon hitting the “←” key, the operating noise of the clutch will be heard. 2) Press the “Cancel” key to stop test. <p>Combination test is as follows.</p> <p>NOTE: The pre-regi roll rotates when the DO-51 and the DO-64 are executed. This procedure is for the technical staff.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode.. 2) Open the Inner Rear Cover. 3) Cheat the Safety Interlock System and the PH Door Switch. 4) Execute the DO-51 and the DO-64. Confirm the rotation of the Pre-Regi Roll. <div style="text-align: center;">  </div> <ol style="list-style-type: none"> 5) Press the “Cancel” key to stop the motor. 6) Press the “▼” key to display the DO-51. 7) Press the “Cancel” key to stop the clutch. 8) Remove the cheaters and close the Inner Rear Cover.

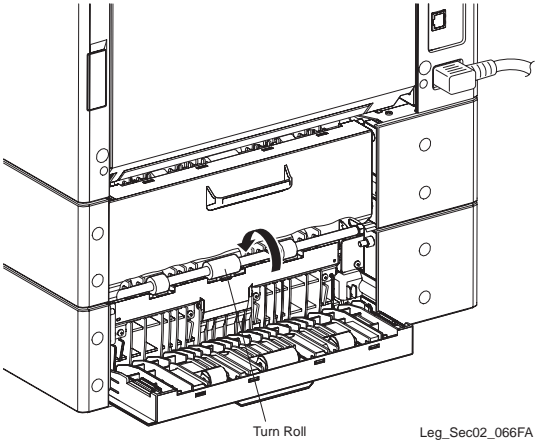
Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Magnet Roll Motor (DO-60)	<p>NOTE: Procedures 1, 3, 4, 5, 8, 9 and 10 are for the technical staff.</p> <ol style="list-style-type: none"> 1) Remove the Right Cover 2) Turn on the power and enter the Diagnostic Mode. 3) Open the Front door and the Top Cover, and then remove the IBT. 4) Cheat the safety Interlock System. 5) Execute the DO-60. Confirm the rotation of gears of the motor. (The customer can confirm the motor noise only.) <div style="text-align: center;"> <p style="text-align: right; font-size: small;">Leg_Sec02_058FA</p> </div> <ol style="list-style-type: none"> 6) Press the “Cancel” key to stop the motor. 7) Remove the cheaters and reseal the IBT. 8) Turn off the power and attach the Right Cover. 9) Close the Top Cover and Front Door.
PH Motor Start (DO-64) Motor Speed 0 (DO-65) Motor Speed 1 (DO-66)	<p>NOTE: Even if only DO-65 or DO-66 is executed, the motor doesn't rotate. Execute DO-64 and then execute the DO-65 or the DO-66.</p> <p>The rotational speed of the motor is as follows.</p> <p>DO-64+DO-65 < DO-64 < DO-64+DO-66</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the diagnostic mode. 2) Execute the DO-64. Confirm the motor noise. 3) Press the “Cancel” key to stop the motor.

Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Photoreceptor Motor Start (DO-70) Motor Speed 0 (DO-71) Motor Speed 1 (DO-72)	<p>NOTE: Even if only DO-71 or DO-72 is executed, the motor doesn't rotate. Execute the DO-70 and then execute the DO-71 or the DO-72.</p> <p>The rotational speed of the motor is as follows. DO-70+DO-72 < DO-70+DO-71 < DO-70</p> <p>Procedures 2,3,4,5,8 and 9 are for the technical staff.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Open the Front Door and Top Cover. 3) Remove the IBT. 4) Cheat the Safety Interlock System. 5) Execute the DO-70. Confirm the rotation of coupling of the motor. (The customer can confirm the motor noise only.) <div style="text-align: center;">  <p style="text-align: right; font-size: small;">Leg_Sec02_059FA</p> </div> <ol style="list-style-type: none"> 6) Press the "Cancel" key to stop the motor. 7) Remove the cheater, reseal the IBT. 8) Close the Top Cover and the Front Door.

Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Fuser Drive Motor Start (DO-74) Speed 0 (DO-75) Speed 1 (DO-76)	<p>NOTE: Even if only DO-75 or DO-76 is executed, the motor doesn't rotate. Execute the DO-74 and then execute the DO-75 or DO-76.</p> <p>The rotational speed of the motor is as follows. DO-74+DO-75 < DO-74 < DO-74+DO-76</p> <p>Procedures 2,3 and 8 are for the technical staff.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Open the Paper Cover. 3) Cheat the Safety Interlock System. 4) Execute the DO-51 and the DO-64 and then confirm the rotation of Fuser gears. (The customer can confirm the motor noise only.) <div style="text-align: center;"> </div> <p style="text-align: right; font-size: small;">Leg_Sec02_060FA</p> <ol style="list-style-type: none"> 5) Press the "Cancel" key to stop the DO-71 or the DO-72. 6) Press the "▼" key to display the DO-70. 7) Press the "Cancel" key to stop the motor. 8) Remove the cheater, close the Paper Cover.

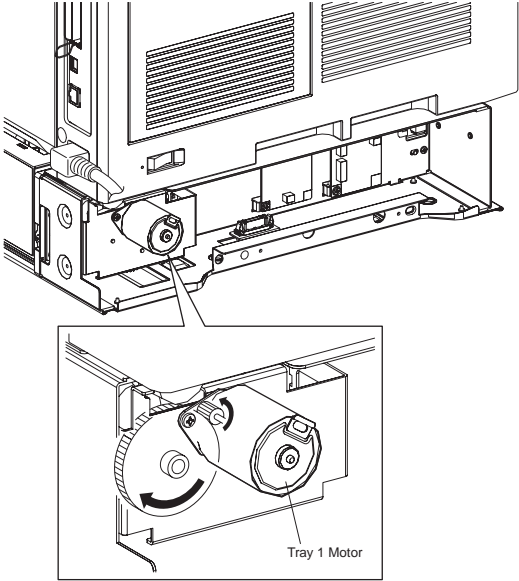
Clutch and Solenoid name (Diag. Code)	Confirmation procedure
IBT Brush Motor Start (DO-80) Speed 0 (DO-81) Speed 1 (DO-82)	<p>NOTE: Even if only DO-81 or DO-82 is executed, the motor doesn't rotate. Execute DO-80 and then execute the DO-81 or the DO-82.</p> <p>The rotational speed of the motor is as follows. DO-80+DO-81 < DO-80 < DO-80+DO-82</p> <p>Procedures 2,3,4,5,8 and 9 are for the technical staff.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Open the Front Door and Top Cover. 3) Remove the IBT. 4) Cheat the Safety Interlock System. 5) Execute the DO-80. Confirm the rotation of gear of the motor. (The customer can confirm the motor noise only.) <div style="text-align: center;"> <p style="text-align: right; font-size: small;">Leg_Sec02_061FA</p> </div> <ol style="list-style-type: none"> 6) Press the "Cancel" key to stop the motor. 7) Remove the cheater, reseal the IBT. 8) Close the Top Cover and the Front Door.
Polygon Motor Start (DO-96)	<p>NOTE: The Polygon Motor in the Print Head Assembly.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-96 and confirm the motor noise. 3) Press the "Cancel" key to stop the motor.

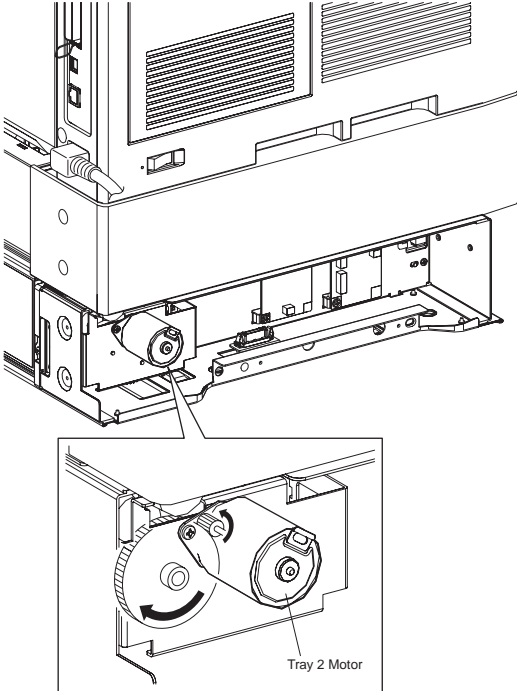
Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Tray 1 Clutch (DO-d8)	<p>NOTE: Tray 1 Clutch is in the 250 sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-d8. Upon hitting the “↵” key, the operating noise of the clutch will be heard. 3) Press the “Cancel” key to stop the clutch. <p>Combination test is as follows.</p> <p>NOTE: The turn roll rotates when the DO-d8 and the DO-e0 are executed. This procedure is for the technical staff.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-d8 and the DO-e0. <div style="text-align: center;"> <p style="text-align: right; font-size: small;">Leg_Sec02_065FA</p> </div> <ol style="list-style-type: none"> 3) Open the Feeder Cover and confirm the Turn Roll rotation. 4) Press the “Cancel” key to stop the motor. 5) Press the “▼” key to display the DO-d8. 6) Press the “Cancel” key to stop the clutch, and close the Feeder Cover.

Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Tray 2 Clutch (DO-d9)	<p>NOTE: Tray 2 Clutch is in the 250 or 500 sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-d9. Upon hitting the “↵” key, the operating noise of the clutch will be heard. 3) Press the “Cancel” key to stop the clutch. <p>Combination test is as follows.</p> <p>NOTE: The turn roll rotates when the DO-d9 and the DO-e8 are executed. This procedure is for the technical staff.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-d9 and the DO-e8. <div style="text-align: center;">  </div> <ol style="list-style-type: none"> 3) Open the Feeder Cover and confirm the Turn Roll rotation. 4) Press the “Cancel” key to stop the motor. 5) Press the “▼” key to display the DO-d9. 6) Press the “Cancel” key to stop the clutch, and close the Feeder Cover.

Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Tray 1 Solenoid (DO-db)	<p>NOTE: Tray 1 Solenoid is in the 250 sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-db. Upon hitting the “↵” key, the operating noise of the solenoid will be heard. 3) Press the “Cancel” key to stop the solenoid. <p>Combination test is as follows.</p> <p>NOTE: The Roller rotates once when the DO-db and the DO-e0 are executed. Before executing the combination test, remove the Paper Cassette and the left side cover of the paper tray. This procedure is for the technical staff.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-db and the DO-e0. Confirm the roll rotation from the front side of the Tray. <div style="text-align: center;"> <p style="text-align: right; font-size: small;">Leg_Sec02_067FA</p> </div> <ol style="list-style-type: none"> 3) Press the “Cancel” key to stop the motor. 4) Press the “▼” key to display the DO-db. 5) Press the “Cancel” key to stop the solenoid and reseal the Paper Cassette.

Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Tray 2 Solenoid (DO-dc)	<p>NOTE: Tray 2 Solenoid is in the 250 or 500 sheets Option Tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-dc. Upon hitting the “←” key, the operating noise of the solenoid will be heard. 3) Press the “Cancel” key to stop the solenoid. <p>Combination test is as follows.</p> <p>NOTE: The Roller rotates once when the DO-dc and the DO-e8 are executed. Before executing the combination test, remove the Paper Cassette and left side cover of the paper tray. This procedure is for the technical staff.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-dc and the DO-e8. Confirm the roll rotation from the front side of the Tray. <div style="text-align: center;"> <p style="text-align: right; font-size: small;">Tray 2 Solenoid</p> <p style="text-align: right; font-size: x-small;">Leg_Sec02_068FA</p> </div> <ol style="list-style-type: none"> 3) Press the “Cancel” key to stop the motor. 4) Press the “▼” key to display the DO-dc. 5) Press the “Cancel” key to stop the solenoid and reseal the Paper Cassette.

Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Tray 1 Motor Start (DO-e0)	<p>NOTE: Tray 1 Motor is in the 250 sheets Option Tray. Before executing the test, remove the left side cover of the paper tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-e0 and confirm the motor rotation. (Customer can confirm the noise only.)  <p style="text-align: right; font-size: small;">Leg_Sec02_069FA</p> <ol style="list-style-type: none"> 3) Press the "Cancel" key to stop the motor.

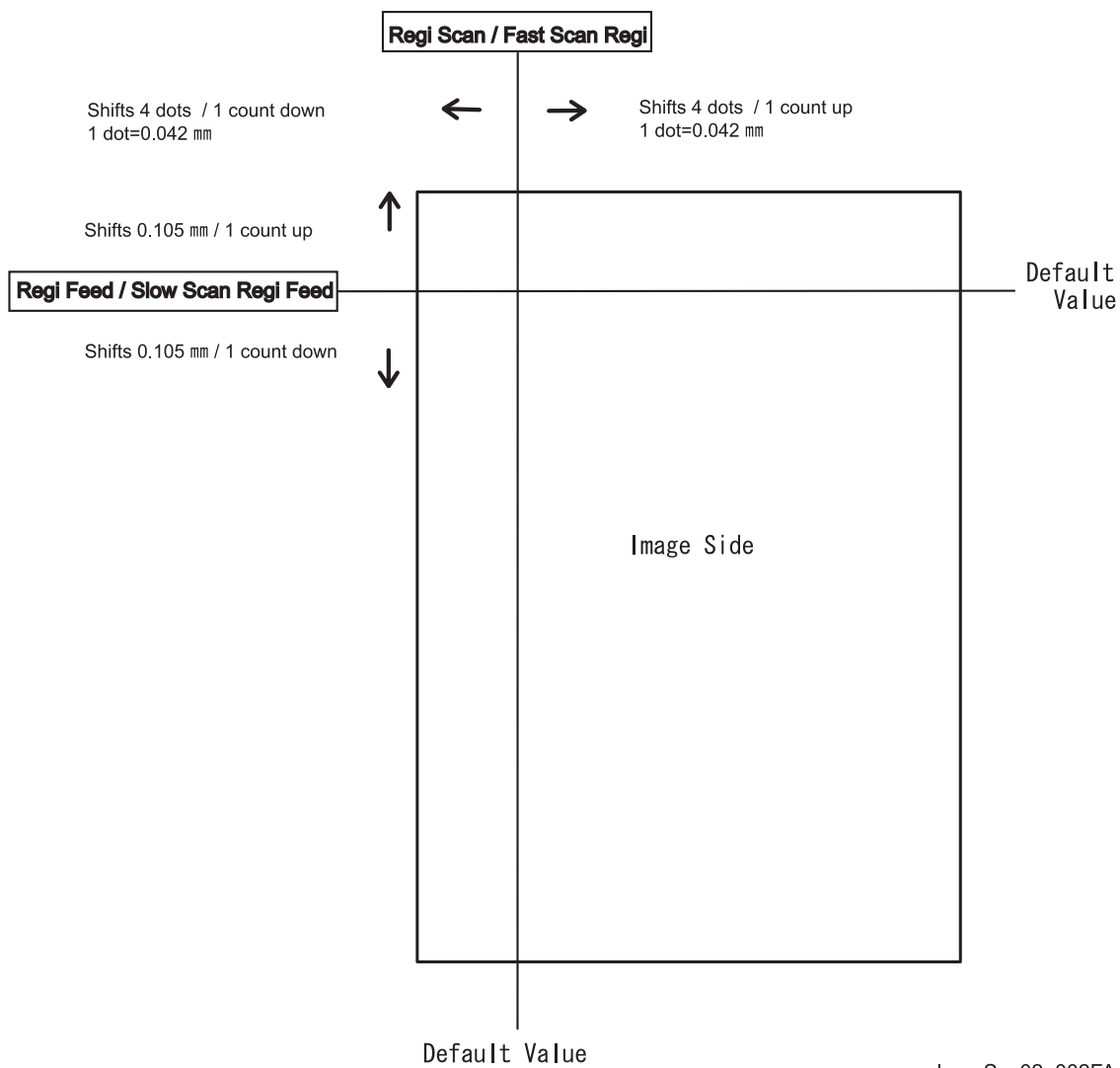
Clutch and Solenoid name (Diag. Code)	Confirmation procedure
Tray 2 Motor Start (DO-e8)	<p>NOTE: Tray 2 Motor is in the 250 or 500 sheets Option Paper Tray. Before executing the test, remove the left side cover of the paper tray.</p> <ol style="list-style-type: none"> 1) Turn on the power and enter the Diagnostic Mode. 2) Execute the DO-e8 and confirm the motor rotation. (Customer can confirm the noise only.)  <p style="text-align: right; font-size: small;">Leg_Sec02_070FA</p> <ol style="list-style-type: none"> 3) Press the "Cancel" key to stop the motor.

4.4 Parameter Setting

4.4.1 Handling parameters

This function reads the following parameters stored in the IOT.

Item	Range	Description
Regi Feed/Slow Scan Reg Feed	0 to 255	Sets the registration in the paper feeding direction.
Regi Scan/Fast Scan Reg	0 to 64	Sets the registration in the scanning direction for each of Tray1, Tray2 and MPF.
Life counter	-	Reads the life counters of the fuser, toner cartridge, BTR developer, and the printer.



Leg_Sec02_002FA

Reference Counter Values

NOTE

These counter values are reference only. Do not use as the official value.

Counter Name	Value of life warning
Life Xero CRU	192000
Life Y Toner	4700
Life M Toner	4700
Life C Toner	4700
Life K Toner	4700
Life Waste Toner 1	420800
Life Waste Toner 2	2830 (End of life)
Life BTR 2	200000
Life Fuser Unit	99999999
Life Deve Y	4700
Life Deve M	4700
Life Deve C	4700
Life Deve K	4700
Life MSI Feed	-
Life Tray 1 Feed	-
Life Tray 2 Feed	-
Print	99999999

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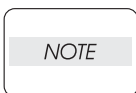
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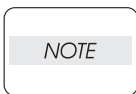
1. Removal and Replacement Procedures (RRPs)

Removal and replacement procedures for main parts of the device are described using 15 broad categories that correspond to the parts list.

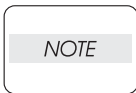
*RRP 1	COVER
*RRP 2	250 PAPER CASSETTE
*RRP 3	250 PAPER FEEDER
*RRP 4	MSI
*RRP 5	PH ASSY
*RRP 6	TRANSFER
*RRP 7	XERO
*RRP 8	ROS
*RRP 9	DEVE
*RRP 10	FUSER
*RRP 11	DRIVE
*RRP 12	ELECTRICAL
*RRP 14	500 PAPER CASSETTE & 500 PAPER FEEDER
*RRP 15	LEGAL PAPER CASSETTE



When working for parts that are controlled as spare parts but no procedure is included, observe the replacement status of the parts thoroughly before starting the work.



Refer to the manuals of optional parts for optional parts.



Optional parts are supposed to be removed as a basic rule, however, if it is not necessary to remove tflange, it is acceptable to work with tflange attached.

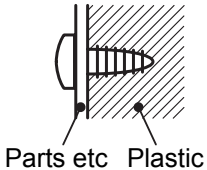
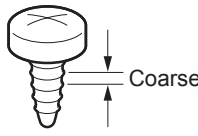
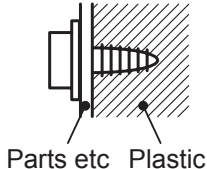
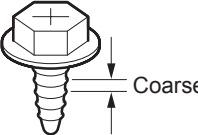
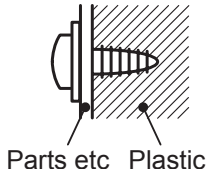
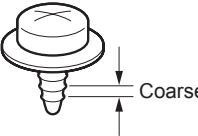
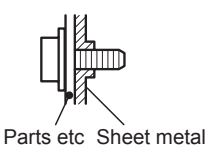
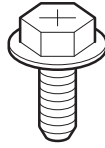
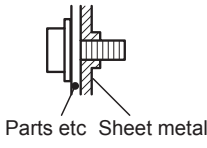
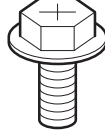
1.1 Before starting service work

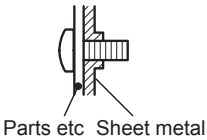
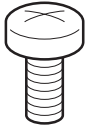
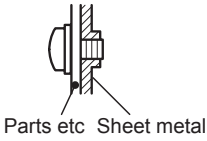

- ◆ Start the work after turning off the power and removing the power cord from the outlet.
- ◆ Disassemble the device after removing IBT (PL 7.1.1).
- ◆ When carrying out the work around FUSER, temperature of FUSER and surrounding area should have cooled sufficiently.
- ◆ Pay sufficient attention to the parts during work because they may be broken or may not perform their functions properly if unreasonable force is applied to tflange.

- ◆ Various kinds of screws are used, so be sure to use the screw at the correct positions. Pay attention in distinguishing the screws for plastic and for sheet metal. Incorrect use of the screw type may cause in damaging the screw threads or other troubles.

NOTE

For the screw installation locations on the frame where the character "T" is stamped, use the screws for plastic.

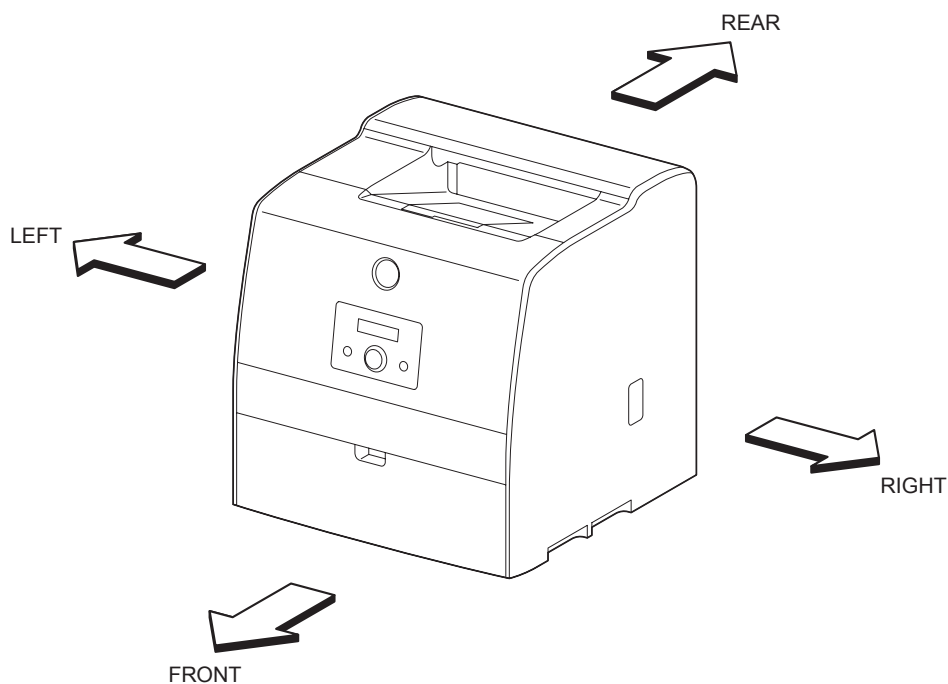
No.	Type	Application	Shape	How to distinguish	Pointed to be noted.	Major installation locations
1	Screw for plastic Silver, tap	Plastic  Parts etc Plastic	 Coarse	<ul style="list-style-type: none"> • Silver colored • Screw thread is coarse comparing to the sheet metal type. • Screw tip is thin. 	As it has a function to cut the thread by itself, if the screw is inserted in an angle and tightened, the screw thread will be damaged.	
2	Screw for plastic Silver, tap, with a flange	Plastic  Parts etc Plastic	 Coarse	<ul style="list-style-type: none"> • Silver colored • It has a flange. • Screw thread is coarse comparing to the sheet metal type. • Screw tip is thin. 	As it has a function to cut the thread by itself, if the screw is inserted in an angle and tightened, the screw thread will be damaged.	
3	Screw for plastic Silver, tap, with a washer	Plastic  Parts etc Plastic	 Coarse	<ul style="list-style-type: none"> • Silver colored • It has a washer. • Screw thread is coarse comparing to the sheet metal type. • Screw tip is thin. 	As it has a function to cut the thread by itself, if the screw is inserted in an angle and tightened, the screw thread will be damaged.	
4	Screw for metal sheet Silver, with a flange	Sheet metal  Parts etc Sheet metal		<ul style="list-style-type: none"> • Silver colored • It has a flange. • Screw tip is somewhat thin. 	As it has a function to cut the thread by itself, if the screw is inserted in an angle and tightened, the screw thread will be damaged.	<ul style="list-style-type: none"> • Covers • Places easily seen by the users.
5	Screw for metal sheet Silver, with a flange	Sheet metal  Parts etc Sheet metal		<ul style="list-style-type: none"> • Silver colored • It has a flange. • Diameter of the screw section is uniform. 		

No.	Type	Application	Shape	How to distinguish	Pointed to be noted.	Major installation locations
6	Screw for metal sheet Silver	Sheet metal 		<ul style="list-style-type: none"> • Silver colored • Diameter of the screw section is uniform. 		
7	Screw for metal sheet Silver, with an external tooth washer	Sheet metal 		<ul style="list-style-type: none"> • Silver colored • It has an external tooth washer. • Diameter of the screw section is uniform. 		<ul style="list-style-type: none"> • Each section of the FUSER CONTROLLER BOARD.

- ◆ Be sure to earth the operators body using a wrist band, etc. wherever possible in order to prevent build up of static electricity in operator's body.
- ◆ After the completion of the operation, clean up the window of the PRINT HEAD ASSEMBLY (PL 8.1.1) with CLEANER (PL 8.1.2).

1.2 Description of procedure

- [RRP X.Y “AAAAA”] attached at the front of the procedure shows that the name of parts to be assembled/disassembled is “AAAAA”.
- “(PL X.Y.Z)” attached at the end of parts name in the procedure shows that the parts corresponds to the plate (PL) “X.Y”, item “Z” of [Chapter 5 Parts list], and their shape and fitting position can be checked in [Chapter 5 parts list].
- Description of direction shown below is used in the procedure.
 - ▼Front : Front direction when facing the front of device.
 - ▼Rear : Rear direction when facing the front of device.
 - ▼Left : Left direction when facing the front of device.
 - ▼right : Right direction when facing the front of device.



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Figure: Definition of Printer Orientation

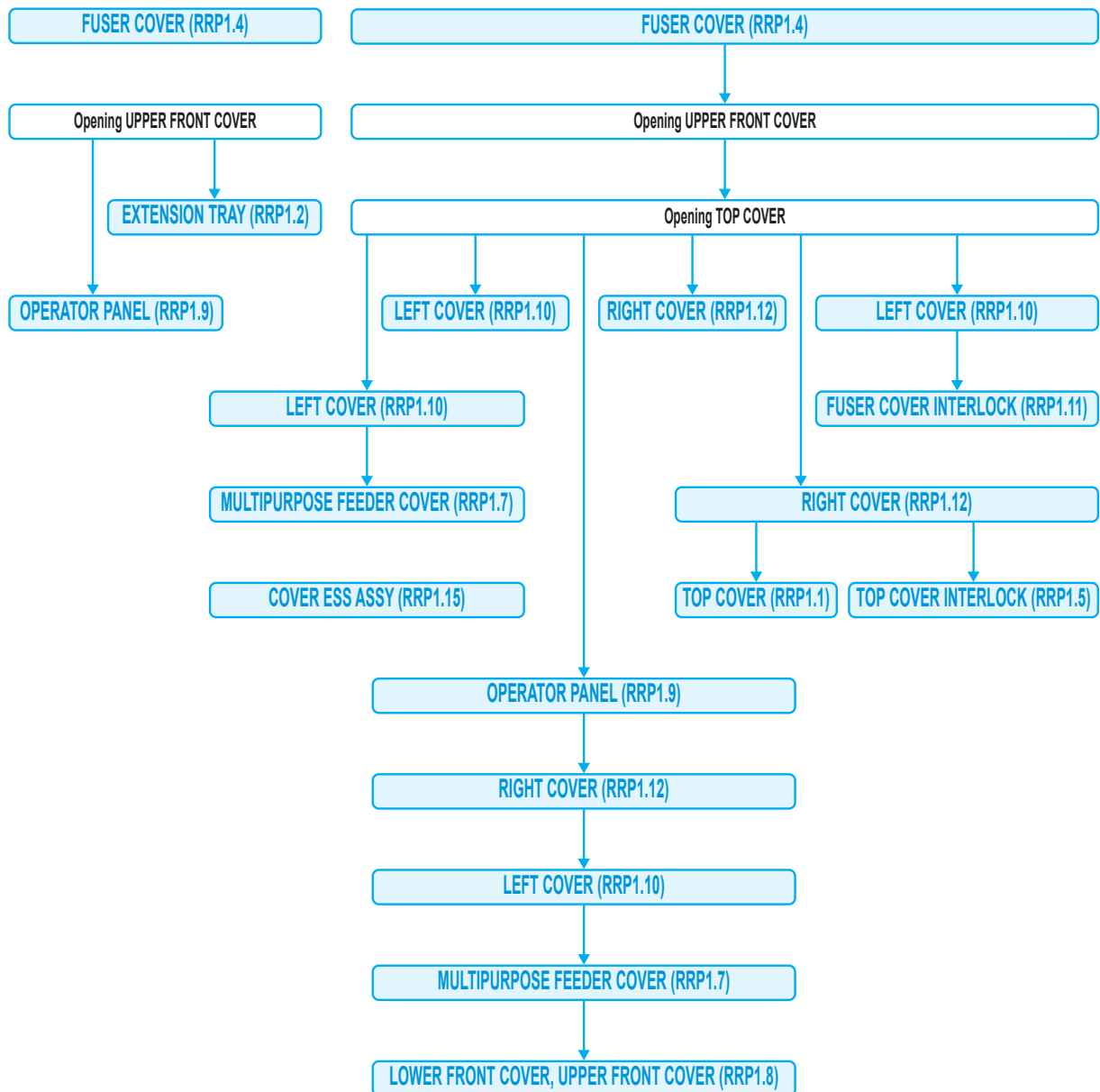
- Description of “◆[In the case of specification ***]” in the procedure shows that the work is performed only on the device with relevant specification. (no work is performed on device with irrelevant specification.)
- “(RRP X.Y) used in or at the end of sentences in the procedure shows that related work procedure is described in [RRP X.Y].
- Screws in a diagram are supposed to be loosened and removed using a cross slot screwdriver, unless otherwise specified.
- Black arrow in a diagram shows the moving direction. Moreover, the order number attached to the black arrows shows the order of movement.
- Refer to [Chapter 4 Plug/Jack (P/J) Connector Location] for the position of connector (P/J).

2. Removal and Replacement Flows

PRINTER RRP FLOW

This flow shows the removing procedures of the following parts.

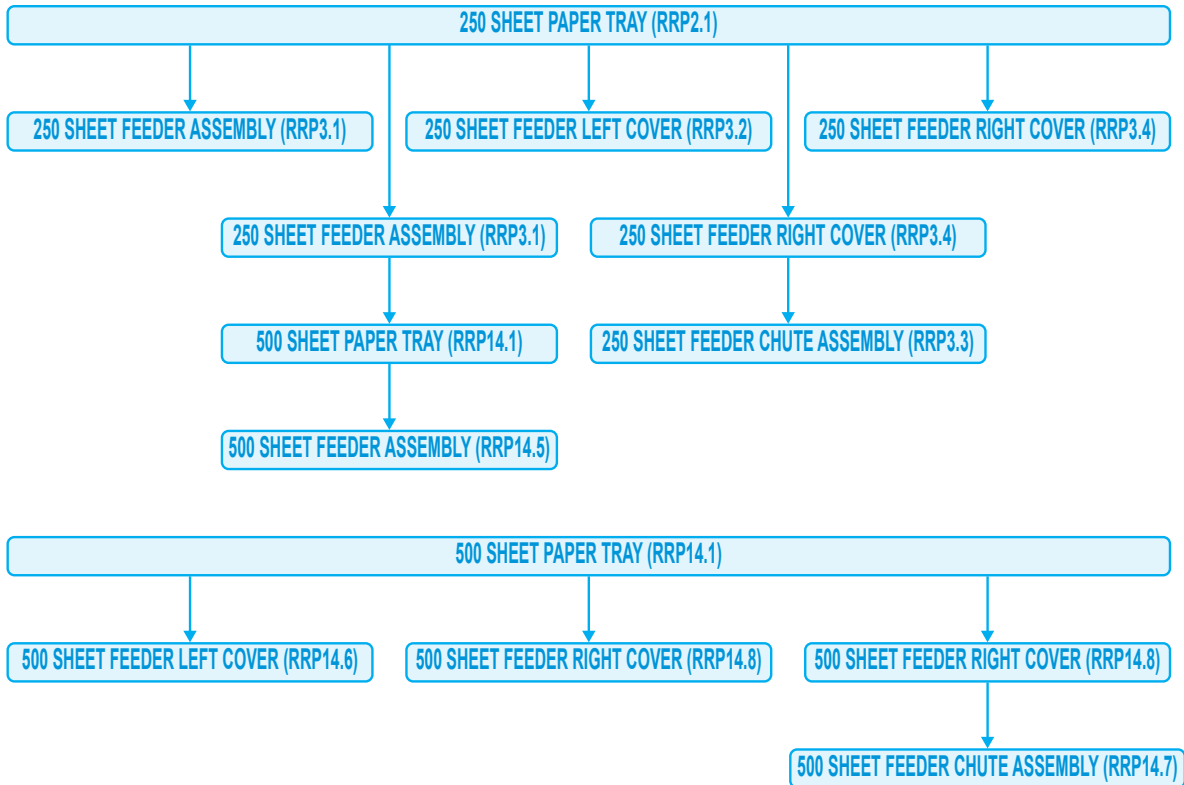
(COVER Reration)
TOP COVER, EXTENSION TRAY, FUSER COVER, TOP COVER INTERLOCK
RIGHT COVER, MULTIPURPOSE FEEDER COVER
LOWER FRONT COVER, UPPER FRONT COVER
OPERATOR PANEL, LEFT COVER, FUSER COVER INTERLOCK, COVER ESS ASSY



OPTION RRP FLOW

This flow shows the removing procedures of the following parts.

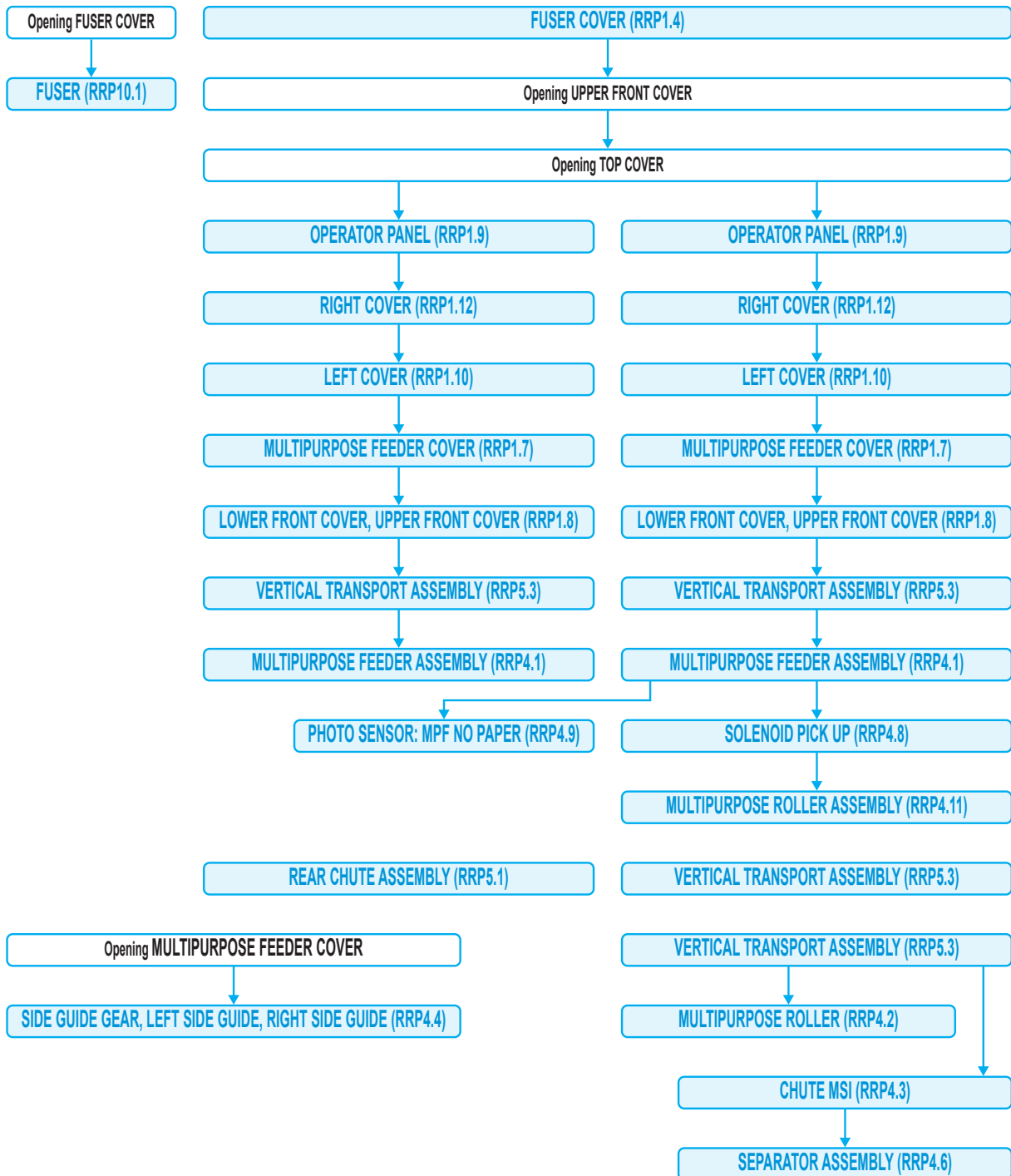
- (250 SHEET PAPER TRAY Reration)**
- 250 SHEET PAPER TRAY**
- (250 SHEET FEEDER ASSEMBLY Reration)**
- 250 SHEET FEEDER LEFT COVER, 250 SHEET FEEDER CHUTE ASSEMBLY**
- 250 SHEET FEEDER RIGHT COVER, 250 SHEET FEEDER ASSEMBLY**
- (500 SHEET PAPER TRAY Reration)**
- 500 SHEET PAPER TRAY**
- (500 SHEET FEEDER ASSEMBLY Reration)**
- 500 SHEET FEEDER LEFT COVER, 500 SHEET FEEDER CHUTE ASSEMBLY**
- 500 SHEET FEEDER RIGHT COVER, 500 SHEET FEEDER ASSEMBLY**



PRINTER RRP FLOW

This flow shows the removing procedures of the following parts.

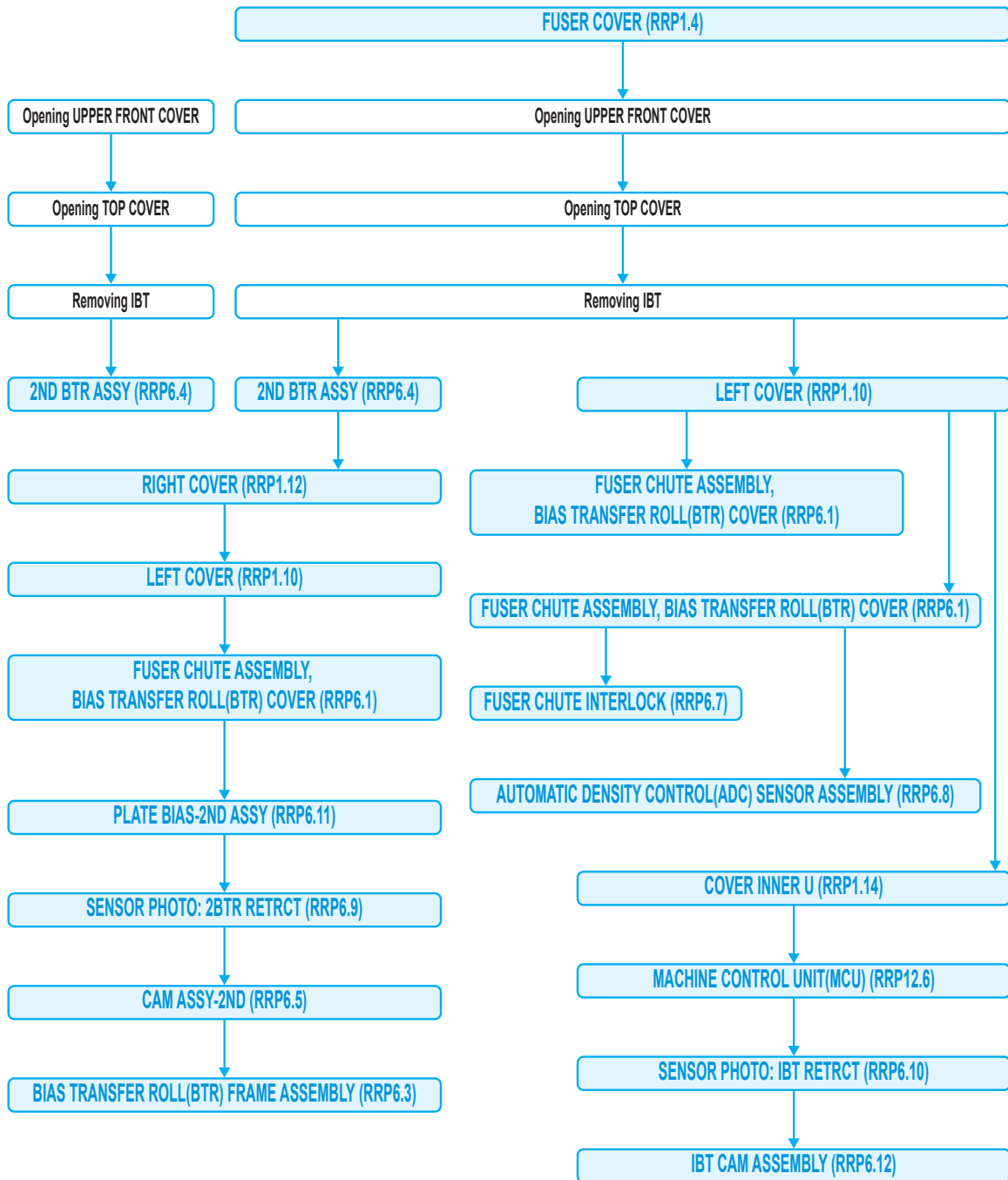
(MULTIPURPOSE FEEDER Reration)
MULTIPURPOSE FEEDER ASSEMBLY, MULTIPURPOSE ROLLER
SIDE GUIDE GEAR, LEFT SIDE GUIDE, RIGHT SIDE GUIDE
SEPARATOR ASSEMBLY, PHOTO SENSOR: MPF NO PAPER, CHUTE MSI
SOLENOID PICK UP, MULTIPURPOSE ROLLER ASSEMBLY
(VERTICAL TRANSPORT Reration)
REAR CHUTE ASSEMBLY, VERTICAL TRANSPORT ASSEMBLY
(FUSER Reration)
FUSER



PRINTER RRP FLOW

This flow shows the removing procedures of the following parts.

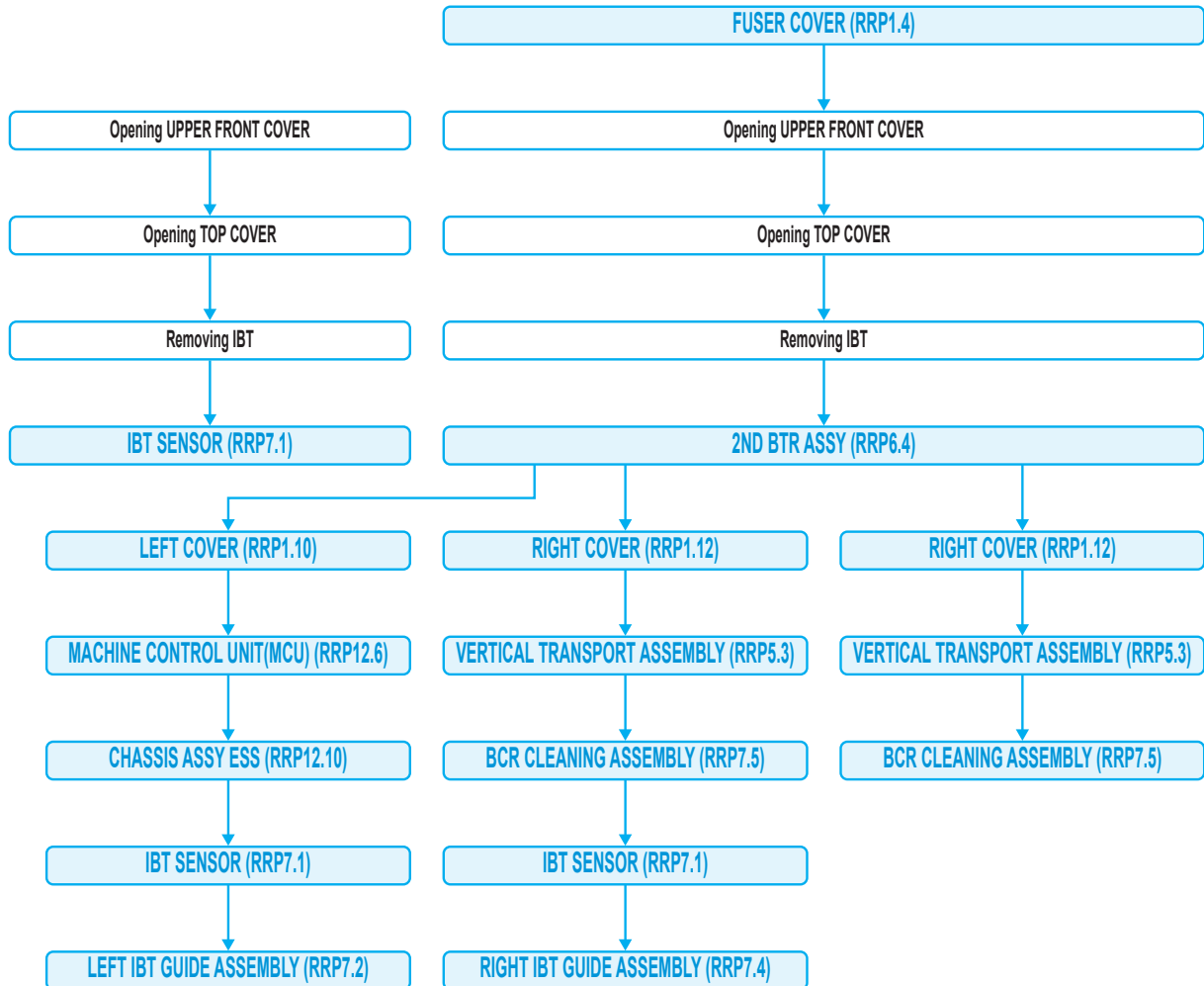
(TRANSFER Relation)
FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER
BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY
2ND BTR ASSY, FUSER CHUTE INTERLOCK
AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY, IBT CAM ASSEMBLY
SENSOR PHOTO: 2BTR RETRCT, SENSOR PHOTO: IBT RETRCT
CAM ASSY-2ND, PLATE BIAS-2ND ASSY



PRINTER RRP FLOW

This flow shows the removing procedures of the following parts.

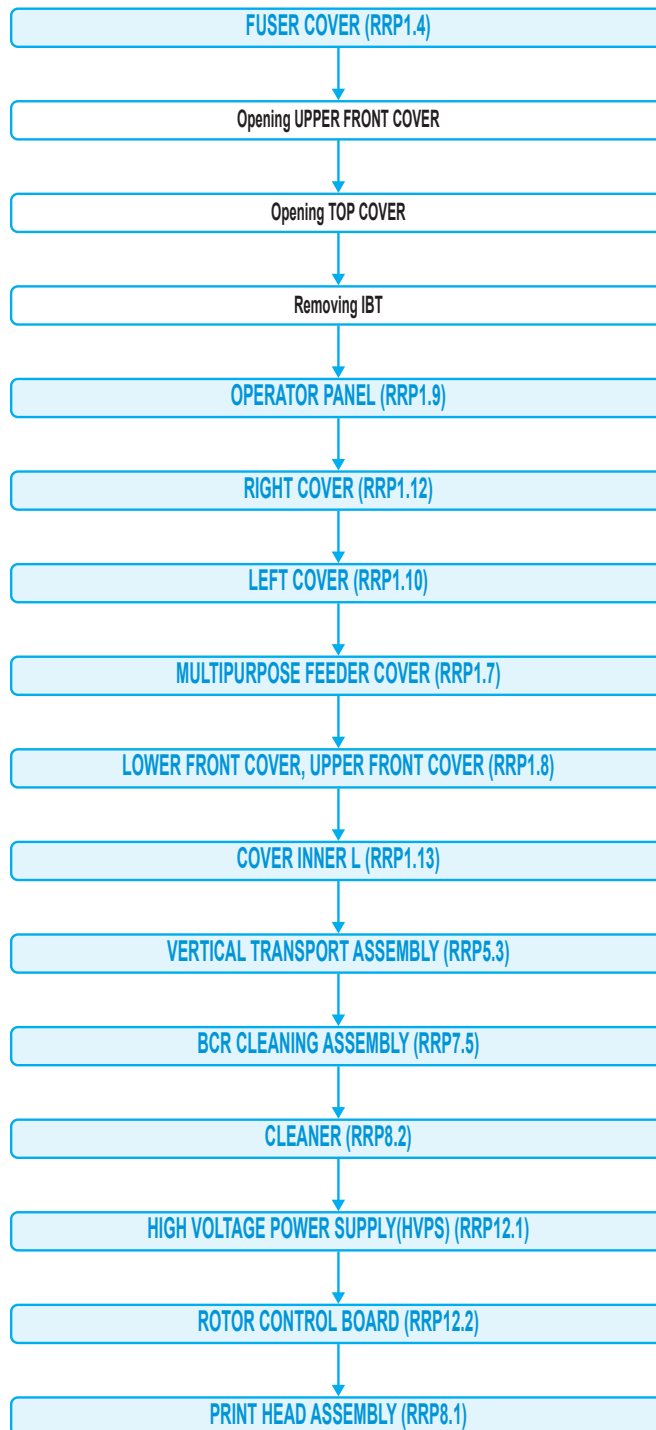
**(IBT Reration)
 IBT SENSOR, LEFT IBT GUIDE ASSEMBLY
 RIGHT IBT GUIDE ASSEMBLY, BCR CLEANING ASSEMBLY**



PRINTER RRP FLOW

This flow shows the removing procedures of the following parts.

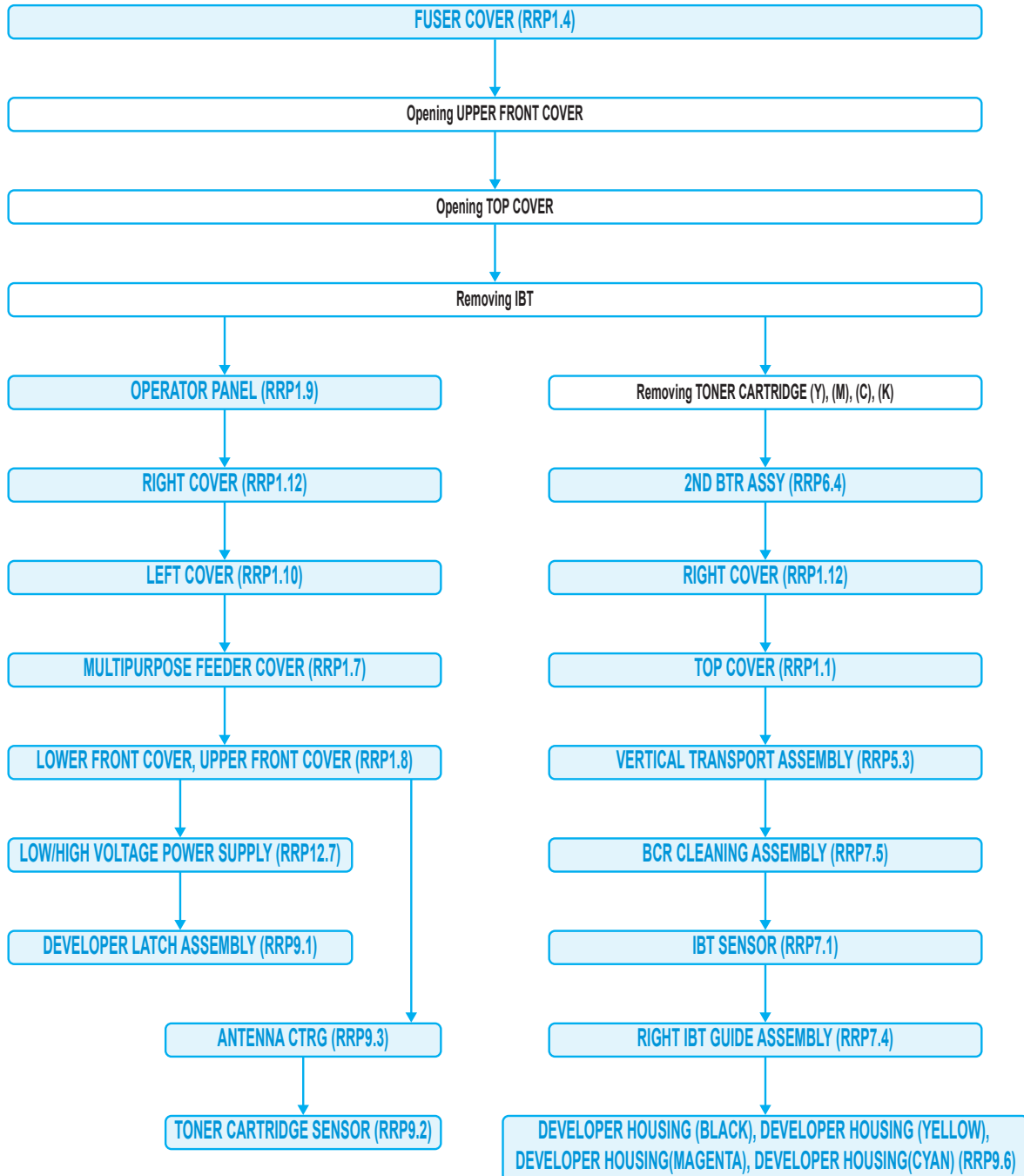
**(PRINT HEAD Reration)
PRINT HEAD ASSEMBLY, CLEANER**



PRINTER RRP FLOW

This flow shows the removing procedures of the following parts.

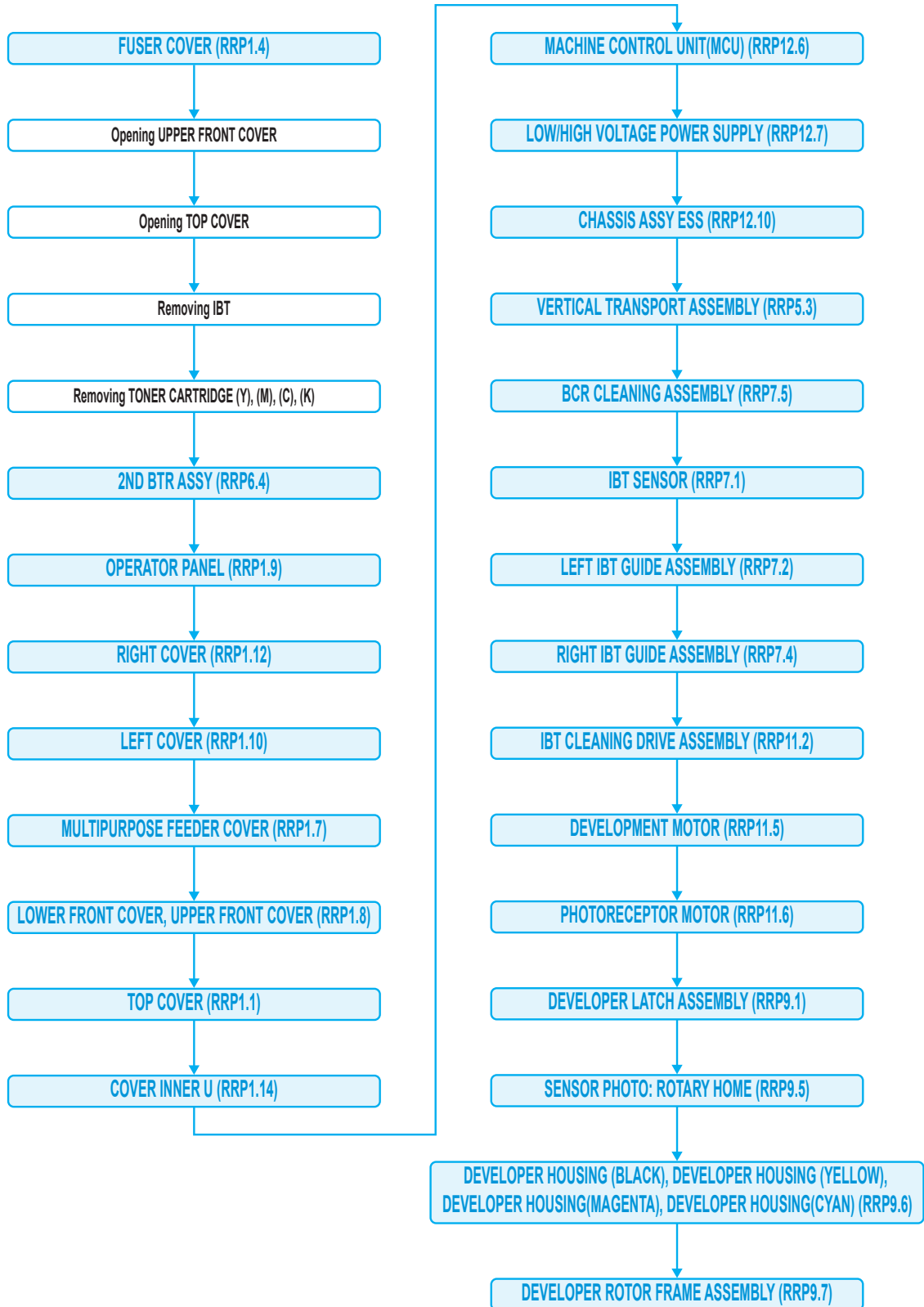
(DEVELOPER Reration)
DEVELOPER LATCH ASSEMBLY, TONER CARTRIDGE SENSOR, ANTENNA CTRG
DEVELOPER HOUSING (BLACK), DEVELOPER HOUSING (YELLOW),
DEVELOPER HOUSING(MAGENTA), DEVELOPER HOUSING(CYAN)



PRINTER RRP FLOW

This flow shows the removing procedures of the following parts.

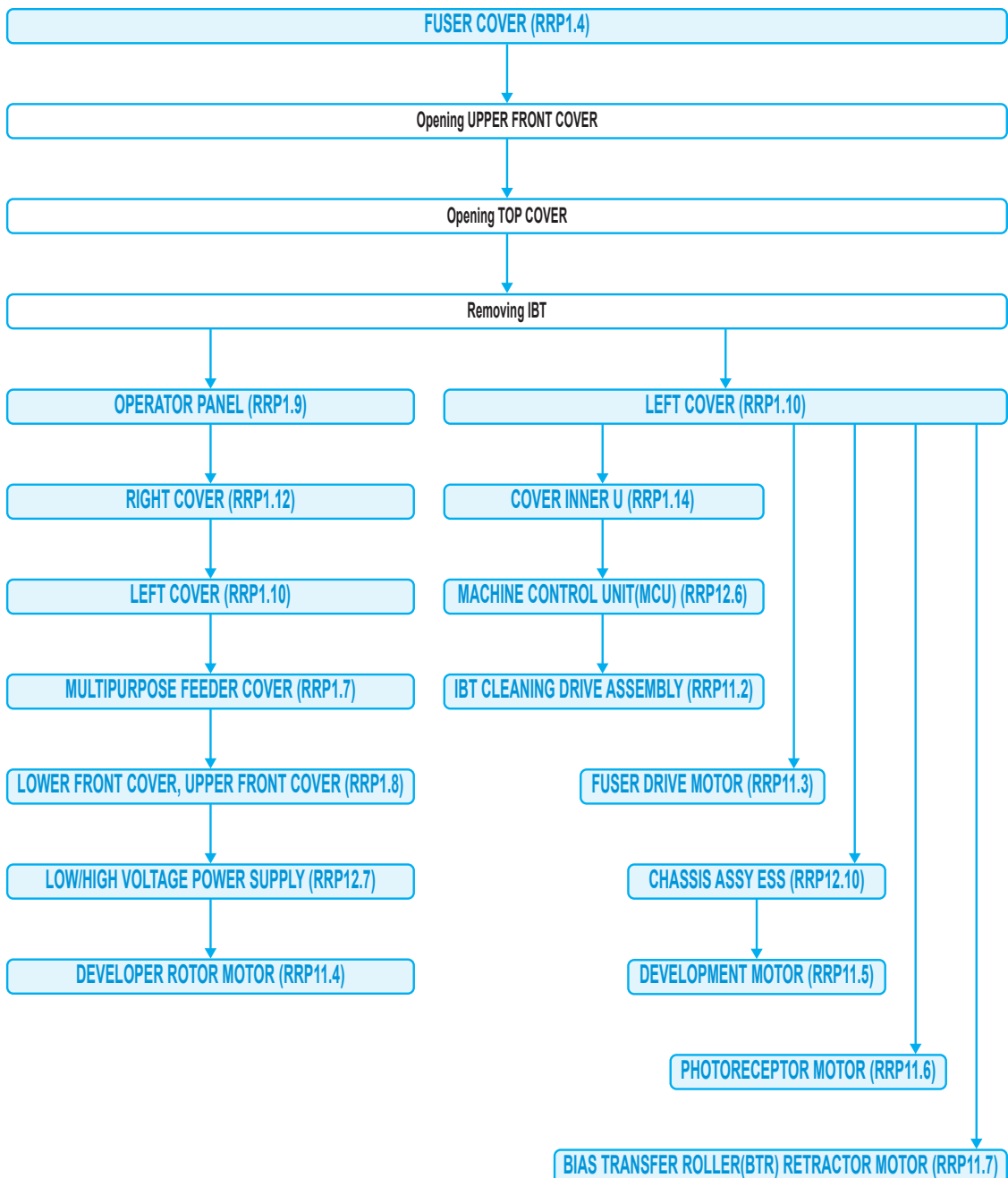
**(DEVELOPER Reration)
DEVELOPER ROTOR FRAME ASSEMBLY, SENSOR PHOTO: ROTARY HOME**



PRINTER RRP FLOW

This flow shows the removing procedures of the following parts.

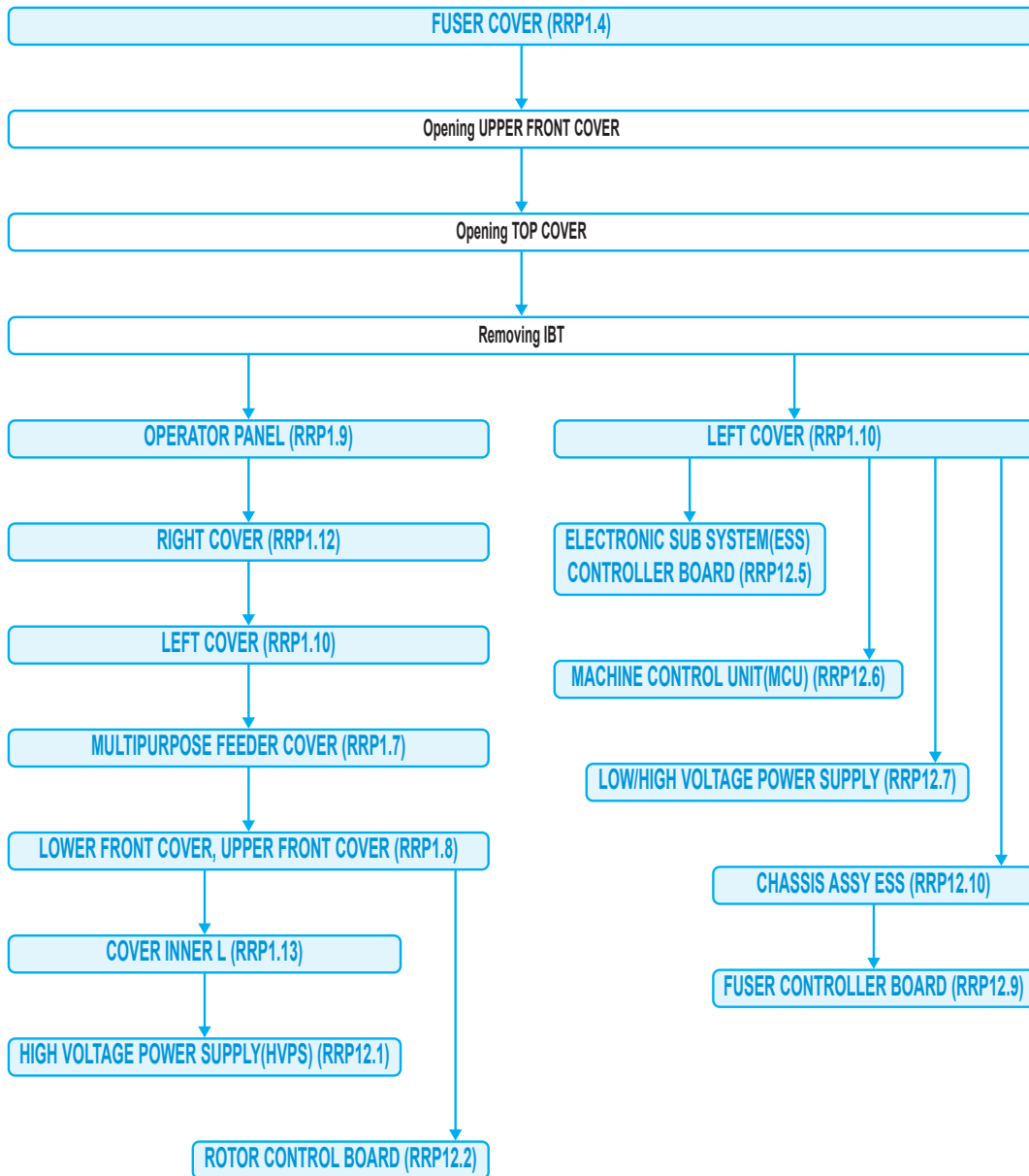
(DRIVE Reration)
IBT CLEANING DRIVE ASSEMBLY, FUSER DRIVE MOTOR
DEVELOPER ROTOR MOTOR, DEVELOPMENT MOTOR
PHOTORECEPTOR MOTOR, BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR



PRINTER RRP FLOW

This flow shows the removing procedures of the following parts.

- (ELEC Reration)
- HIGH VOLTAGE POWER SUPPLY(HVPS), ROTOR CONTROL BOARD
- ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD
- MACHINE CONTROL UNIT(MCU)
- LOW/HIGH VOLTAGE POWER SUPPLY, FUSER CONTROLLER BOARD



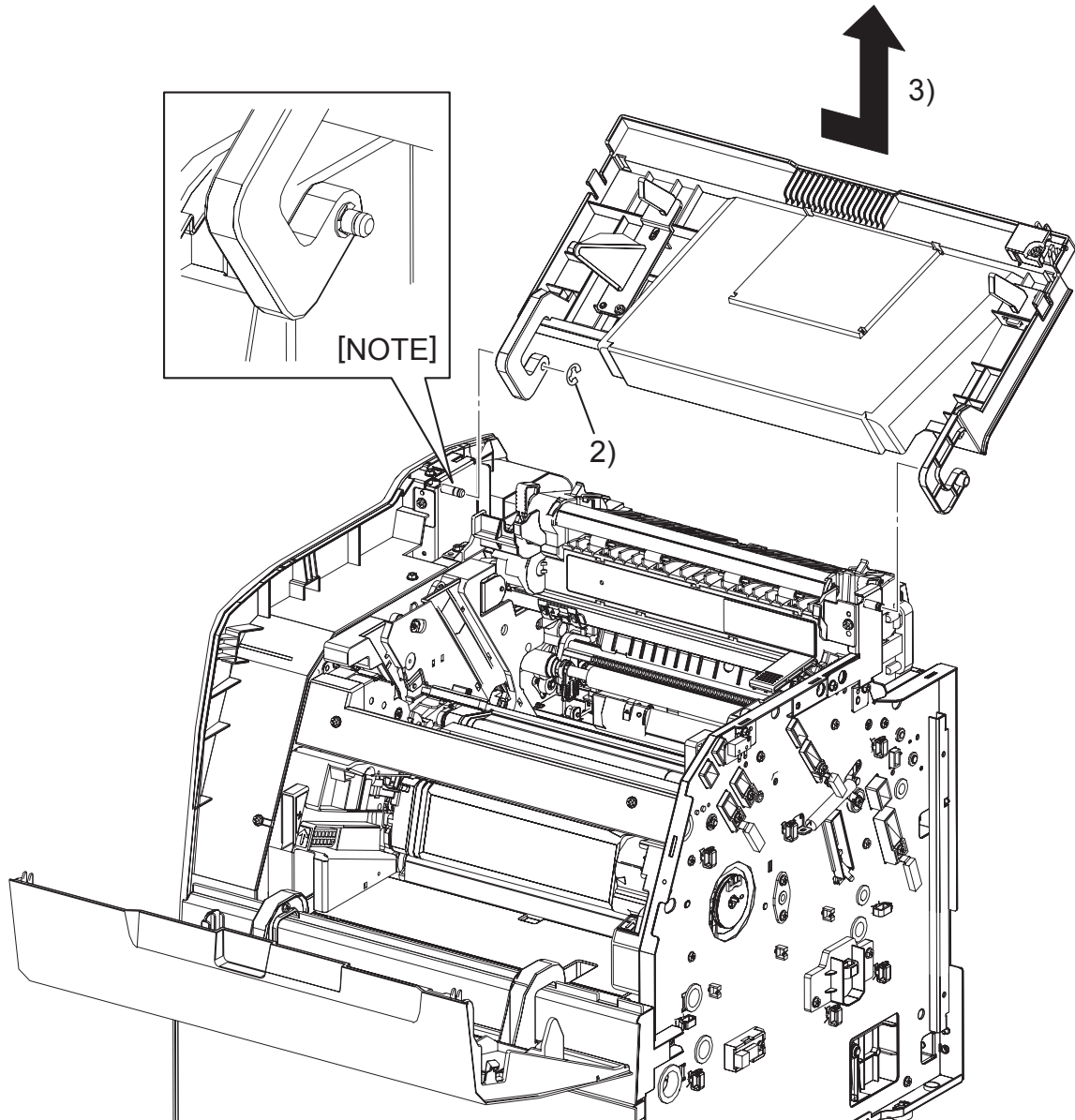
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RRP1. COVER

RRP1.1 TOP COVER (PL 1.1.1)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_616LA

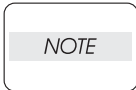
RRP1.1 TOP COVER (PL 1.1.1)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove E ring on left hand side that is used to fix TOP COVER (PL 1.1.1) on the main unit.
- 3) Slide the COVER ASSY to the right and remove it while TOP COVER is being opened.

[Replacement]

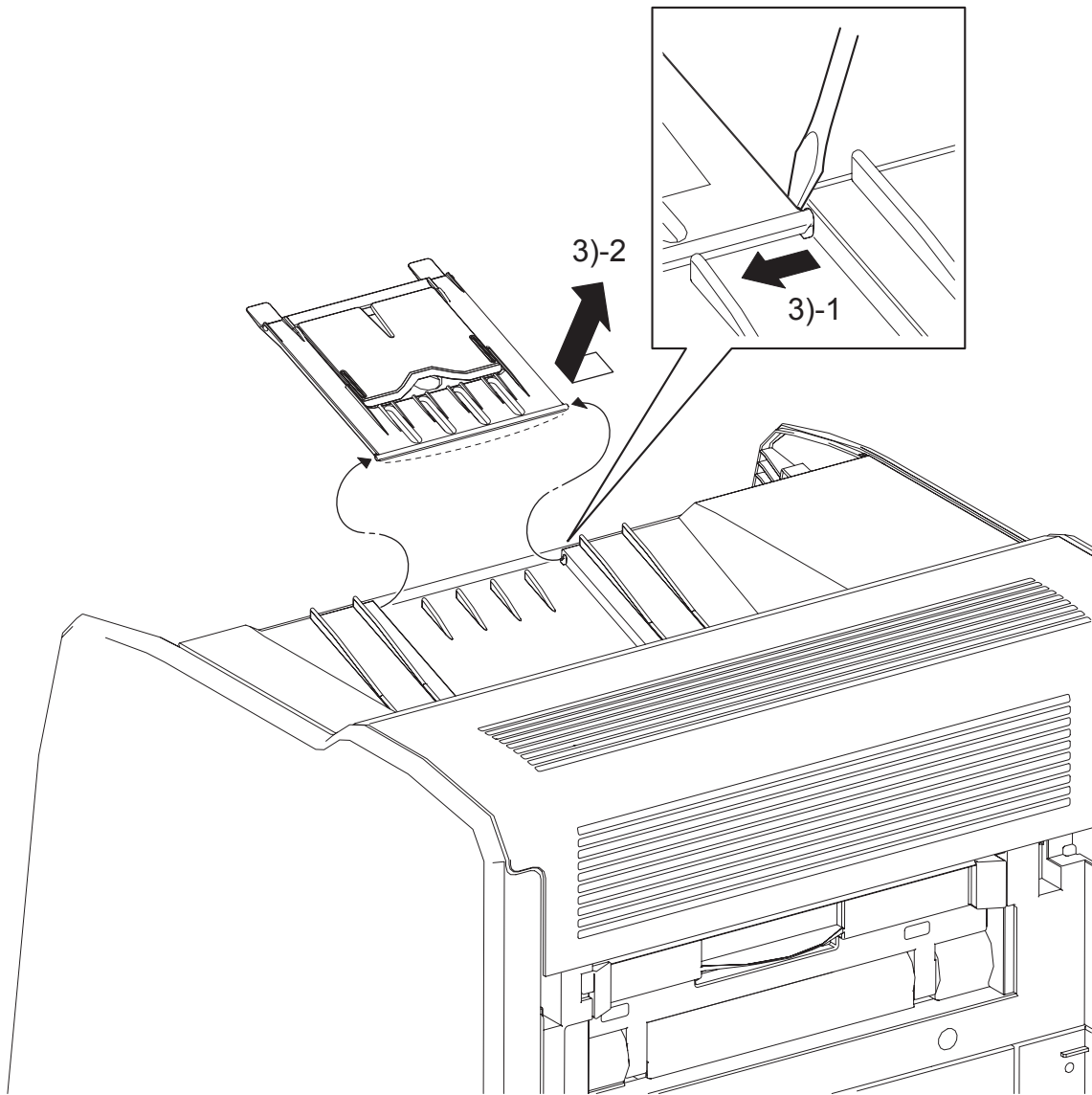
- 1) Attach TOP COVER (PL 1.1.1) to the main unit in the open state.



When carrying out the work shown below, use the left one of the two slots in the stud.

- 2) Fix the left side of TOP COVER using E ring.
- 3) Attach COVER ASSY RH. (RRP 1.12)

RRP1.2 EXTENSION TRAY (PL 1.1.3)

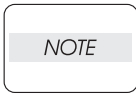


Leg_Sec03_601LA

RRP1.2 EXTENSION TRAY (PL 1.1.3)

[Removal]

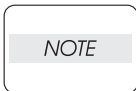
- 1) Open UPPER FRONT COVER (PL 1.1.14).



When carrying out the work shown below, be careful not to damage the boss of EXTENSION TRAY.

- 2) Open EXTENSION TRAY (PL 1.1.3).
- 3) Depress the boss of EXTENSION TRAY using a small screwdriver, disengage the boss of EXTENSION TRAY from a hole on TOP COVER, and remove the EXTENSION TRAY.

[Replacement]



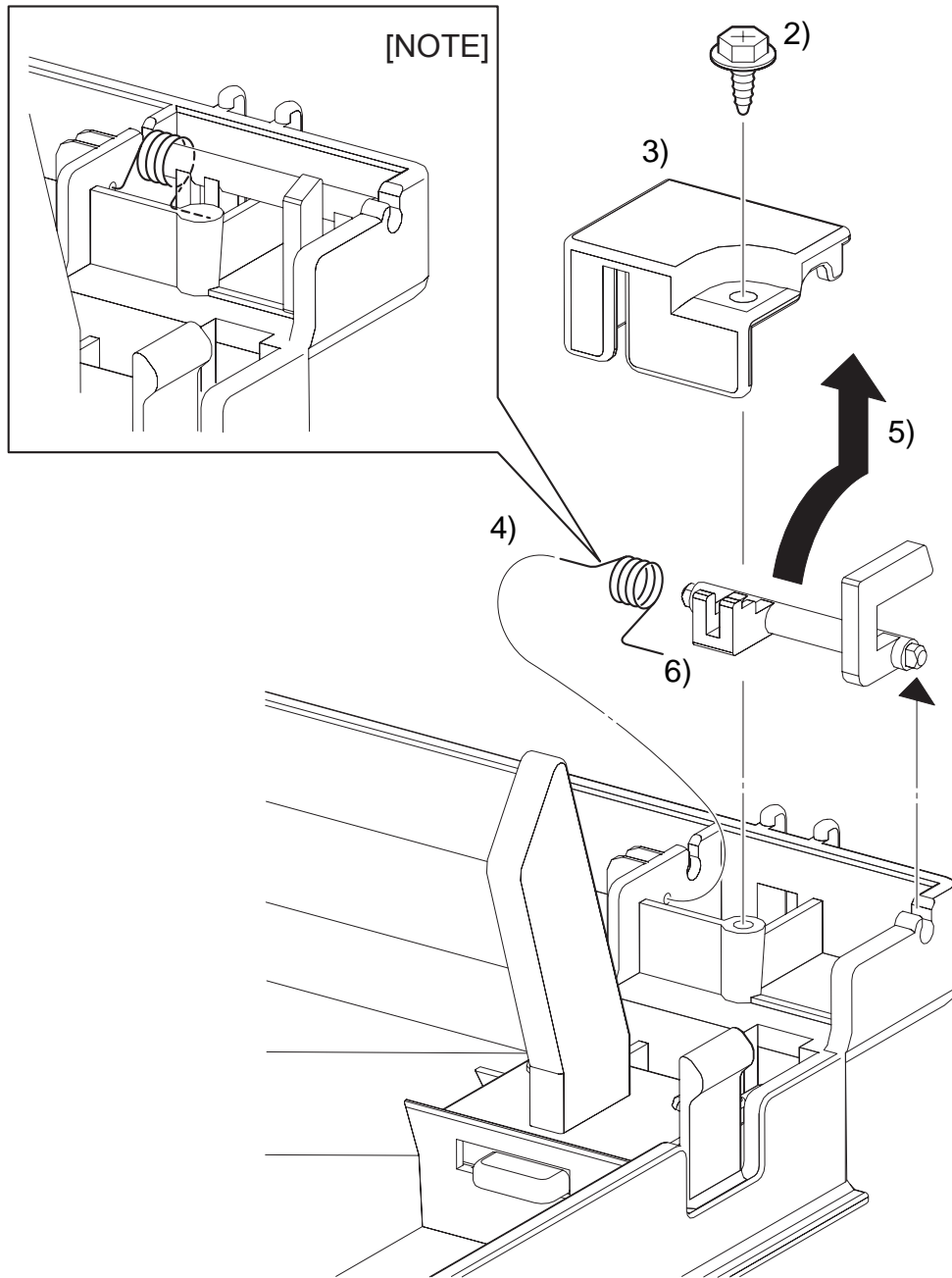
When carrying out the work shown below, be careful not to damage the boss of EXTENSION TRAY.

- 1) When EXTENSION TRAY is in open state, insert the boss part on one side of EXTENSION TRAY in the hole in TOP COVER, and attach it to the hole in TOP COVER while depressing the boss of EXTENSION TRAY.
- 2) Close EXTENSION TRAY.
- 3) Close UPPER FRONT COVER.

RRP1.3 LEVER-SW (PL 1.1.5)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_004FB

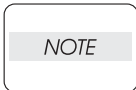
RRP1.3 LEVER-SW (PL 1.1.5)

[Removal]

- 1) Remove TOP COVER. (RRP 1.1)
- 2) Remove a screw (Silver, with a flange, tap, 8mm) that fixes COVER SPRING TOP (PL 1.1.19) to TOP COVER (PL 1.1.1).
- 3) Remove COVER SPRING TOP from TOP COVER.
- 4) Pull out SPRING-SW (PL 1.1.4) from the hole in TOP COVER.
- 5) Rotate LEVER-SW (PL 1.1.5) to match the cut side of shaft of LEVER-SW to the notched of TOP COVER and remove LEVER-SW together with SPRING-SW.
- 6) Remove SPRING-SW from LEVER-SW.

[Replacement]

- 1) Attach SPRING-SW to LEVER-SW.
- 2) Match the cut side of shaft of LEVER-SW to the notched of TOP COVER and attach LEVER-SW together with SPRING-SW.
- 3) Insert SPRING-SW in the hole in TOP COVER.



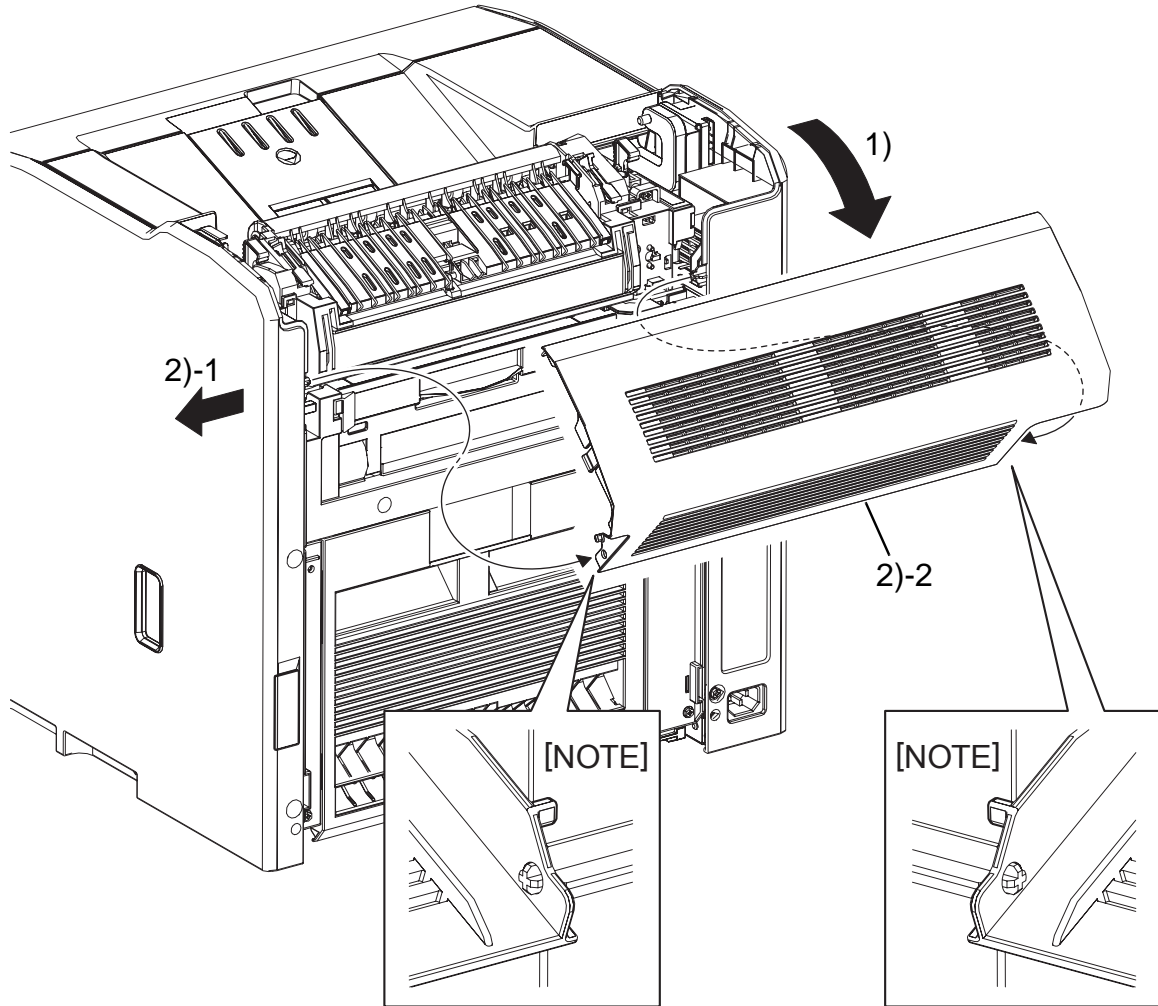
Be sure to put SPRING-SW on LEVER-SW properly.

- 4) Attach COVER SPRING TOP in a way that the notch of COVER SPRING TOP meets the rib of TOP COVER.
- 5) Fix COVER SPRING TOP to TOP COVER using a screw. (Silver, with a flange, tap, 8mm)
- 6) Attach TOP COVER. (RRP 1.1)

RRP1.4 FUSER COVER (PL 1.1.6)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



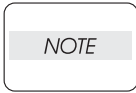
Leg_Sec03_005LA

RRP1.4 FUSER COVER (PL 1.1.6)

[Removal]

- 1) Open FUSER COVER (PL 1.1.6).
- 2) Pull out the boss of RIGHT COVER from the hole in FUSER COVER while spreading RIGHT COVER (PL 1.1.8) and remove FUSER COVER.

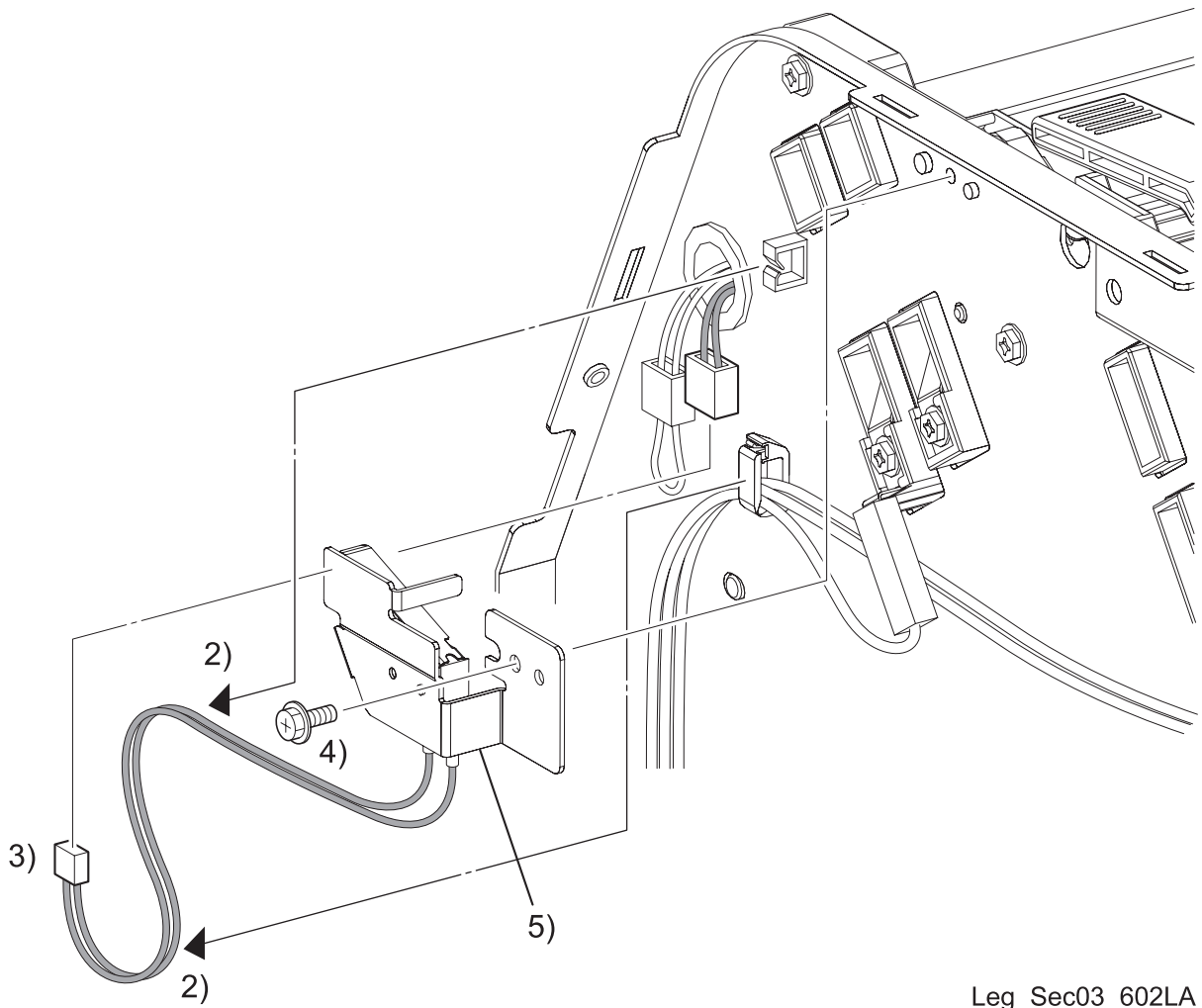
[Replacement]



When carrying out the work shown below, securely fit the projections on FUSER COVER right and left respectively inside RIGHT COVER and LEFT COVER.

- 1) With the FUSER COVER (PL 1.1.6) opened state, engage the left side hole in FUSER COVER with the boss of LEFT COVER (PL 1.1.16), and then, spread RIGHT COVER and insert the boss of RIGHT COVER in the right side hole in FUSER COVER to attach it.
- 2) Close FUSER COVER.

RRP1.5 TOP COVER INTERLOCK (PL 1.1.7)

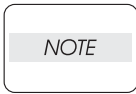


Leg_Sec03_602LA

RRP1.5 TOP COVER INTERLOCK (PL 1.1.7)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)



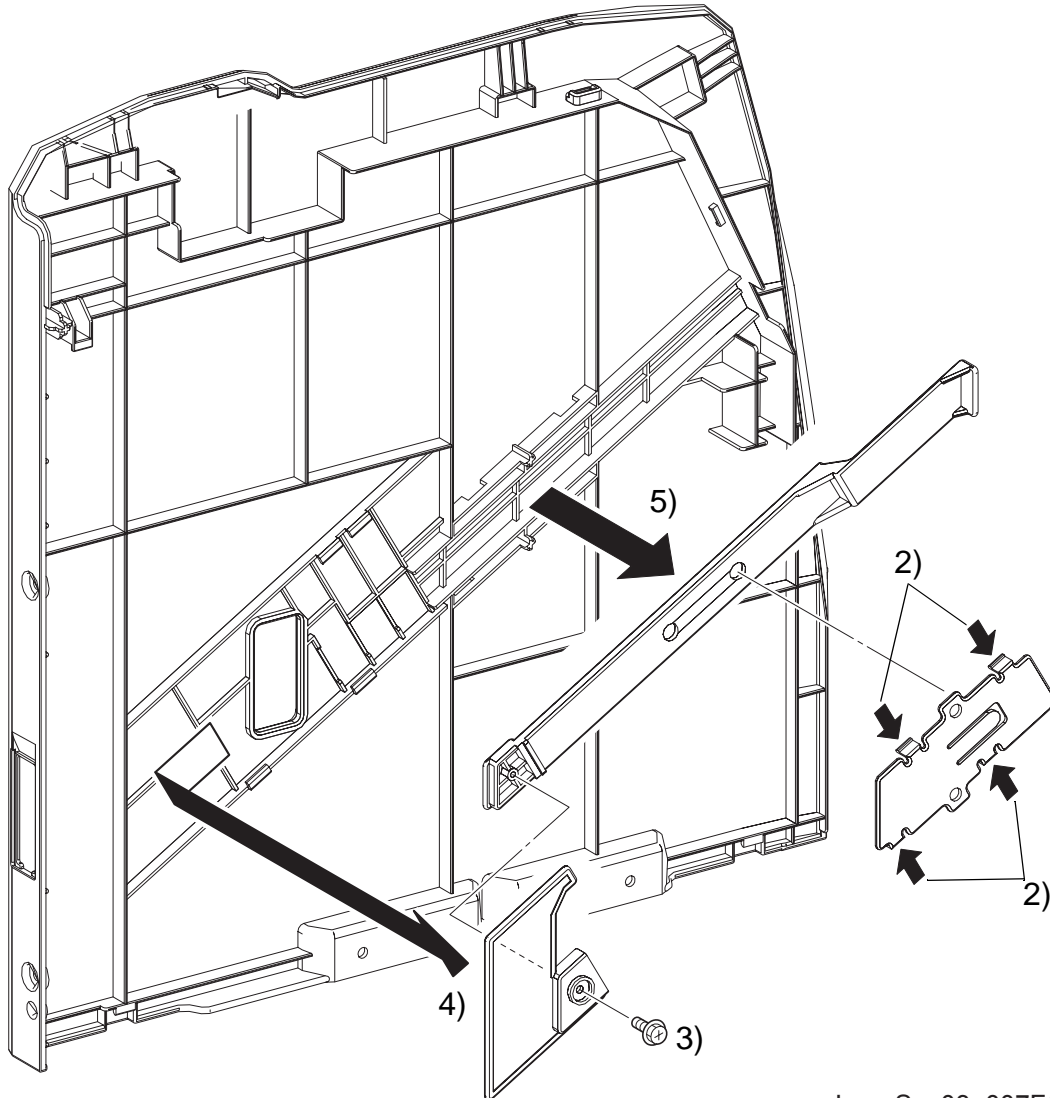
When carrying out the work shown below, leave the relay connector on the harness side.

- 2) Release the clamp at two locations that fix the harness of TOP COVER INTERLOCK (PL 1.1.7) and remove the harness.
- 3) Remove connector (P/J116) of TOP COVER INTERLOCK.
- 4) Remove a screw (silver, with a flange, 8mm) that fixes TOP COVER INTERLOCK on the main unit.
- 5) Remove TOP COVER INTERLOCK from the main unit.

[Replacement]

- 1) Match the hole in TOP COVER INTERLOCK to the boss of the main unit and attach it.
- 2) Fix TOP COVER INTERLOCK on the main unit using a screw (silver, with a flange, 8mm).
- 3) Attach connector of TOP COVER INTERLOCK (P/J116).
- 4) Fix the harness of TOP COVER INTERLOCK using two clamps.
- 5) Attach COVER ASSY RH. (RRP 1.12)

RRP1.6 RIGHT COVER (PL 1.1.8), COVER ROS WINDOW (PL 1.1.20), SLIDE BAR (PL 1.1.21)



Leg_Sec03_007FA

RRP1.6 RIGHT COVER (PL 1.1.8), COVER ROS WINDOW (PL 1.1.20), SLIDE BAR (PL 1.1.21)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Release the hooks at four locations that fix GUIDE BAR (PL 1.1.22) to RIGHT COVER (PL 1.1.8), and remove GUIDE BAR.
- 3) Remove a screw (Silver, with a flange, tap, 8mm) that fix COVER ROS WINDOW (PL 1.1.20) on SLIDE BAR (PL 1.1.21).
- 4) Slide COVER ROS WINDOW along the rib of RIGHT COVER, and remove COVER ROS WINDOW from the convexed section of RIGHT COVER.
- 5) Remove SLIDE BAR from RIGHT COVER.

[Replacement]

- 1) Attach SLIDE BAR at the concaved section on the rear side of RIGHT COVER.

NOTE

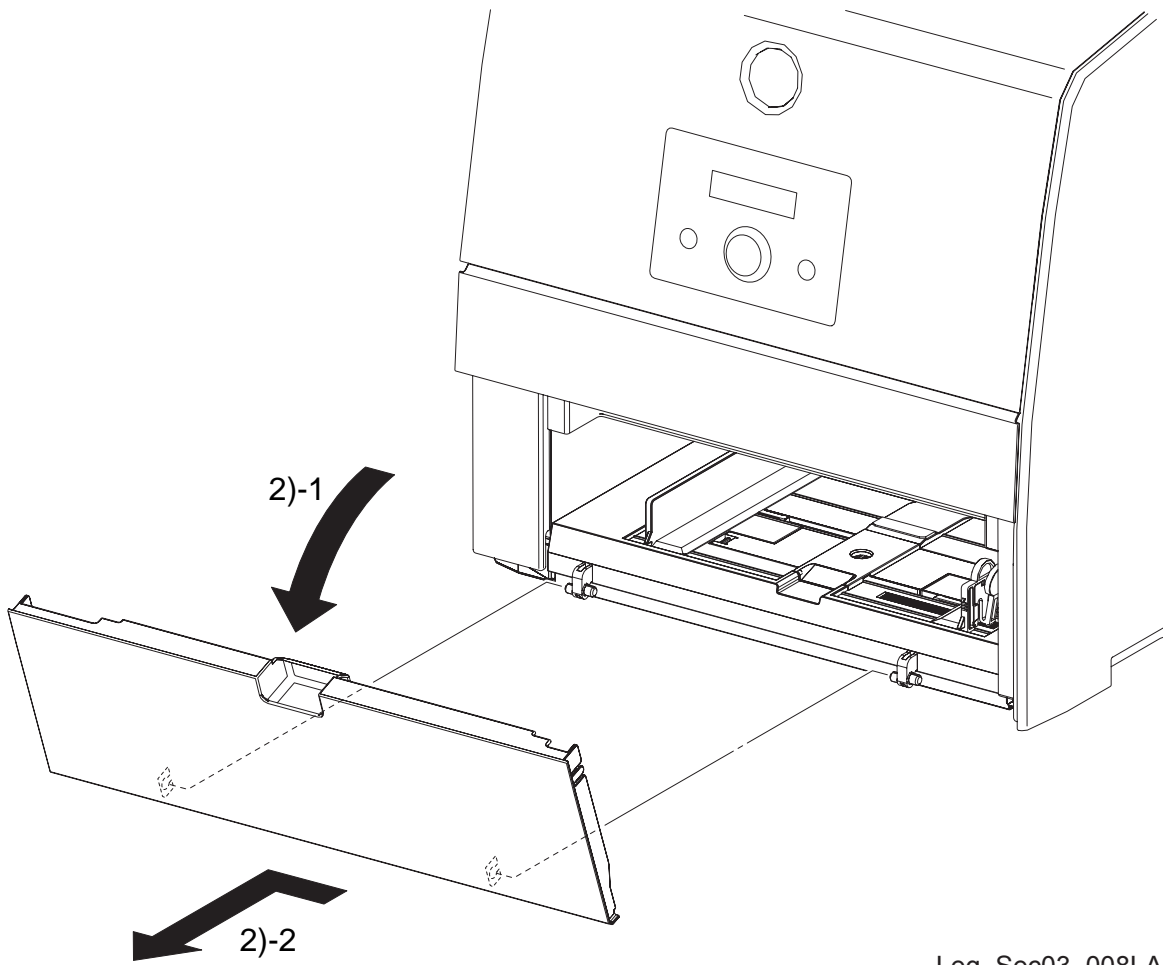
 When carrying out the work shown below, make sure that the top and the bottom of COVER ROS WINDOW fit the convexed section of RIGHT COVER.
- 2) Align COVER ROS WINDOW to its installation location on the rear side of RIGHT COVER, slide COVER ROS WINDOW along the rib of RIGHT COVER, then attach COVER ROS WINDOW to SLIDE BAR.
- 3) Fix COVER ROS WINDOW on SLIDE BAR using a screw (Silver, with a flange, tap, 8mm).
- 4) Align the hole of GUIDE BAR to the boss of RIGHT COVER, and fix GUIDE BAR using the hooks at four locations.

NOTE

When the above steps have been completed, move SLIDE BAR and see if COVER ROS WINDOW opens and closes smoothly.

- 5) Attach COVER ASSY RH. (RRP 1.12)

RRP1.7 MULTIPURPOSE FEEDER COVER (PL 1.1.12)



Leg_Sec03_008LA

RRP1.7 MULTIPURPOSE FEEDER COVER (PL 1.1.12)

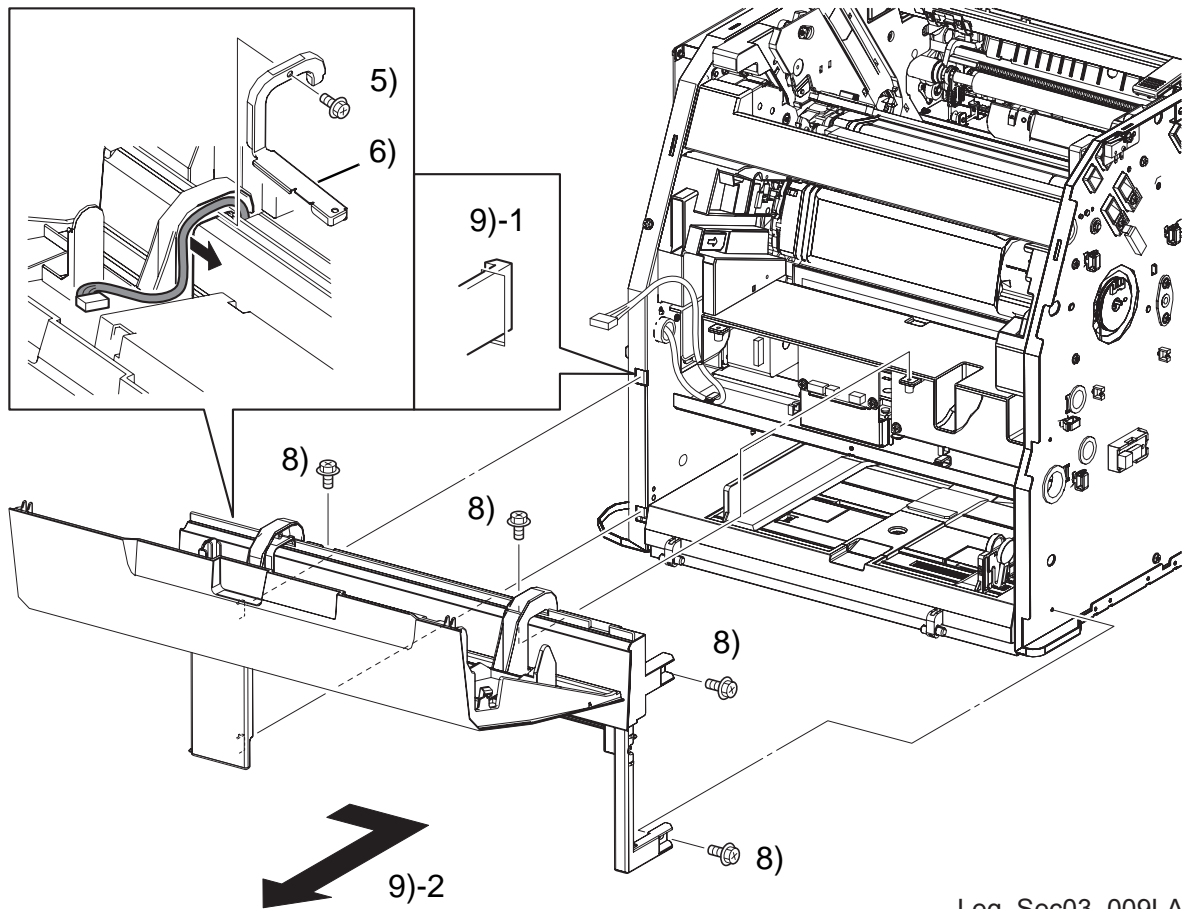
[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Slide MULTIPURPOSE FEEDER COVER (PL 1.1.12) to left side opening it a little and remove it from the main unit.

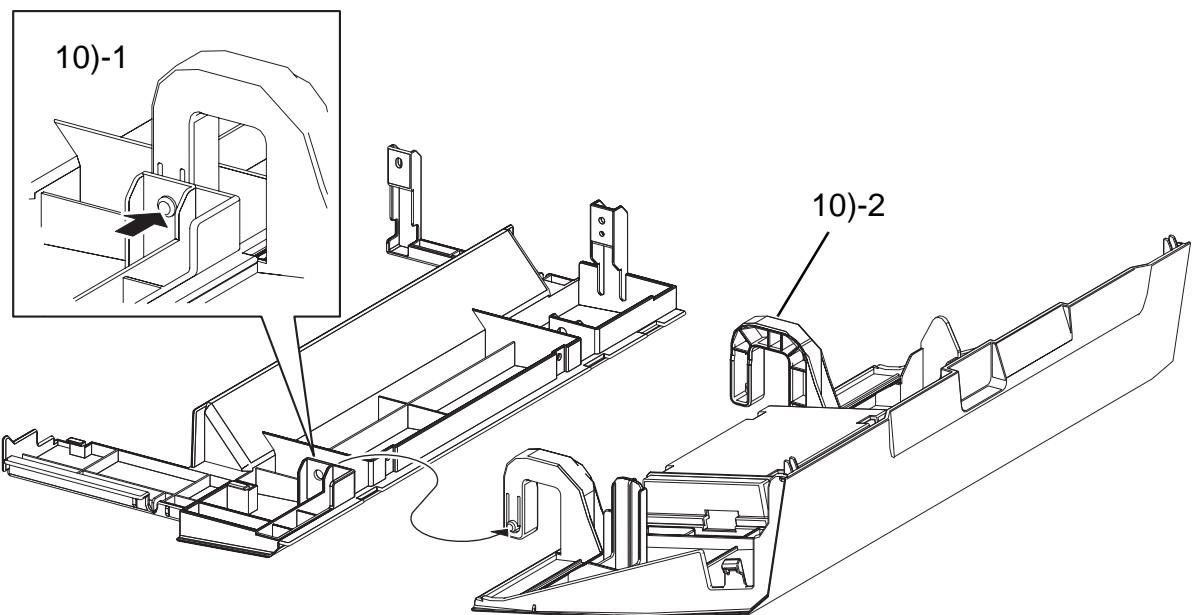
[Replacement]

- 1) With MULTIPURPOSE FEEDER COVER open a little, match the hole in MULTIPURPOSE FEEDER COVER to the boss of the main unit and slide MULTIPURPOSE FEEDER COVER to right side to attach it.
- 2) Attach LEFT COVER. (RRP 1.10)

RRP1.8 LOWER FRONT COVER (PL 1.1.13), COVER FRONT-U (PL 1.1.14)



Leg_Sec03_009LA

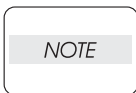


Leg_Sec03_010FB

RRP1.8 LOWER FRONT COVER (PL 1.1.13), COVER FRONT-U (PL 1.1.14)

[Removal]

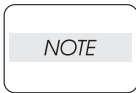
- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove OPERATOR PANEL. (RRP 1.9)
- 5) Remove a screw (silver, with a flange, tap, 8mm) that fix COVER CONPANE (PL 1.1.35) on COVER FRONT-U (PL 1.1.14).
- 6) Remove COVER CONPANE 2 from COVER FRONT-U.
- 7) Remove HARNESS ASSY PANEL (PL 1.1.24) from the left side hinge section of COVER FRONT-U.
- 8) Remove four screws (silver, with a flange, 8mm) that fix LOWER FRONT COVER (PL 1.1.3) on the main unit.
- 9) Slide LOWER FRONT COVER to the right, release the hooks at two locations on the rear face of LOWER FRONT COVER from the holes on the main unit, and remove LOWER FRONT COVER together with COVER FRONT-U.



Try not to break the boss of COVER FRONT-U when carrying out the work shown below.

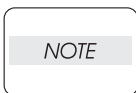
- 10) Push the boss parts on right and left sides of COVER FRONT-U to pull it out from the holes in LOWER FRONT COVER and remove COVER FRONT-U from LOWER FRONT COVER.

[Replacement]



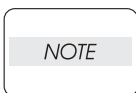
Try not to break the boss of COVER FRONT-U when carrying out the work shown below.

- 1) Depress the boss of COVER FRONT-U, match the hole in LOWER FRONT COVER and attach COVER FRONT-U to LOWER FRONT COVER.



When carrying out the work shown below, be careful so that the harness will not be caught between the main unit and the LOWER FRONT COVER.

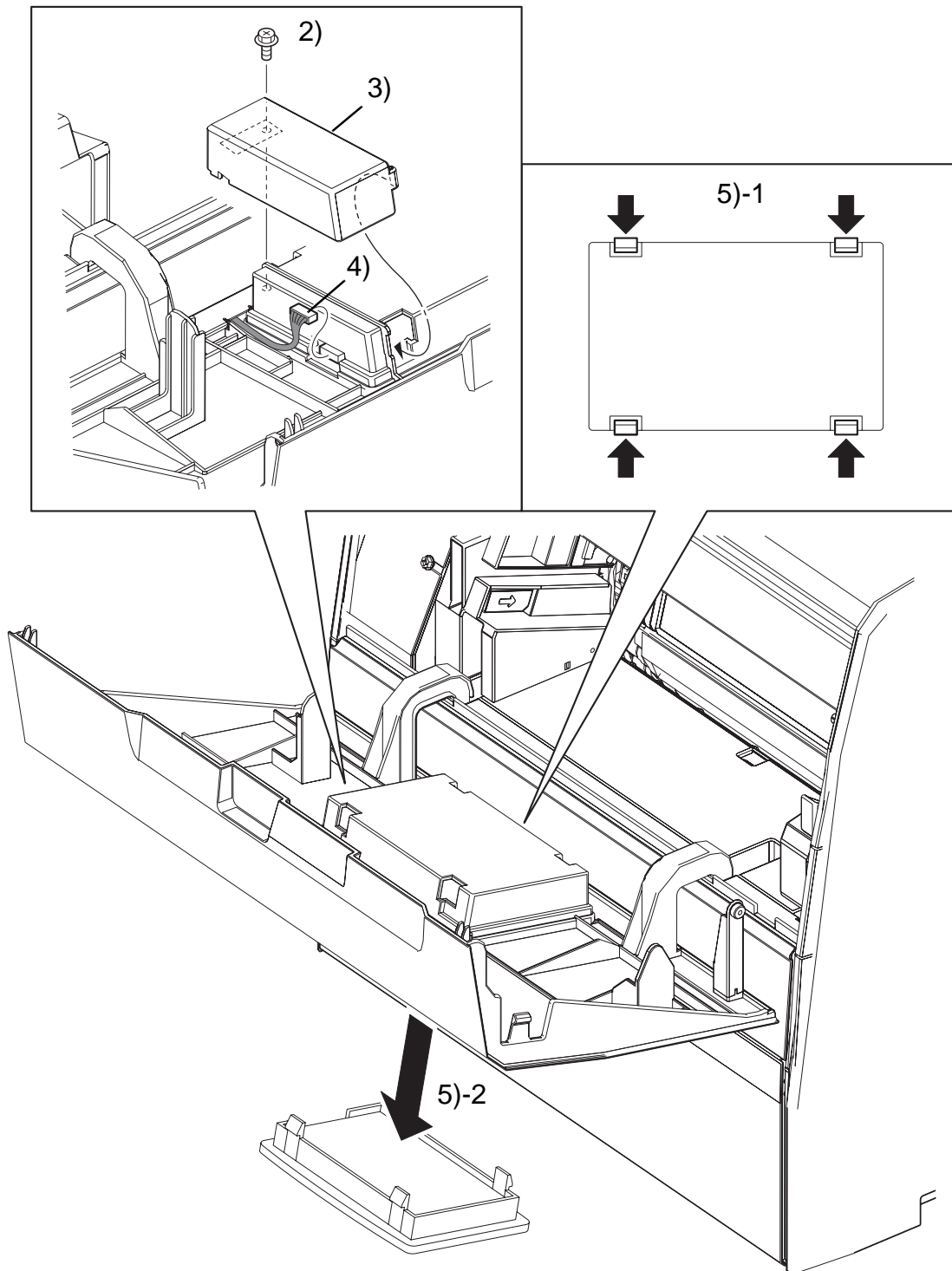
- 2) Match the hooks at two locations on the rear side of LOWER FRONT COVER to the holes in main unit, and attach LOWER FRONT COVER together with COVER FRONT-U.
- 3) Fix LOWER FRONT COVER on the main unit using four screws (silver, with a flange, tap, 8mm).
- 4) Pull HARNESS ASSY PANEL around the left side hinge of COVER FRONT-U.



When carrying out the work shown below, take care not to allow the harness to be caught between COVER FRONT-U and COVER CONPANE 2.

- 5) Attach COVER CONPANE 2 to COVER FRONT-U.
- 6) Fix COVER CONPANE 2 on COVER FRONT-U using a screw (silver, with a flange, 8mm).
- 7) Attach OPERATOR PANEL. (RRP 1.9)
- 8) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 9) Attach LEFT COVER. (RRP 1.10)
- 10) Attach COVER ASSY RH. (RRP 1.12)

RRP1.9 OPERATOR PANEL (PL 1.1.15)



Leg_Sec03_184LA

RRP1.9 OPERATOR PANEL (PL 1.1.15)

[Removal]

- 1) Open COVER FRONT-U (PL 1.1.14).
- 2) Remove a screw (silver, with a flange, tap, 8mm) that fix COVER CONPANE 1 (PL 1.1.34) to COVER FRONT-U.
- 3) Remove COVER CONPANE 1 from COVER FRONT-U.
- 4) Remove connector (P/J220) on OPERATOR PANEL (PL 1.1.15).

NOTE

When carrying out the work shown below, take care to protect the related parts against breakage to be caused by dropping-off of the OPERATOR PANEL.

- 5) Release the hooks at four locations that fix OPERATOR PANEL to COVER FRONT-U, and remove OPERATOR PANEL.

[Replacement]

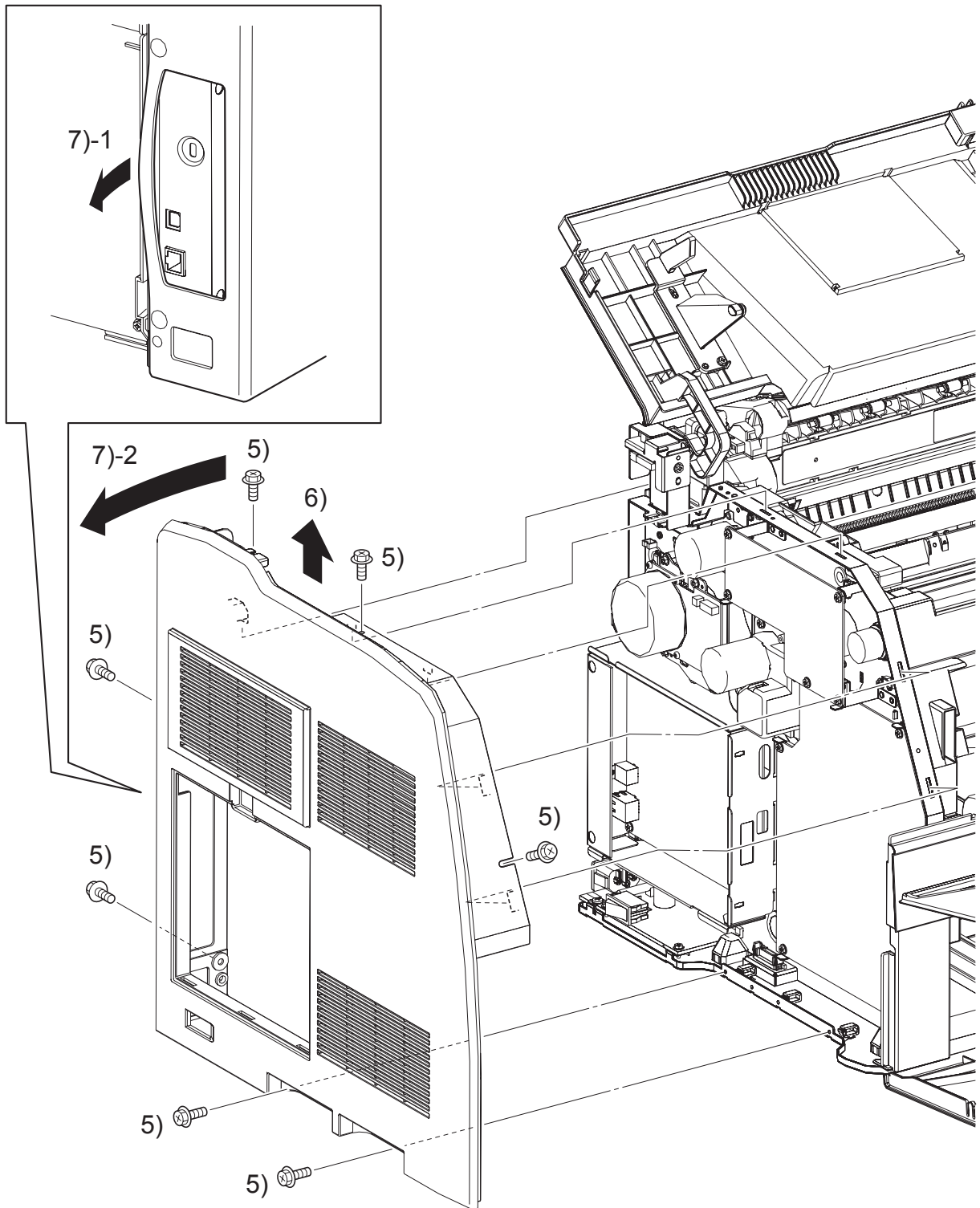
- 1) Place OPERATOR PANEL at its installation position on COVER FRONT-U, and fix OPERATOR PANEL using the hooks at four locations.
- 2) Attach connector (P/J220) on OPERATOR PANEL.

NOTE

When carrying out the work shown below, take care not to allow the harness to be caught between COVER FRONT-U and COVER CONPANE 1.

- 3) Put the convex of COVER CONPANE 1 on COVER FRONT-U and attach COVER CONPANE 1.
- 4) Fix COVER CONPANE 1 on COVER FRONT-U using a screw (silver, with a flange, tap, 8mm).
- 5) Close COVER FRONT-U.

RRP1.10 LEFT COVER (PL 1.1.16)



Leg_Sec03_603LA

RRP1.10 LEFT COVER (PL 1.1.16)

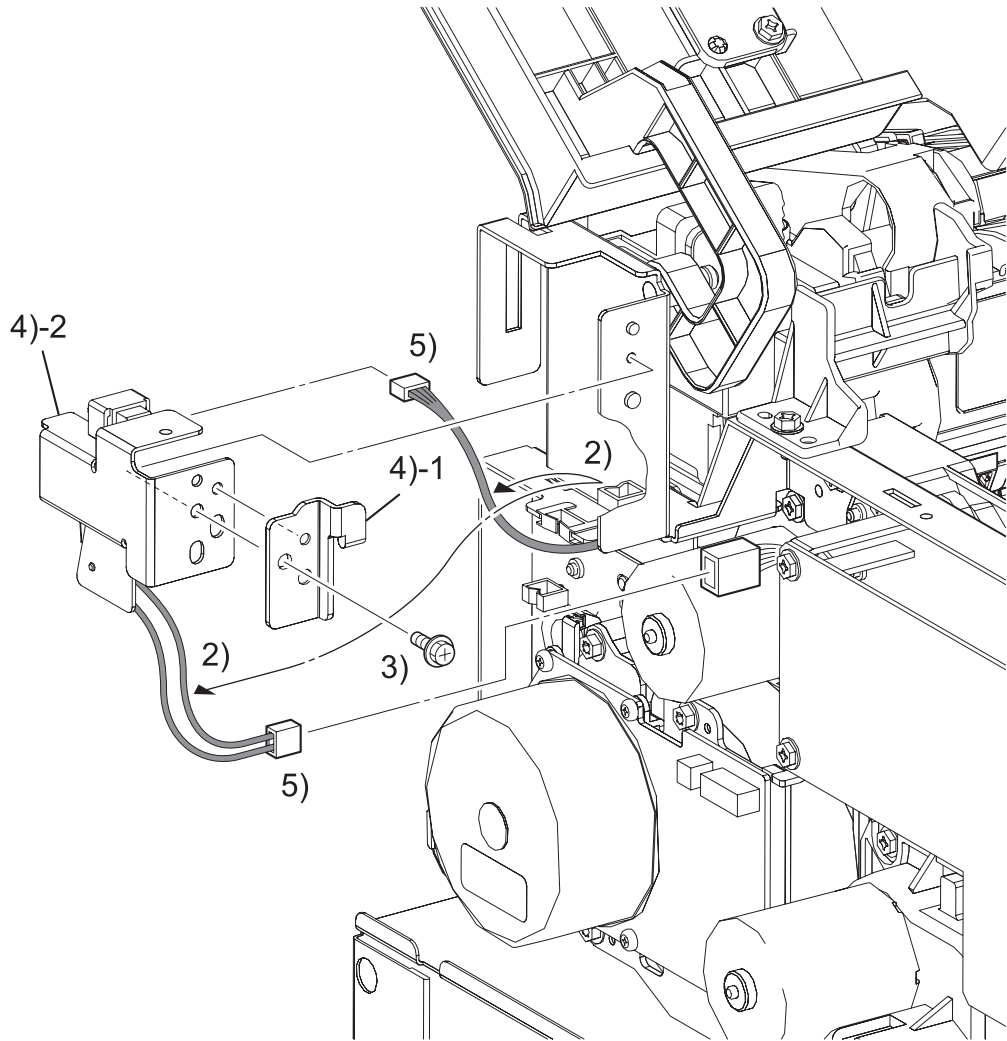
[Removal]

- 1) Remove FUSER COVER. (RRP 1.4)
- 2) Open COVER FRONT-U (PL 1.1.14).
- 3) Open TOP COVER (PL 1.1.1).
- 4) Remove COVER ESS ASSY. (RRP 1.15)
- 5) Remove seven screws (silver, with a flange, 8mm) that fix LEFT COVER (PL 1.1.16) on the main unit.
- 6) Lift LEFT COVER upwards, release the hooks at five locations on the rear side of LEFT COVER from the holes in main unit.
- 7) Remove LEFT COVER from the main unit while expanding the rear of LEFT COVER taking care to avoid the interface connector located at the rear of the main body.

[Replacement]

- 1) Align the square hole in the rear of LEFT COVER with the interface connector located at the rear of the main unit.
- 2) Match the hooks at five locations on the rear side of LEFT COVER to the holes in main unit and attach LEFT COVER.
- 3) Fix LEFT COVER on the main unit using seven screws (silver, with a flange, 8mm).
- 4) Attach COVER ESS ASSY. (RRP 1.15)
- 5) Close TOP COVER.
- 6) Close COVER FRONT-U.
- 7) Attach FUSER COVER. (RRP 1.4)

RRP1.11 FUSER COVER INTERLOCK (PL 1.1.17)

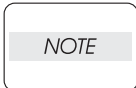


Leg_Sec03_604LA

RRP1.11 FUSER COVER INTERLOCK (PL 1.1.17)

[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Release the harness clamp that fixes the harness of FUSER COVER INTERLOCK (PL 1.1.17) and remove it.
- 3) Remove a screw (silver, with flange, 8mm) that fixes the FUSER COVER INTERLOCK and the BRACKET COVER TOP A LH (PL1.1.35) to the printer.
- 4) Remove the FUSER COVER INTERLOCK and the BRACKET COVER TOP A LH from the printer.



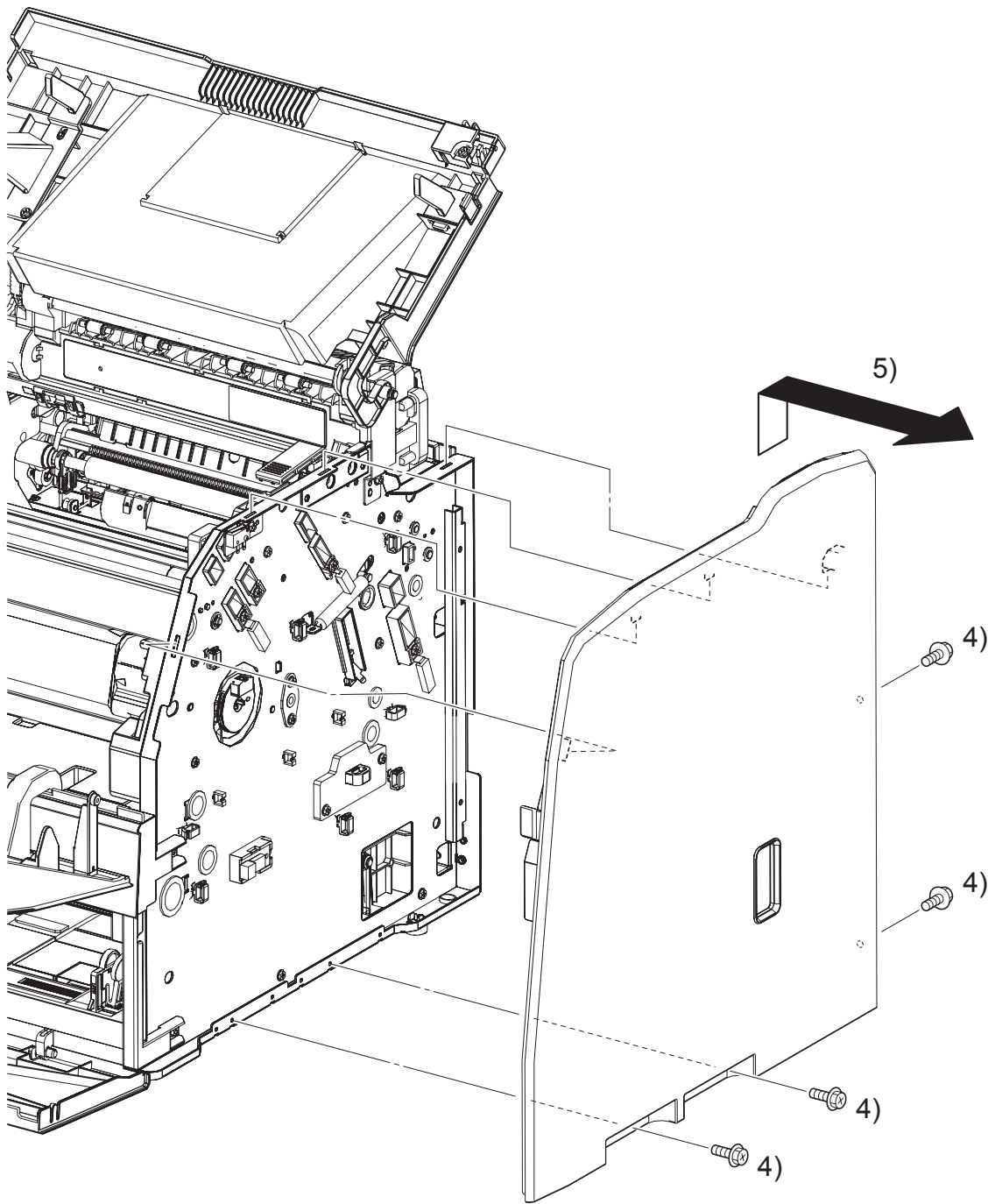
When carrying out the work shown below, leave the relay connector on the harness side.

- 5) Remove connector (P/J114) and connector (P/J117) of FUSER COVER INTERLOCK.

[Replacement]

- 1) Attach connector (P/J114) and connector (P/J117) of FUSER COVER INTERLOCK.
- 2) Match the hole in FUSER COVER INTERLOCK to the boss of the main unit and attach it.
- 3) Match the boss of the BRACKET COVER TOP A LH to the hole of the FUSER COVER INTERLOCK, attach the BRACKET COVER TOP A LH.
- 4) Attach the FUSER COVER INTERLOCK and the BRACKET COVER TOP A LH to the printer using a screw (silver, with flange, 8mm).
- 5) Fix the harness of FUSER COVER INTERLOCK on the harness clamp.
- 6) Attach LEFT COVER. (RRP 1.10)

RRP1.12 COVER ASSY RH (PL 1.1.23)



Leg_Sec03_605LA

RRP1.12 COVER ASSY RH (PL 1.1.23)

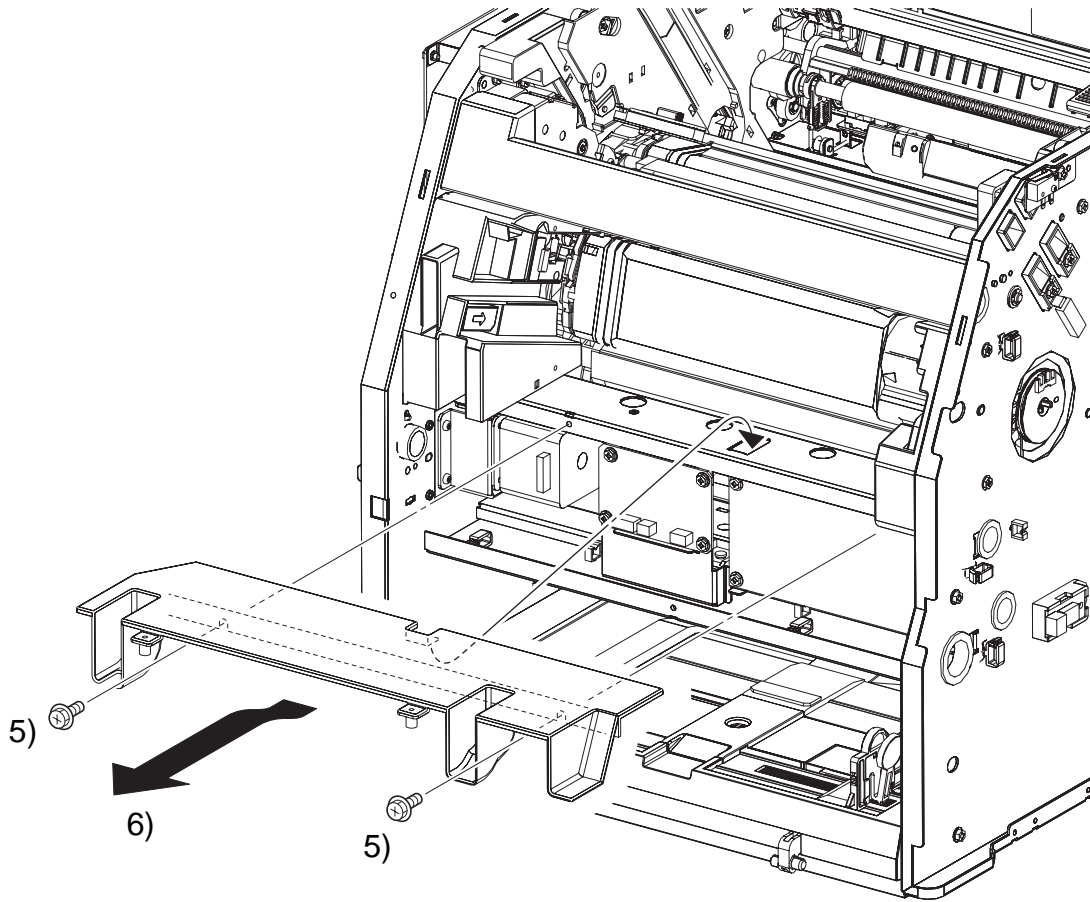
[Removal]

- 1) Remove FUSER COVER. (RRP 1.4)
- 2) Open COVER FFRONT-U (PL 1.1.14).
- 3) Open TOP COVER (PL 1.1.1).
- 4) Remove four screws (silver, with a flange, 8mm) that fixes COVER ASSY RH (PL 1.1.23) on the main unit.
- 5) Lift up COVER ASSY RH, release the hooks at four locations on the rear side of COVER ASSY RH from the holes of the main unit, and remove COVER ASSY RH.

[Replacement]

- 1) Match the hooks at four locations on the rear side of COVER ASSY RH to the holes in main unit and attach COVER ASSY RH.
- 2) Fix COVER ASSY RH to the main unit using four screws (silver, with a flange, 8mm).
- 3) Close TOP COVER.
- 4) Close COVER FFRONT-U.
- 5) Attach FUSER COVER. (RRP 1.4)

RRP1.13 COVER INNER L (PL 1.1.26)



Leg_Sec03_186LA

RRP1.13 COVER INNER L (PL 1.1.26)

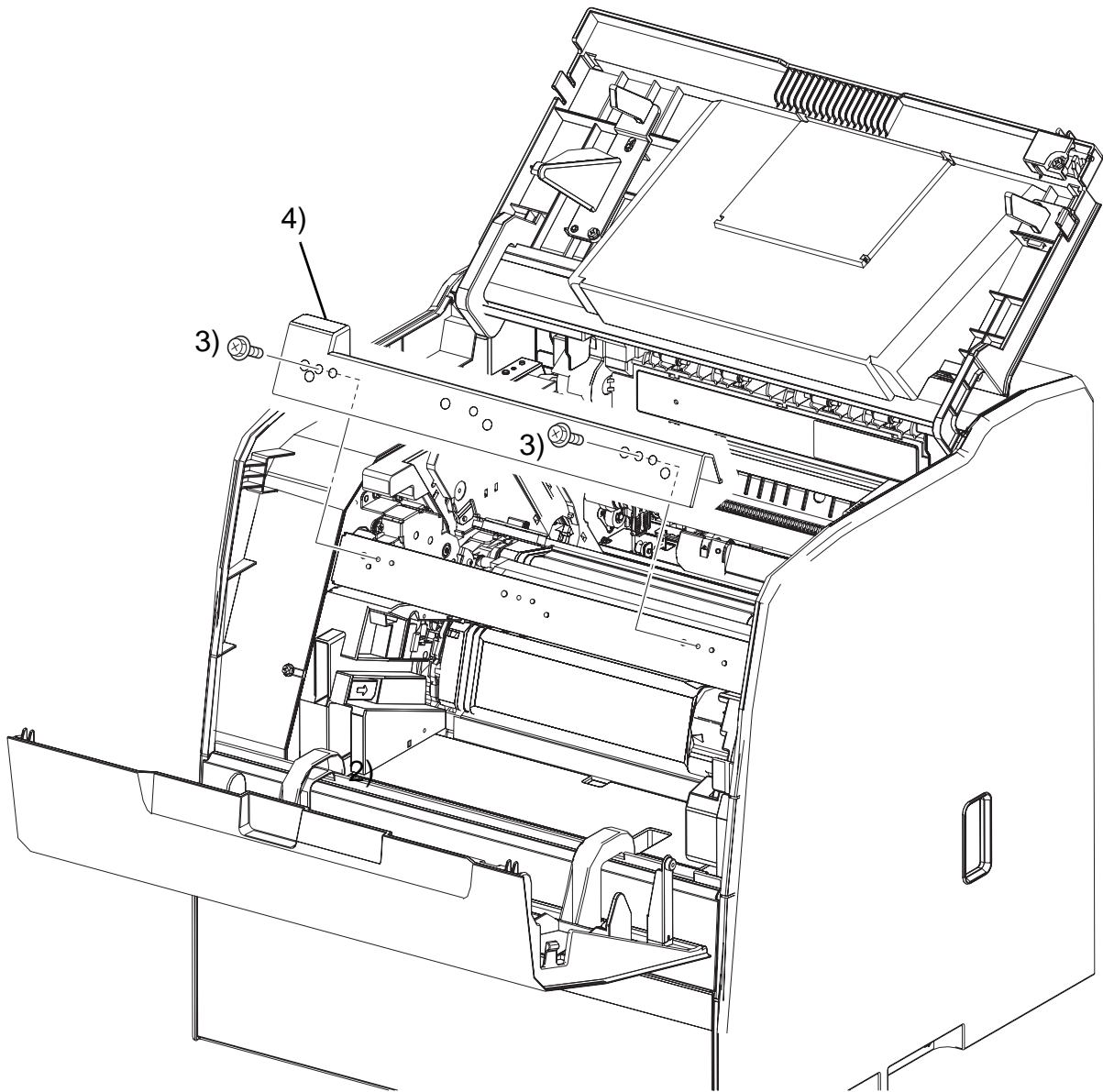
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove two screws (silver, with a flange, 8mm) that fixes COVER INNER L (PL 1.1.26) on the main unit.
- 6) Release the hook at a location on the rear side of COVER INNER L from the holes of the main unit, and remove COVER INNER L.

[Replacement]

- 1) Match the hook at a location on the rear side of COVER INNER L to the holes in main unit and attach COVER INNER L.
- 2) Fix COVER INNER L to the main unit using two screws (silver, with a flange, 8mm).
- 3) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 4) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 5) Attach LEFT COVER. (RRP 1.10)
- 6) Attach COVER ASSY RH. (RRP 1.12)

RRP1.14 COVER INNER U (PL 1.1.27)



Leg_Sec03_187LA

RRP1.14 COVER INNER U (PL 1.1.27)

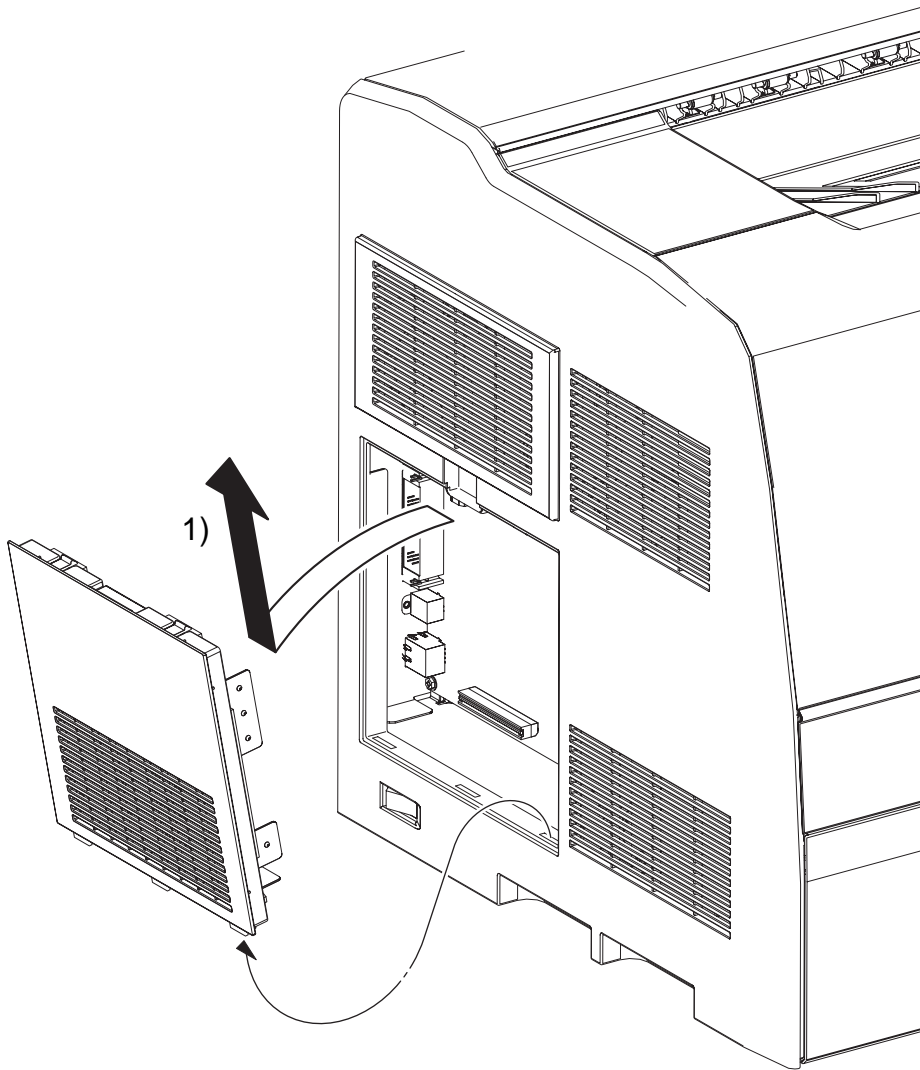
[Removal]

- 1) Open COVER FRONT-U (PL 1.1.14).
- 2) Open TOP COVER (PL 1.1.1).
- 3) Remove two screws (silver, with a flange, 8mm) that fixes COVER INNER U (PL 1.1.27) on the main unit.
- 4) Remove COVER INNER U from the main unit.

[Replacement]

- 1) Match the hole in COVER INNER U to the boss of the main unit and attach it.
- 2) Fix COVER INNER U to the main unit using two screws (silver, with a flange, 8mm).
- 3) Close TOP COVER.
- 4) Close COVER FRONT U.

RRP1.15 COVER ESS ASSY (PL 1.1.28)



Leg_Sec03_188LA

RRP1.15 COVER ESS ASSY (PL 1.1.28)

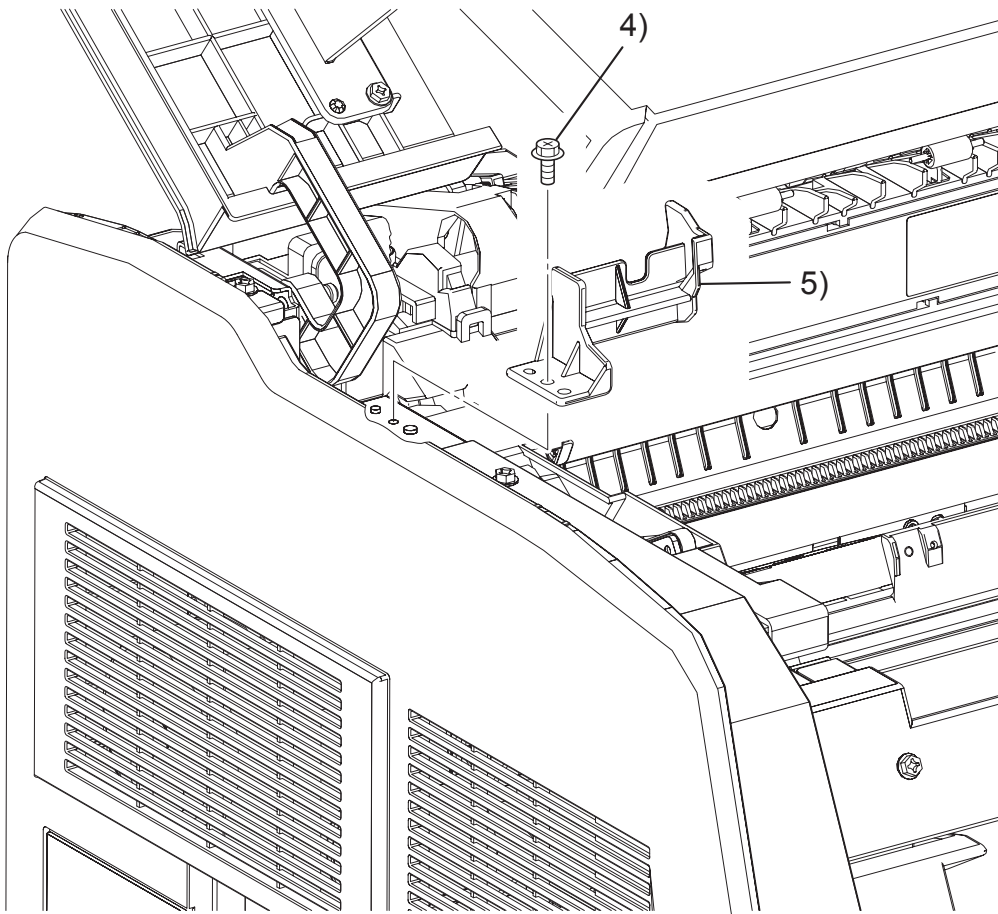
[Removal]

- 1) Hold the top part of COVER ESS ASSY and bring the assembly down toward you, release the hook of COVER ESS ASSY, and remove COVER ESS ASSY from LEFT COVER.

[Replacement]

- 1) Make three convexed sections on the bottom side of COVER ESS ASSY match the holes of LEFT COVER, and fix COVER ESS ASSY to LEFT COVER using a hook.

RRP1.16 COVER TOP SIDE L (PL 1.1.32)



Leg_Sec03_606LA

RRP1.16 COVER TOP SIDE L (PL 1.1.32)

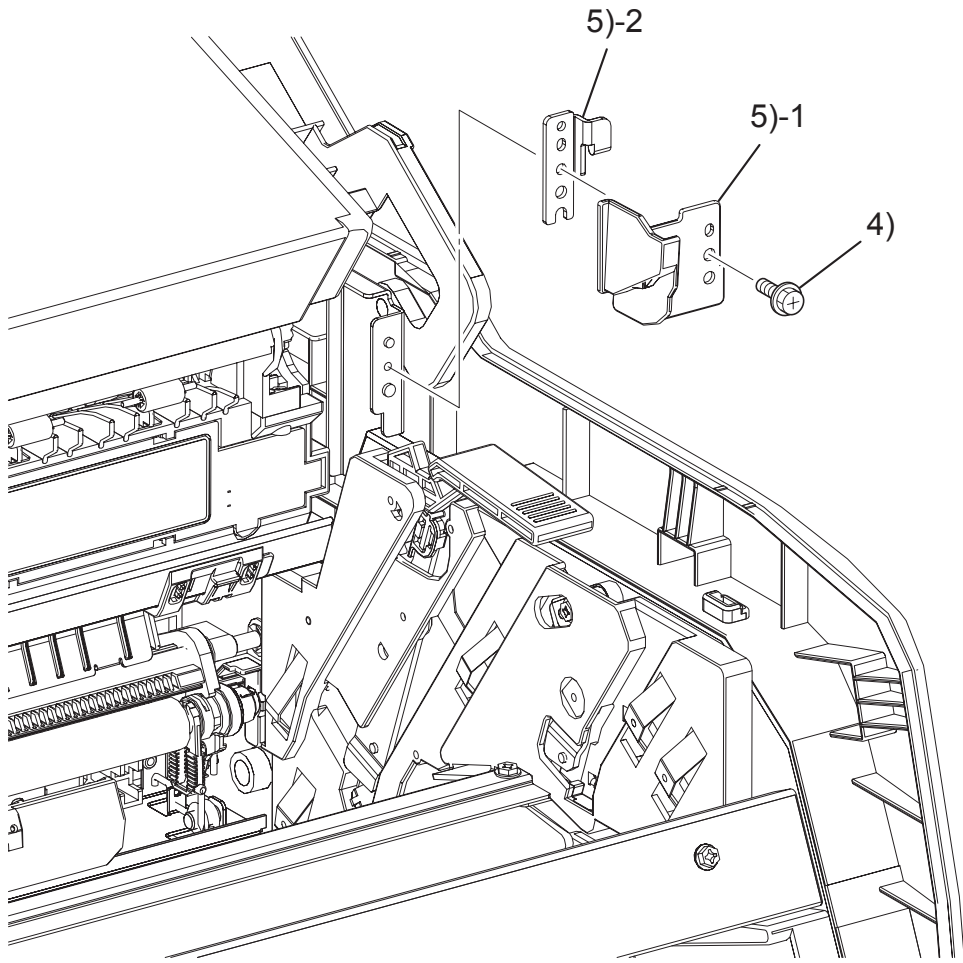
[Removal]

- 1) Remove FUSER COVER. (RRP 1.4)
- 2) Open COVER FRONT-U (PL 1.1.14).
- 3) Open TOP COVER (PL 1.1.1).
- 4) Remove a screw (silver, with a flange, 8mm) that fix COVER TOP SIDE L (PL 1.1.32) on the main unit.
- 5) Remove COVER TOP SIDE L from the main unit.

[Replacement]

- 1) Match the hole of COVER TOP SIDE L(PL 1.1.32) to the boss of main unit and attach it.
- 2) Fix COVER TOP SIDE L to the main unit using a screw (silver, with a flange, 8mm).
- 3) Close TOP COVER (PL 1.1.1).
- 4) Close COVER FRONT-U (PL 1.1.14).
- 5) Attach FUSER COVER. (RRP 1.4)

RRP1.17 COVER TOP SIDE R (PL 1.1.32)



Leg_Sec03_607LA

RRP1.17 COVER TOP SIDE R (PL 1.1.32)

[Removal]

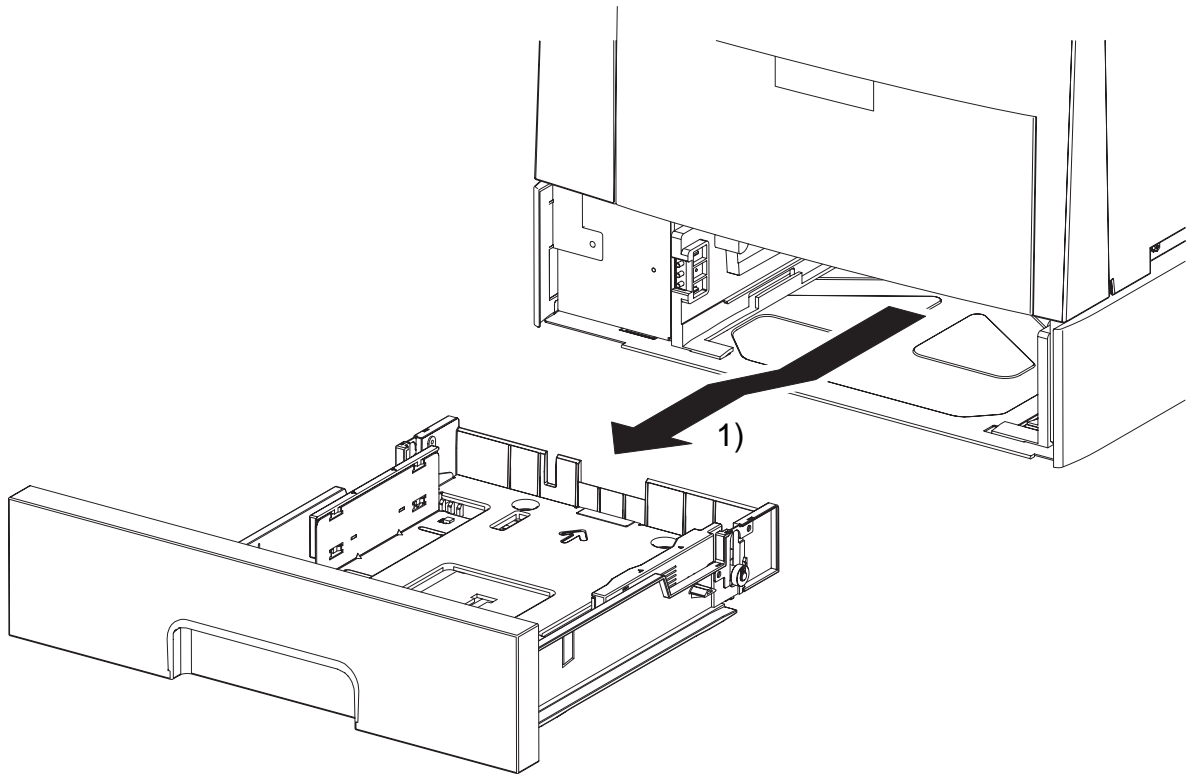
- 1) Remove FUSER COVER. (RRP 1.4)
- 2) Open COVER FRONT-U (PL 1.1.14).
- 3) Open TOP COVER (PL 1.1.1).
- 4) Remove a screw (silver, with flange, 8mm) that fixes the COVER TOP SIDE R (PL1.1.33) and the BRACKET COVER TOP A RH (PL1.1.37) to the printer.
- 5) Remove the COVER TOP SIDE R and BRACKET COVER TOP A RH from the printer.

[Replacement]

- 1) Match the holes of the COVER TOP SIDE R and BRACKET COVER TOP A RH to the boss of the printer.
- 2) Fix the COVER TOP SIDE R と BRACKET COVER TOP A RH and the BRACKET COVER TOP A RH to the printer using a screw (silver, with flange, 8mm).
- 3) Close TOP COVER (PL 1.1.1).
- 4) Close COVER FRONT-U (PL 1.1.14).
- 5) Attach FUSER COVER. (RRP 1.4)

RRP2. 250 PAPER CASSETTE

RRP2.1 250 SHEET PAPER TRAY (PL 2.1.1)



Leg_Sec03_151FA

RRP2.1 250 SHEET PAPER TRAY (PL 2.1.1)

[Removal]

- 1) Pull out 250 SHEET PAPER TRAY (PL 2.1.1) till it stops, lift up its front and remove 250 SHEET PAPER TRAY from 250 PAPER FEEDER.

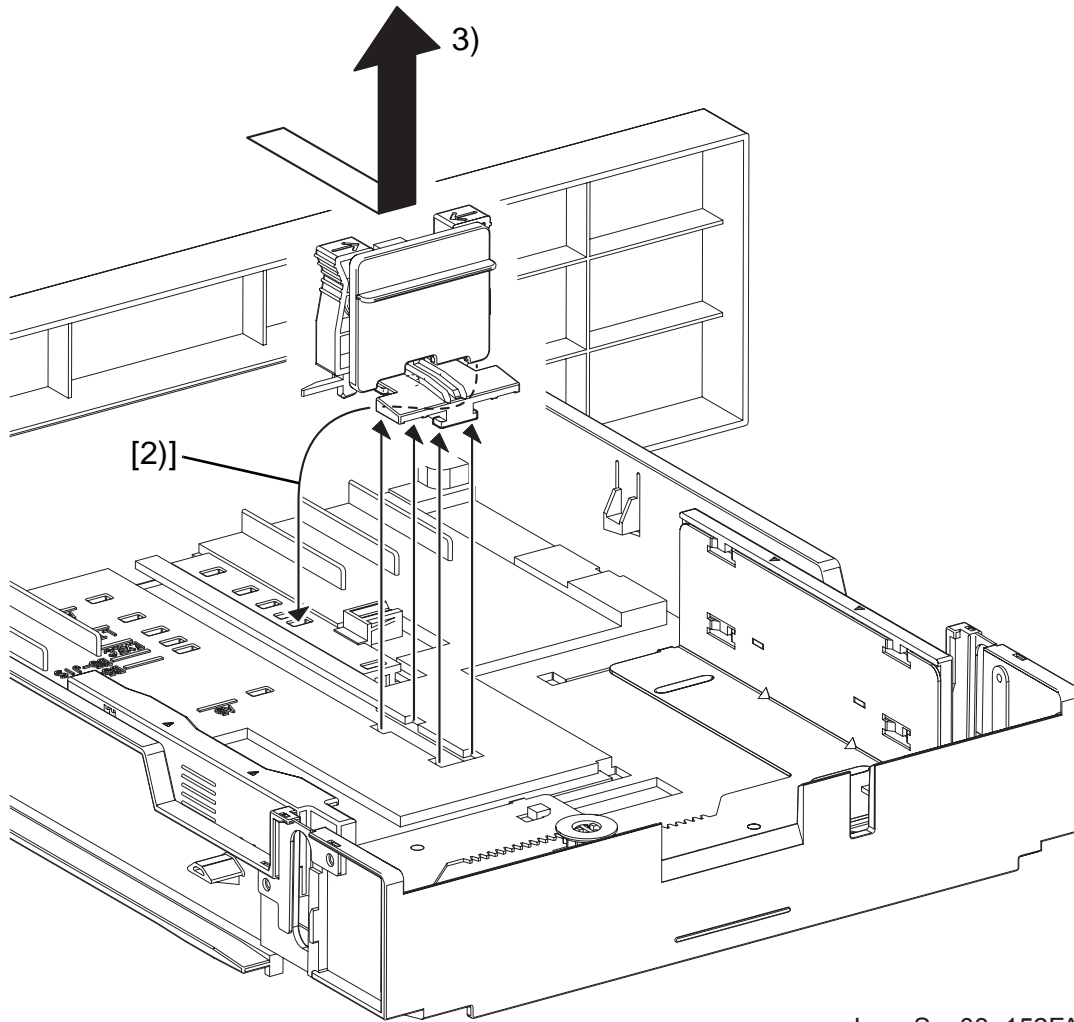
[Replacement]

- 1) While lifting up the front side of 250 SHEET PAPER TRAY, insert it in 250 PAPER FEEDER, and then push it in to the end in horizontal state.

RRP2.2 GUIDE END ASSY 250 (PL 2.1.2)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_152FA

RRP2.2 GUIDE END ASSY 250 (PL 2.1.2)

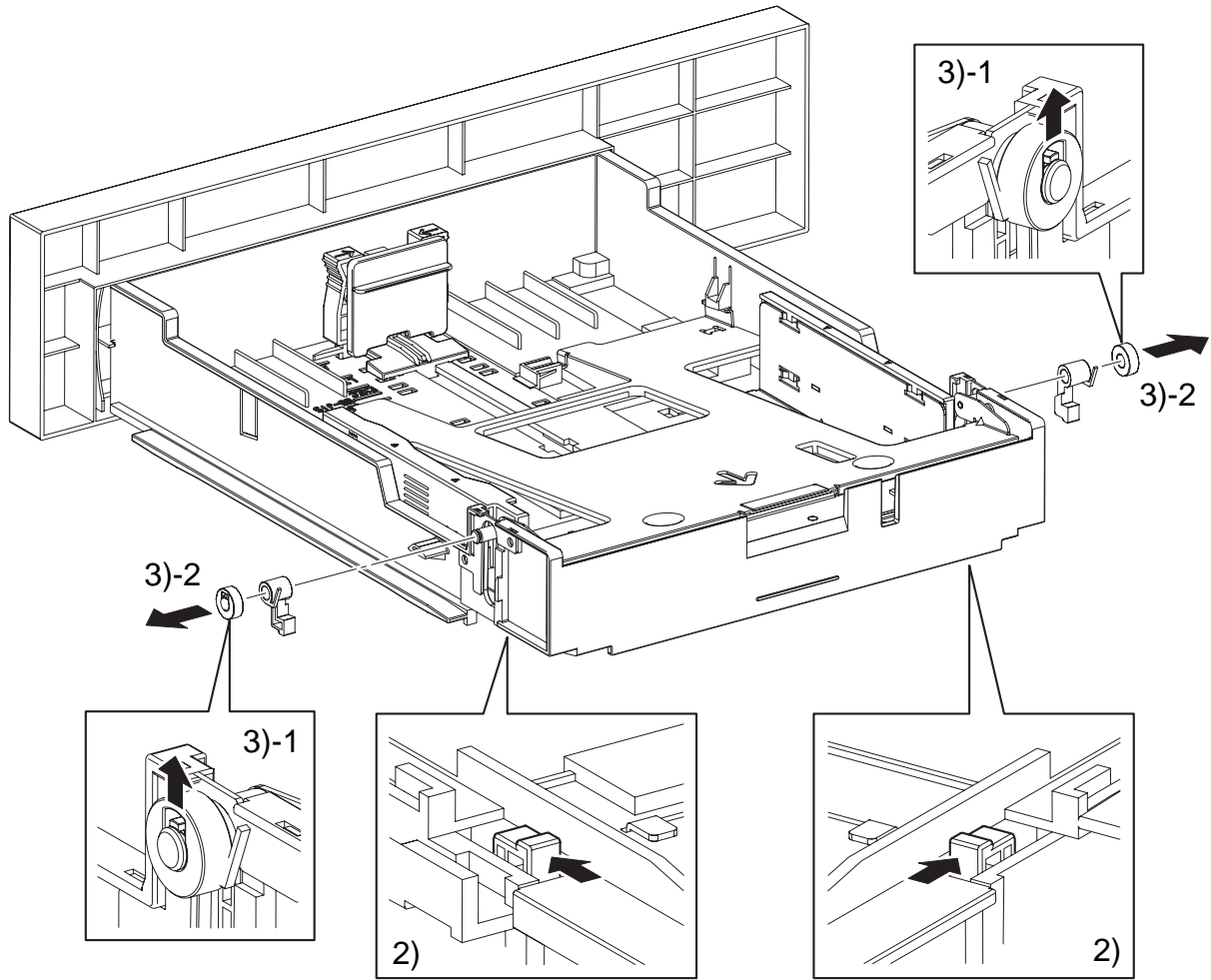
[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove PLATE ASSY BOTTOM 250. (RRP 2.3)
- 3) Slide GUIDE END ASSY 250 (PL 2.1.2) to rear side, match the convex at four locations on GUIDE END ASSY 250 to the notched of CASSETTE 250 (PL 2.1.12) and remove it upwards.

[Replacement]

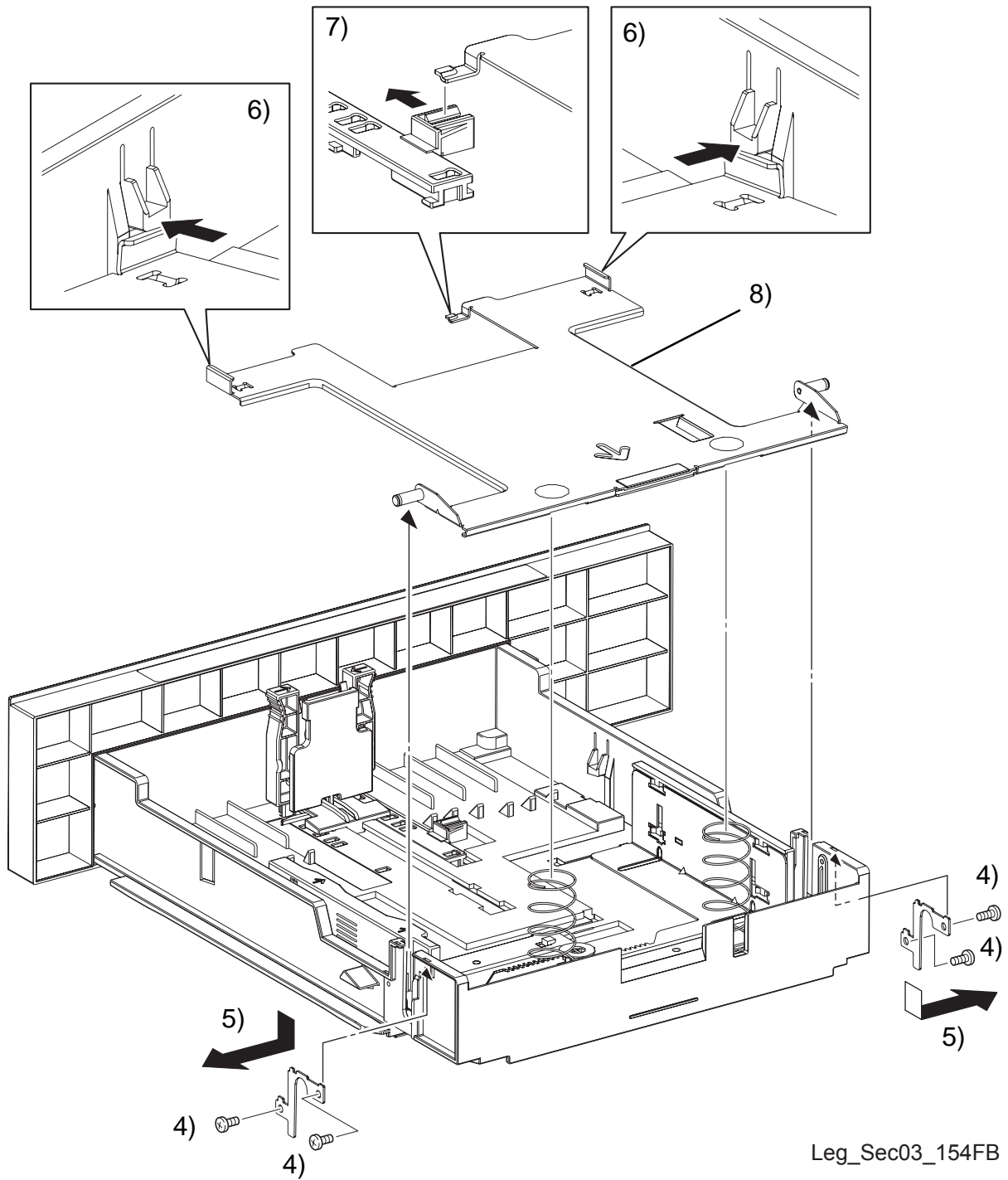
- 1) Match the convex at four locations on GUIDE END ASSY 250 to the notched of CASSETTE 250 and attach it.
- 2) Slide GUIDE END ASSY 250 to front side and insert the convex of GUIDE END ASSY 250 in the groove of PLATE SLIDE 250 (PL 2.1.14).
- 3) Attach PLATE ASSY BOTTOM 250. (RRP 2.3)
- 4) Attach 250 PAPER CASSETTE ASSY. (RRP 2.1)

RRP2.3 PLATE ASSY BOTTOM 250 (PL 2.1.3)



Leg_Sec03_153FA

RRP2.3 PLATE ASSY BOTTOM 250 (PL 2.1.3)



Leg_Sec03_154FB

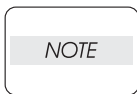
RRP2.3 PLATE ASSY BOTTOM 250 (PL 2.1.3)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Slide LOCK LIFT R (PL 2.1.10) and LOCK LIFT L (PL 2.1.15) to release lock.
- 3) Release a hook of ROLL LINK (PL 2.1.11) fixed on the shaft of PLATE ASSY BOTTOM 250 (PL 2.1.3) on both right and left sides, and remove ROLL LINK, LOCK LIFT R and LOCK LIFT L.
- 4) Remove four screws (silver, tap, 6mm) that fix right and left sides of PLATE ROLL STOPPER 250 (PL 2.1.9) on 250 SHEET PAPER TRAY (PL 2.1.1).
- 5) Remove the convex of PLATE ROLL STOPPER 250 from the hole of 250 SHEET PAPER TRAY, and remove the right and left sides of PLATE ROLL STOPPER 250.
- 6) Push the hooks at two locations of CASSETTE 250 (PL 2.1.12) to release the front side of PLATE ASSY BOTTOM 250.
- 7) Remove the convex of PLATE ASSY BOTTOM 250 from the concave of PLATE SLIDE 250 (PL 2.1.14).
- 8) Pull out the shaft of PLATE ASSY BOTTOM 250 upward from the notched of CASSETTE 250 on both right and left sides.

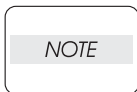
[Replacement]

- 1) Match the boss part on the rear side of PLATE ASSY BOTTOM 250 to SPRING NF 250 (PL 2.1.8).



Check that boss part on the rear side of PLATE ASSY BOTTOM 250 is engaged in SPRING NF 250.

- 2) Put the shaft of PLATE ASSY BOTTOM 250 to the notched of CASSETTE 250 on both right and left sides and attach it.
- 3) Attach the convex of PLATE ASSY BOTTOM 250 to the concave of PLATE SLIDE 250 and fix the front of PLATE ASSY BOTTOM 250 using the hooks at two locations of CASSETTE 250.

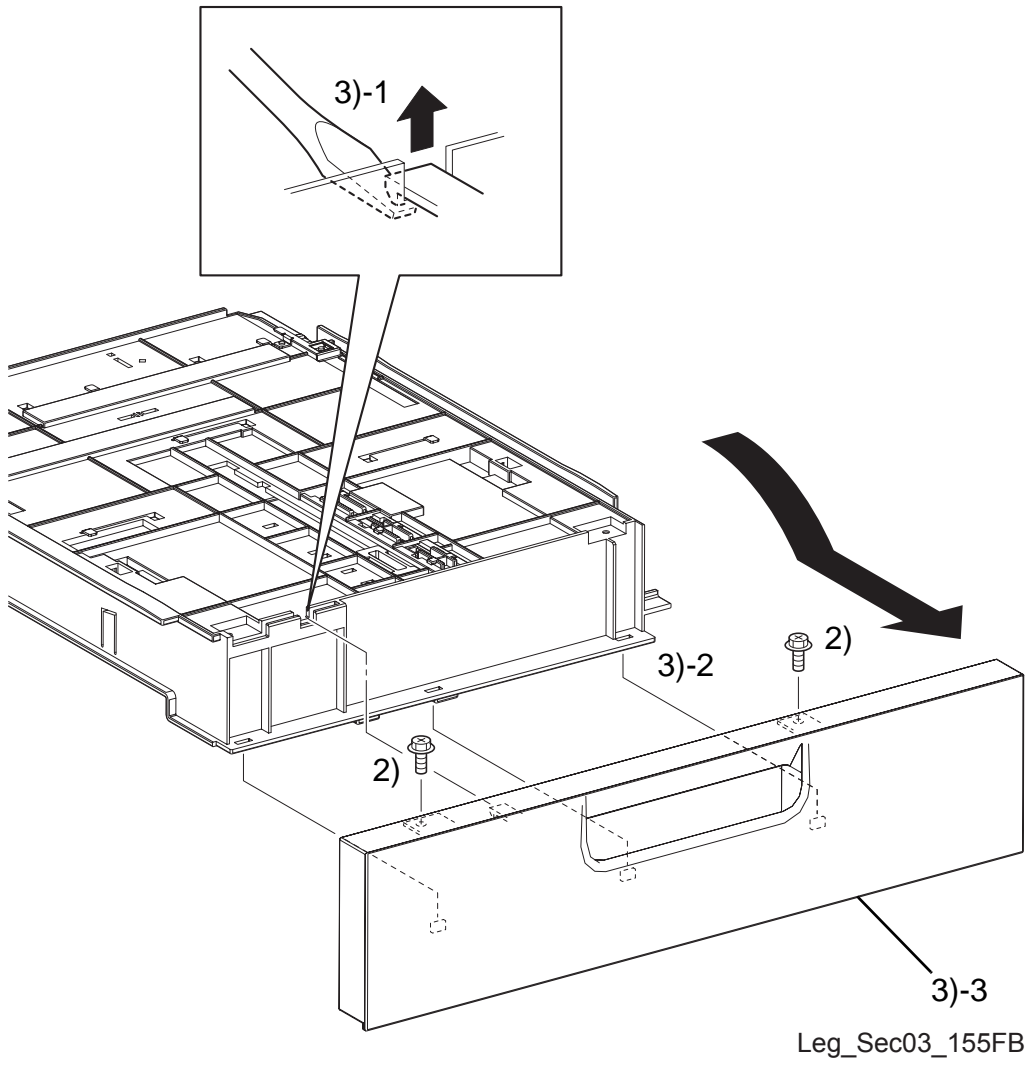


Convex of PLATE ASSY BOTTOM 250 should be engaged in the concave of PLATE SLIDE 250.

- 4) Match the convex of PLATE ROLL STOPPER 250 to the hole of 250 SHEET PAPER TRAY and attach the right and left sides of PLATE ROLL STOPPER 250.
- 5) Fix the right and left of PLATE ROLL STOPPER 250 to 250 SHEET PAPER TRAY using the four screws (silver, tap, 6mm).
- 6) Attach LOCK LIFT R, LOCK LIFT L and ROLL LINK on the shaft of PLATE ASSY BOTTOM 250 on both right and left sides, and fix a hook of ROLL LINK in the groove in shaft of PLATE ASSY BOTTOM 250.
- 7) Push PLATE ASSY BOTTOM 250 to lock LOCK LIFT R and LOCK LIFT L.
- 8) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

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RRP2.4 COVER FRONT CST 250 (PL 2.1.13)



RRP2.4 COVER FRONT CST 250 (PL 2.1.13)

[Removal]

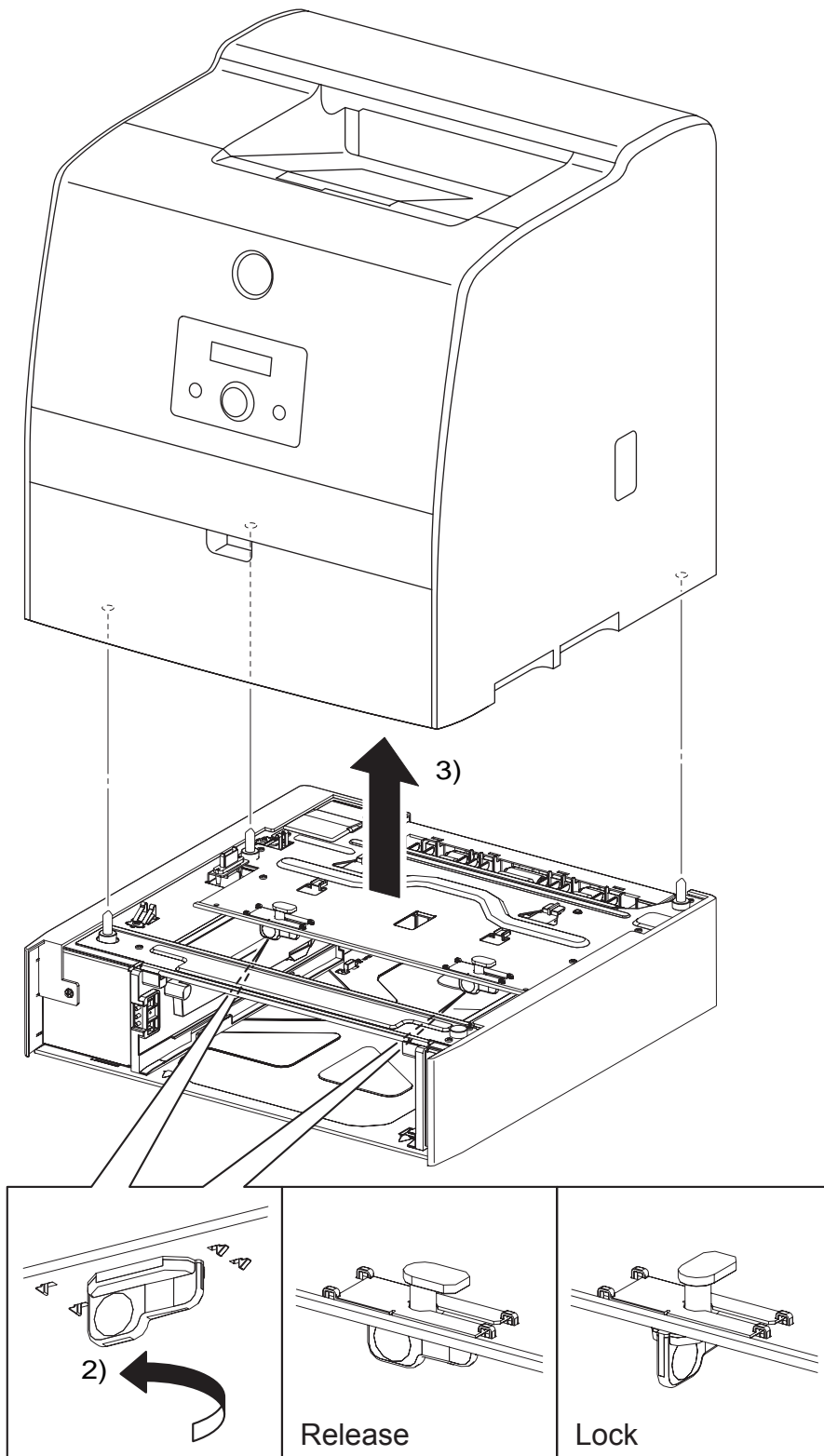
- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove two screws (silver, with a flange, tap, 8mm) that fix COVER FRONT CST 250 (PL 2.1.13) to 250 SHEET PAPER TRAY (PL 2.1.1).
- 3) Release a hook at the bottom of COVER FRONT CST 250 using a small screwdriver, lay COVER FRONT CST 250 towards front, and then release the convex at three locations on the rear side of COVER FRONT CST 250 from the hole of 250 SHEET PAPER TRAY. Remove COVER FRONT CST 250.

[Replacement]

- 1) Match the convex at three locations on the rear side of COVER FRONT CST 250 to the hole of 250 SHEET PAPER TRAY, attach COVER FRONT CST 250. Fix a hook at the bottom of COVER FRONT CST 250.
- 2) Fix COVER FRONT CST 250 on 250 SHEET PAPER TRAY using two screws (silver, with a flange, tap, 8mm).
- 3) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3. 250 PAPER FEEDER

RRP3.1 250 SHEET FEEDER ASSEMBLY (PL 3.1.15)



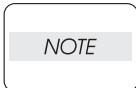
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RRP3.1 250 SHEET FEEDER ASSEMBLY (PL 3.1.15)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Turn the LOCK MC TO FDR (PL 3.1.17) on both the right and left sides clockwise by 90 degrees to unlock it from the main unit.
- 3) Lifting up the main unit at the recess on the lower section of both the right and left sides, remove the main unit from the 250 SHEET FEEDER ASSEMBLY (PL 3.1.15).

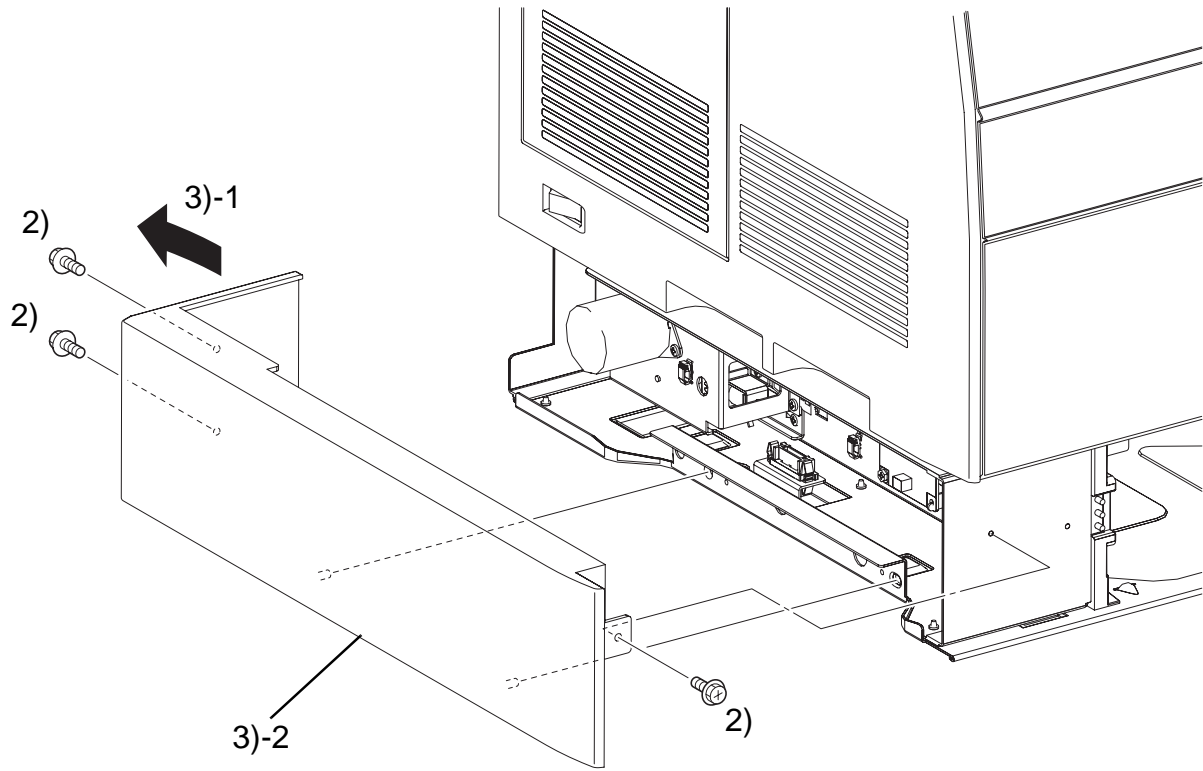
[Replacement]



When carrying out the following work, make sure that the oval section (that fits in the mounting hole in the printer) on the top of LOCK MC TO FDR is positioned in such a way that its long sides extend laterally.

- 1) Aligning the mounting holes in the main unit with three bosses on the 250 SHEET FEEDER ASSEMBLY, install the main unit on the 250 SHEET FEEDER ASSEMBLY.
- 2) Turn the LOCK MC TO FDR (PL 3.1.17) on both the right and left sides counterclockwise by 90 degrees to securely lock the main unit on the 250 SHEET FEEDER ASSEMBLY.
- 3) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.2 250 SHEET FEEDER LEFT COVER (PL 3.1.1)



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RRP3.2 250 SHEET FEEDER LEFT COVER (PL 3.1.1)

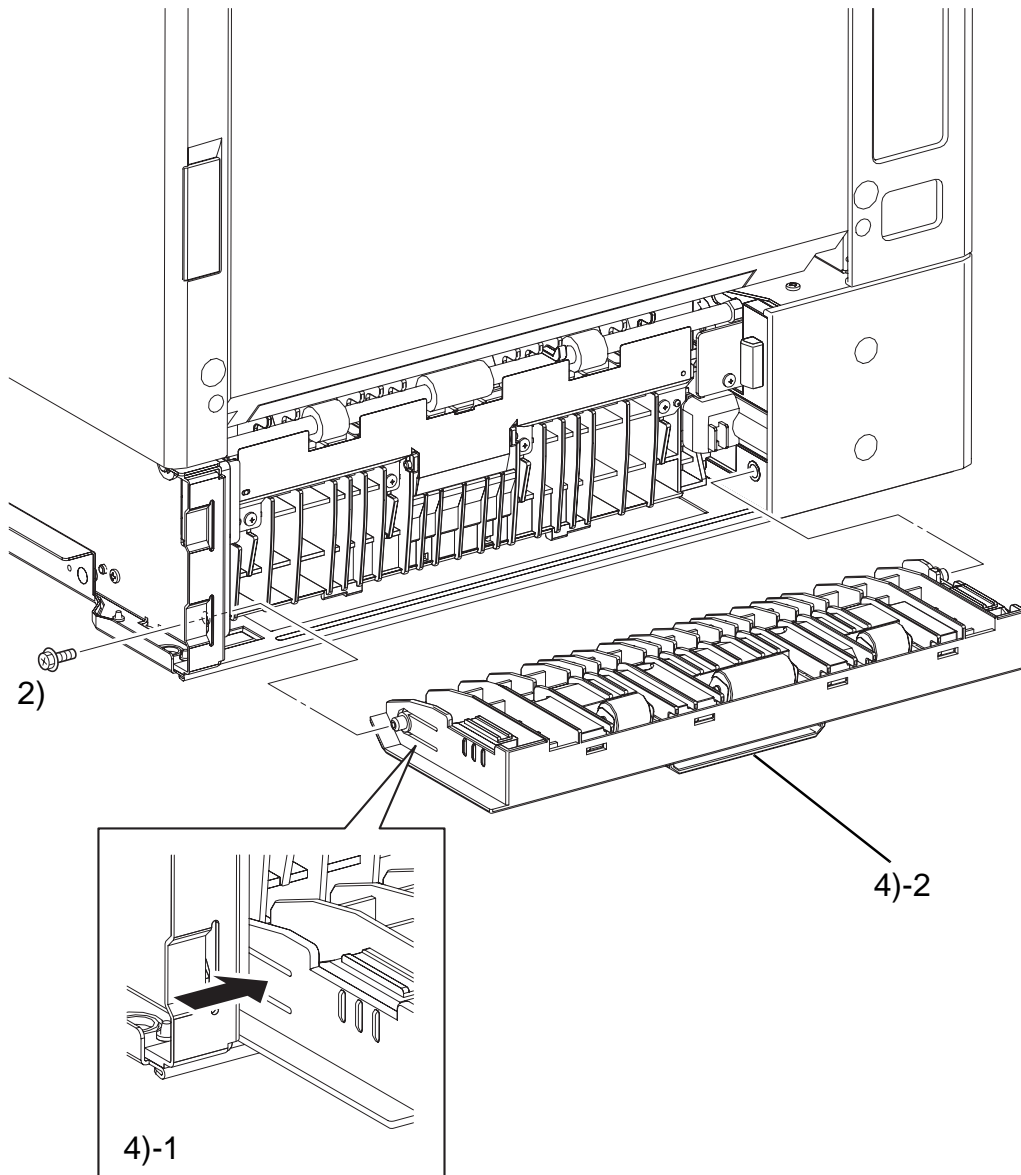
[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove three screws (silver, with a flange, 8mm) that fix 250 SHEET FEEDER LEFT COVER (PL 3.1.1) to 250 SHEET FEEDER ASSEMBLY.
- 3) Spread the rear side of 250 SHEET FEEDER LEFT COVER and remove 250 SHEET FEEDER LEFT COVER from 250 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Match the boss of 250 SHEET FEEDER LEFT COVER to the hole in 250 SHEET FEEDER ASSEMBLY. Spread the rear side of 250 SHEET FEEDER LEFT COVER and attach 250 SHEET FEEDER LEFT COVER.
- 2) Fix 250 SHEET FEEDER LEFT COVER to 250 SHEET FEEDER ASSEMBLY using three screws (silver, with a flange, 8mm).
- 3) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.3 250 SHEET FEEDER CHUTE ASSEMBLY (PL 3.1.2)

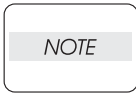


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RRP3.3 250 SHEET FEEDER CHUTE ASSEMBLY (PL 3.1.2)

[Removal]

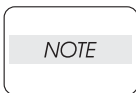
- 1) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 2) Remove a screw (silver, with a flange, tap, 8mm) that fixes 250 SHEET FEEDER CHUTE ASSEMBLY (PL 3.1.2) to 250 SHEET FEEDER ASSEMBLY.



Try not to break the boss of 250 SHEET FEEDER CHUTE ASSEMBLY when carrying out the work shown below.

- 3) Open 250 SHEET FEEDER CHUTE ASSEMBLY.
- 4) Depress the fitting part on the right side of 250 SHEET FEEDER CHUTE ASSEMBLY, remove the boss part on right side from the hole in 250 SHEET FEEDER ASSEMBLY and remove 250 SHEET FEEDER CHUTE ASSEMBLY.

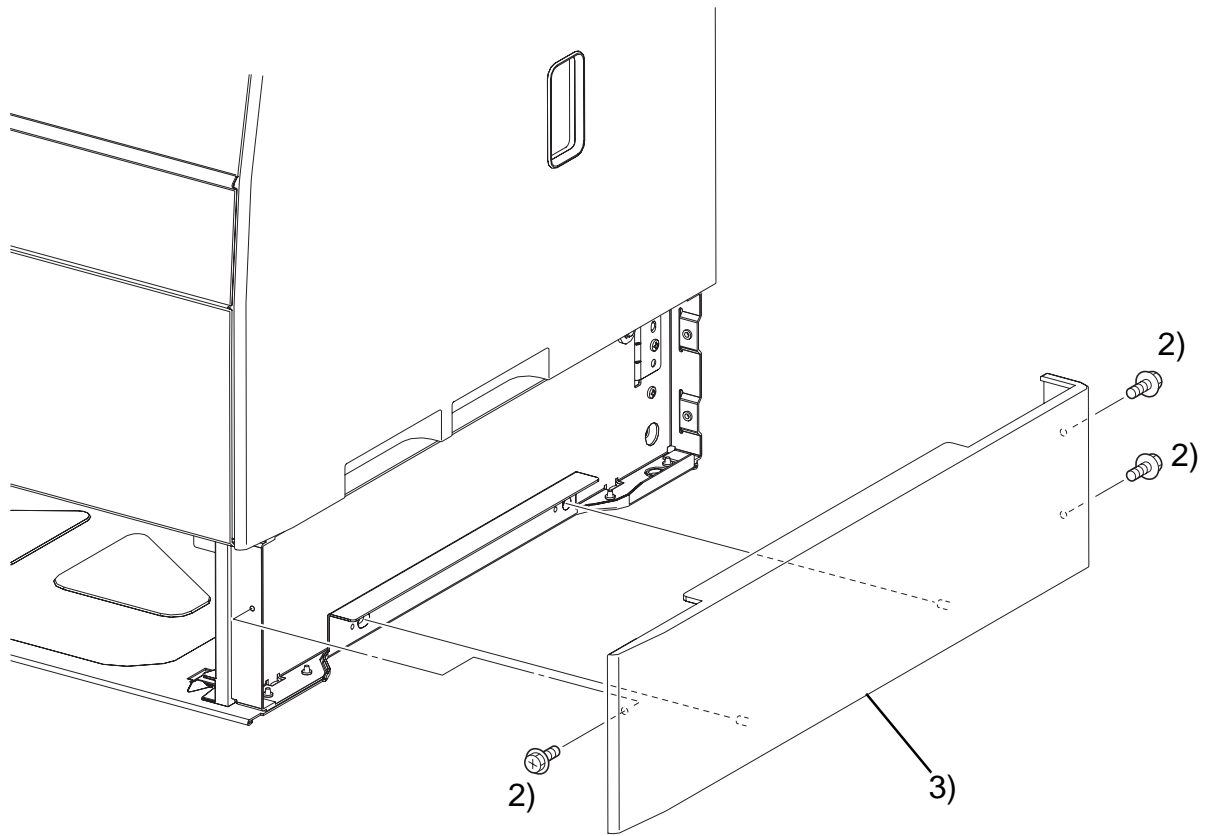
[Replacement]



Try not to break the boss of 250 SHEET FEEDER CHUTE ASSEMBLY when carrying out the work shown below.

- 1) With 250 SHEET FEEDER CHUTE ASSEMBLY in opened state, insert the boss part on the left side in the hole in 250 SHEET FEEDER ASSEMBLY, and then depress the boss part on right side and attach 250 SHEET FEEDER CHUTE ASSEMBLY to 250 SHEET FEEDER ASSEMBLY.
- 2) Close 250 SHEET FEEDER CHUTE ASSEMBLY.
- 3) Attach 250 SHEET FEEDER CHUTE ASSEMBLY to 250 SHEET FEEDER ASSEMBLY using a screw (silver, with a flange, tap, 8mm).
- 4) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)

RRP3.4 250 SHEET FEEDER RIGHT COVER (PL 3.1.9)



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RRP3.4 250 SHEET FEEDER RIGHT COVER (PL 3.1.9)

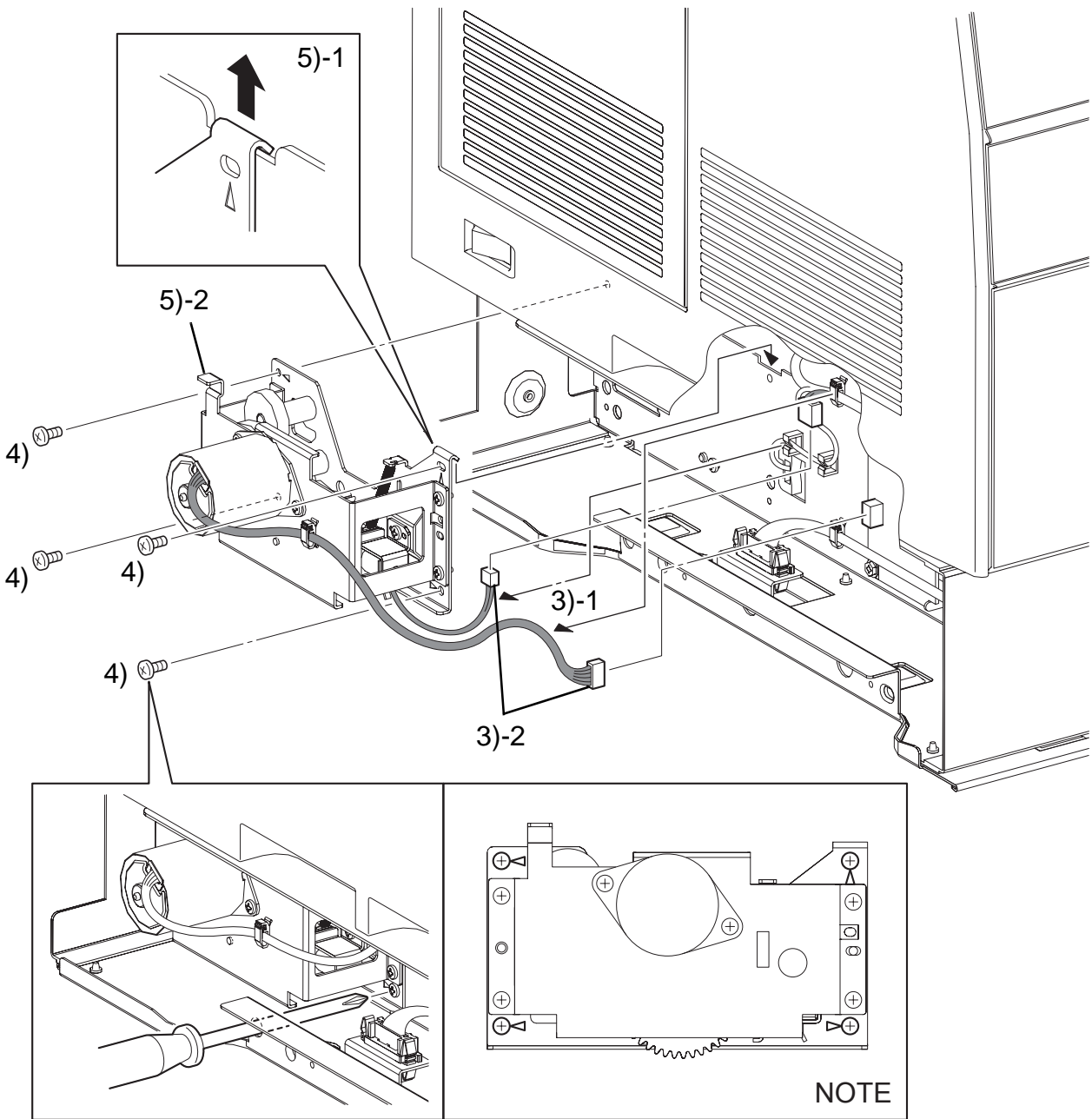
[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove three screws (silver, with a flange, 8mm) that fix 250 SHEET FEEDER RIGHT COVER (PL 3.1.9) on 250 SHEET FEEDER ASSEMBLY.
- 3) Remove 250 SHEET FEEDER RIGHT COVER from 250 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Match the boss of 250 SHEET FEEDER RIGHT COVER to the hole in 250 SHEET FEEDER ASSEMBLY and attach 250 SHEET FEEDER RIGHT COVER.
- 2) Fix 250 SHEET FEEDER RIGHT COVER on 250 SHEET FEEDER ASSEMBLY using three screws (silver, with a flange, 8mm).
- 3) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.5 DRIVE ASSY FEED 250 (PL 3.2.2)

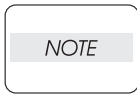


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RRP3.5 DRIVE ASSY FEED 250 (PL 3.2.2)

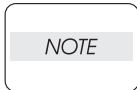
[Removal]

- 1) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 2) Remove CLUTCH ASSY PH. (RRP 3.7)



When carrying out the work shown below, leave the relay connector of SOLENOID FEED connector (P/J610) on the harness side.

- 3) Release the two clamps and remove the harness and then remove connector (P/J446) on PWBA MOT (PL 3.2.11) and connector (P/J610) of SOLENOID FEED (PL 3.2.3).



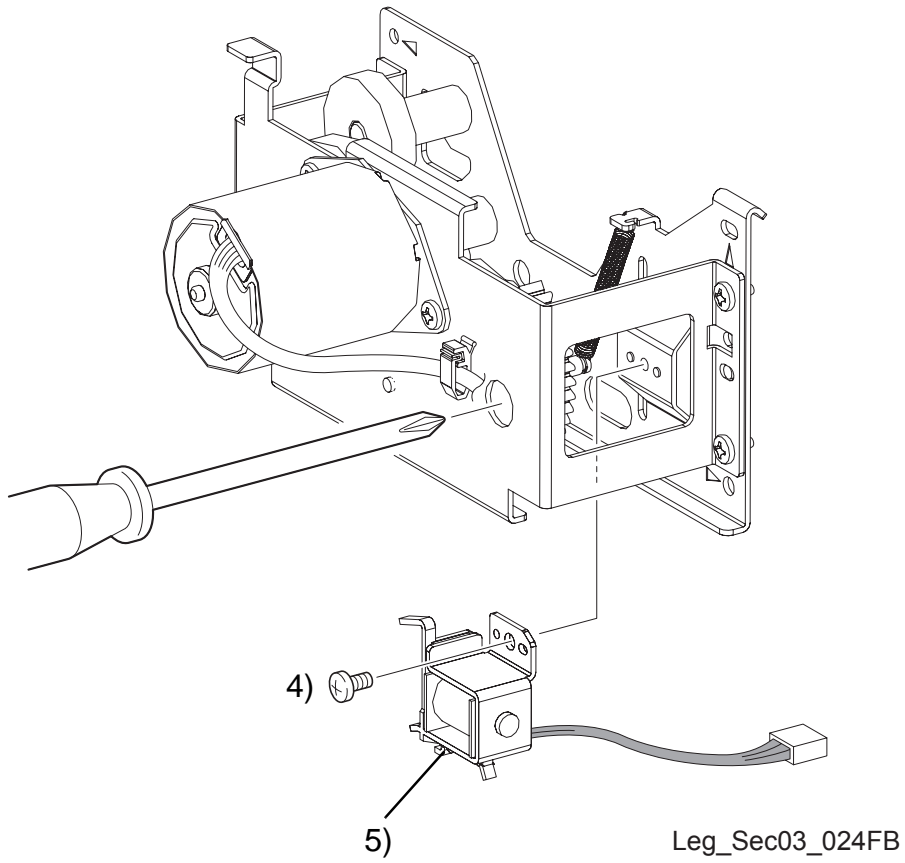
Screws used to fix four corners (△ marks) of DRIVE ASSY FEED 250 shall be removed for the work shown below, and for other work, they should not be removed.

- 4) Remove four screws (silver, 6mm) that fix DRIVE ASSY FEED 250 (PL 3.2.2) on 250 SHEET FEEDER ASSEMBLY.
- 5) Remove the convex on the right side of DRIVE ASSY FEED 250 from 250 SHEET FEEDER ASSEMBLY and remove DRIVE ASSY FEED 250.

[Replacement]

- 1) Put the convex on upper right side of DRIVE ASSY FEED 250 to the notch of 250 SHEET FEEDER ASSEMBLY. Match the holl of DRIVE ASSY FEED 250 to the boss of 250 SHEET FEEDER ASSEMBLY and attach it.
- 2) Fix DRIVE ASSY FEED 250 to 250 SHEET FEEDER ASSEMBLY using four screws (silver, 6mm).
- 3) Attach connector (P/J446) on PWBA MOT and connector (P/J610) of SOLENOID FEED and then fixes the harness using two clamps.
- 4) Attach CLUTCH ASSY PH. (RRP 3.7)
- 5) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)

RRP3.6 SOLENOID FEED (PL 3.2.3)



RRP3.6 SOLENOID FEED (PL 3.2.3)

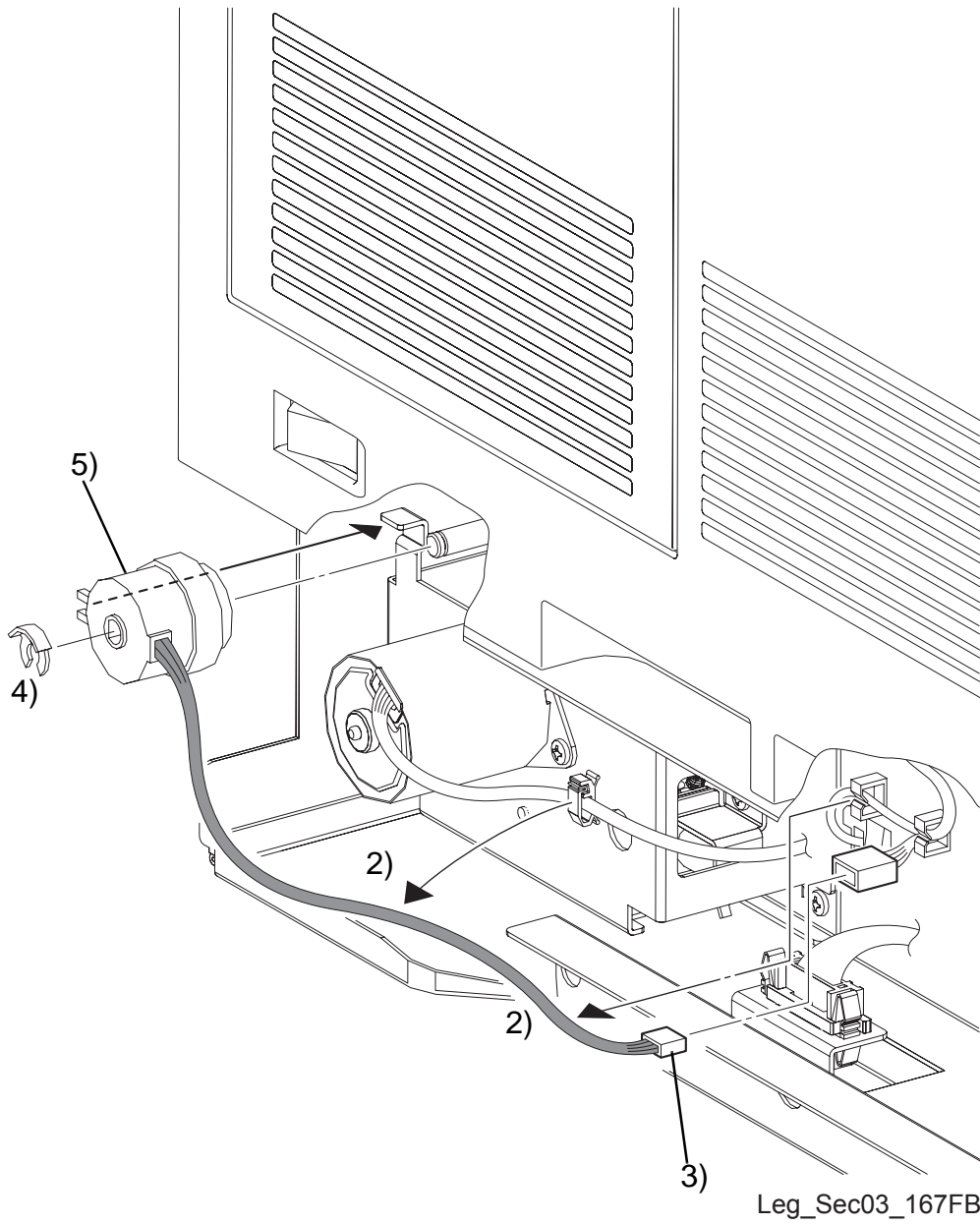
[Removal]

- 1) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 2) Remove CLUTCH ASSY PH. (RRP 3.7)
- 3) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 4) Remove a screw (silver, 6mm) that fixes SOLENOID FEED (PL 3.2.3) to DRIVE ASSY FEED 250 (PL 3.2.2).
- 5) Remove SOLENOID FEED from DRIVE ASSY FEED 250.

[Replacement]

- 1) Match the hole in SOLENOID FEED to the boss of DRIVE ASSY FEED 250 and attach.
- 2) Fix SOLENOID FEED to DRIVE ASSY FEED 250 using a screw (silver, 6mm).
- 3) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 4) Attach CLUTCH ASSY PH. (RRP 3.7)
- 5) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)

RRP3.7 CLUTCH ASSY PH (PL 3.2.5)



RRP3.7 CLUTCH ASSY PH (PL 3.2.5)

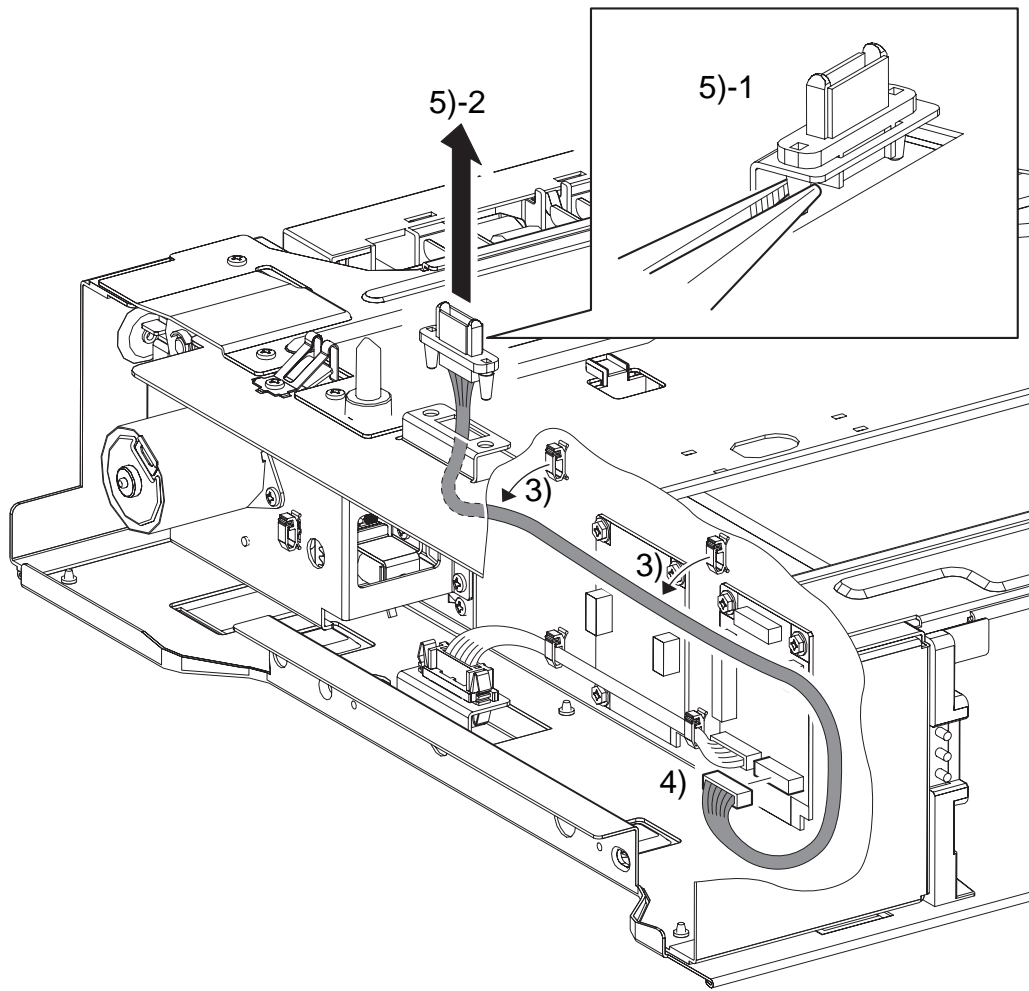
[Removal]

- 1) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 2) Release the two clamps that fix the harness of CLUTCH ASSY PH (PL3.2.5) and remove the harness of CLUTCH ASSY PH.
- 3) Remove connector (P/J609) of CLUTCH ASSY PH.
- 4) Remove KL ring that fixes CLUTCH ASSY PH to 250 SHEET FEEDER ASSEMBLY.
- 5) Remove CLUTCH ASSY PH from 250 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Match the hole position of CLUTCH ASSY PH to D-cut section of shaft of ROLL ASSY TURN (PL 3.2.8), and attach CLUTCH ASSY PH in such a manner that convex of DRIVE ASSY FEED 250 fits in the concave of CLUTCH ASSY PH.
- 2) Fix CLUTCH ASSY PH to 250 SHEET FEEDER ASSEMBLY using KL ring.
- 3) Attach connector (P/J609) of CLUTCH ASSY PH.
- 4) Fix the harness of CLUTCH ASSY PH 250 using the two clamps.
- 5) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)

RRP3.8 HARNESS-ASSY FEED 1 (PL 3.2.6)



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RRP3.8 HARNESS-ASSY FEED 1 (PL 3.2.6)

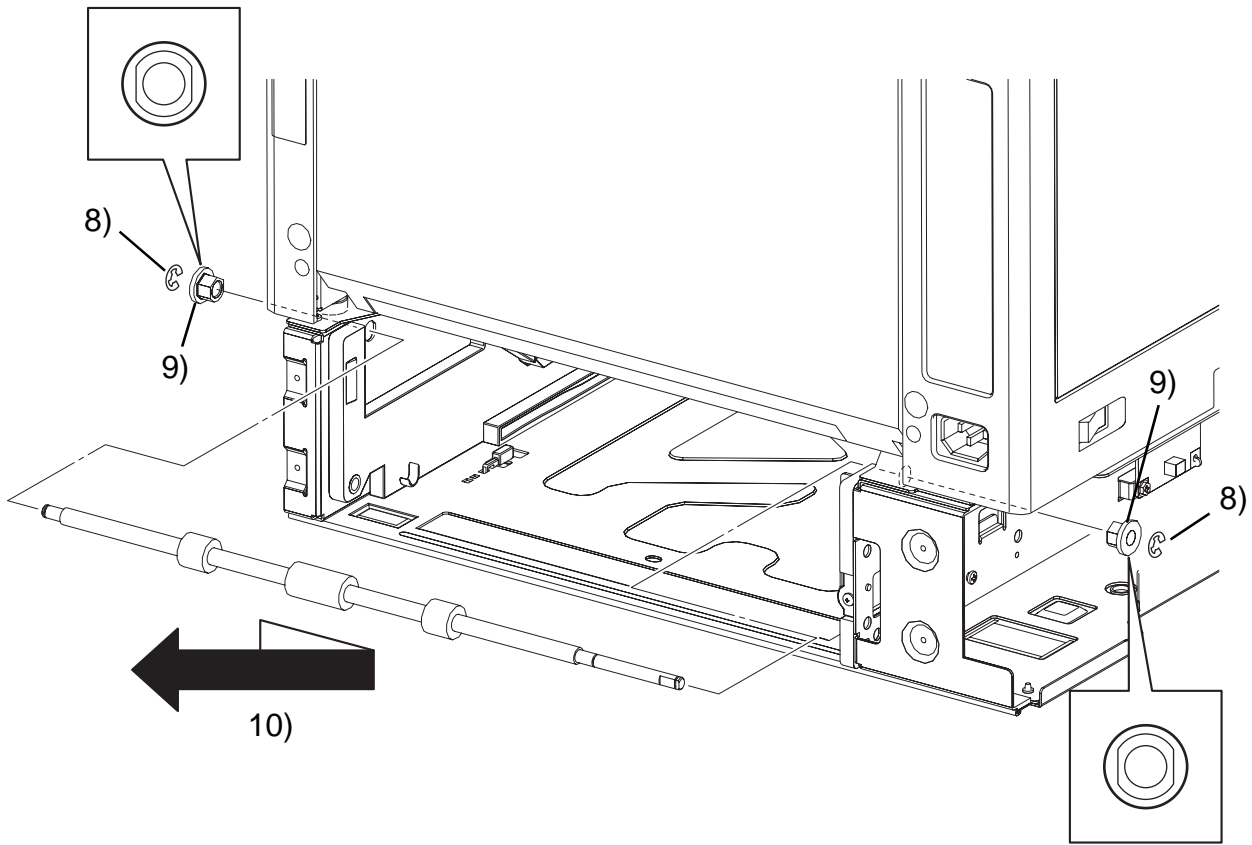
[Removal]

- 1) Remove 250 SHEET FEEDER ASSEMBLY. (RRP 3.1)
- 2) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 3) Release clamp that fixes harness of HARNESS-ASSY FEED 1 (PL 3.2.6).
- 4) Remove connector (P/J435) on PWBA TRAY CONT (PL 3.2.12).
- 5) Release the hooks at two locations that fix HARNESS-ASSY FEED 1 to 250 SHEET FEEDER ASSEMBLY, remove HARNESS-ASSY FEED 1.

[Replacement]

- 1) Put connector (P/J435) of HARNESS-ASSY FEED 1 through the hole in 250 SHEET FEEDER ASSEMBLY.
- 2) Attach HARNESS-ASSY FEED 1 to 250 SHEET FEEDER ASSEMBLY and fix with two hooks.
- 3) Attach connector (P/J435) on PWBA TRAY CONT.
- 4) Fix harness of HARNESS-ASSY FEED 1 using a clamp.
- 5) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 6) Attach 250 SHEET FEEDER ASSEMBLY. (RRP 3.1)

RRP3.9 ROLL ASSY TURN (PL 3.2.8)



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RRP3.9 ROLL ASSY TURN (PL 3.2.8)

[Removal]

- 1) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 2) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 3) Remove 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 4) Remove CLUTCH ASSY PH. (RRP 3.7)
- 5) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 6) Remove HOUSING ASSY FEED. (RRP 3.14)
- 7) Remove CHUTE ASSY RETARD 250. (RRP 3.26)
- 8) Remove the E rings that fix both sides of the shaft of ROLL ASSY TURN (PL 3.2.8) from 250 SHEET FEEDER ASSEMBLY.
- 9) Remove left and right BEARING EARTH (PL 3.2.7) that fix ROLL ASSY TURN and remove BEARING EARTH from the 250 SHEET FEEDER ASSEMBLY.
- 10) First slide ROLL ASSY TURN to the left, and remove ROLL ASSY TURN by pulling out the shaft of ROLL ASSY TURN from the right side bearing of 250 SHEET FEEDER ASSEMBLY.

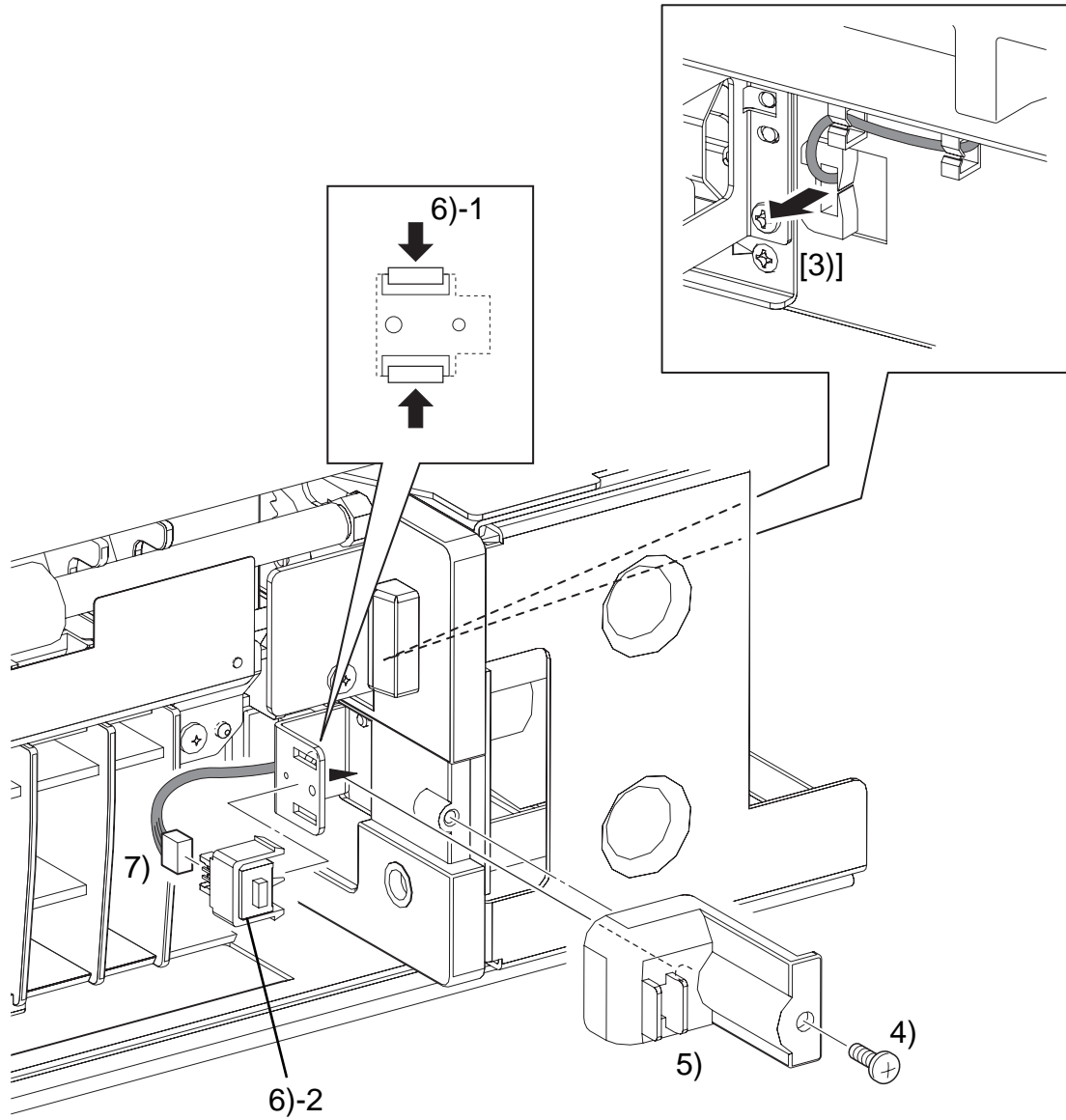
[Replacement]

- 1) After placing the left side of the shaft of ROLL ASSY TURN inside the left side bearing of 250 SHEET FEEDER ASSEMBLY, slide ROLL ASSY TURN to the right and attach.
- 2) Match the double D-CUT face of 250 SHEET FEEDER ASSEMBLY on the shaft of 250 SHEET FEEDER ASSEMBLY. Attach BEARING EARTH and fix ROLL ASSY TURN.
- 3) Fix both sides of the shaft of ROLL ASSY TURN to 250 SHEET FEEDER ASSEMBLY using the E rings.
- 4) Attach CHUTE ASSY RETARD 250. (RRP 3.26)
- 5) Attach HOUSING ASSY FEED. (RRP 3.14)
- 6) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Attach CLUTCH ASSY PH. (RRP 3.7)
- 8) Attach 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 9) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 10) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)

RRP3.10 FUSER CHUTE INTERLOCK (PL 3.2.9)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_207FB

RRP3.10 FUSER CHUTE INTERLOCK (PL 3.2.9)

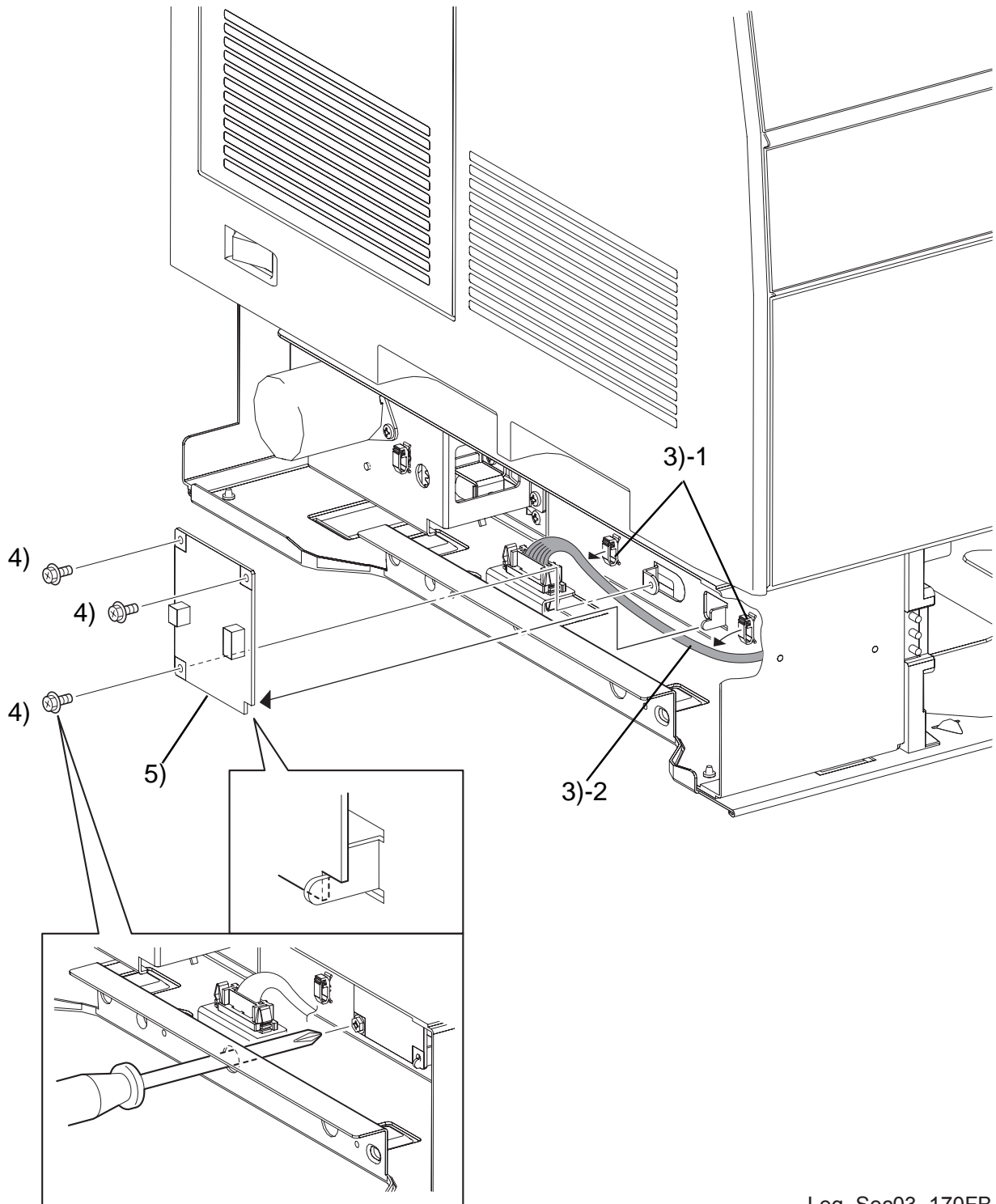
[Removal]

- 1) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 2) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 3) Remove 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 4) Remove a screw (silver, tap, 8mm) that fixes CAP (PL 3.2.43) to 250 SHEET FEEDER ASSEMBLY.
- 5) Remove CAP from 250 SHEET FEEDER ASSEMBLY.
- 6) Release the two hooks that fix FUSER CHUTE INTERLOCK (PL 3.2.9) to 250 SHEET FEEDER ASSEMBLY and remove FUSER CHUTE INTERLOCK.
- 7) Remove connector (P/J121) of FUSER CHUTE INTERLOCK.

[Replacement]

- 1) Attach connector (P/J121) of FUSER CHUTE INTERLOCK.
- 2) Match two hooks of FUSER CHUTE INTERLOCK to the fitting position of 250 SHEET FEEDER ASSEMBLY and attach it.
- 3) Pull the harness of FUSER CHUTE INTERLOCK from the outside of 250 SHEET FEEDER ASSEMBLY and tighten the loose harness side of FUSER CHUTE INTERLOCK.
- 4) Align the boss of CAP (PL 3.2.43) to the hole of 250 SHEET FEEDER ASSEMBLY and attach CAP.
- 5) Fix CAP to 250 SHEET FEEDER ASSEMBLY using a screw (silver, tap, 8mm).
- 6) Attach 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 7) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 8) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)

RRP3.11 PWBA MOT (PL 3.2.11)



Leg_Sec03_170FB

RRP3.11 PWBA MOT (PL 3.2.11)

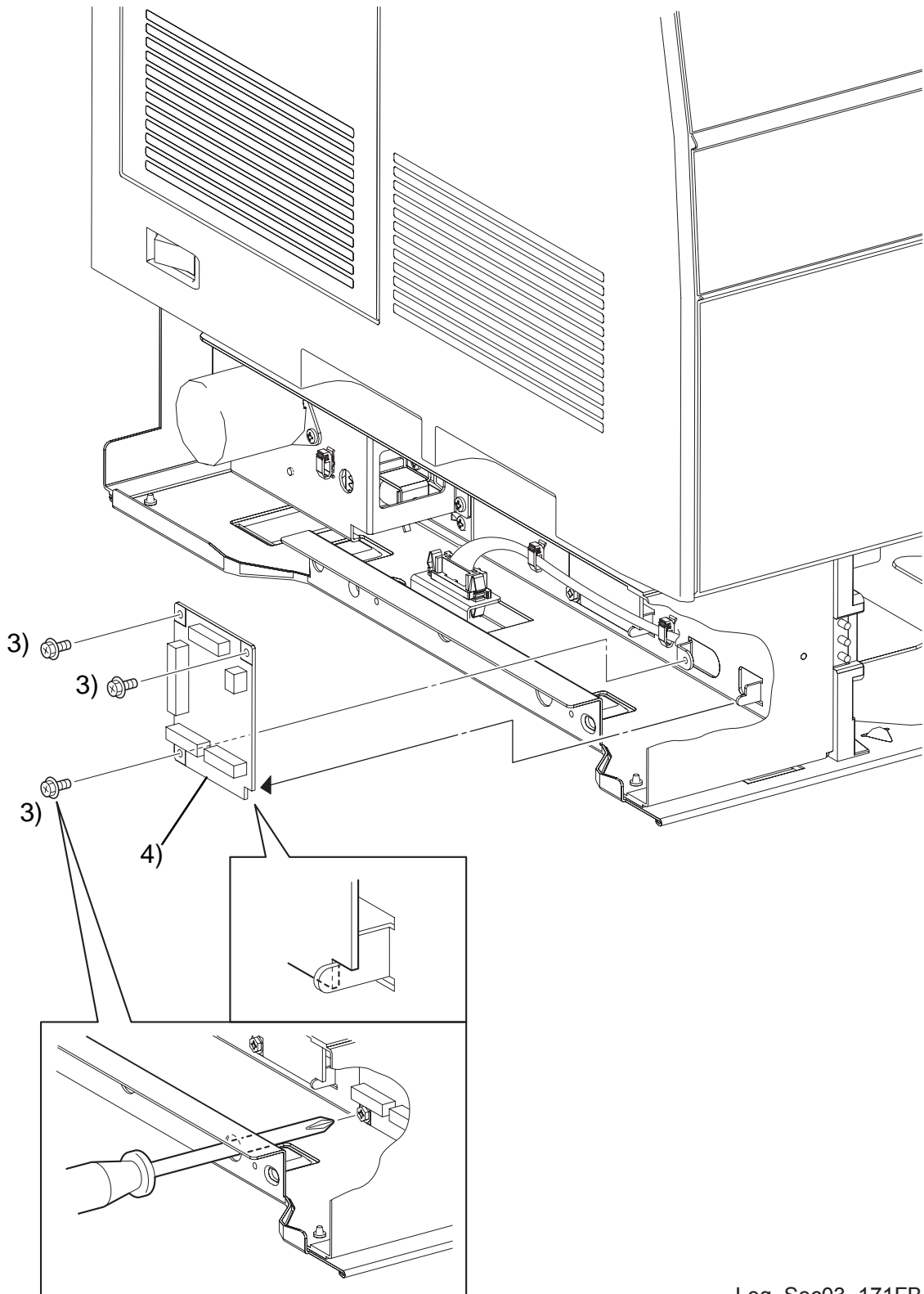
[Removal]

- 1) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 2) Remove connector (P/J440) on PWBA MOT (PL 3.2.11) and connector (P/J446).
- 3) Release the two clamps that fixes the harness of HARNESS-ASSY FEED 2 (PL3.2.13) and remove the harness of HARNESS-ASSY FEED 2.
- 4) Remove three screws (silver, with a flange, 6mm) that fix PWBA MOT on 250 SHEET FEEDER ASSEMBLY.
- 5) Remove PWBA MOT from 250 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Match the notch of the lower right of PWBA MOT to the convex part of 250 SHEET FEEDER ASSEMBLY, and attach it.
- 2) Fix PWBA MOT on 250 SHEET FEEDER ASSEMBLY using three screws (silver, with a flange, 6mm).
- 3) Fix the harness of HARNESS ASSY FEED 2 using two clamps.
- 4) Attach connector (P/J440) on PWBA MOT and connector (P/J446).
- 5) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)

RRP3.12 PWBA TRAY CONT (PL 3.2.12)



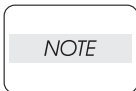
Leg_Sec03_171FB

RRP3.12 PWBA TRAY CONT (PL 3.2.12)

[Removal]

- 1) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 2) Remove connector (P/J435), connector (P/J436), connector (P/J437) and connector (P/J438) on PWBA TRAY CONT (PL 3.2.12).
- 3) Remove three screws (silver, with a flange, 6mm) that fix PWBA TRAY CONT on 250 SHEET FEEDER ASSEMBLY.
- 4) Remove PWBA TRAY CONT from 250 SHEET FEEDER ASSEMBLY.

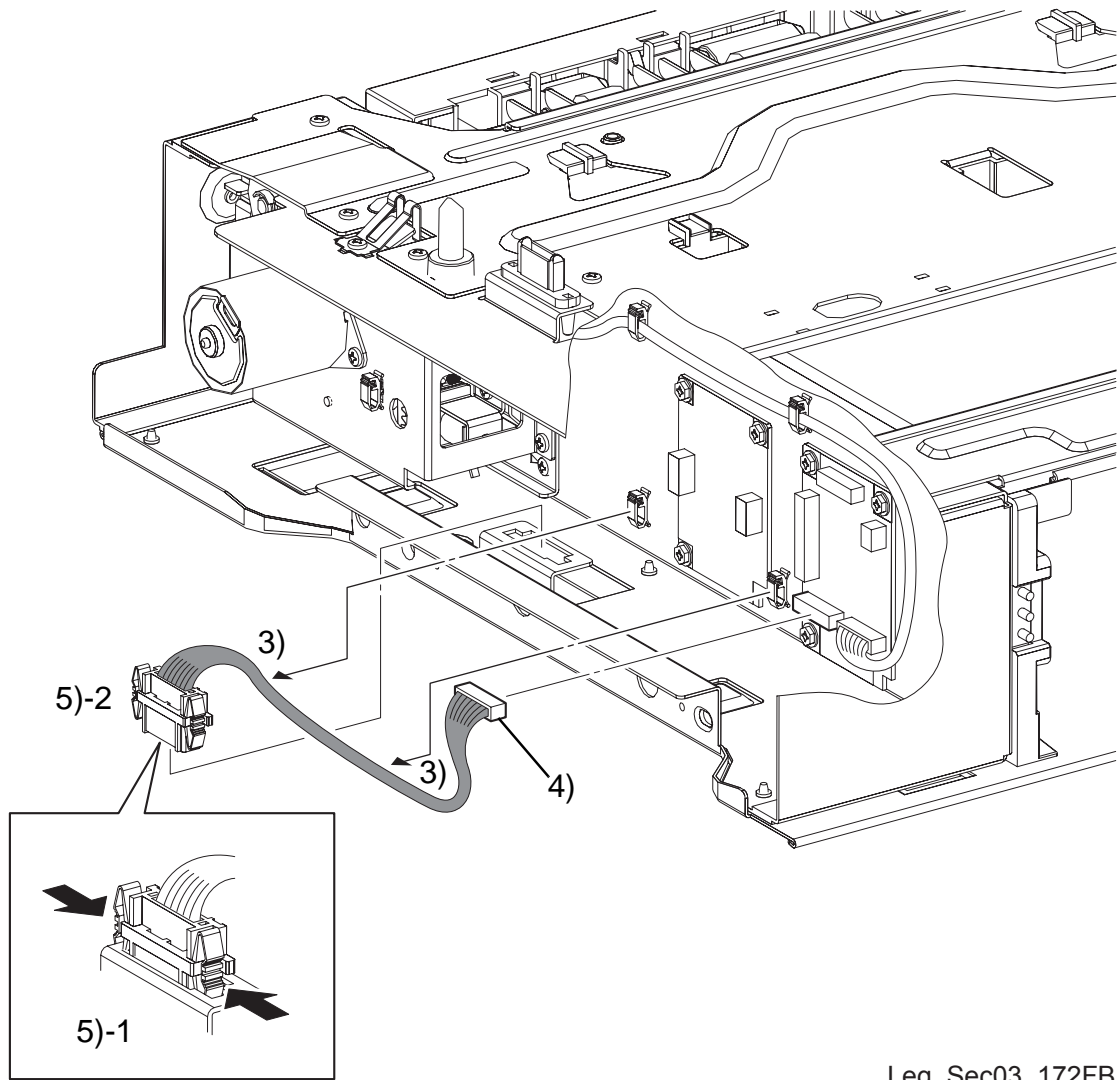
[Replacement]



The PWBA TRAY CONT is different for 250 SHEET FEEDER ASSEMBLY and for 500 SHEET FEEDER ASSEMBLY, so pay sufficient attention to avoid using incorrect one.

- Regarding PWBA TRAY CONT for 250 SHEET FEEDER ASSEMBLY, the silk screened marking on the board is in yellow and the solder resist is blue.
 - Regarding PWBA TRAY CONT for 500 SHEET FEEDER ASSEMBLY, the silk screened marking on the board is in white and the solder resist is green.
- 1) Match the notch of the lower right of PWBA TRAY CONT to the convex of 250 SHEET FEEDER ASSEMBLY and attach it.
 - 2) Fix PWBA TRAY CONT to 250 SHEET FEEDER ASSEMBLY using three screws (silver, with a flange, 6mm).
 - 3) Attach connector (P/J435), connector (P/J436), connector (P/J437) and connector (P/J438) on PWBA TRAY CONT.
 - 4) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)

RRP3.13 HARNESS-ASSY FEED 2 (PL 3.2.13)



Leg_Sec03_172FB

RRP3.13 HARNESS-ASSY FEED 2 (PL 3.2.13)

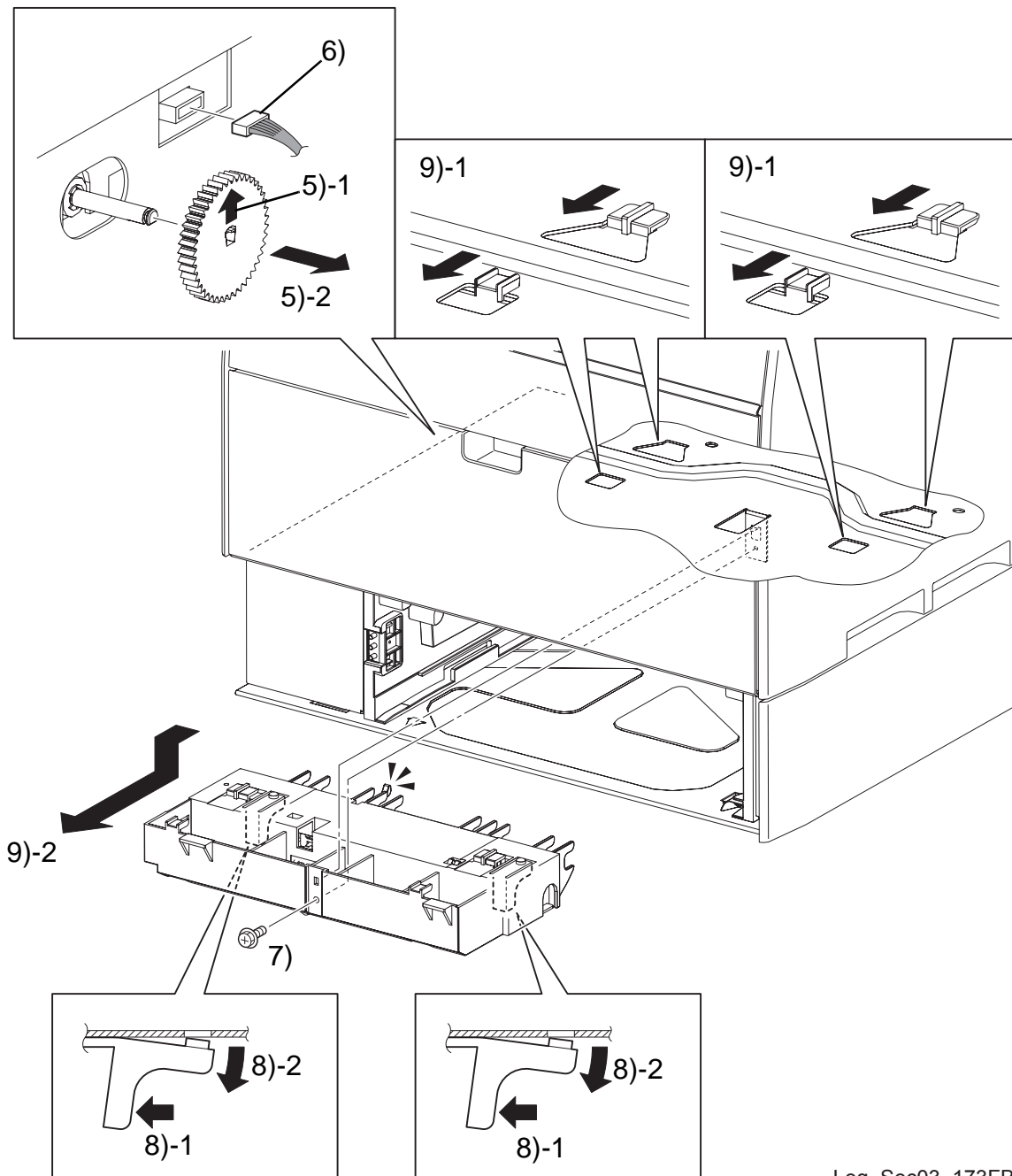
[Removal]

- 1) Remove 250 SHEET FEEDER ASSEMBLY. (RRP 3.1)
- 2) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 3) Release a clamp that fixes harness of HARNESS-ASSY FEED 2 (PL 3.2.13).
- 4) Remove connector (P/J436) on PWBA TRAY CONT (PL 3.2.12).
- 5) Release the two hooks that fix HARNESS-ASSY FEED 2 to 250 SHEET FEEDER ASSEMBLY, and remove HARNESS-ASSY FEED 2.

[Replacement]

- 1) Attach HARNESS-ASSY FEED 2 on 250 SHEET FEEDER ASSEMBLY and fix it using two hooks.
- 2) Attach connector (P/J436) on PWBA TRAY CONT.
- 3) Fix harness of HARNESS-ASSY FEED 2 using a clamp.
- 4) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 5) Attach 250 SHEET FEEDER ASSEMBLY. (RRP 3.1)

RRP3.14 HOUSING ASSY FEED (PL 3.3.1)



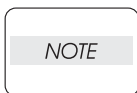
Leg_Sec03_173FB

RRP3.14 HOUSING ASSY FEED (PL 3.3.1)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 3) Remove CLUTCH ASSY PH. (RRP 3.7)
- 4) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 5) Release a hook of GEAR FEED (PL 3.2.4) fixed to the shaft of HOUSING ASSY FEED (PL 3.2.14) and remove GEAR FEED.
- 6) Remove connector (P/J618) of HOUSING ASSY FEED.
- 7) Remove a screw (silver, with a flange, 6mm) that fixes HOUSING ASSY FEED on 250 SHEET FEEDER ASSEMBLY.
- 8) Put both of your hands into the front side of 250 SHEET FEEDER ASSEMBLY to pull the lever at two locations of HOUSING ASSY FEED toward you, and disengage the boss of HOUSING ASSY FEED out of the hole of 250 SHEET FEEDER ASSEMBLY.
- 9) Slide HOUSING ASSY FEED to front side, release the four hooks on 250 SHEET FEEDER ASSEMBLY and remove the hole of HOUSING ASSY FEED from the front side convex of 250 SHEET FEEDER ASSEMBLY. Remove HOUSING ASSY FEED downwards.

[Replacement]



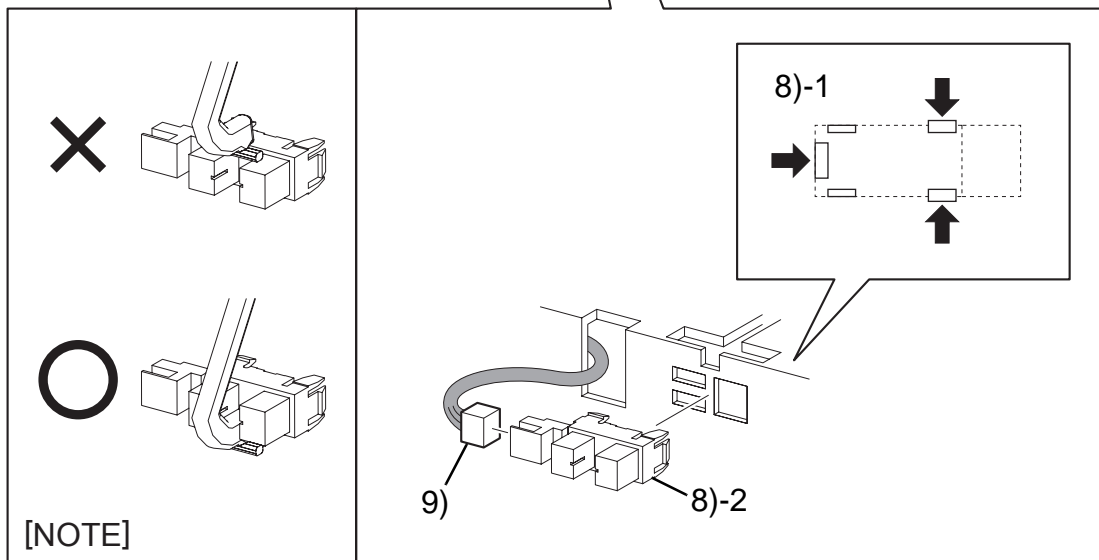
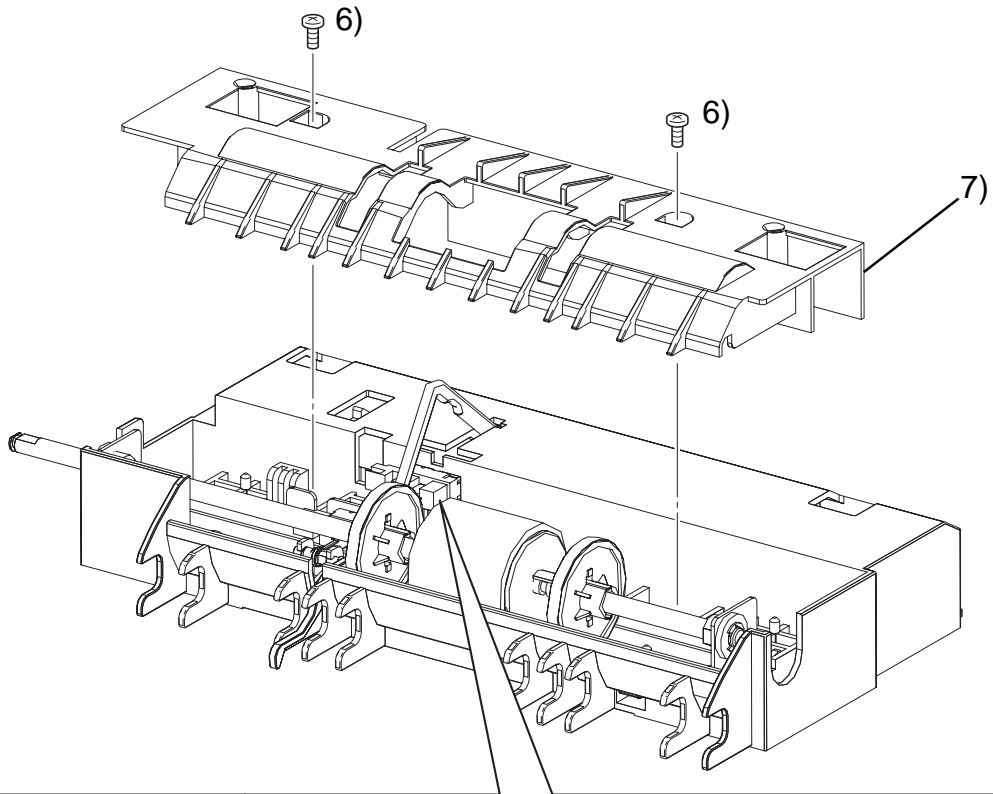
When carrying out the work shown below, be careful that ACTUATOR (PL 3.3.7) attached to HOUSING ASSY FEED is not damaged.

- 1) Match the hooks at four locations of HOUSING ASSY FEED to the fitting position and attach 250 SHEET FEEDER ASSEMBLY.
- 2) Slide HOUSING ASSY FEED backwards and insert the boss of HOUSING ASSY FEED in the hole of 250 SHEET FEEDER ASSEMBLY. Attach the convex of 250 PAPER FEEDER to the front side hole of HOUSING ASSY FEED.
- 3) Fix HOUSING ASSY FEED to 250 SHEET FEEDER ASSEMBLY using a screw (silver, with a flange, 6mm).
- 4) Attach connector (P/J618) of HOUSING ASSY FEED.
- 5) Attach GEAR FEED to shaft of HOUSING ASSY FEED, and fix a hook of GEAR FEED in groove of shaft of HOUSING ASSY FEED.
- 6) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Attach CLUTCH ASSY PH. (RRP 3.7)
- 8) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 9) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.15 PHOTO SENSOR: NO PAPER (PL 3.3.4)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



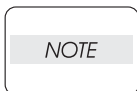
Leg_Sec03_033FB

RRP3.15 PHOTO SENSOR: NO PAPER (PL 3.3.4)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 3) Remove CLUTCH ASSY PH. (RRP 3.7)
- 4) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 5) Remove HOUSING ASSY FEED. (RRP 3.14)
- 6) Remove two screws (silver, tap, 8mm) that fix COVER FEED (PL 3.3.13) to HOUSING ASSY FEED.
- 7) Remove COVER FEED from HOUSING ASSY FEED.
- 8) Release the three hooks that fix PHOTO SENSOR: NO PAPER (PL 3.3.4) to HOUSING ASSY FEED, and remove PHOTO SENSOR: NO PAPER.
- 9) Remove connector (P/J119) of PHOTO SENSOR: NO PAPER.

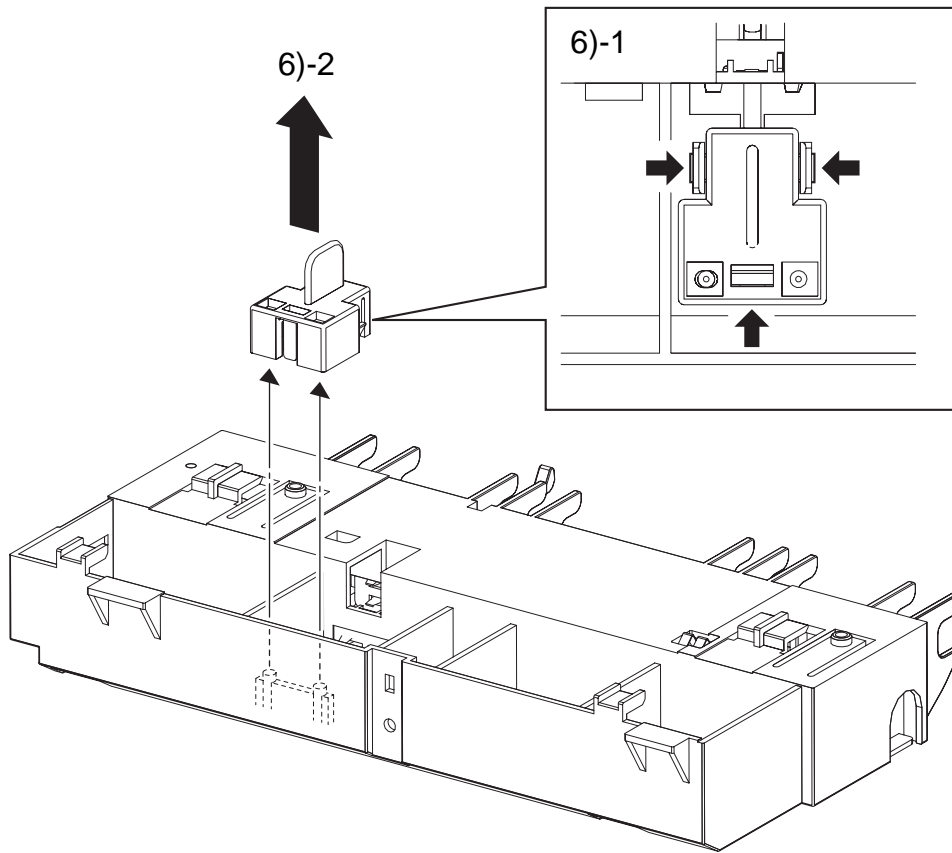
[Replacement]



When carrying out the work shown below, carefully check the relation between PHOTO SENSOR: NO PAPER and ACTUATOR-NO PAPER CST.

- 1) Attach connector (P/J119) of PHOTO SENSOR: NO PAPER.
- 2) Insert ACTUATOR NO PAPER CST to PHOTO SENSOR: NO PAPER and match the hook of PHOTO SENSOR: NO PAPER to the installation position. Attach it to HOUSING ASSY FEED.
- 3) Attach COVER FEED to HOUSING ASSY FEED.
- 4) Fix COVER FEED to HOUSING ASSY FEED using two screws (silver, tap, 8mm).
- 5) Attach HOUSING ASSY FEED. (RRP 3.14)
- 6) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Attach CLUTCH ASSY PH. (RRP 3.7)
- 8) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 9) Attach 250 PAPER CASSETTE ASY. (RRP 2.1)

RRP3.16 ACTUATOR NO PAPER CST (PL 3.3.5)

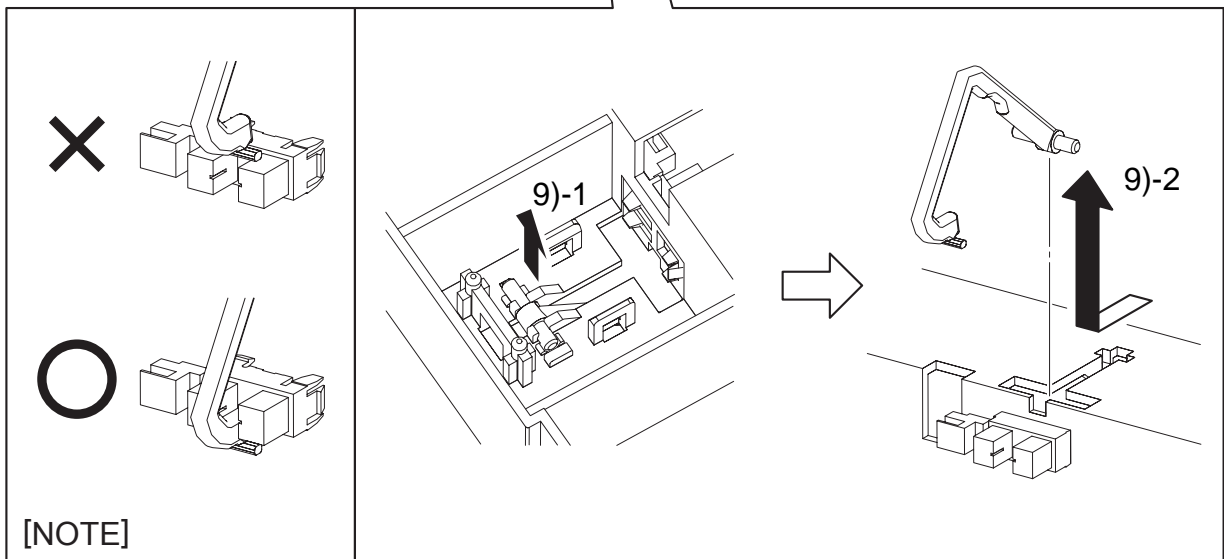
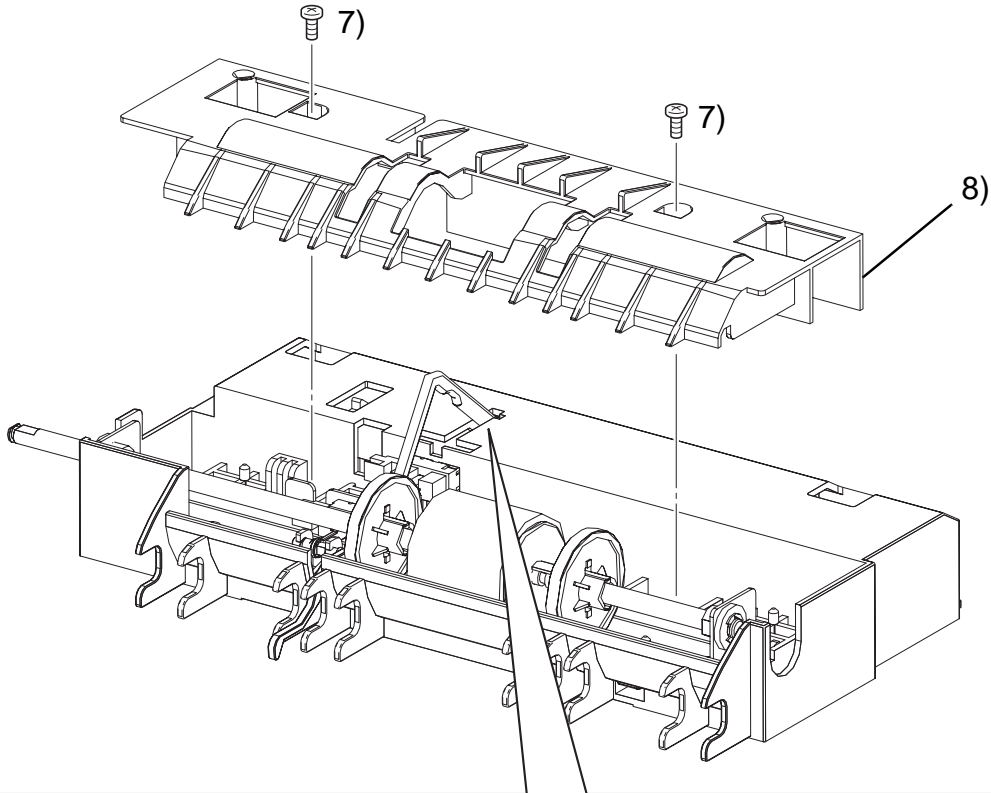


Leg_Sec03_206FA

RRP3.16 ACTUATOR NO PAPER CST (PL 3.3.5)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



[NOTE]

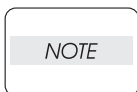
Leg_Sec03_034FB

RRP3.16 ACTUATOR NO PAPER CST (PL 3.3.5)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 3) Remove CLUTCH ASSY PH. (RRP 3.7)
- 4) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 5) Remove HOUSING ASSY FEED. (RRP 3.14)
- 6) Release the three hooks that fix CAP ACTUATOR (PL 3.3.3) to HOUSING ASSY FEED (PL 3.3.1), remove CAP ACTUATOR.
- 7) Remove the two screws (silver, tap, 8mm) that fix COVER FEED (PL 3.3.13) to HOUSING ASSY FEED.
- 8) Remove COVER FEED from HOUSING ASSY FEED.
- 9) Pull out the shaft of ACTUATOR NO PAPER CST (PL 3.3.5) from a hook of HOUSING ASSY FEED, slide it along with notched of HOUSING ASSY FEED, and remove ACTUATOR NO PAPER CST.

[Replacement]



When carrying out the work shown below, carefully check the relation between PHOTO SENSOR: NO PAPER and ACTUATOR-NO PAPER CST.

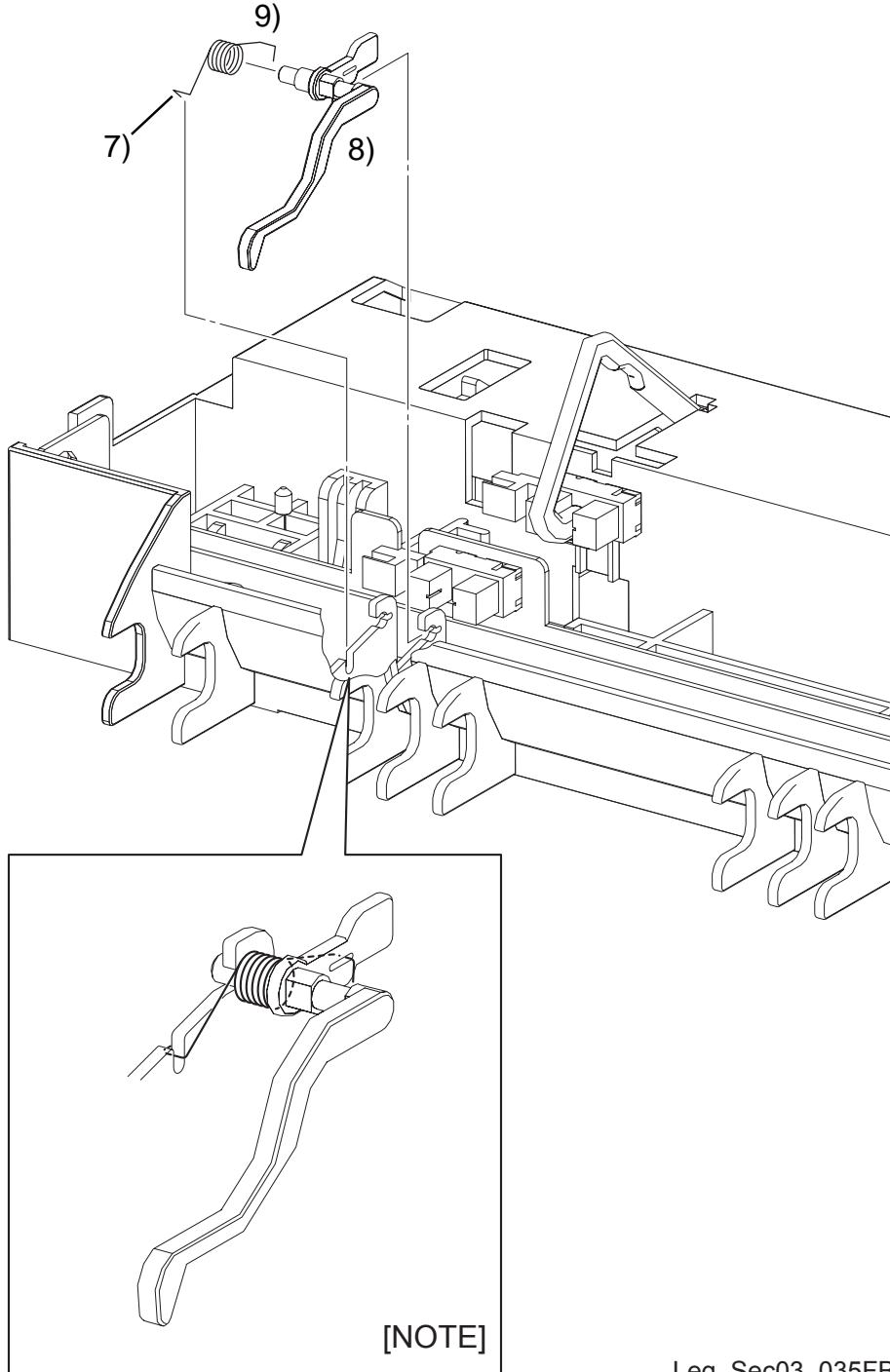
- 1) Insert the shaft of ACTUATOR NO PAPER CST (PL 3.3.5) in the notched of HOUSING ASSY FEED (PL 3.3.1).
- 2) Insert ACTUATOR NO PAPER CST in SENOR PHOTE: NO PAPER, engage the shaft of ACTUATOR NO PAPER CST with a hook of HOUSING ASSY FEED and attach it.
- 3) Attach COVER FEED (PL 3.3.13) to HOUSING ASSY FEED.
- 4) Fix COVER FEED to HOUSING ASSY FEED using two screws (silver, tap, 8mm).
- 5) Match the hole of CAP ACTUATOR (PL 3.3.3) to the boss of HOUSING ASSY FEED and attach CAP ACTUATOR.
- 6) Attach HOUSING ASSY FEED. (RRP 3.14)
- 7) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 8) Attach CLUTCH ASSY PH. (RRP 3.7)
- 9) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 10) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

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RRP3.17 ACTUATOR (PL 3.3.7)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



Leg_Sec03_035FB

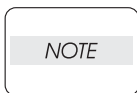
RRP3.17 ACTUATOR (PL 3.3.7)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 3) Remove CLUTCH ASSY PH. (RRP 3.7)
- 4) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 5) Remove HOUSING ASSY FEED. (RRP 3.14)
- 6) Remove ROLL ASSY FEED. (RRP 3.19)
- 7) Remove SPRING ACTUATOR (PL 3.3.6) from the notched of HOUSING ASSY FEED.
- 8) Pull the shaft of ACTUATOR (PL 3.3.7) out of the hook of HOUSING ASSY FEED, and remove ACTUATOR together with SPRING ACTUATOR.
- 9) Remove SPRING ACTUATOR from ACTUATOR.

[Replacement]

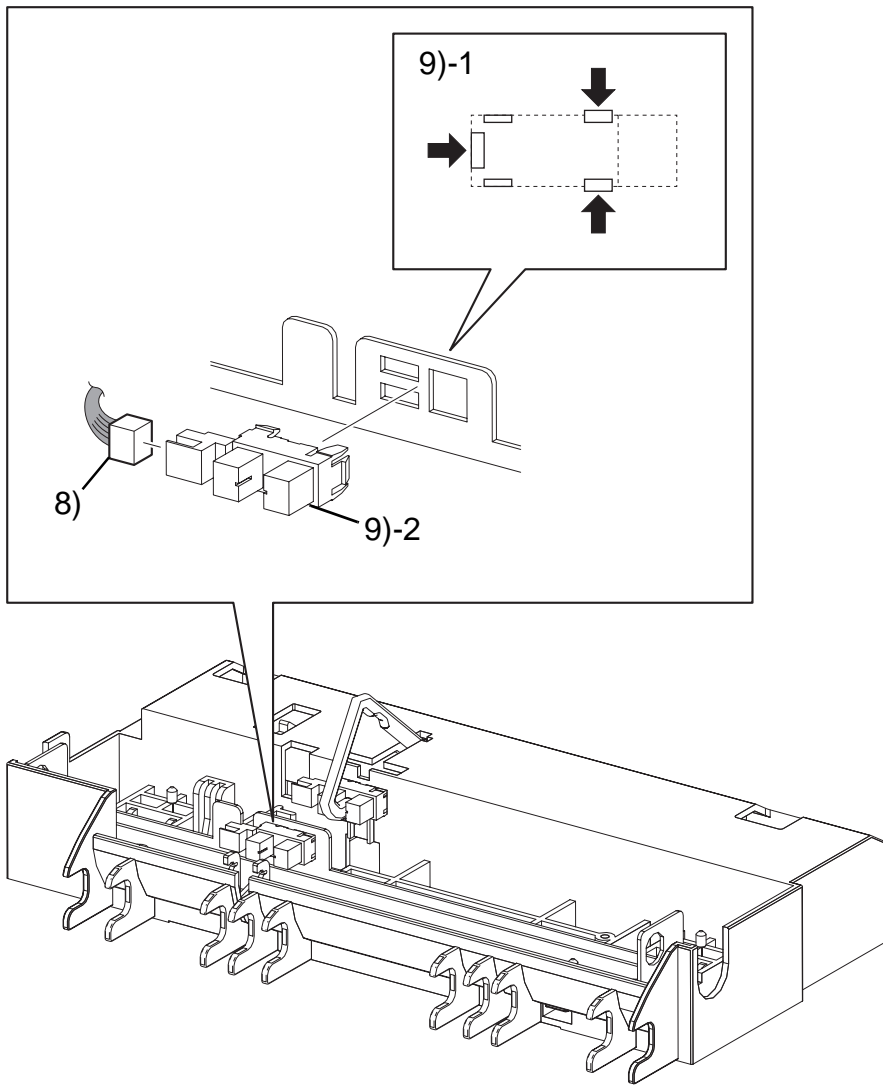
- 1) Attach SPRING ACTUATOR to ACTUATOR.
- 2) Engage the shaft of ACTUATOR to the hook of HOUSING ASSY FEED to attach ACTUATOR together with SPRING ACTUATOR.
- 3) Attach SPRING ACTUATOR to the notched of HOUSING ASSY FEED.



Make sure to securely hook SPRING ACTUATOR to the notch of ACTUATOR and HOUSING ASSY FEED.

- 4) Attach ROLL ASSY FEED. (RRP 3.19)
- 5) Attach HOUSING ASSY FEED. (RRP 3.14)
- 6) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Attach CLUTCH ASSY PH. (RRP 3.7)
- 8) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 9) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.18 PHOTO SENSOR: T/R (PL 3.3.4)



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RRP3.18 PHOTO SENSOR: T/R (PL 3.3.4)

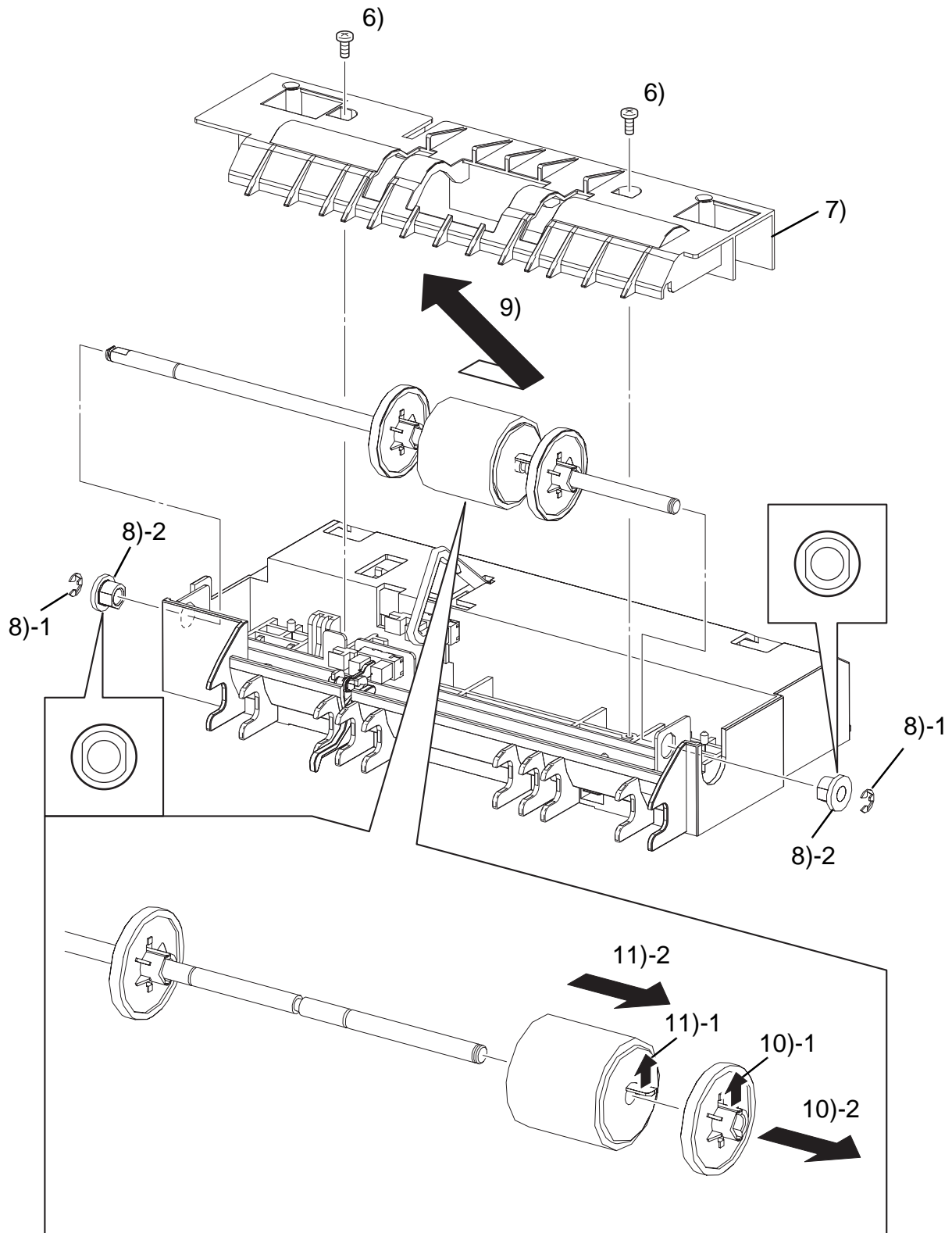
[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 3) Remove CLUTCH ASSY PH. (RRP 3.7)
- 4) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 5) Remove HOUSING ASSY FEED. (RRP 3.14)
- 6) Remove ROLL ASSY FEED. (RRP 3.19)
- 7) Remove ACTUATOR. (RRP 3.17)
- 8) Remove connector (P/J120) of PHOTO SENSOR: T/R (PL 3.3.4).
- 9) Release the three hooks that fix PHOTO SENSOR: T/R to HOUSING ASSY FEED and remove PHOTO SENSOR: T/R.

[Replacement]

- 1) Match three hooks of PHOTO SENSOR: T/R to fitting position of HOUSING ASSY FEED and attach it.
- 2) Attach connector (P/J120) of PHOTO SENSOR: T/R.
- 3) Attach ACTUATOR. (RRP 3.17)
- 4) Attach ROLL ASSY FEED. (RRP 3.19)
- 5) Attach HOUSING ASSY FEED. (RRP 3.14)
- 6) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Attach CLUTCH ASSY PH. (RRP 3.7)
- 8) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 9) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.19 ROLL ASSY FEED (PL 3.3.11)



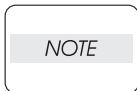
Leg_Sec03_037FB

RRP3.19 ROLL ASSY FEED (PL 3.3.11)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 3) Remove CLUTCH ASSY PH. (RRP 3.7)
- 4) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 5) Remove HOUSING ASSY FEED. (RRP 3.14)
- 6) Remove two screws (silver, tap, 8mm) that fix COVER FEED (PL 3.3.13) to HOUSING ASSY FEED.
- 7) Remove COVER FEED from HOUSING ASSY FEED.
- 8) Remove E rings that fix both sides of SHAFT FEED (PL 3.3.12) from HOUSING ASSY FEED, and remove left and right BEARING EARTH (PL 3.3.9).
- 9) First slide SHAFT FEED to the right and pull SHAFT FEED out from the left side bearing of HOUSING ASSY FEED, and remove SHAFT FEED together with ROLL ASSY FEED (PL 3.3.11) and ROLL SUPPORT (PL 3.3.10).
- 10) Release the hook of the right side ROLL SUPPORT that fixes ROLL SUPPORT to SHAFT FEED, and remove ROLL SUPPORT.
- 11) Release the hook of ROLL ASSY FEED that fixes ROLL ASSY FEED to SHAFT FEED, and remove ROLL ASSY FEED.

[Replacement]



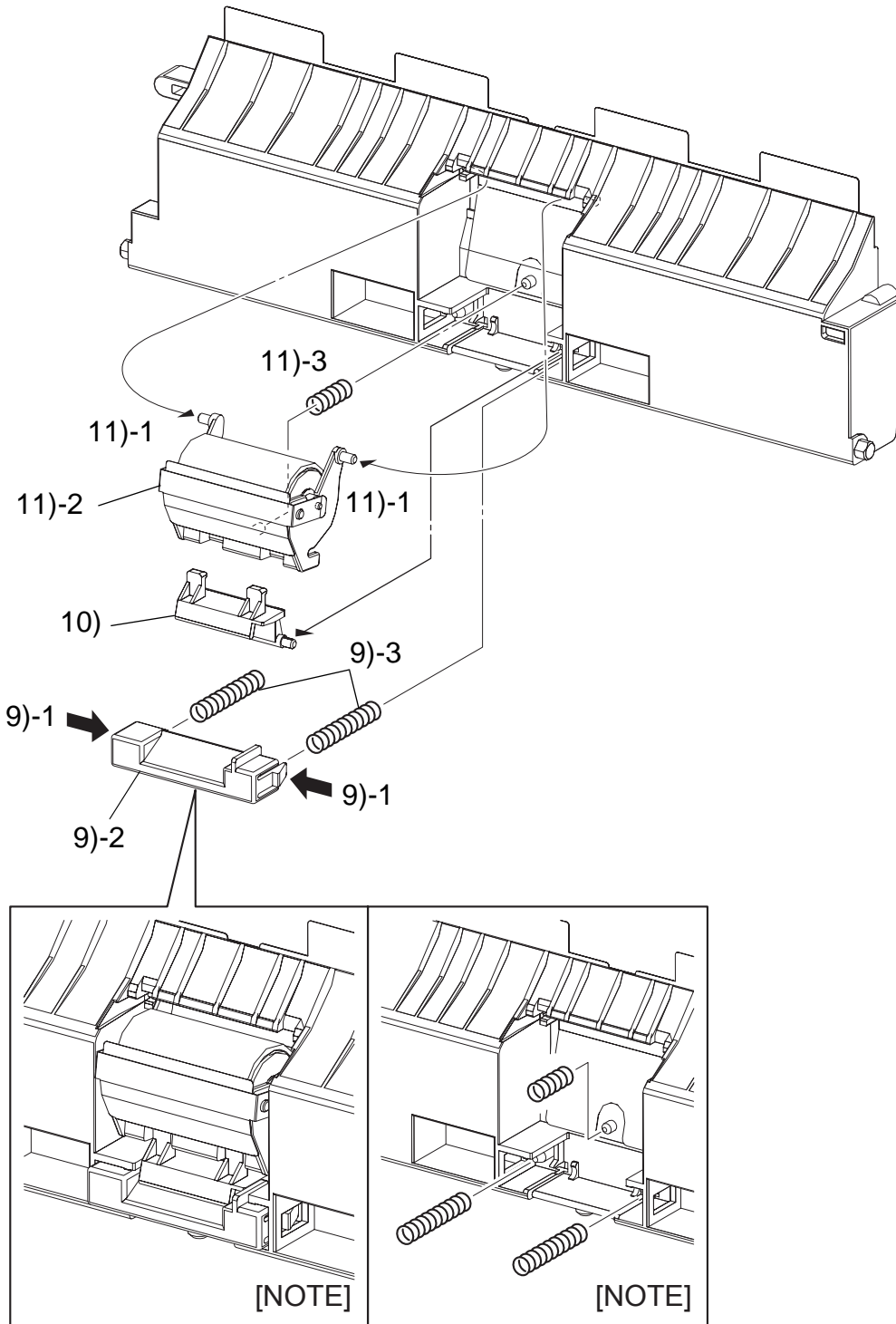
Pay attention to fitting direction of ROLL ASSY FEED when carrying out the work shown below.

- 1) Attach ROLL ASSY FEED to SHAFT FEED so that the hook is directed rightward, and fix the hook of ROLL ASSY FEED to the groove of SHAFT FEED.
- 2) Attach ROLL SUPPORT to SHAFT FEED, and fix the hook of ROLL SUPPORT to the groove of SHAFT FEED.
- 3) After placing the right side of SHAFT FEED in the right side bearing of HOUSING ASSY FEED, slide SHAFT FEED to the left and attach it together with ROLL ASSY FEED and ROLL SUPPORT.
- 4) Match the double D-CUT face of BEARING EARTH to the right and left sides bearing of HOUSING ASSY FEED, attach BEARING EARTH and then fix the both sides of SHAFT FEED using the E rings.
- 5) Attach COVER FEED to HOUSING ASSY FEED.
- 6) Fix COVER FEED to HOUSING ASSY FEED using two screws (silver, tap, 8mm).
- 7) Attach HOUSING ASSY FEED. (RRP 3.14)
- 8) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 9) Attach CLUTCH ASSY PH. (RRP 3.7)
- 10) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 11) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.20 SEPARATOR ASSEMBLY (PL 3.2.25)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.

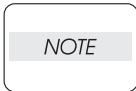


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RRP3.20 SEPARATOR ASSEMBLY (PL 3.2.25)

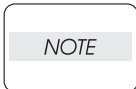
[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 3) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 4) Remove 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 5) Remove CLUTCH ASSY PH. (RRP 3.7)
- 6) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Remove HOUSING ASSY FEED. (RRP 3.14)
- 8) Remove CHUTE ASSY RETARD 250. (RRP 3.26)



Be sure not to loose SPRING LEVER 250 when carrying out the work shown below.

- 9) Release the both sides of boss on BUTTON FDR 250 (PL 3.2.30), remove BUTTON FDR 250 and SPRING LEVER 250 (PL 3.2.29) from CHUTE ASSY 250 (PL 3.2.41).
- 10) Remove the shaft on both sides of LEVER 250 (PL 3.2.28) from the hook of CHUTE ASSY 250 and remove LEVER 250.

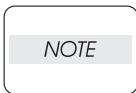


Try not to break the boss of SEPARATOR ASSEMBLY when carrying out the work shown below.

- 11) Depress the boss parts on both sides of SEPARATOR ASSEMBLY (PL 3.2.25) and remove SEPARATOR ASSEMBLY from CHUTE ASSY 250.

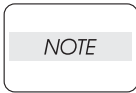
RRP3.20 SEPARATOR ASSEMBLY (PL 3.2.25)

[Replacement]

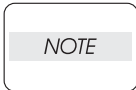


Try not to break the boss of SEPARATOR ASSEMBLY when carrying out the work shown below.

- 1) Match SPRING RETARD (PL 3.2.26) to the boss of CHUTE ASSY 250, and depress the boss part on both sides of SEPARATOR ASSEMBLY. Attach SEPARATOR ASSEMBLY to CHUTE ASSY 250.

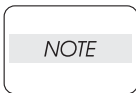


Check that SPRING RETARD is placed in the boss of SEPARATOR ASSEMBLY and the boss of CHUTE ASSY 250.

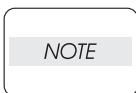


Pay attention to fitting direction of LEVER 250 when carrying out the work shown below.

- 2) Fix the shaft on both sides of LEVER 250 by the hooks of CHUTE ASSY 250 and attach LEVER 250.

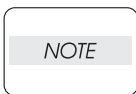


Be sure to engage the concave of SEPARATOR ASSEMBLY with the convex of LEVER 250 properly.



Pay attention to fitting direction of BUTTON FDR 250 when carrying out the work shown below.

- 3) Attach SPRING LEVER 250 to the boss of CHUTE ASSY 250 and attach BUTTON FDR 250 to CHUTE ASSY 250.

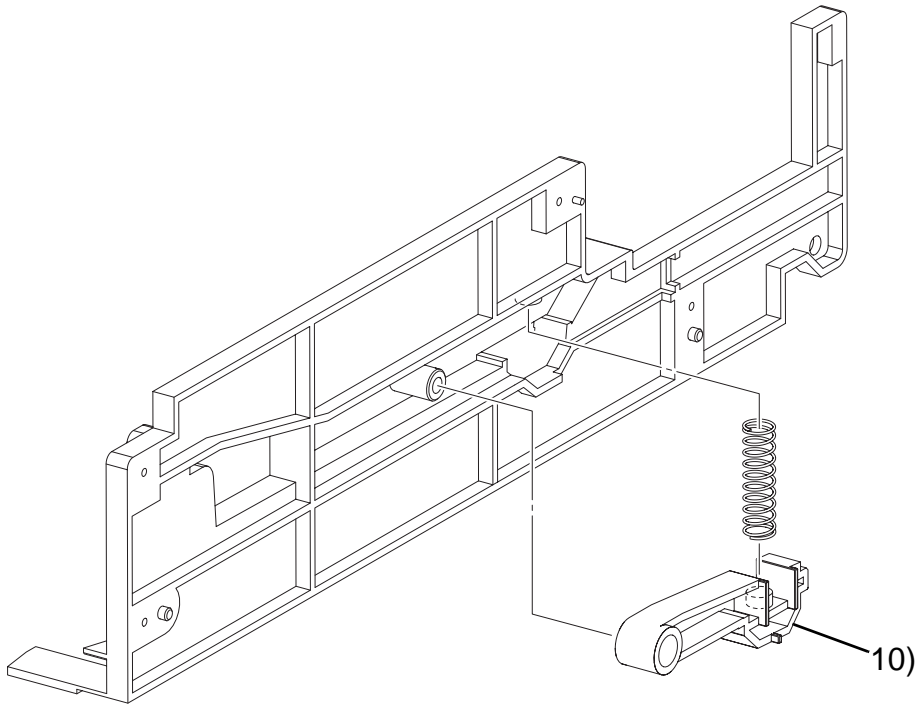


Check that SPRING LEVER 250 is placed in the boss of BUTTON FDR 250 and the boss of CHUTE ASSY 250.

- 4) Attach CHUTE ASSY RETARD 250. (RRP 3.26)
- 5) Attach HOUSING ASSY FEED. (RRP 3.14)
- 6) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Attach CLUTCH ASSY PH. (RRP 3.7)
- 8) Attach 250 SHEET FEEDER CHUTE ASSEMBLY.(RRP 3.3)
- 9) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 10) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 11) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

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RRP3.21 STOPPER CST R (PL 3.2.32)

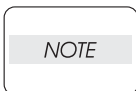


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RRP3.21 STOPPER CST R (PL 3.2.32)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 3) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 4) Remove 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 5) Remove CLUTCH ASSY PH. (RRP 3.7)
- 6) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Remove HOUSING ASSY FEED. (RRP 3.14)
- 8) Remove CHUTE ASSY RETARD 250. (RRP 3.26)
- 9) Remove GUIDE CST R 250 (RRP 3.22)

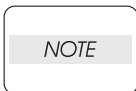


Be sure not to loose SPG LOCK CST LL when carrying out the work shown below.

- 10) Remove STOPPER CST R (PL 3.2.32) from GUIDE CST R 250 (PL 3.2.33).

[Replacement]

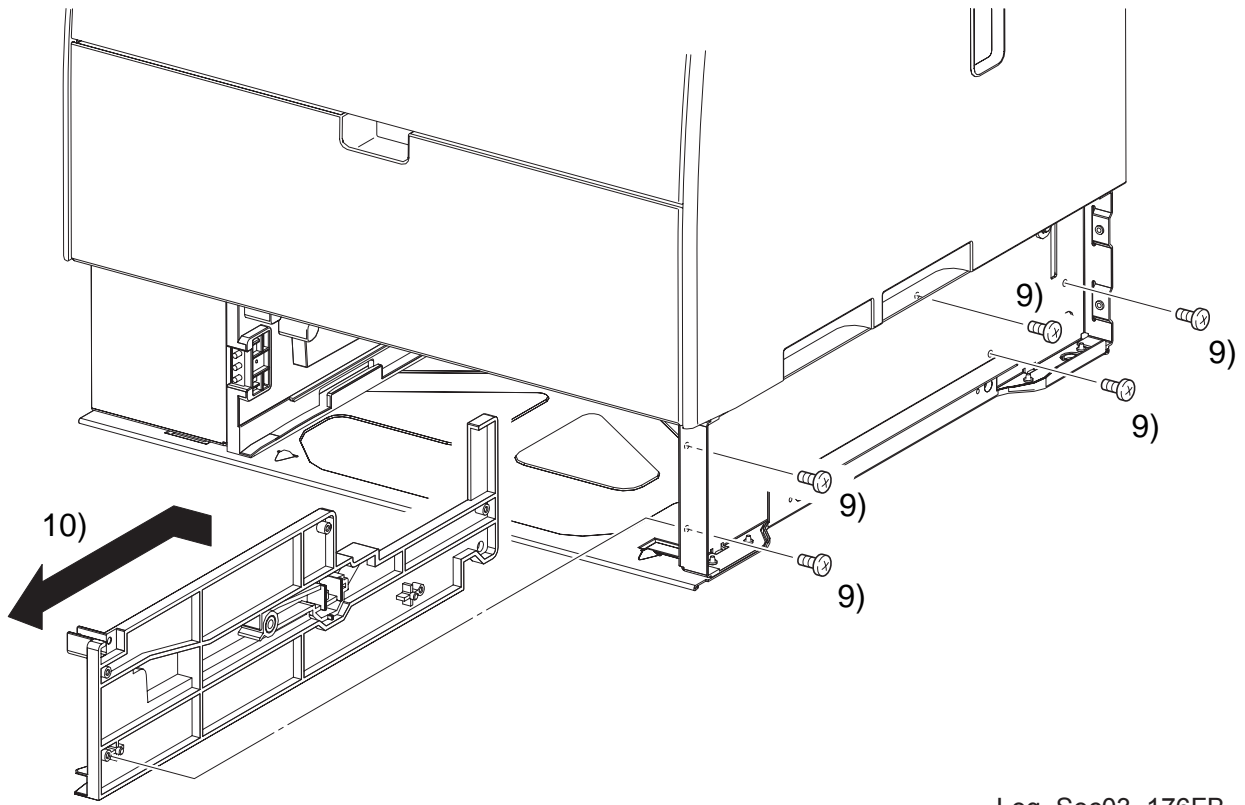
- 1) Attach SPG LOCK CST LL (PL 3.2.31) to the boss of STOPPER CST R, and attach STOPPER CST R to GUIDE CST R 250.



Check that SPG LOCK CST LL is engaged in the boss of STOPPER CST R and the boss of GUIDE CST R 250.

- 2) Attach GUIDE CST R 250. (RRP 3.22)
- 3) Attach CHUTE ASSY RETARD 250. (RRP 3.26)
- 4) Attach HOUSING ASSY FEED. (RRP 3.14)
- 5) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 6) Attach CLUTCH ASSY PH. (RRP 3.7)
- 7) Attach 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 8) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 9) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 10) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.22 GUIDE CST R 250 (PL 3.2.33)



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RRP3.22 GUIDE CST R 250 (PL 3.2.33)

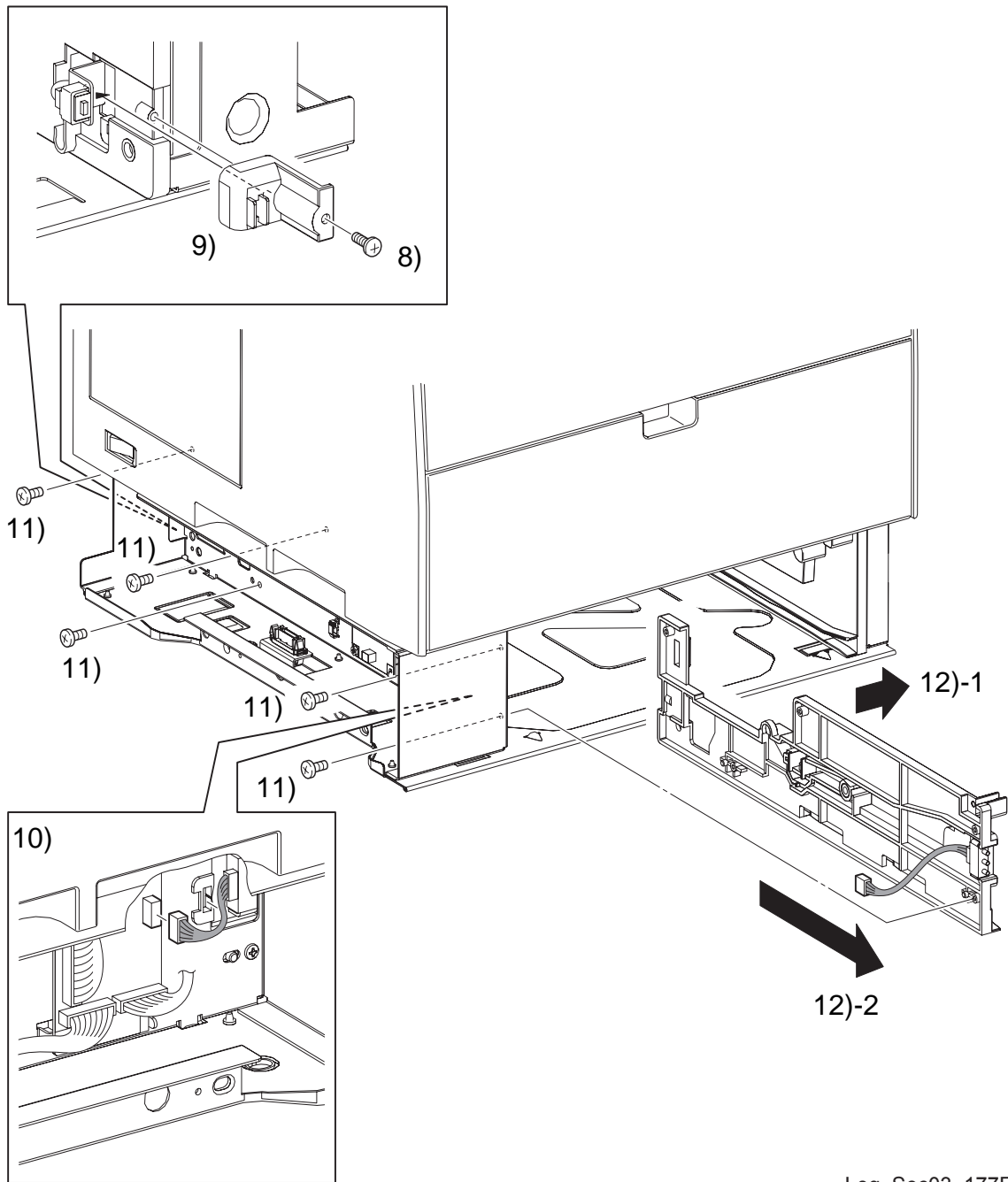
[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 3) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 4) Remove 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 5) Remove CLUTCH ASSY PH. (RRP 3.7)
- 6) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Remove HOUSING ASSY FEED. (RRP 3.14)
- 8) Remove CHUTE ASSY RETARD 250. (RRP 3.26)
- 9) Remove five screws (silver, tap, 6mm) that fix GUIDE CST R 250 (PL 3.2.33) to 250 SHEET FEEDER ASSEMBLY.
- 10) Remove GUIDE CST R 250 together with SPG LOCK CST LL (PL 3.2.31) and STOPPER CST R (PL 3.2.32) from 250 SHEET FEEDER ASSEMBLY.
- 11) Remove STOPPER CST R. (RRP 3.21)

[Replacement]

- 1) Attach STOPPER CST R. (RRP 3.21)
- 2) Match the boss of GUIDE CST R 250 to the hole in 250 SHEET FEEDER ASSEMBLY, attach GUIDE CST R 250.
- 3) Fix GUIDE CST R 250 to 250 SHEET FEEDER ASSEMBLY using five screws (silver, tap, 6mm).
- 4) Attach CHUTE ASSY RETARD 250. (RRP 3.26)
- 5) Attach HOUSING ASSY FEED. (RRP 3.14)
- 6) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Attach CLUTCH ASSY PH. (RRP 3.7)
- 8) Attach 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 9) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 10) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 11) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.23 GUIDE CST L 250 (PL 3.2.34)



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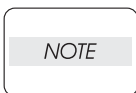
RRP3.23 GUIDE CST L 250 (PL 3.2.34)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 3) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 4) Remove 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 5) Remove CLUTCH ASSY PH. (RRP 3.7)
- 6) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Remove HOUSING ASSY FEED. (RRP 3.14)
- 8) Remove CHUTE ASSY RETARD 250. (RRP 3.26)
- 9) Remove a screw (silver, tap, 8mm) that fix CAP (PL 3.2.43) to 250 SHEET FEEDER ASSEMBLY.
- 10) Remove CAP from 250 SHEET FEEDER ASSEMBLY.
- 11) Remove the connector (P/J438) on PWBA TRAY CONT.
- 12) Remove five screws (silver, tap, 6mm) that fix GUIDE CST L 250 (PL 3.2.34) to 250 SHEET FEEDER ASSEMBLY.
- 13) For removing FUSER CHUTE INTERLOCK (PL3.2.9), slide GUIDE CST L 250 to right side. Remove GUIDE CST L 250 together with SPG LOCK CST LL (PL3.2.31), STOPPER CST L (PL3.2.35), SNR CST (PL3.2.36) and HARNESS-ASSY FEED SW (PL3.2.27).
- 14) Remove STOPPER CST L. (RRP 3.24)
- 15) Remove SNR CST. (RRP 3.25)

[Replacement]

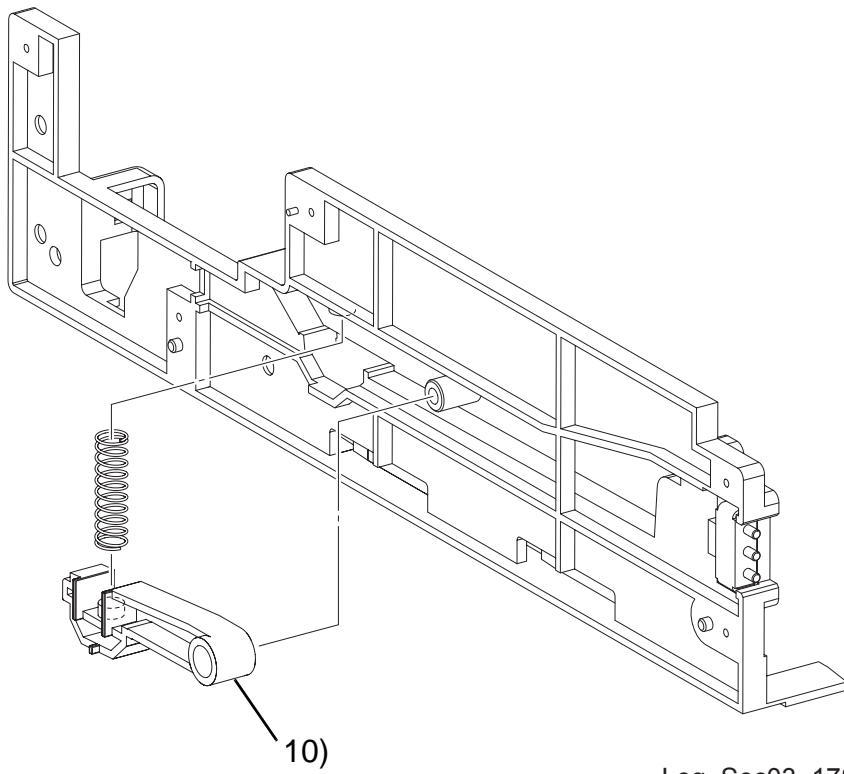
- 1) Attach SNR CST. (RRP 3.25)
- 2) Attach STOPPER CST L. (RRP 3.24)



Be sure that harness is not caught between 250 SHEET FEEDER ASSEMBLY and GUIDE CST L 250 when carrying out the work shown below.

- 3) Put FUSER CHUTE INTERLOCK in the hole of rear side on GUIDE CST L 250, match the boss of GUIDE CST L 250 to the hole of 250 SHEET FEEDER ASSEMBLY and attach GUIDE CST L 250. Pull HARNESS-ASSY FEED SW out from the hole of 250 SHEET FEEDER ASSEMBLY.
- 4) Fix GUIDE CST L 250 to 250 SHEET FEEDER ASSEMBLY using five screws (silver, tap, 6mm).
- 5) Attach connector (P/J438) to PWBA TRAY CONT.
- 6) Match the boss of CAP to the hole in 250 SHEET FEEDER ASSEMBLY, attach CAP.
- 7) Fix CAP to 250 SHEET FEEDER ASSEMBLY using a screw (silver, tap, 8mm).
- 8) Attach CHUTE ASSY RETARD 250. (RRP 3.26)
- 9) Attach HOUSING ASSY FEED. (RRP 3.14)
- 10) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 11) Attach CLUTCH ASSY PH. (RRP 3.7)
- 12) Attach 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 13) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 14) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 15) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.24 STOPPER CST L (PL 3.2.35)

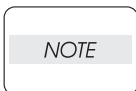


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RRP3.24 STOPPER CST L (PL 3.2.35)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 3) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 4) Remove 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 5) Remove CLUTCH ASSY PH. (RRP 3.7)
- 6) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Remove HOUSING ASSY FEED. (RRP 3.14)
- 8) Remove CHUTE ASSY RETARD 250. (RRP 3.26)
- 9) Remove GUIDE CST L 250. (RRP 3.23)

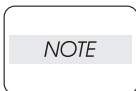


Be sure not to loose SPG LOCK CST LL when carrying out the work shown below.

- 10) Remove STOPPER CST L (PL 3.2.35) from GUIDE CST L 250 (PL 3.2.34).

[Replacement]

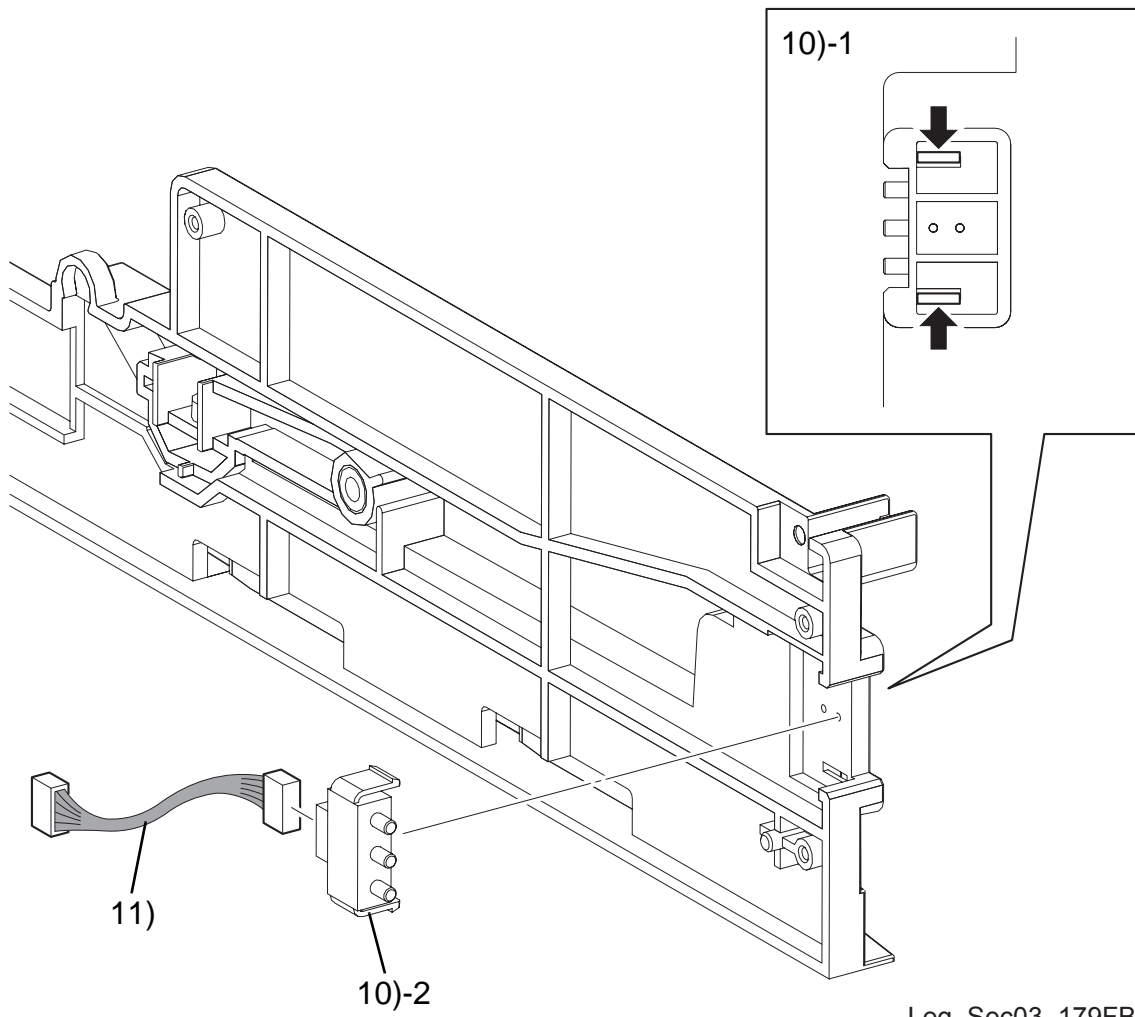
- 1) Attach SPG LOCK CST LL (PL 3.2.31) to the boss of STOPPER CST L and attach STOPPER CST L to GUIDE CST L 250.



Check that SPG LOCK CST LL is engaged in the boss of STOPPER CST L and boss of GUIDE CST L 250.

- 2) Attach GUIDE CST L 250. (RRP 3.23)
- 3) Attach CHUTE ASSY RETARD 250. (RRP 3.26)
- 4) Attach HOUSING ASSY FEED. (RRP 3.14)
- 5) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 6) Attach CLUTCH ASSY PH. (RRP 3.7)
- 7) Attach 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 8) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 9) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 10) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.25 SNR CST (PL 3.2.36)



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RRP3.25 SNR CST (PL 3.2.36)

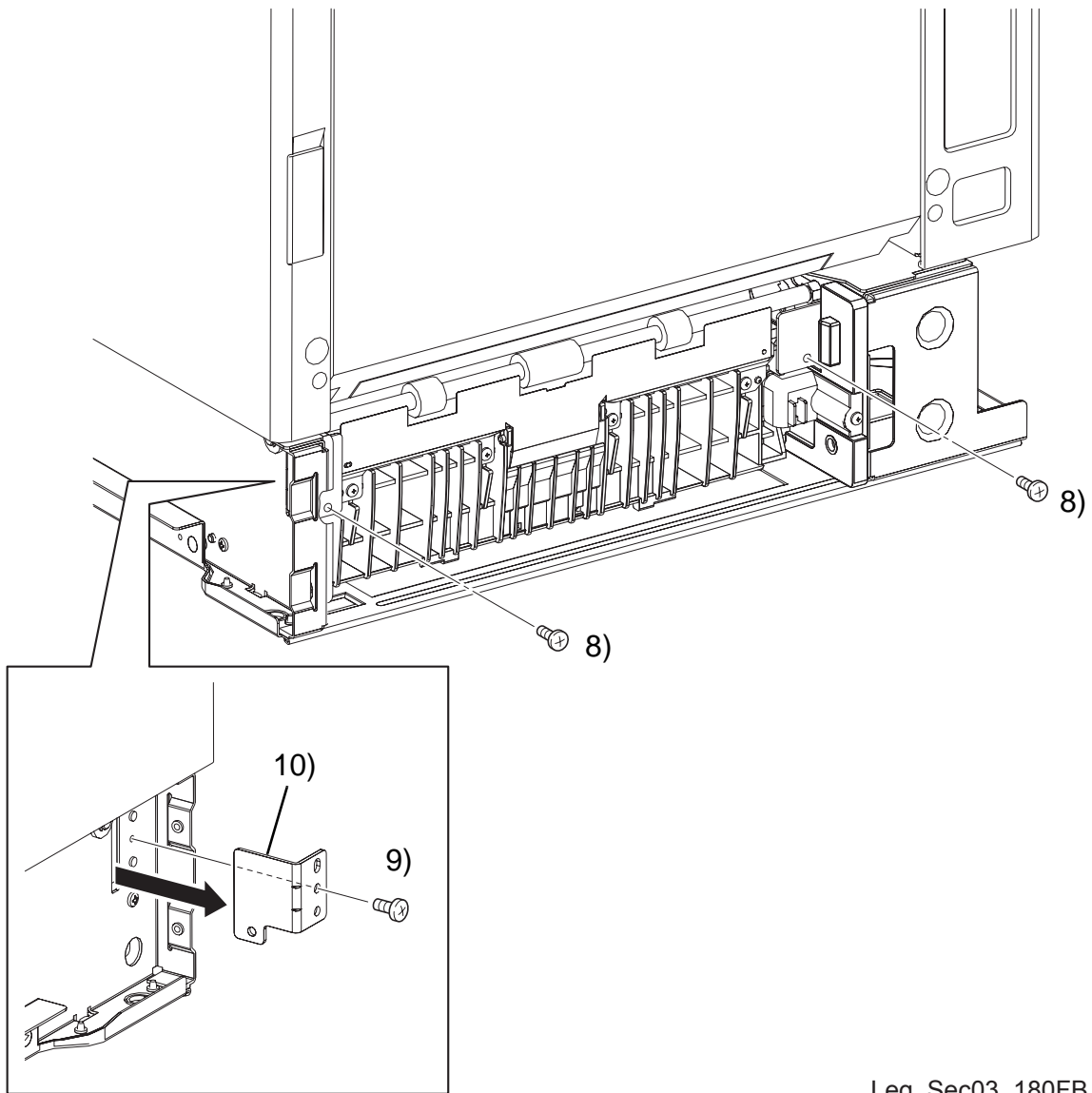
[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 3) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 4) Remove 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 5) Remove CLUTCH ASSY PH. (RRP 3.7)
- 6) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Remove HOUSING ASSY FEED. (RRP 3.14)
- 8) Remove CHUTE ASSY RETARD 250. (RRP 3.26)
- 9) Remove GUIDE CST L 250. (RRP 3.23)
- 10) Release the two hooks that fix SNR CST (PL 3.2.36) to GUIDE CST L 250, and remove SNR CST and HARNESS-ASSY FEED SW (PL 3.2.37).
- 11) Remove HARNESS-ASSY FEED SW from SNR CST.

[Replacement]

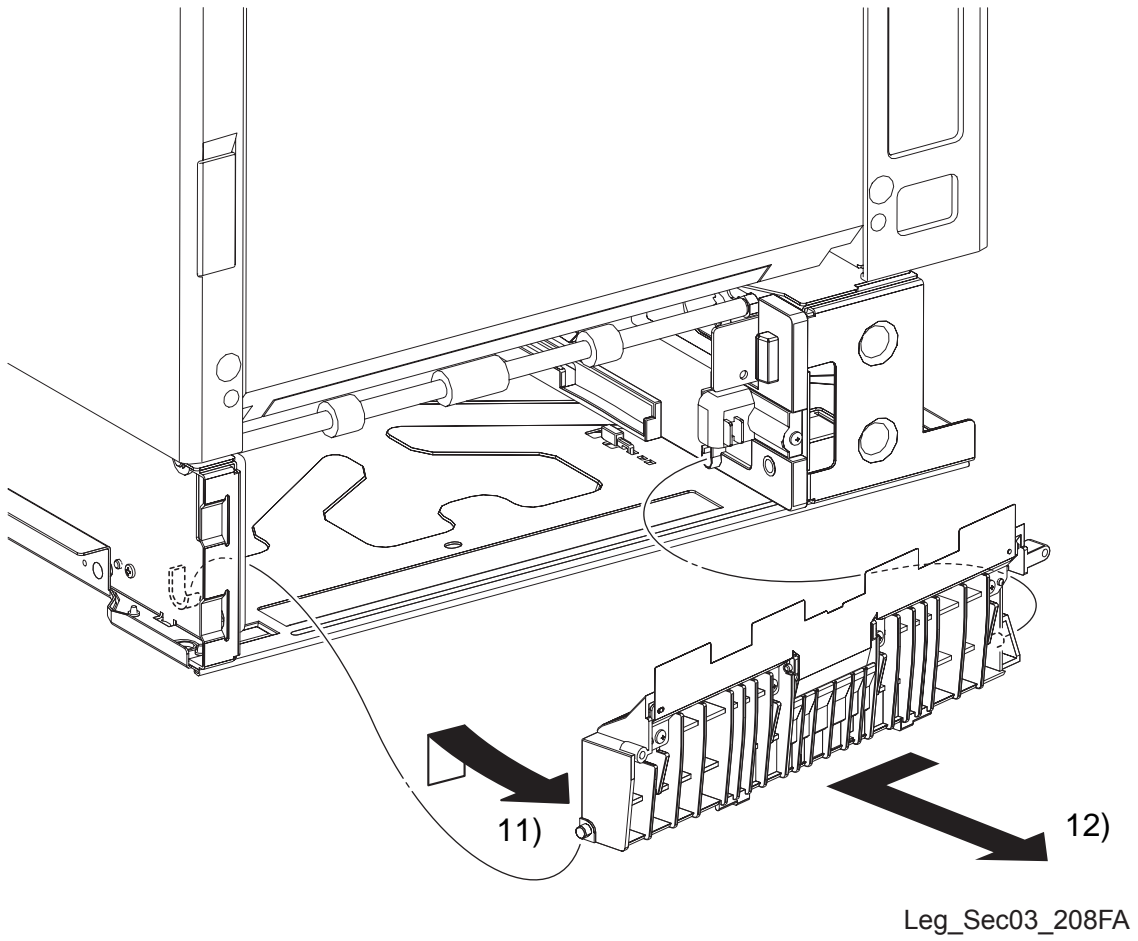
- 1) Attach HARNESS-ASSY FEED SW to SNR CST.
- 2) Match two hooks of SNR CST to the fitting position of GUIDE CST L 250 and attach it and HARNESS-ASSY FEED SW.
- 3) Attach GUIDE CST L 250. (RRP 3.23)
- 4) Attach CHUTE ASSY RETARD 250. (RRP 3.26)
- 5) Attach HOUSING ASSY FEED. (RRP 3.14)
- 6) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Attach CLUTCH ASSY PH. (RRP 3.7)
- 8) Attach 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 9) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 10) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 11) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP3.26 CHUTE ASSY RETARD 250 (REFERENCE ONLY)



Leg_Sec03_180FB

RRP3.26 CHUTE ASSY RETARD 250 (REFERENCE ONLY)



RRP3.26 CHUTE ASSY RETARD 250 (REFERENCE ONLY)

[Removal]

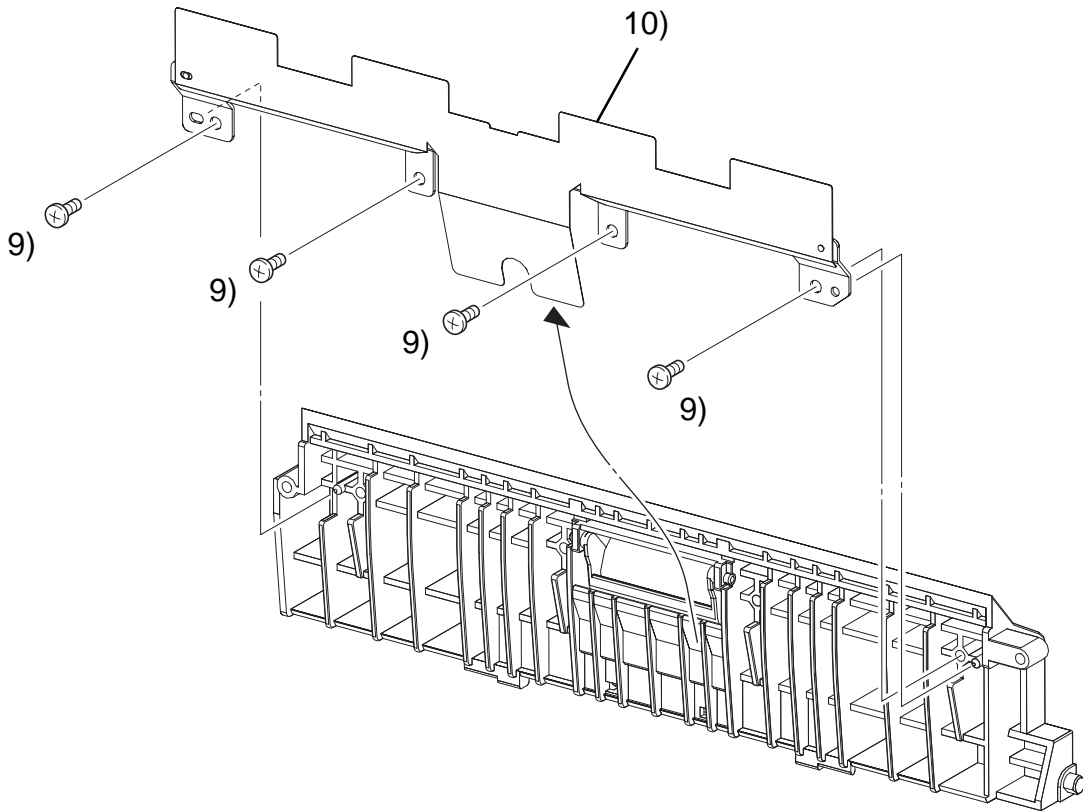
- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 3) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 4) Remove 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 5) Remove CLUTCH ASSY PH. (RRP 3.7)
- 6) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Remove HOUSING ASSY FEED. (RRP 3.14)
- 8) Remove two screws (silver, tap, 8mm) that fix CHUTE ASSY RETARD 250 to 250 SHEET FEEDER ASSEMBLY.
- 9) Remove a screw (silver, 6mm) that fix BRACKET MAG R (PL 3.2.46) to 250 SHEET FEEDER ASSEMBLY.
- 10) Remove BRACKET MAG R from 250 SHEET FEEDER ASSEMBLY.
- 11) Remove the shaft of right side on CHUTE ASSY RETARD 250 from the bearing of GUIDE CST R 250 (PL 3.2.33).
- 12) Remove the shaft of left side on CHUTE ASSY RETARD 250 from the bearing of GUIDE CST L 250 (PL 3.2.34) and remove CHUTE ASSY RETARD 250 from 250 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Attach the shaft of left side on CHUTE ASSY RETARD 250 to the bearing of GUIDE CST L 250 (PL 3.2.34).
- 2) Attach the shaft of right side on CHUTE ASSY RETARD 250 to the bearing of GUIDE CST R 250 (PL 3.2.33) and attach CHUTE ASSY RETARD 250 to 250 SHEET FEEDER ASSEMBLY.
- 3) Put BRACKET MAG R (PL 3.2.46) in the notched of 250 SHEET FEEDER ASSEMBLY, match the hole of BRACKET MAG R to the boss of 250 SHEET FEEDER ASSEMBLY and attach BRACKET MAG R.
- 4) Fix BRACKET MAG R to 250 SHEET FEEDER ASSEMBLY using a screw (silver, 6mm).
- 5) Fix CHUTE ASSY RETARD 250 to 250 SHEET FEEDER ASSEMBLY using two screws (silver, tap, 8mm).
- 6) Attach HOUSING ASSY FEED. (RRP 3.14)
- 7) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 8) Attach CLUTCH ASSY PH. (RRP 3.7)
- 9) Attach 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 10) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 11) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 12) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

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RRP3.27 FILM ASSY FDR (PL 3.2.42)



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RRP3.27 FILM ASSY FDR (PL 3.2.42)

[Removal]

- 1) Remove 250 SHEET PAPER TRAY. (RRP 2.1)
- 2) Remove 250 SHEET FEEDER RIGHT COVER. (RRP 3.4)
- 3) Remove 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 4) Remove 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 5) Remove CLUTCH ASSY PH. (RRP 3.7)
- 6) Remove DRIVE ASSY FEED 250. (RRP 3.5)
- 7) Remove HOUSING ASSY FEED. (RRP 3.14)
- 8) Remove CHUTE ASSY RETARD 250. (RRP 3.26)
- 9) Remove four screws (silver, tap, 8 mm) that fix FILM ASSY FDR (PL 3.2.42) to CHUTE ASSY 250 (PL 3.2.41).
- 10) Remove FILM ASSY FDR from CHUTE ASSY 250.

[Replacement]

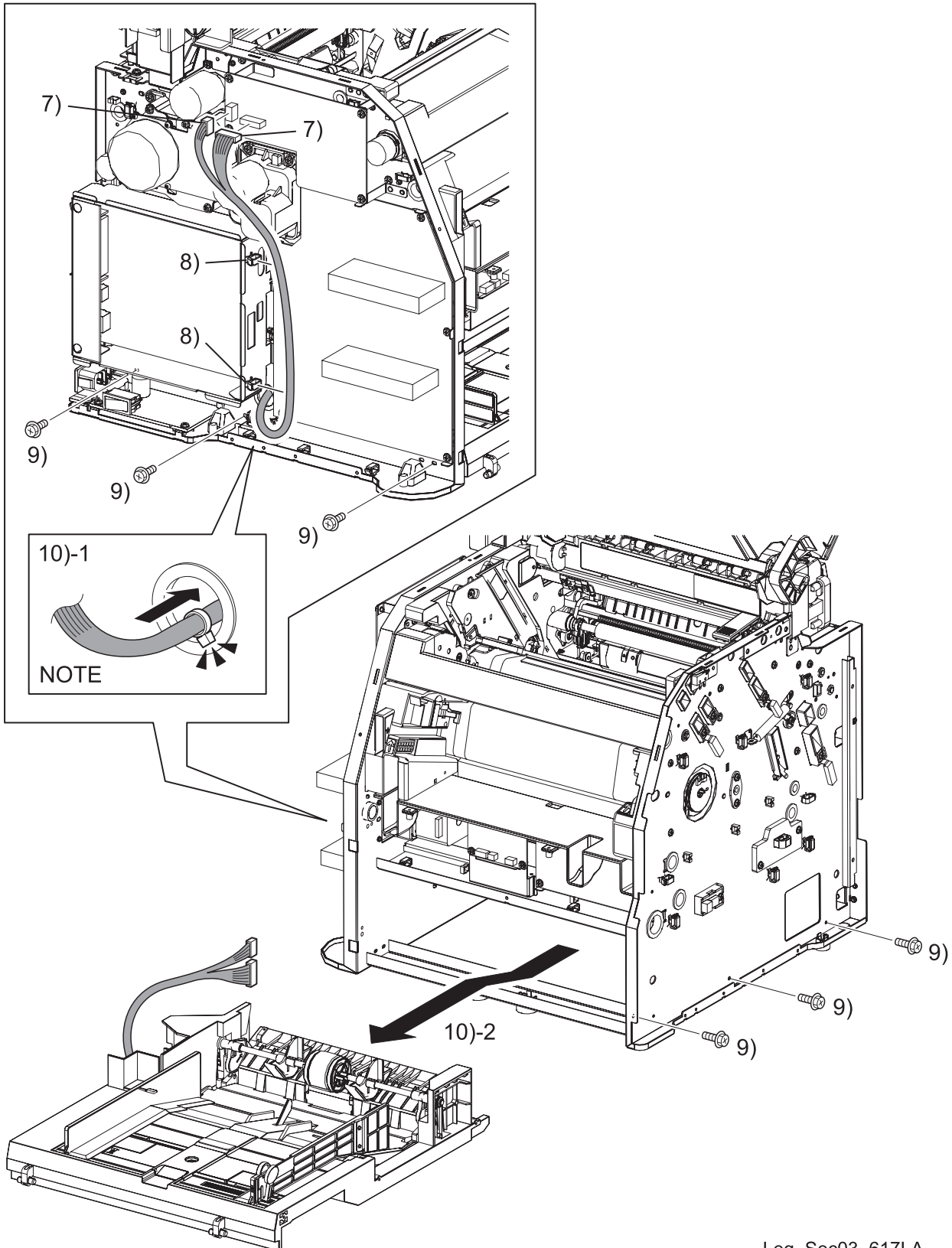
- 1) Match the hole of FILM ASSY FDR (PL 3.2.42) to the boss of CHUTE ASSY 250 (PL 3.2.41), put the under part of film on FILM ASSY FDR in the inside of CHUTE ASSY 250 and attach FILM ASSY FDR.
- 2) Fix FILM ASSY FDR to CHUTE ASSY 250 using four screws (silver, tap, 8mm).
- 3) Attach CHUTE ASSY RETARD 250. (RRP 3.26)
- 4) Attach HOUSING ASSY FEED. (RRP 3.14)
- 5) Attach DRIVE ASSY FEED 250. (RRP 3.5)
- 6) Attach CLUTCH ASSY PH. (RRP 3.7)
- 7) Attach 250 SHEET FEEDER CHUTE ASSEMBLY. (RRP 3.3)
- 8) Attach 250 SHEET FEEDER LEFT COVER. (RRP 3.2)
- 9) Attach 250 SHEET FEEDER RIGHT COVER. (RRP 3.4).
- 10) Attach 250 SHEET PAPER TRAY. (RRP 2.1)

RRP4. MSI

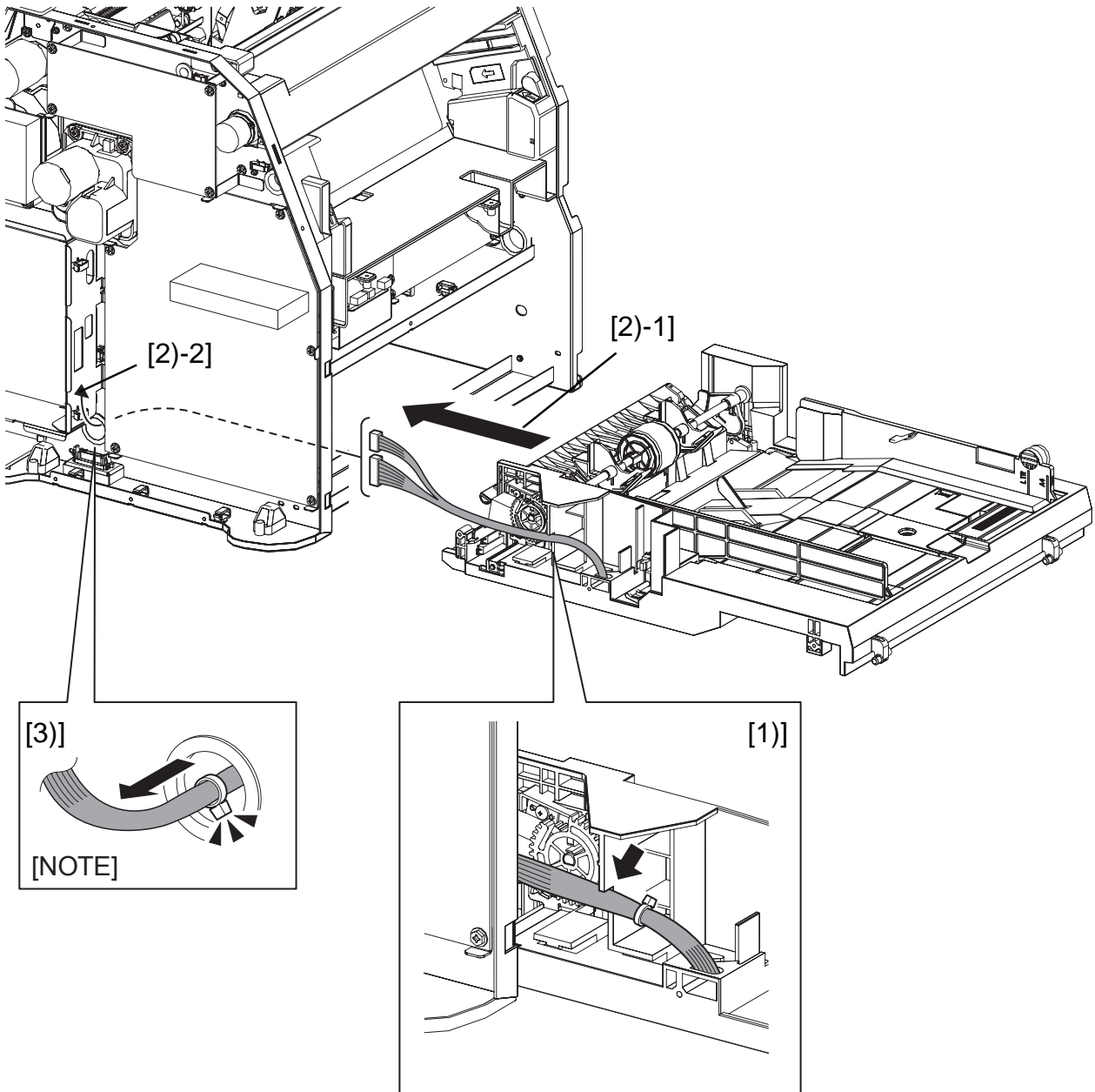
RRP4.1 MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



RRP4.1 MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1)



Leg_Sec03_507FA

RRP4.1 MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1)

[Removal]

- 1) Remove OPTION PAPER FEEDER ASSY for OPTION PAPER FEEDER specification. (RRP 3.1)
- 2) Remove COVER ASSY RH. (RRP 1.12)
- 3) Remove LEFT COVER. (RRP 1.10)
- 4) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 5) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 6) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 7) Remove connector (P/J408) and connector (P/J409) on MACHINE CONTROL UNIT(MCU)(PL 12.2.4)
- 8) Release two clamps on CHASSIS A (PL 12.2.1) and remove the harness of HARNESS-ASSY P/H 1 (PL 4.1.23).
- 9) Remove six screws (silver, with a flange, tap, 8mm) that fix MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1) to the main unit.

NOTE

When carrying out the work shown below, take care not to allow the cable tie which bundles the harness of HARNESS-ASSY P/H 1 to be caught in the hole or the like in the main unit.

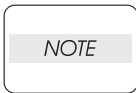
NOTE

Be sure that harness of HARNESS-ASSY P/H 1 is not caught between the main unit and MULTIPURPOSE FEEDER ASSEMBLY when carrying out the work shown below.

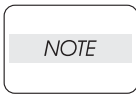
- 10) Pull MULTIPURPOSE FEEDER ASSEMBLY forward a little, lift up MULTIPURPOSE FEEDER ASSEMBLY a little in such a manner as to avoid TIE PLATE at the bottom of the main unit and pull it out forward slowly, and remove HARNESS-ASSY P/H 1 from the hole of the main unit, remove MULTIPURPOSE FEEDER ASSEMBLY.

RRP4.1 MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1)

[Replacement]



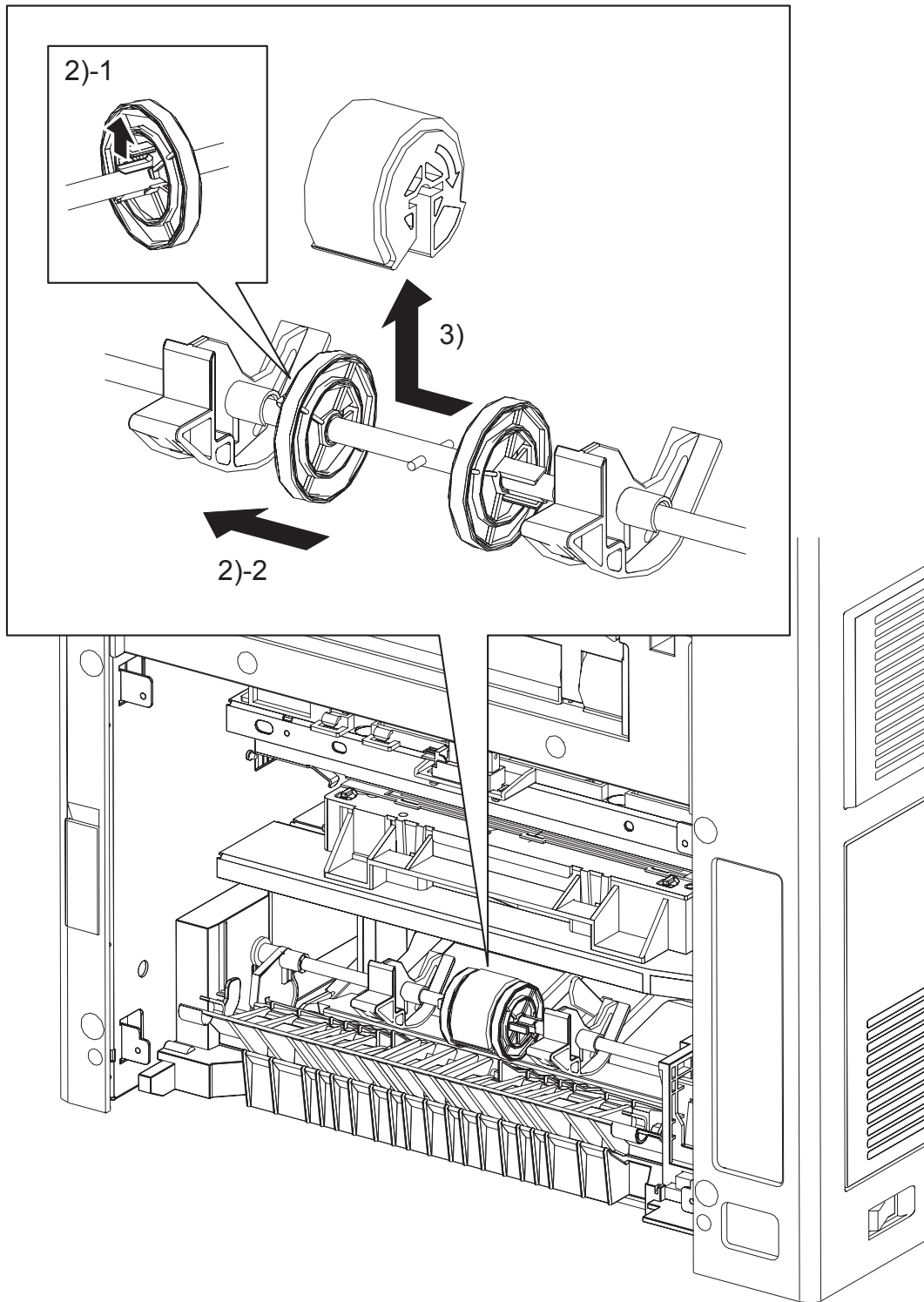
When carrying out the work shown below, take care not to allow the cable tie which bundles the harness of HARNESS-ASSY P/H 1 to be caught in the hole or the like in the main body.



Be sure that harness of HARNESS-ASSY P/H 1 is not caught between the main unit and MULTIPURPOSE FEEDER ASSEMBLY when carrying out the work shown below.

- 1) Lay the harness of HARNESS -ASSY P/H 1 (PL 4.1.23) along the left side of MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1), put it together with MULTIPURPOSE FEEDER ASSEMBLY in the front of main unit.
- 2) Put MULTIPURPOSE FEEDER ASSEMBLY in the main unit by half with its front part slightly raised taking care to avoid TIE PLATE at the bottom of the main unit. Then, draw out the connector of HARNESS-ASSY P/H 1 through the hole in the main unit.
- 3) Align the MULTIPURPOSE FEEDER ASSEMBLY with its mounting position in the main unit. Then pull the HARNESS-ASSY P/H 1 slowly from outside taking care not to allow it to loosen inside the main unit.
- 4) Fix MULTIPURPOSE FEEDER ASSEMBLY to the main unit using six screws (silver, with a flange, tap, 8mm).
- 5) Attach connector (P/J408) and connector (P/J409) on MACHINE CONTROL UNIT(MCU)(PL 12.2.4).
- 6) Fix the harness of HARNESS-ASSY P/H 1 using the two clamps located at the CHASSIS A (PL 12.2.1).
- 7) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 8) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 9) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 10) Attach LEFT COVER. (RRP 1.10)
- 11) Attach COVER ASSY RH. (RRP 1.12)
- 12) Attach OPTION PAPER FEEDER ASSY for OPTION PAPER FEEDER specification. (RRP 3.1)

RRP4.2 MULTIPURPOSE ROLLER (PL 4.1.6)



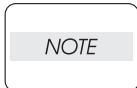
Leg_Sec03_608LA

RRP4.2 MULTIPURPOSE ROLLER (PL 4.1.6)

[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Release the hook of the right side of the CORE (PL 4.1.5) that fixed to SHAFT ASSY MSI (PL 4.1.6) and move it to the right side.
- 3) Move MULTIPURPOSE ROLLER (PL 4.1.6) to right side, remove fitting groove of MULTIPURPOSE ROLLER from pin of SHAFT ASSY MSI and remove MULTIPURPOSE ROLLER from SHAFT ASSY MSI.

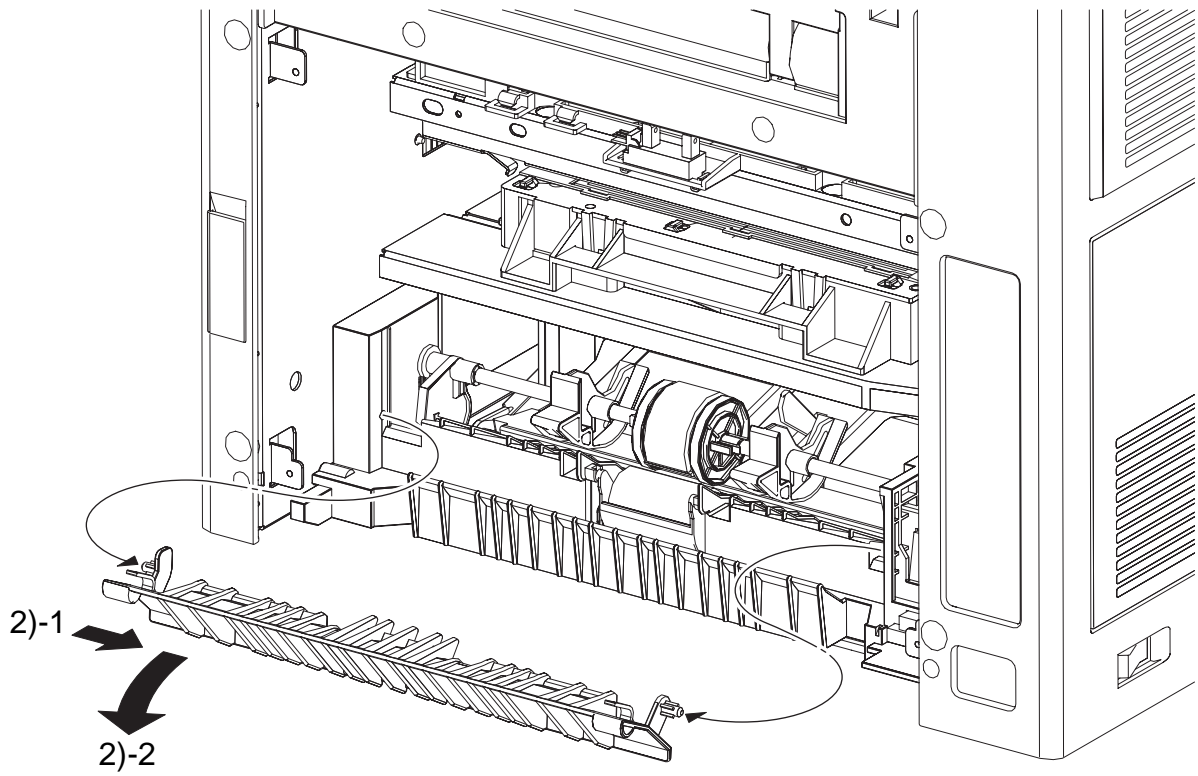
[Replacement]



Pay attention to fitting direction of MULTIPURPOSE ROLLER. (The arrow mark printed on MULTIPURPOSE ROLLER. Refer to an illustration and attach it.)

- 1) Place the U-cut section of MULTIPURPOSE ROLLER on SHAFT ASSY MSI and move it to left side, insert the positioning pin of SHAFT ASSY MSI in the notched of MULTIPURPOSE ROLLER and attach MULTIPURPOSE ROLLER to SHAFT ASSY MSI.
- 2) Move the right side of CORE to the left and fix a hook of CORE to the groove of SHAFT ASSY MSI.
- 3) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)

RRP4.3 CHUTE MSI (PL 4.1.7)



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RRP4.3 CHUTE MSI (PL 4.1.7)

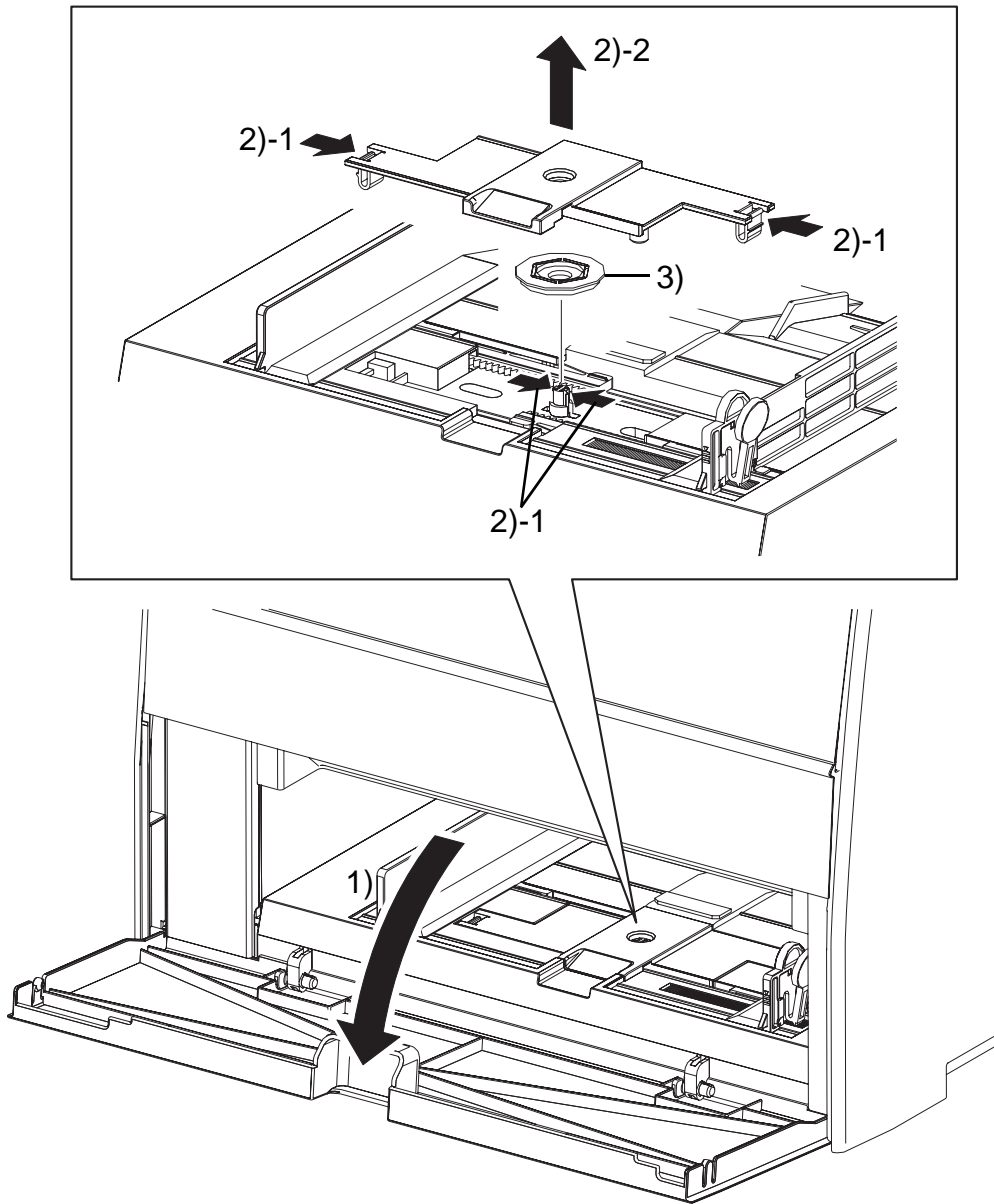
[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Depress CHUTE MSI (PL 4.1.7), pull out the right side boss of CHUTE MSI from the right side hole in MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1) and remove CHUTE MSI.

[Replacement]

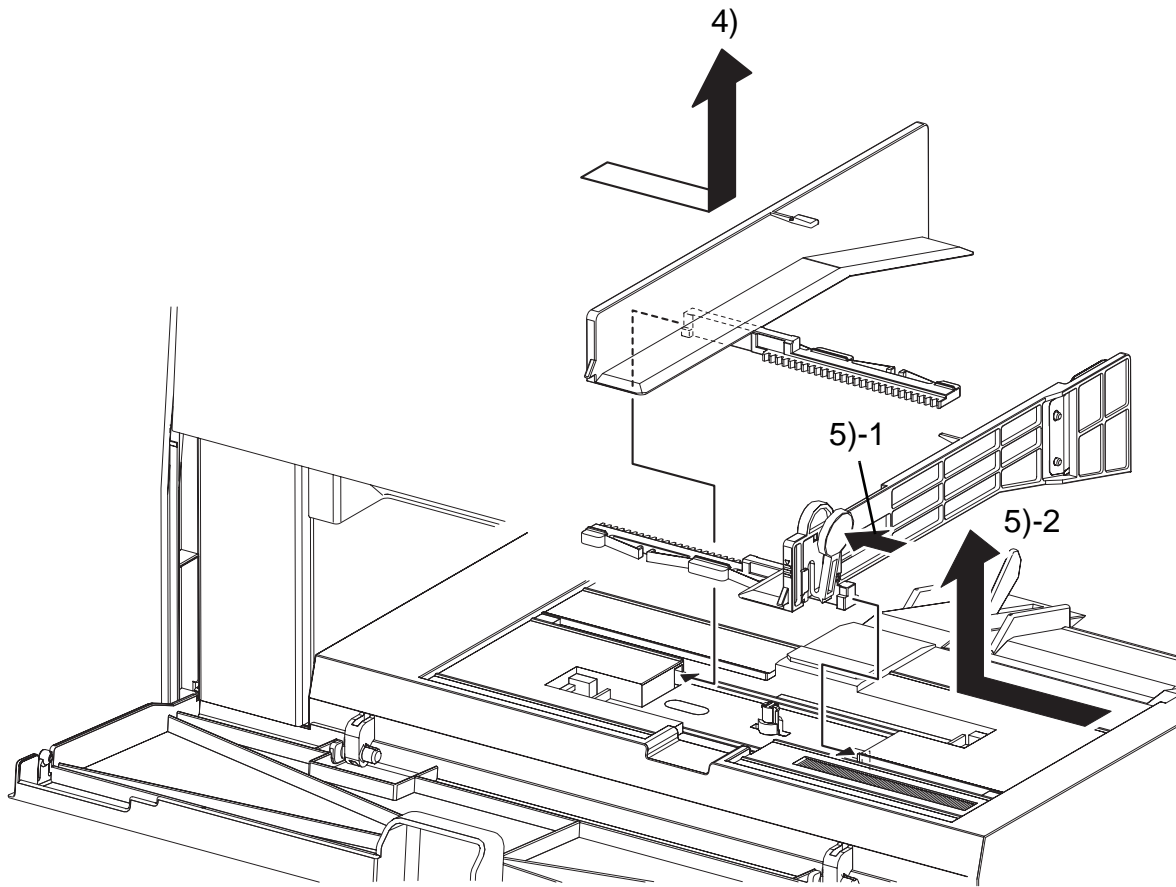
- 1) After placing the left side boss of CHUTE MSI in the left side hole in MULTIPURPOSE FEEDER ASSEMBLY, depress CHUTE MSI and place it in right side boss of CHUTE MSI. Attach it.
- 2) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)

RRP4.4 SIDE GUIDE GEAR (PL4.1.9), LEFT SIDE GUIDE (PL 4.1.10), RIGHT SIDE GUIDE (PL 4.1.11)



Leg_Sec03_045LA

RRP4.4 SIDE GUIDE GEAR (PL4.1.9), LEFT SIDE GUIDE (PL 4.1.10), RIGHT SIDE GUIDE (PL 4.1.11)



Leg_Sec03_046LA

RRP4.4 SIDE GUIDE GEAR (PL4.1.9), LEFT SIDE GUIDE (PL 4.1.10), RIGHT SIDE GUIDE (PL 4.1.11)

[Removal]

- 1) Open MULTIPURPOSE FEEDER COVER (PL 1.1.12).
- 2) Release the hook that fix center hole of GUIDE SIDE COVER (PL 4.1.8), release the hooks at right and left of GUIDE SIDE COVER (PL 4.1.8) from the holes in FRAME ASSY BOTTOM (PL 4.1.18) and remove GUIDE SIDE COVER.
- 3) Remove SIDE GUIDE GEAR (PL 4.1.9) from FRAME ASSY BOTTOM.
- 4) Move LEFT SIDE GUIDE (PL 4.1.10) to right side, release convex of LEFT SIDE GUIDE from fitting part of FRAME ASSY BOTTOM and remove LEFT SIDE GUIDE.
- 5) Move RIGHT SIDE GUIDE (PL 4.1.11) to left side, remove convex of RIGHT SIDE GUIDE from fitting part of FRAME ASSY BOTTOM and remove RIGHT SIDE GUIDE.

[Replacement]

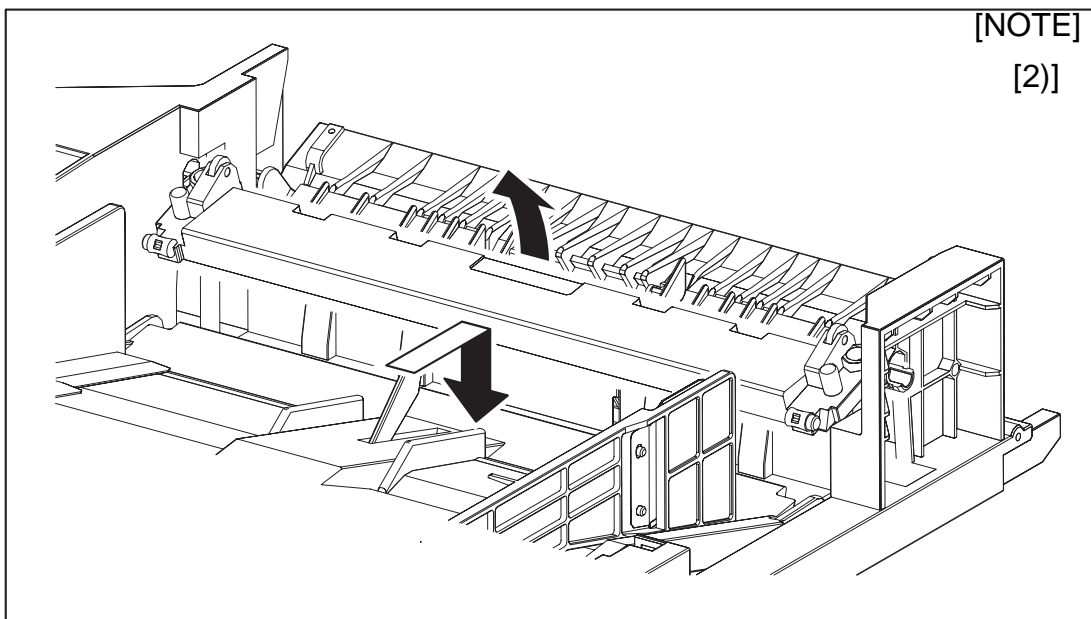
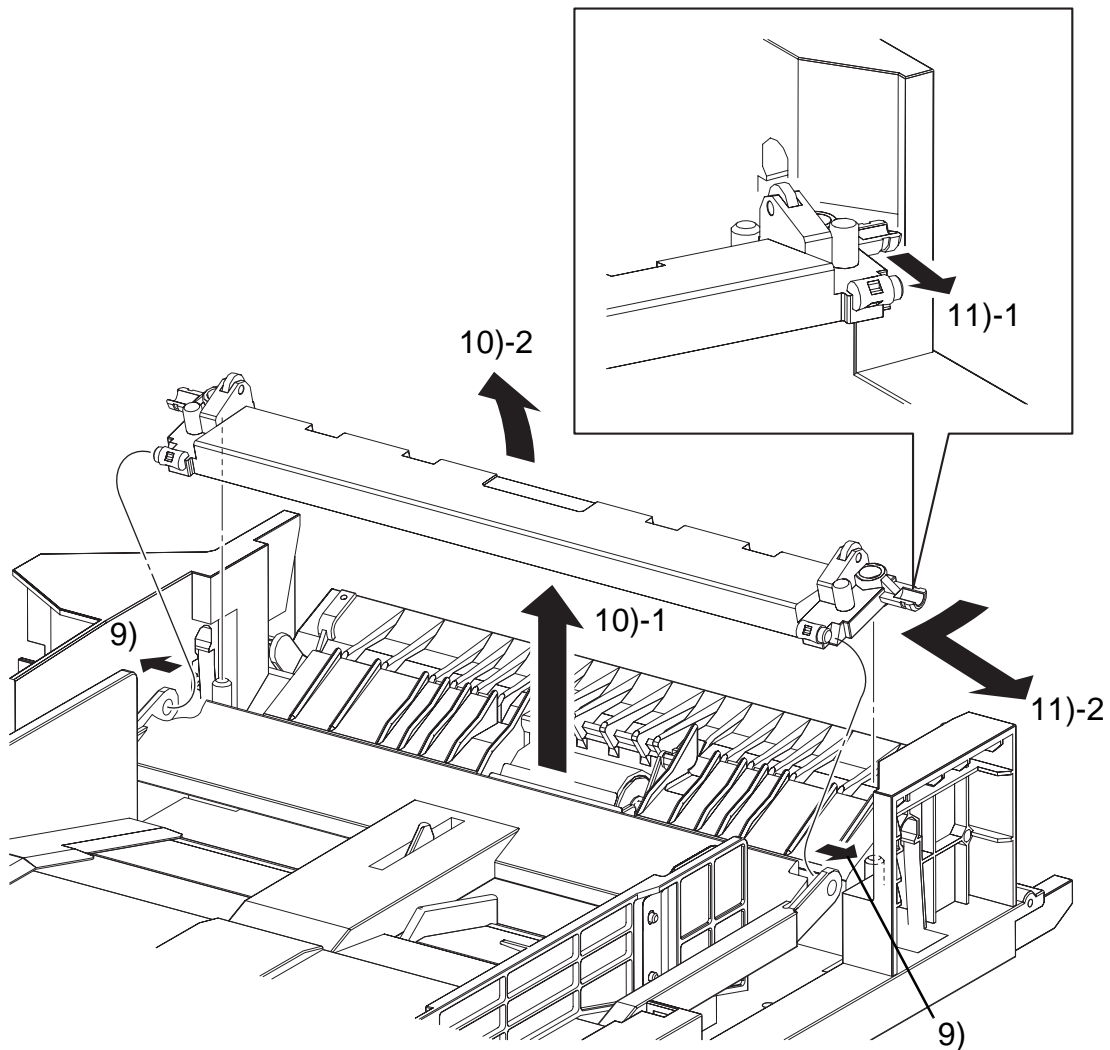
- 1) Match the convex of RIGHT SIDE GUIDE to the fitting part of FRAME ASSY BOTTOM, place the tension section of RIGHT SIDE GUIDE in the groove of FRAME ASSY BOTTOM, it is a knob about the lever of RIGHT SIDE GUIDE and move RIGHT SIDE GUIDE to right side and attach it.
- 2) Match the convex of LEFT SIDE GUIDE to the fitting part of FRAME ASSY BOTTOM, place the tension of LEFT SIDE GUIDE in the groove of FRAME ASSY BOTTOM, and move LEFT SIDE GUIDE to left side and attach it.
- 3) Open RIGHT SIDE GUIDE and LEFT SIDE GUIDE to max., attach SIDE GUIDE GEAR to FRAME ASSY BOTTOM and fix it.
- 4) Attach GUIDE SIDE COVER to FRAME ASSY BOTTOM and fix it using the hooks at right and left of GUIDE SIDE COVER, fix center hole of GUIDE SIDE COVER to FRAME ASSY BOTTOM using a hook at FRAME ASSY BOTTOM.
- 5) Close MULTIPURPOSE FEEDER COVER.

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RRP4.5 PLATE BOTTOM ASSY MSI (PL 4.1.13)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



RRP4.5 PLATE BOTTOM ASSY MSI (PL 4.1.13)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 6) Remove MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 7) Remove SOLENOID PICK UP. (RRP 4.8)
- 8) Remove MULTIPURPOSE ROLLER ASSEMBLY. (RRP 4.11)
- 9) Spread right and left fitting parts of PLATE BOTTOM 2 (PL 4.1.12) from PLATE BOTTOM ASSY MSI (PL 4.1.13) and remove the hole of PLATE BOTTOM 2 from the boss of PLATE BOTTOM ASSY MSI.
- 10) Lift up PLATE BOTTOM ASSY MSI and remove right and left hole of PLATE BOTTOM ASSY MSI from right and left shaft of MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1).
- 11) Remove the right side of PLATE BOTTOM ASSY MSI from the right notched of MULTIPURPOSE FEEDER ASSEMBLY and remove PLATE BOTTOM ASSY MSI.

[Replacement]

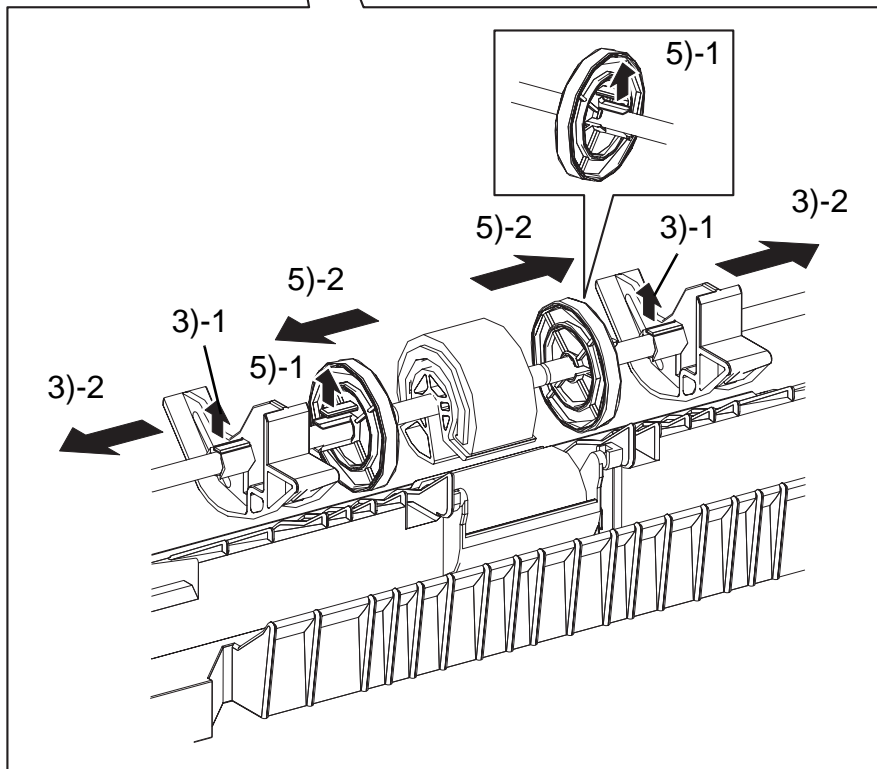
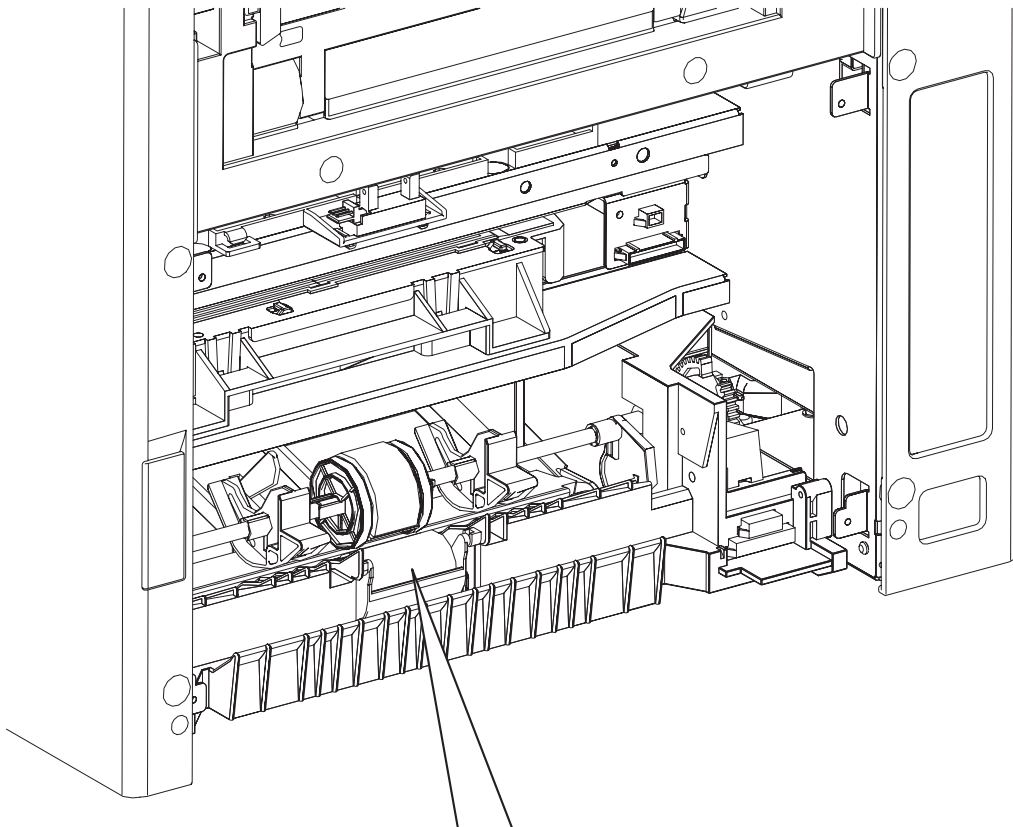
- 1) Match the left side of PLATE BOTTOM ASSY MSI to the fitting position at left side of MULTIPURPOSE FEEDER ASSEMBLY, and insert the right side of PLATE BOTTOM ASSY MSI to the right side notched of MULTIPURPOSE FEEDER ASSEMBLY.

NOTE

When carrying out the work shown below, slight raise the rear of PLATE BOTTOM ASSY MSI. This helps carry out the work more easily.

- 2) Place the right and left holes on PLATE BOTTOM ASSY MSI in the right and left shafts of MULTIPURPOSE FEEDER ASSEMBLY and attach PLATE BOTTOM ASSY MSI.
- 3) Spread fitting parts at right and left sides of PLATE BOTTOM 2, place the hole of PLATE BOTTOM 2 in the boss of PLATE BOTTOM ASSY MSI and attach PLATE BOTTOM 2.
- 4) Attach MULTIPURPOSE ROLLER ASSEMBLY. (RRP 4.11)
- 5) Attach SOLENOID PICK UP. (RRP 4.8)
- 6) Attach MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 7) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 8) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 9) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 10) Attach LEFT COVER. (RRP 1.10)
- 11) Attach COVER ASSY RH. (RRP 1.12)

RRP4.6 SEPARATOR ASSEMBLY (PL 4.1.15)

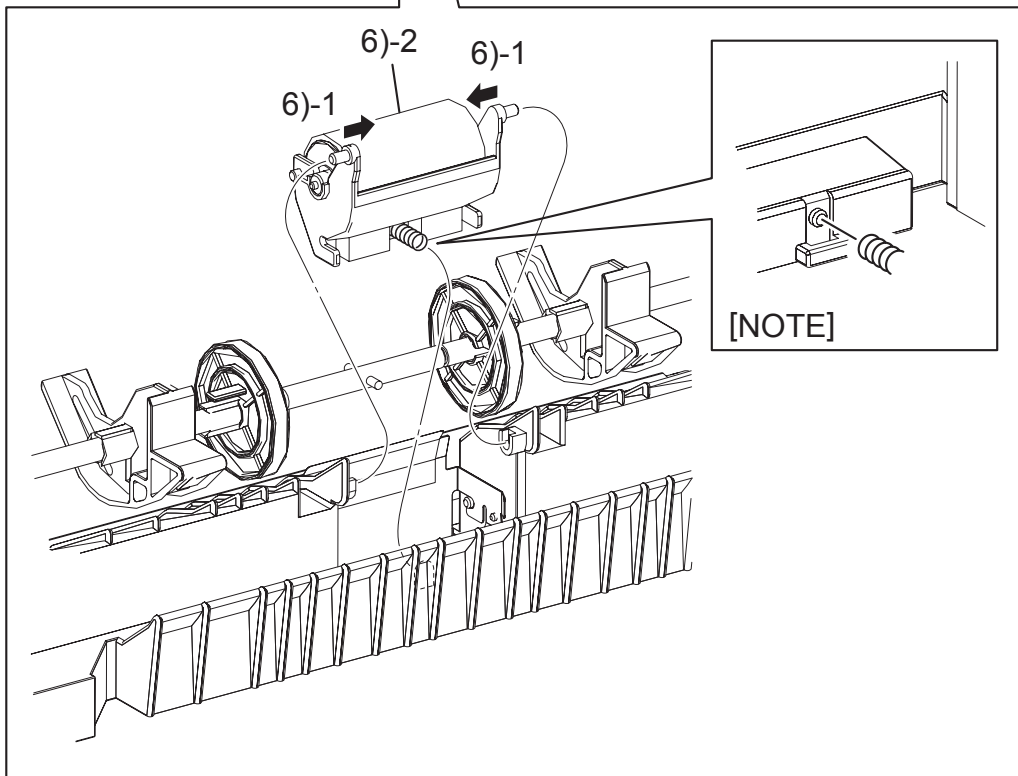
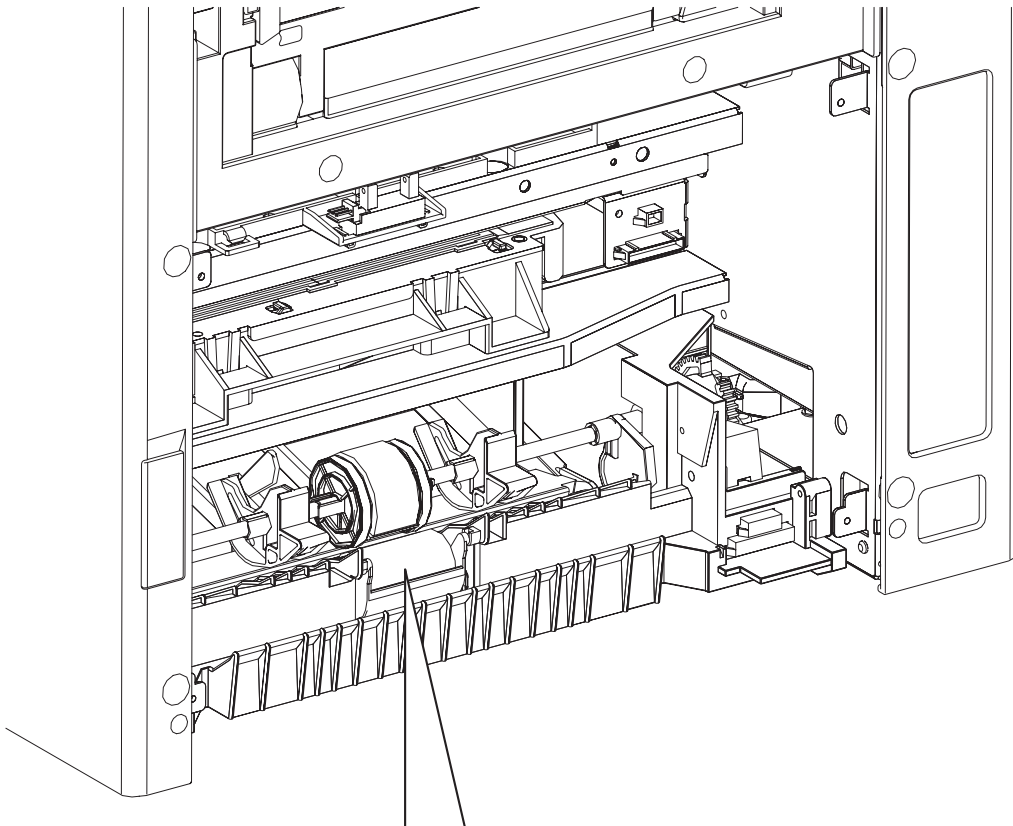


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RRP4.6 SEPARATOR ASSEMBLY (PL 4.1.15)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



Leg_Sec03_609LA

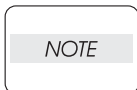
RRP4.6 SEPARATOR ASSEMBLY (PL 4.1.15)

[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove CHUTE MSI. (RRP 4.3)
- 3) Release the hooks on both side of PAPER GUIDE (PL 4.1.25) that fixed to SHAFT ASSY MSI (PL 4.1.4), shift each PAPER GUIDE to the outside.
- 4) Release the hooks on both side of CORE (PL 4.1.5) that fixed to SHAFT ASSY MSI, shift each CORE to the outside.
- 5) Remove MULTIPURPOSE ROLLER. (RRP 4.2)
- 6) Depress the boss parts on both sides of SEPARATOR ASSEMBLY (PL 4.1.15) and remove SEPARATOR ASSEMBLY from FRAME ASSY BOTTOM (PL 4.1.18).

[Replacement]

- 1) Match spring of SEPARATOR ASSEMBLY to the spring holder of FRAME ASSY BOTTOM, depress the boss parts on both sides of SEPARATOR ASSEMBLY and attach it to FRAME ASSY BOTTOM.



Be sure to match spring of SEPARATOR ASSEMBLY and spring holder of FRAME ASSY BOTTOM properly.

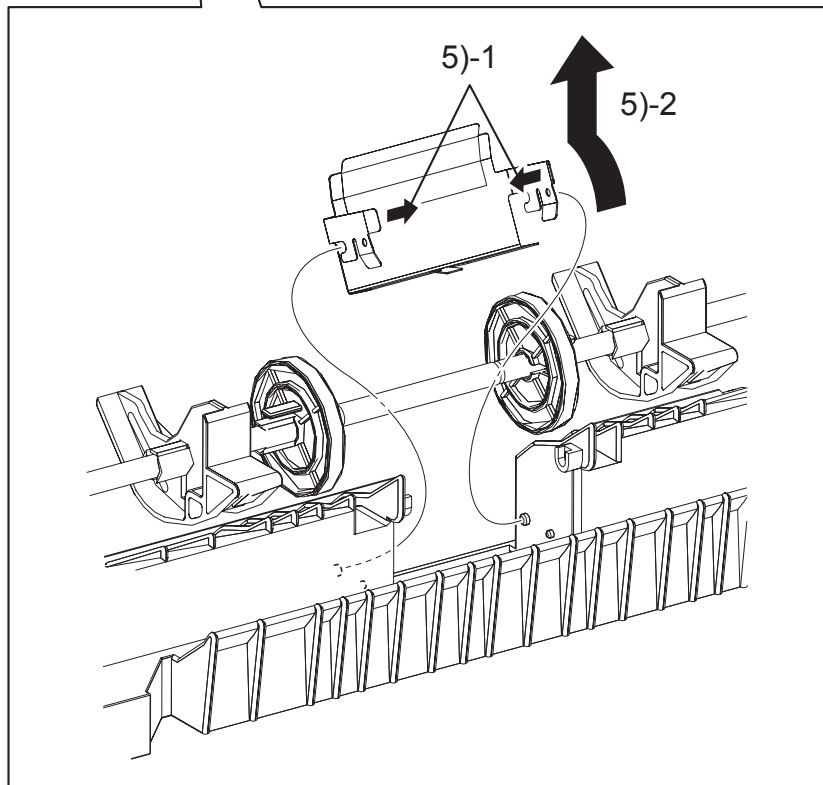
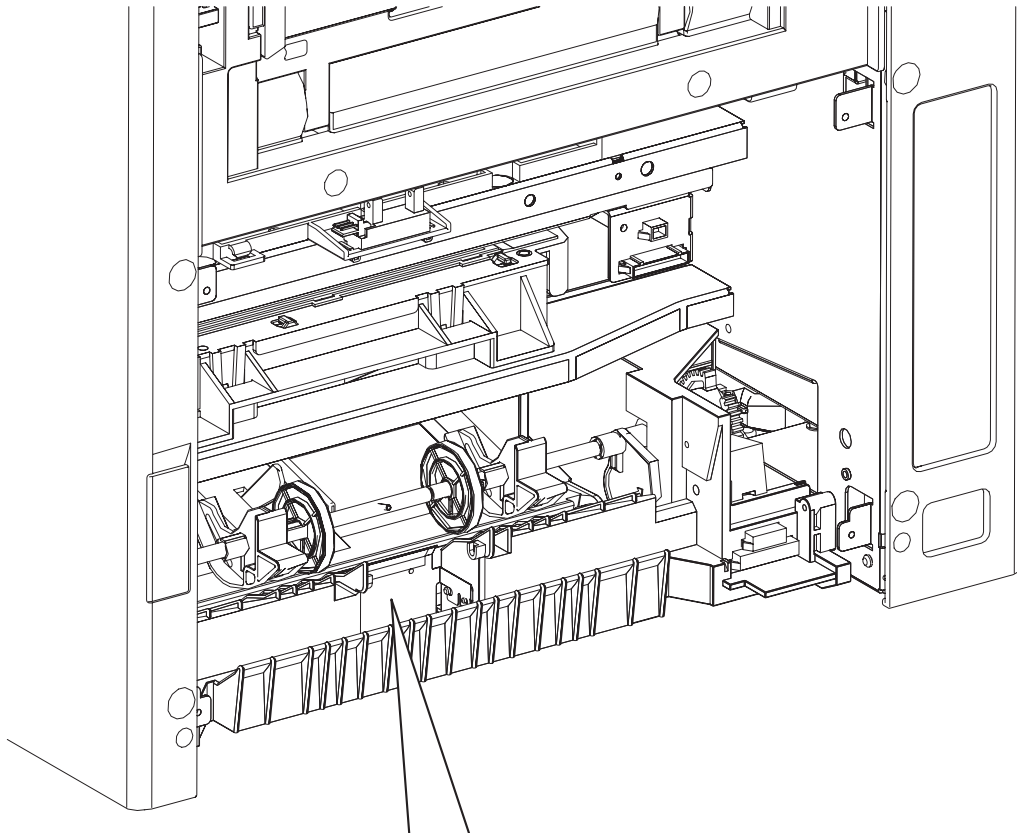
- 2) Attach MULTIPURPOSE ROLLER. (RRP 4.2)
- 3) Shift each CORE to the inside, fix the hook of CORE to the groove of SHAFT ASSY MSI.
- 4) Shift each PAPER GUIDE to the inside, fix the hook of PAPER GUIDE to the groove of SHAFT ASSY MSI.
- 5) Attach CHUTE MSI. (RRP 4.3)
- 6) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)

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RRP4.7 PLATE ASSY RETARD (PL 4.1.16)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.

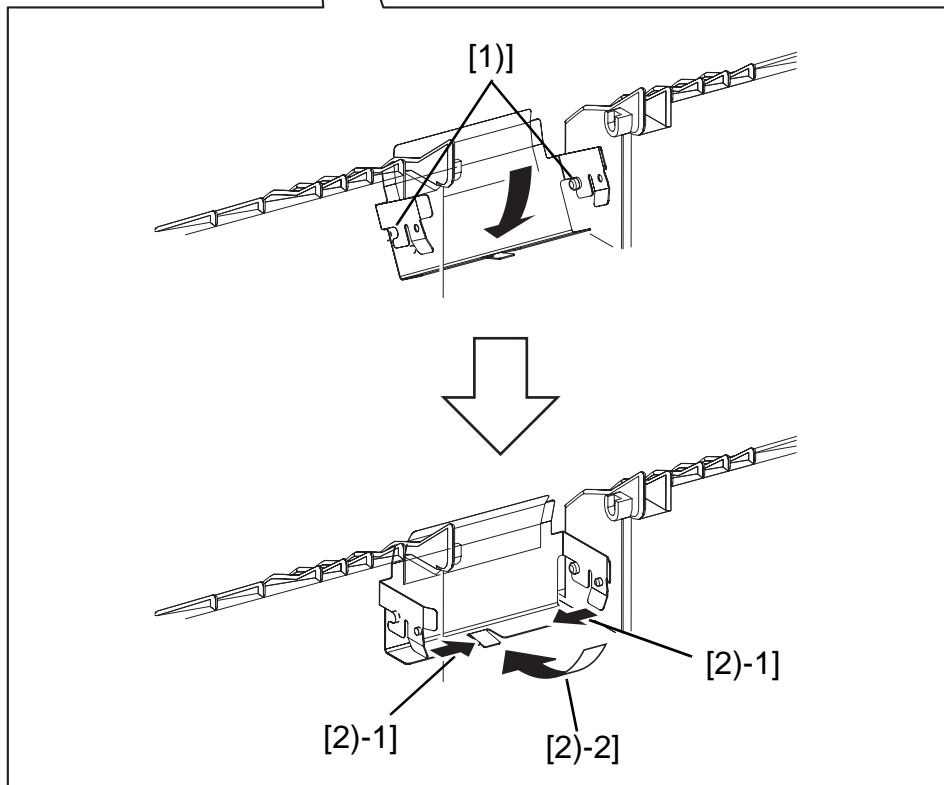
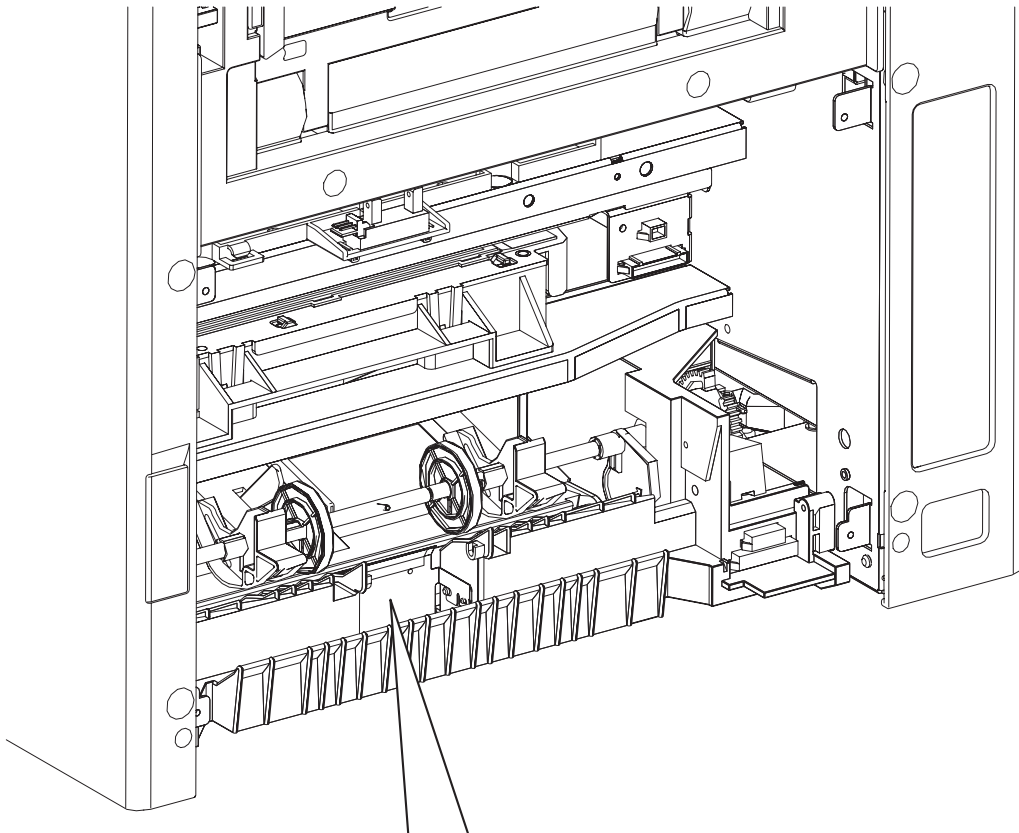


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RRP4.7 PLATE ASSY RETARD (PL 4.1.16)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE

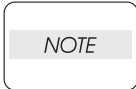


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RRP4.7 PLATE ASSY RETARD (PL 4.1.16)

[Removal]

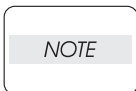
- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove CHUTE MSI. (RRP 4.3)
- 3) Remove MULTIPURPOSE ROLLER. (RRP 4.2)
- 4) Remove SEPARATOR ASSEMBLY. (RRP 4.6)



Try not to bend PLATE ASSY RETARD when carrying out the work shown below.

- 5) Depress PLATE ASSY RETARD (PL 4.1.16), remove right and left hole parts from the boss of FRAME ASSY BOTTOM (PL 4.1.18) and remove PLATE ASSY RETARD.

[Replacement]

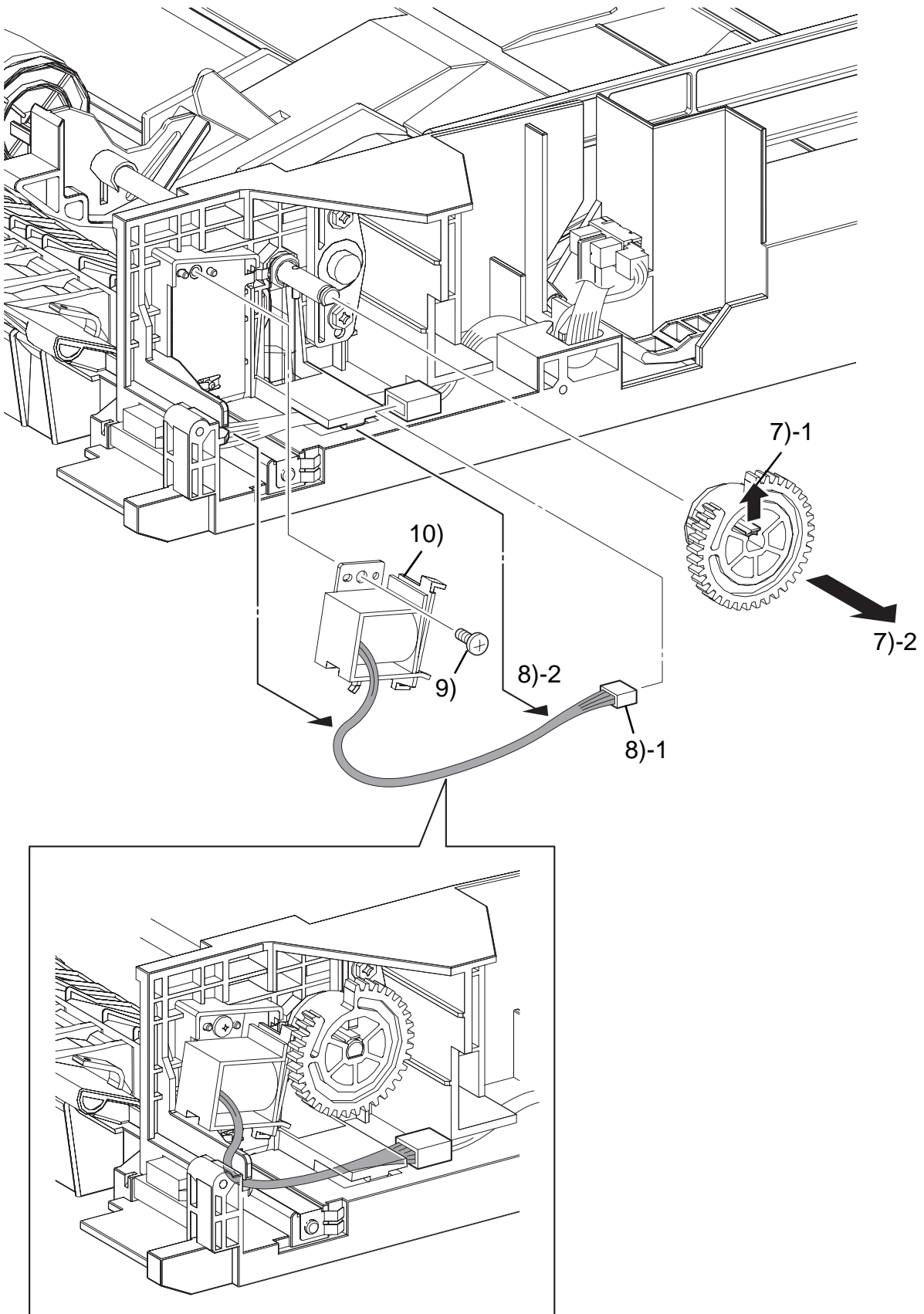


Try not to bend PLATE ASSY RETARD when carrying out the work shown below.

- 1) Match the U-groove on both side of PLATE ASSY RETARD (PL 4.1.16) to the boss on the front of FRAME ASSY BOTTOM (PL 4.1.18).
- 2) Mount PLATE ASSY RETARD in place by turning it, with sagged, around the boss section which is aligned with the U-groove and fitting the rear boss section of FRAME ASSY BOTTOM in the right and left holes in the PLATE ASSY RETARD.
- 3) Attach SEPARATOR ASSEMBLY. (RRP 4.6)
- 4) Attach MULTIPURPOSE ROLLER. (RRP 4.2)
- 5) Attach CHUTE MSI. (RRP 4.3)
- 6) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)

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RRP4.8 SOLENOID PICK UP (PL 4.1.20)

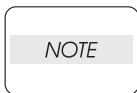


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RRP4.8 SOLENOID PICK UP (PL 4.1.20)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 6) Remove MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 7) Release the hook of GEAR PICK UP (PL 4.1.19) that fixes SHAFT ASSY MSI (PL 4.1.4) to MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1) and remove GEAR PICK UP.



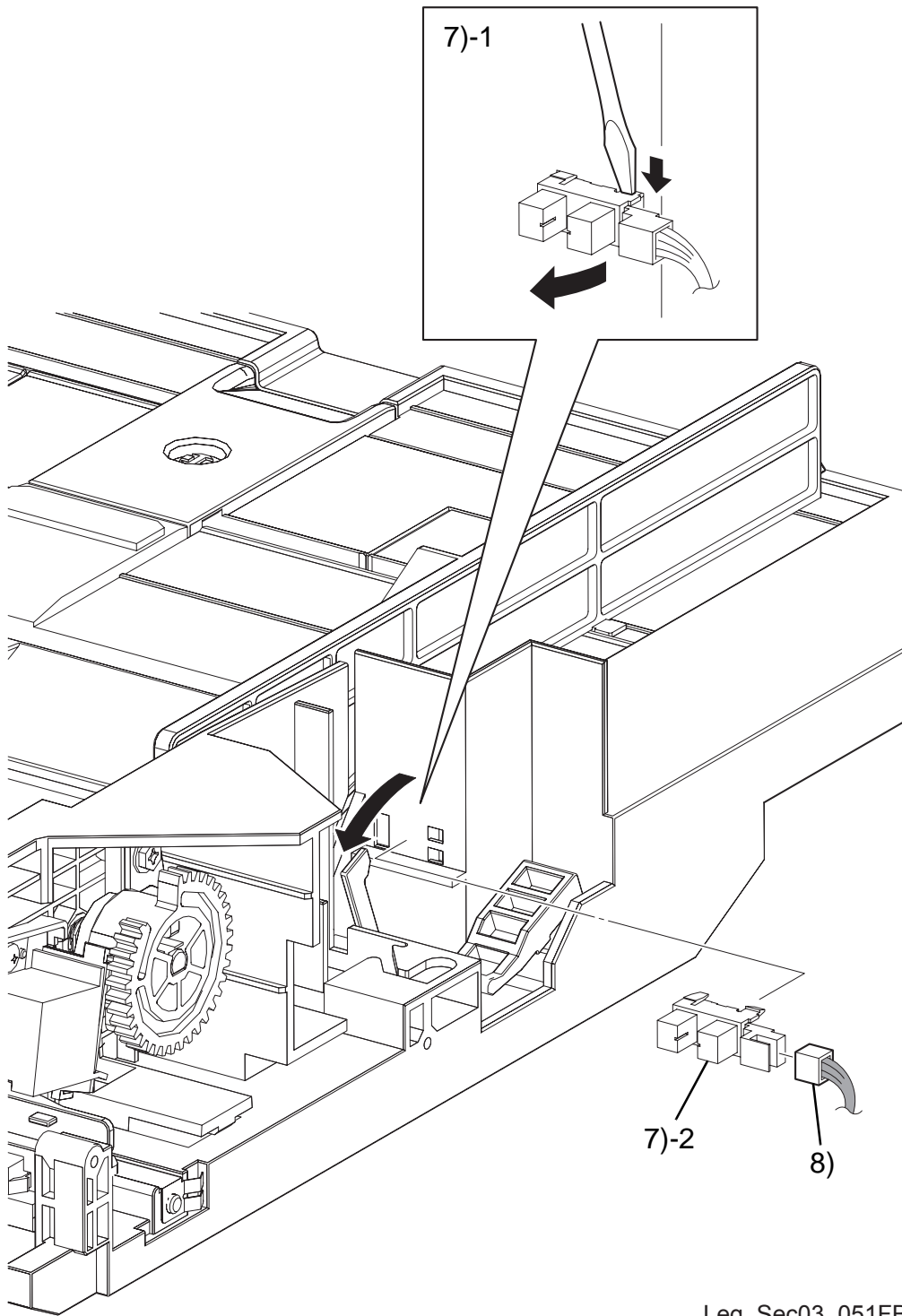
When carrying out the work shown below, leave the relay connector on the harness side.

- 8) Remove connector (P/J605) of SOLENOID PICK UP (PL 4.1.20) and remove harness from groove in MULTIPURPOSE FEEDER ASSEMBLY.
- 9) Remove a screw (silver, tap, 8mm) that fixes SOLENOID PICK UP to MULTIPURPOSE FEEDER ASSEMBLY.
- 10) Remove SOLENOID PICK UP from MULTIPURPOSE FEEDER ASSEMBLY.

[Replacement]

- 1) Match the hole of SOLENOID PICK UP to the boss of MULTIPURPOSE FEEDER ASSEMBLY and attach SOLENOID PICK UP.
- 2) Fix SOLENOID PICK UP to MULTIPURPOSE FEEDER ASSEMBLY using a screw (silver, tap, 8mm).
- 3) Attach connector (P/J605) of SOLENOID PICK UP and lay harness to the groove of MULTIPURPOSE FEEDER ASSEMBLY.
- 4) Attach GEAR PICK UP to SHAFT ASSY MSI and match the hook of GEAR PICK UP to the groove of SHAFT ASSY MSI.
- 5) Attach MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 6) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 7) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 8) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 9) Attach LEFT COVER. (RRP 1.10)
- 10) Attach COVER ASSY RH. (RRP 1.12)

RRP4.9 PHOTO SENSOR (PL 4.1.21)



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RRP4.9 PHOTO SENSOR (PL 4.1.21)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 6) Remove MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 7) Release the hooks at three locations of PHOTO SENSOR (PL 4.1.21) that fixed it to FRAME ASSY BOTTOM (PL 4.1.18) using the mini screwdriver, rotate ACTUATOR (PL 4.1.22) and remove PHOTO SENSOR.
- 8) Remove connector (P/J103) of PHOTO SENSOR.

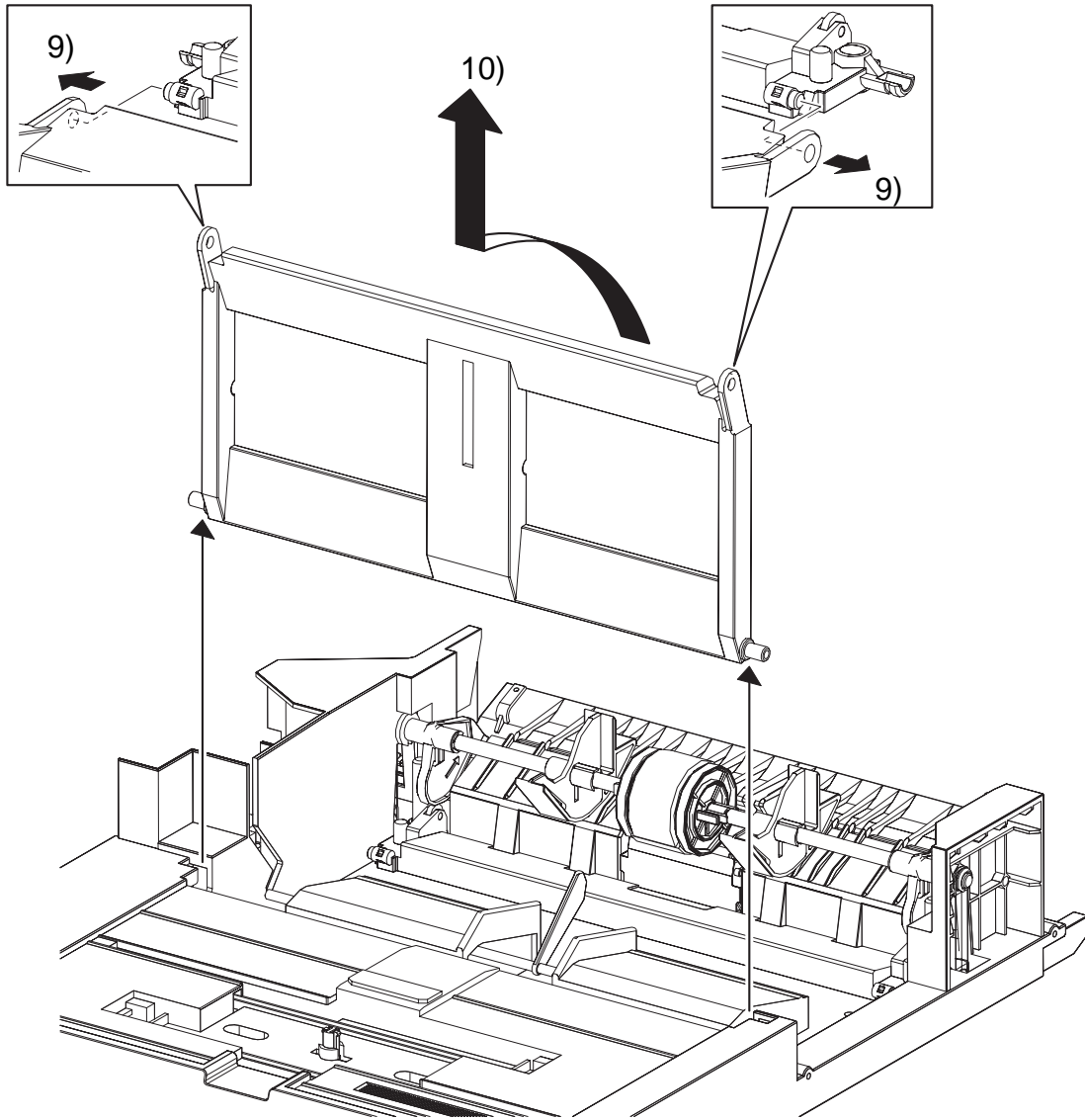
[Replacement]

- 1) Attach connector (P/J103) of PHOTO SENSOR.
- 2) Rotate ACTUATOR, match the hooks at three locations of PHOTO SENSOR to fitting position and attach PHOTO SENSOR to FRAME ASSY BOTTOM.
- 3) Attach MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 4) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 5) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 6) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 7) Attach LEFT COVER. (RRP 1.10)
- 8) Attach COVER ASSY RH. (RRP 1.12)

RRP4.10 ACTUATOR (PL 4.1.22)

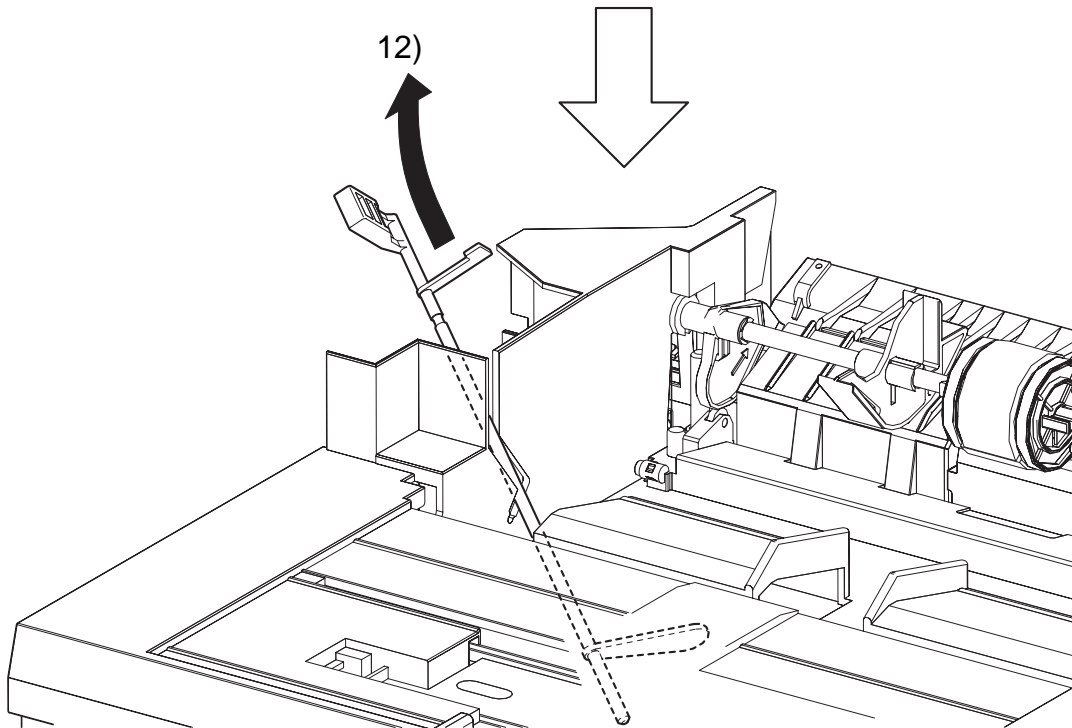
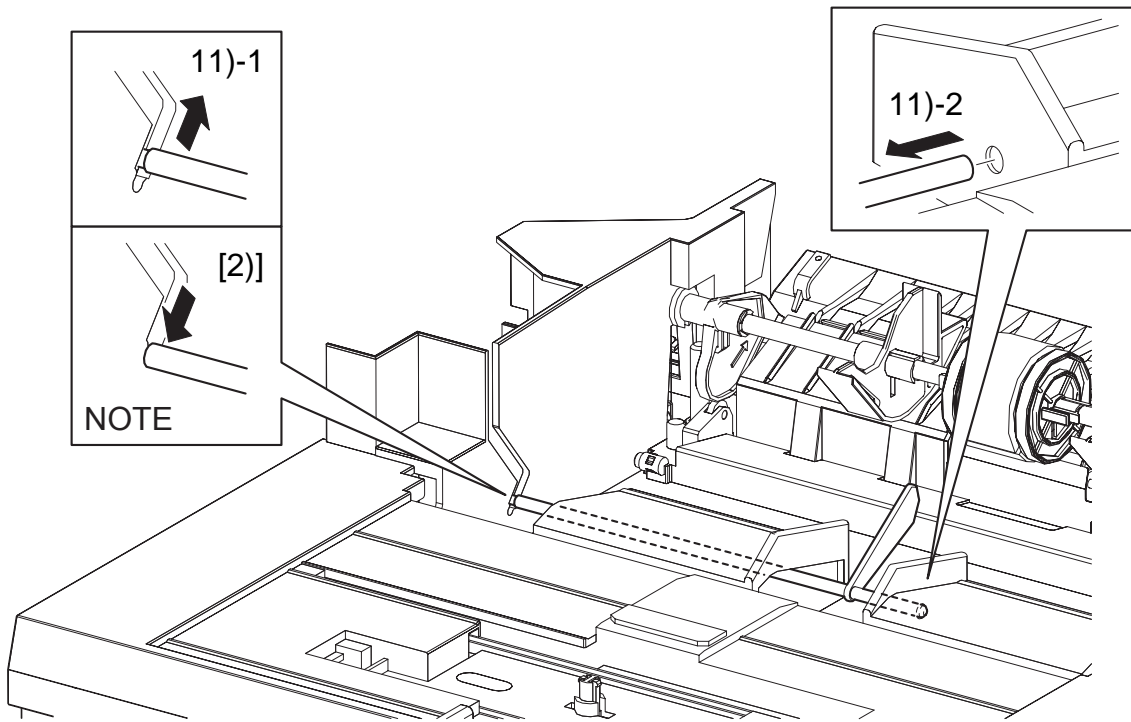
NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



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RRP4.10 ACTUATOR (PL 4.1.22)

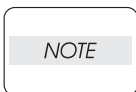


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RRP4.10 ACTUATOR (PL 4.1.22)

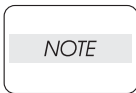
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 6) Remove MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 7) Remove LEFT SIDE GUIDE and RIGHT SIDE GUIDE. (RRP 4.4)



Do not need to disconnect the connector of PHOTO SENSOR when carrying out the work shown below.

- 8) Remove PHOTO SENSOR. (RRP 4.9)
- 9) Spread right and left fitting parts of PLATE BOTTOM 2 (PL 4.1.12) from PLATE BOTTOM ASSY MSI (PL 4.1.13) and remove the hole of PLATE BOTTOM 2 from the boss of PLATE BOTTOM ASSY MSI.
- 10) Rotate PLATE BOTTOM 2, remove the right and left boss of PLATE BOTTOM 2 from notched of MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1) and remove PLATE BOTTOM 2.

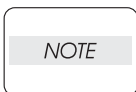


Pay attention so that ACTUATOR is not broken when carrying out the work.

- 11) Remove groove of left shaft of ACTUATOR (PL 4.1.22) from a hook of MULTIPURPOSE FEEDER ASSEMBLY, and remove right shaft of ACTUATOR from the hole in MULTIPURPOSE FEEDER ASSEMBLY.
- 12) Move ACTUATOR to left side to move the shaft of ACTUATOR along with the notched of MULTIPURPOSE FEEDER ASSEMBLY and remove ACTUATOR.

[Replacement]

- 1) Slide in the actuator of ACTUATOR between the gap of MULTIPURPOSE FEEDER ASSEMBLY, move the shaft of ACTUATOR along with the notched of MULTIPURPOSE FEEDER ASSEMBLY and attach ACTUATOR.
- 2) Place the right shaft of ACTUATOR in the hole in MULTIPURPOSE FEEDER ASSEMBLY and fix the groove of left shaft of ACTUATOR to a hook of MULTIPURPOSE FEEDER ASSEMBLY.

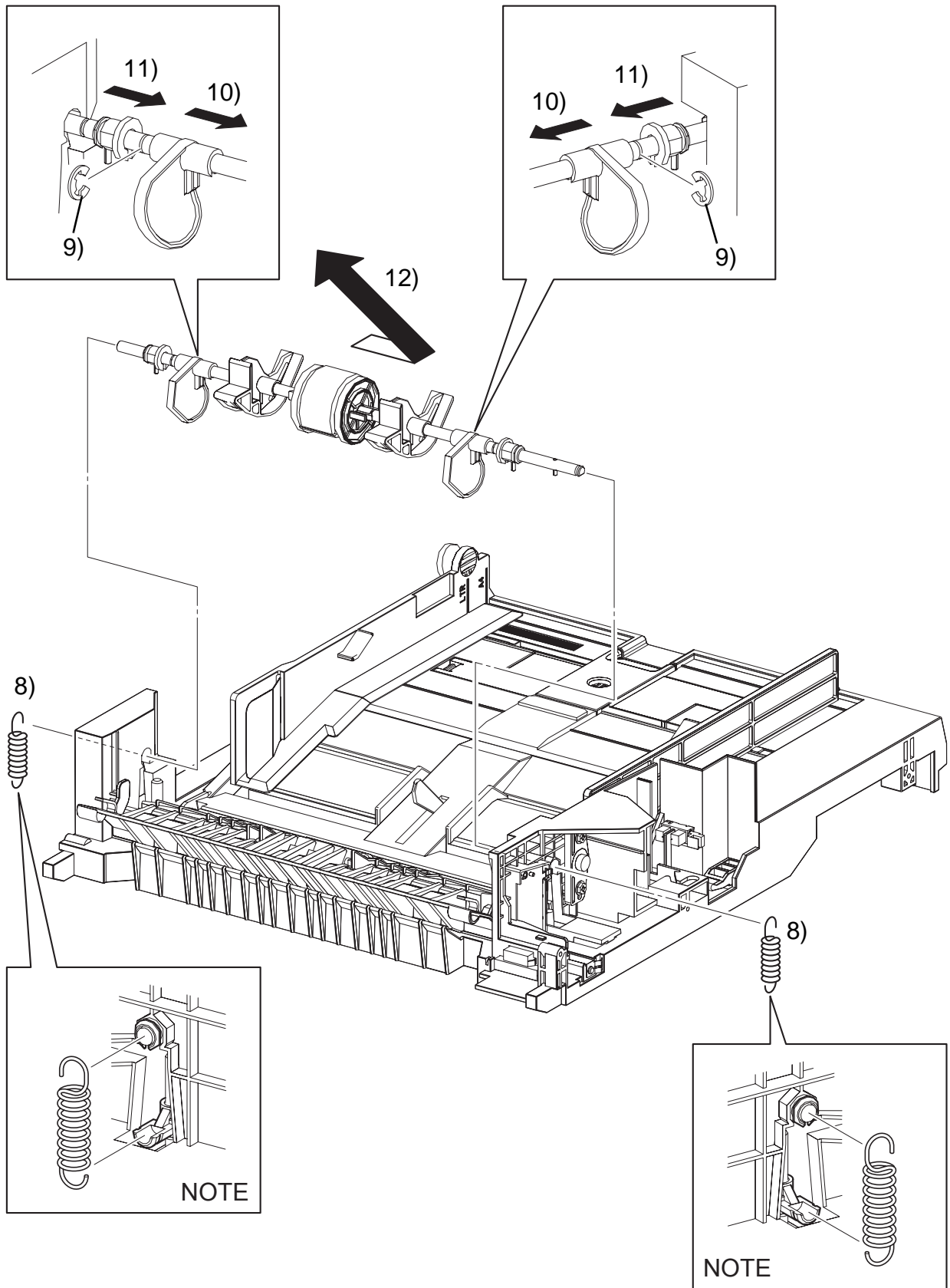


Be sure to match ACTUATOR to the hook.

- 3) Lift PLATE BOTTOM 2 at 90 degrees, place the right and left boss parts in the notched of MULTIPURPOSE FEEDER ASSEMBLY and attach PLATE BOTTOM 2.
- 4) Spread fitting parts at right and left sides of PLATE BOTTOM 2, place the hole of PLATE BOTTOM 2 in the boss of PLATE BOTTOM ASSY MSI and attach PLATE BOTTOM 2.
- 5) Attach PHOTO SENSOR. (RRP 4.9)
- 6) Attach LEFT SIDE GUIDE and RIGHT SIDE GUIDE. (RRP 4.4)
- 7) Attach MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 8) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 9) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 10) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 11) Attach LEFT COVER. (RRP 1.10)
- 12) Attach COVER ASSY RH. (RRP 1.12)

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RRP4.11 MULTIPURPOSE ROLLER ASSEMBLY (PL 4.1.24)



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RRP4.11 MULTIPURPOSE ROLLER ASSEMBLY (PL 4.1.24)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 6) Remove MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 7) Remove SOLENOID PICK UP. (RRP 4.8)

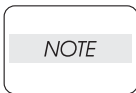
NOTE

When carrying out the work shown below, turn MULTIPURPOSE ROLLER ASSEMBLY to release CAM PICK UP MSI and raise PLATE BOTTOM ASSY MSI. This help carry out the work more easily.

- 8) Remove right and left SPRING-N/F MSI (PL 4.1.17) hooked on right and left BEARING MSI (PL 4.1.2) from MULTIPURPOSE FEEDER ASSEMBLY.
- 9) Remove the E ring that fixed the right and left sides of CAM PICK UP MSI (PL 4.1.3) to SHAFT ASSY MSI (PL 4.1.4) from MULTIPURPOSE FEEDER ASSEMBLY.
- 10) Match the notch of CAM PICK UP MSI to the positioning pin of SHAFT ASSY MSI, and shift both left and right CAM PICK UP MSI inward.
- 11) Match the notch of BEARING MSI from the left and right BEARING MSI of MULTIPURPOSE FEEDER ASSEMBLY to the positioning pin of SHAFT ASSY MSI, and shift left and right BEARING MSI inward.
- 12) First, shift MULTIPURPOSE ROLLER ASSEMBLY (PL4.1.24) to the left, then remove MULTIPURPOSE ROLLER ASSEMBLY by pulling out the shaft of MULTIPURPOSE ROLLER ASSEMBLY from the right side bearing of MULTIPURPOSE FEEDER ASSEMBLY.

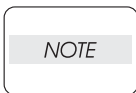
RRP4.11 MULTIPURPOSE ROLLER ASSEMBLY (PL 4.1.24)

[Replacement]



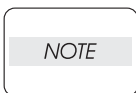
When carrying out the work shown below, PAPER GUIDE (PL 4.1.25) must be attached in a way that its paper holding section is facing down.

- 1) After inserting the left side of the shaft section of MULTIPURPOSE ROLLER ASSEMBLY (PL 4.1.24) into the bearing section on the left side of KIT-MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1), shift MULTIPURPOSE ROLLER ASSEMBLY to the right and attach MULTIPURPOSE ROLLER ASSEMBLY.
- 2) Match the notch of left and right BEARING MSI (PL 4.1.2) on MULTIPURPOSE ROLLER ASSEMBLY to the positioning pin of SHAFT ASSY MSI, then fix MULTIPURPOSE ROLLER ASSEMBLY by inserting BEARING MSI into left and right bearing of MULTIPURPOSE FEEDER ASSEMBLY.
- 3) Match the notch of left and right CAM PICK UP MSI (PL 4.1.3) on MULTIPURPOSE ROLLER ASSEMBLY to the positioning pin of SHAFT ASSY MSI, then shift left and right CAM PICK UP MSI outward.

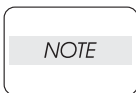


Make sure to match the notch of CAM PICK UP MSI to the positioning pin of MULTIPURPOSE ROLLER ASSEMBLY without fail.

- 4) Fix left and right CAM PICK UP MSI to SHAFT ASSY MSI using E rings.



When carrying out the work shown below, turn MULTIPURPOSE ROLLER ASSEMBLY to release CAM PICK UP MSI and raise PLATE BOTTOM ASSY MSI. This help carry out the work more easily.



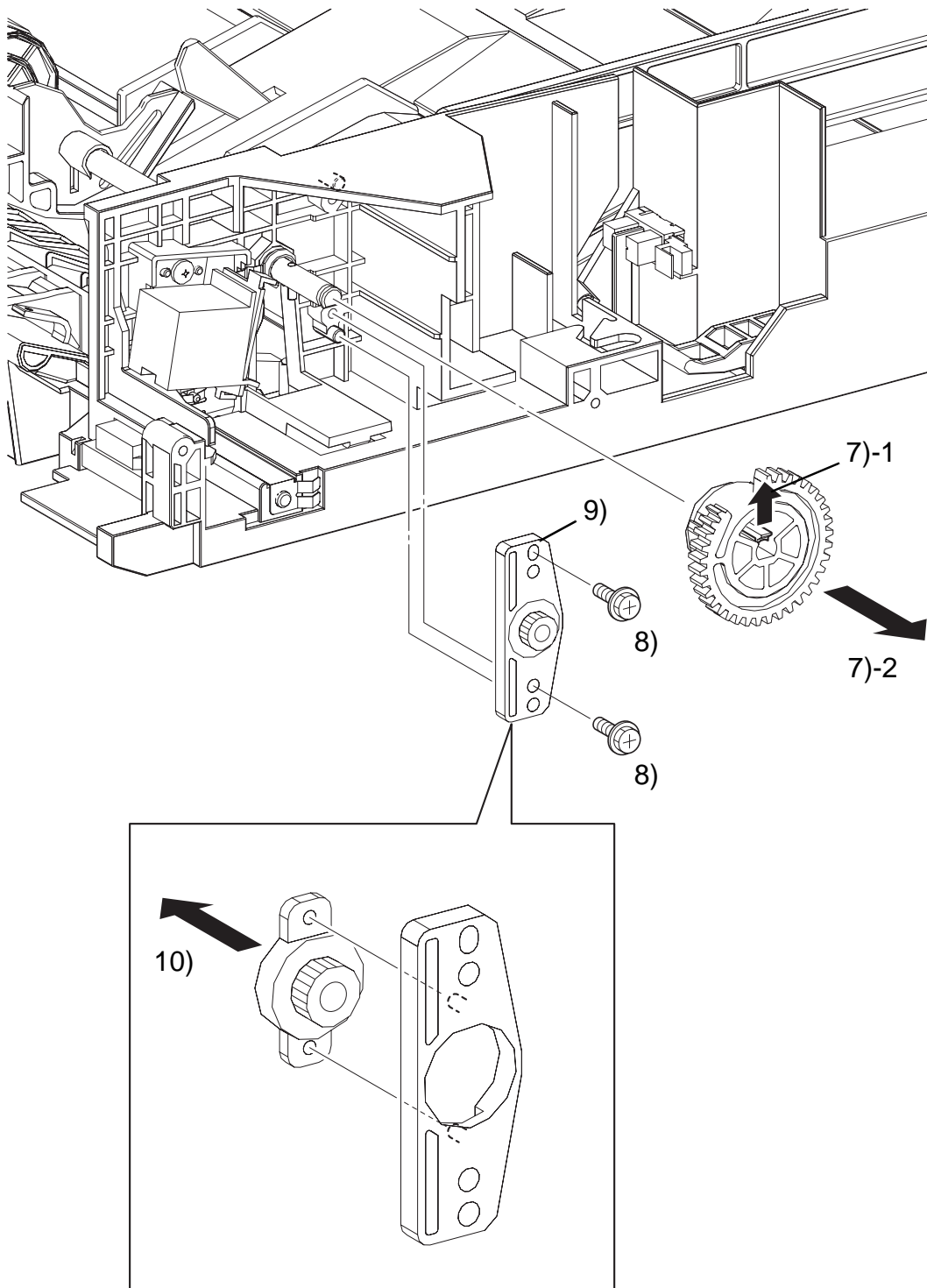
When carrying out the work shown below, pay attention to the orientation of SPRING-N/F MSI to be attached.

Attach the oblong side at the attaching section of SPRING-N/F MSI to BEARING MSI. Attach half circle side at the attaching section of SPRING-N/F MSI to PLATE BOTTOM ASSY MSI.

- 5) Attach the oval fitting part of SPRING-N/F MSI to BEARING MSI.
- 6) Attach the semicircle fitting part of SPRING-N/F MSI to PLATE BOTTOM ASSY MSI.
- 7) Attach SPRING-N/F MSI (PL 4.1.17) to the left and right sides of BEARING MSI.
- 8) Attach SOLENOID PICK UP. (RRP 4.8)
- 9) Attach MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 10) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 11) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 12) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 13) Attach LEFT COVER. (RRP 1.10)
- 14) Attach COVER ASSY RH. (RRP 1.12)

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RRP4.12 OIL DAMPER (PL 4.1.26)



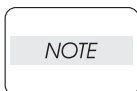
Leg_Sec03_200FA

RRP4.12 OIL DAMPER (PL 4.1.26)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER, COVER FRONT-U. (RRP 1.8)
- 5) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 6) Remove MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 7) Release the hook of GEAR PICK UP (PL 4.1.19) that fixed to SHAFT ASSY MSI (PL 4.1.4) from MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1) and remove GEAR PICK UP.
- 8) Remove two screws (silver, with a flange, tap, 8mm) that fixed DAMPER BRACKET (PL 4.1.27) to MULTIPURPOSE FEEDER ASSEMBLY.
- 9) Remove OIL DAMPER (PL 4.1.26) and DAMPER BRACKET from MULTIPURPOSE FEEDER ASSEMBLY.
- 10) Remove OIL DAMPER from DAMPER BRACKET.

[Replacement]



Pay attention to fitting direction of OIL DAMPER when carrying out the work shown below.

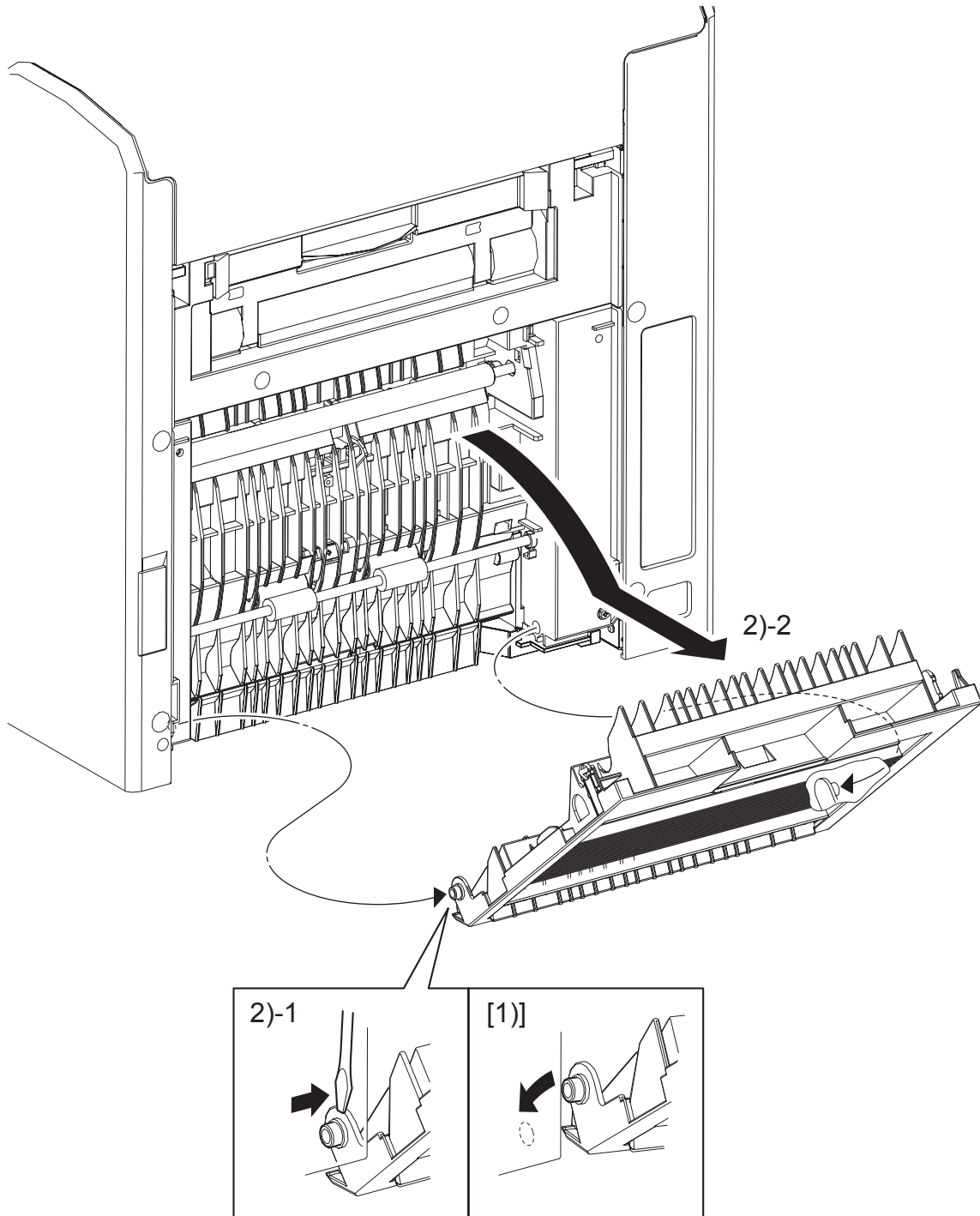
- 1) Match the hole of OIL DAMPER (PL 4.1.26) to the boss of DAMPER BRACKET (PL 4.1.27), attach OIL DAMPER to DAMPER BRACKET.
- 2) Match the hole of DAMPER BRACKET to the boss of MULTIPURPOSE FEEDER ASSEMBLY (PL 4.1.1), attach OIL DAMPER and DAMPER BRACKET.
- 3) Fix DAMPER BRACKET to MULTIPURPOSE FEEDER ASSEMBLY using the two screws (silver, with a flange, tap, 8mm).
- 4) Attach GEAR PICK UP (PL 4.1.19) to SHAFT ASSY MSI (PL 4.1.4), fix the hook of GEAR PICK UP to the groove of SHAFT ASSY MSI.
- 5) Attach MULTIPURPOSE FEEDER ASSEMBLY. (RRP 4.1)
- 6) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 7) Attach LOWER FRONT COVER, COVER FRONT-U. (RRP 1.8)
- 8) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 9) Attach LEFT COVER. (RRP 1.10)
- 10) Attach COVER ASSY RH. (RRP 1.12)

RRP5. PH ASSY

RRP5.1 REAR CHUTE ASSEMBLY (PL 5.1.2)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.

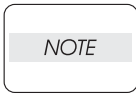


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RRP5.1 REAR CHUTE ASSEMBLY (PL 5.1.2)

[Removal]

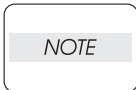
- 1) Open REAR CHUTE ASSEMBLY (PL 5.1.2).



Try not to break the boss of REAR CHUTE ASSEMBLY when carrying out the work shown below.

- 2) Depress the fitting part of the right side on REAR CHUTE ASSEMBLY using the mini screwdriver, remove the boss of the right side from the hole of FRAME-PH (PL 5.2.10) and remove REAR CHUTE ASSEMBLY.

[Replacement]



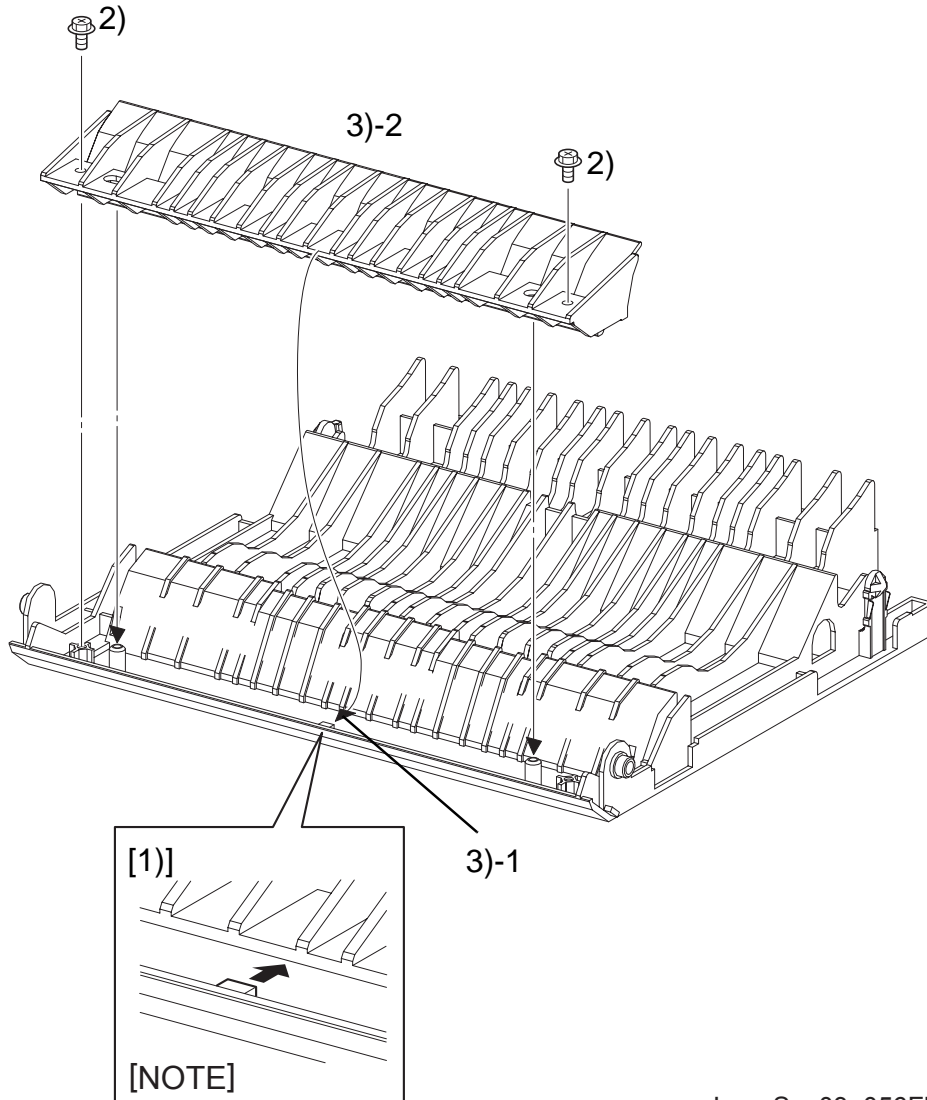
Try not to break the boss of REAR CHUTE ASSEMBLY when carrying out the work shown below.

- 1) Put the boss of the left side on REAR CHUTE ASSEMBLY (PL 5.1.2) in the hole of left side on FRAME-PH (PL 5.2.10), slide the boss of the right side of REAR CHUTE ASSEMBLY diagonally to the hole of right side of FRAME-PH and attach REAR CHUTE ASSEMBLY
- 2) Close REAR CHUTE ASSEMBLY.

RRP5.2 CHUTE-REAR UP (PL 5.1.3), CHUTE-REAR LOW (PL 5.1.4)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



Leg_Sec03_056FB

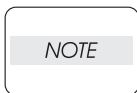
RRP5.2 CHUTE-REAR UP (PL 5.1.3), CHUTE-REAR LOW (PL 5.1.4)

[Removal]

- 1) Remove REAR CHUTE ASSEMBLY. (RRP 5.1)
- 2) Remove two screws (silver, with a flange, tap, 8mm) that fix CHUTE-REAR LOW (PL 5.1.4) to CHUTE-REAR UP (PL 5.1.3).
- 3) Release the concave of CHUTE-REAR LOW from the convex of CHUTE-REAR UP, and remove CHUTE-REAR LOW from CHUTE-REAR UP.

[Replacement]

- 1) Match the hole in CHUTE-REAR LOW (PL 5.1.4) to the boss of CHUTE-REAR UP (PL 5.1.3), and engage the concave of CHUTE-REAR LOW with the convex of CHUTE-REAR UP.



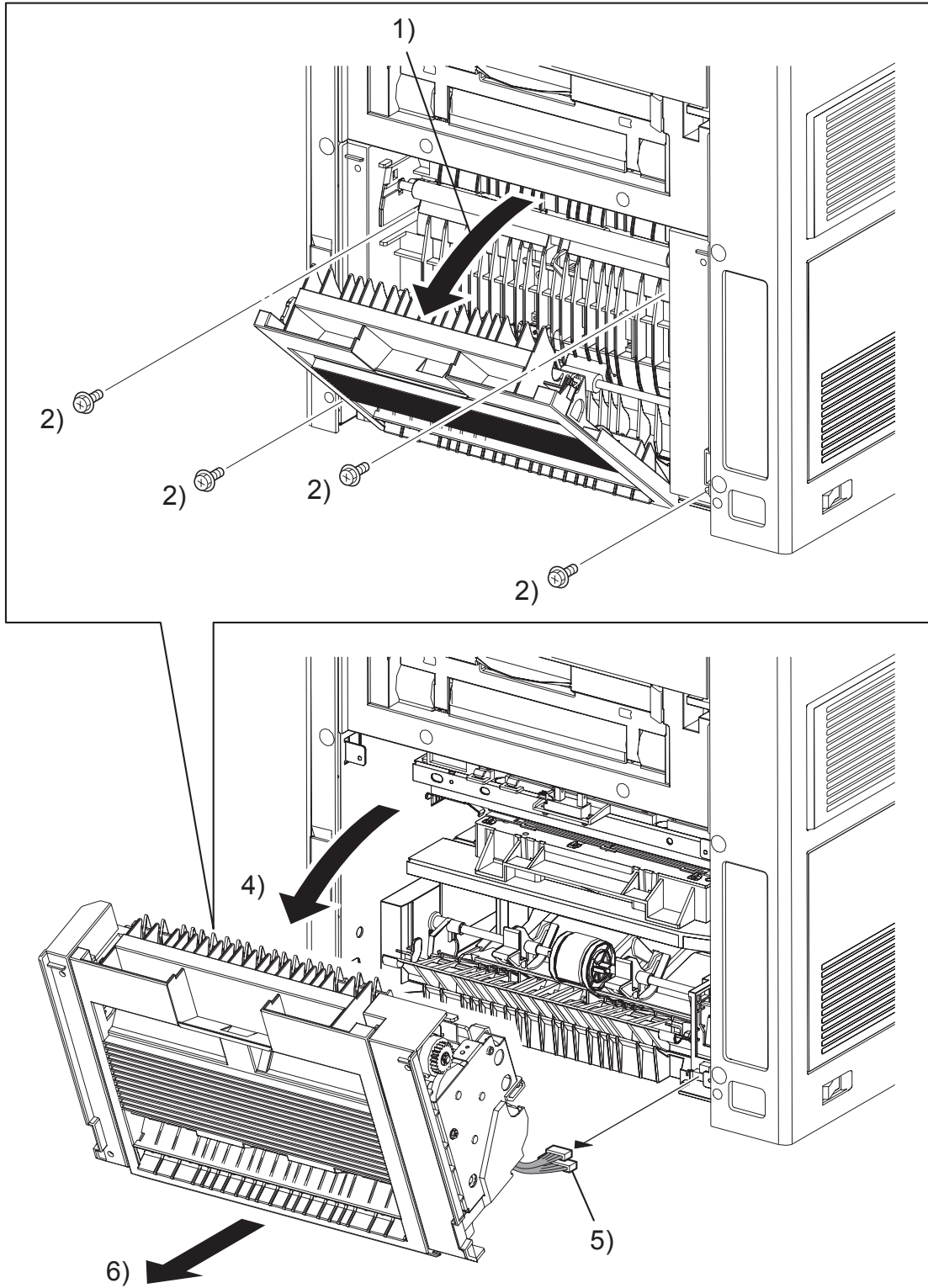
Be sure to attach the convex of CHUTE-REAR UP to the concave of CHUTE-REAR LOW.

- 2) Fix CHUTE-REAR LOW to CHUTE-REAR UP using two screws (silver, with a flange, tap, 8mm).
- 3) Attach REAR CHUTE ASSEMBLY. (RRP 5.1)

RRP5.3 VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1)

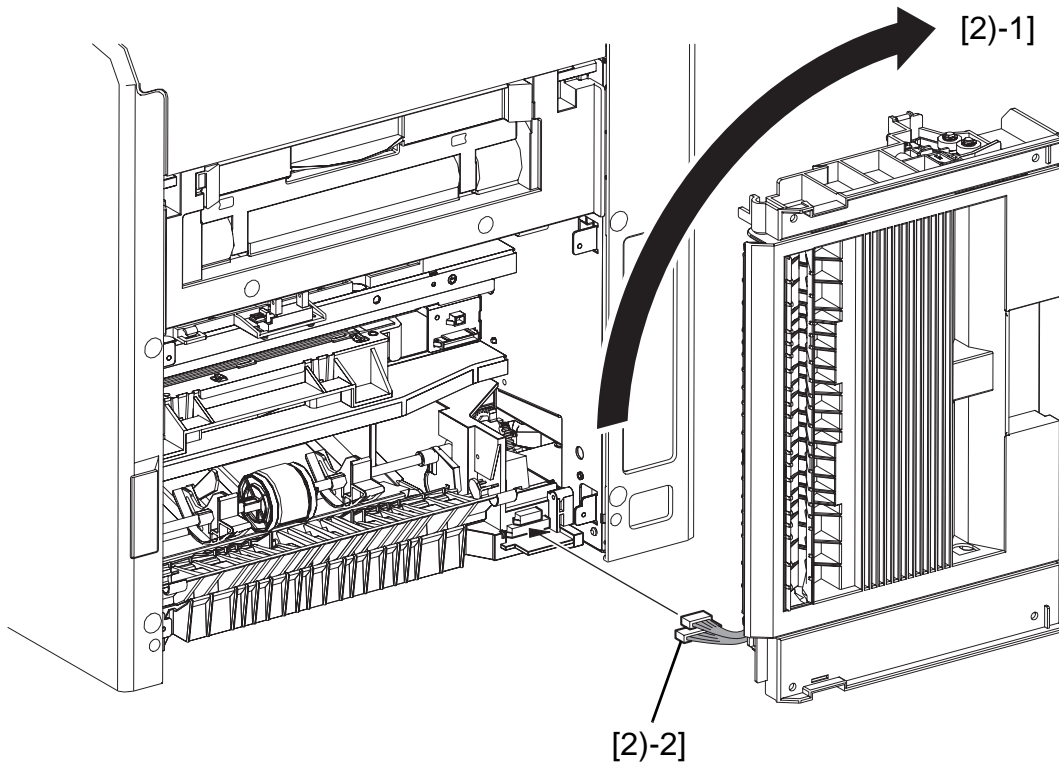
Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



Leg_Sec03_612LA

RRP5.3 VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1)



Leg_Sec03_510LA

RRP5.3 VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1)

[Removal]

- 1) Open REAR CHUTE ASSEMBLY (PL 5.1.2).
- 2) Remove COVER-PH for the standard specification. (RRP 5.15)
- 3) Close REAR CHUTE ASSEMBLY.

NOTE

The main unit and VERTICAL TRANSPORT ASSEMBLY are connected with harness, so they should not be set far apart when carrying out the work shown below.

- 4) Remove VERTICAL TRANSPORT ASSEMBLY a little from the main unit together with REAR CHUTE ASSEMBLY.
- 5) Remove connector (P/J603) and connector (P/J604) connected to the main unit, and remove VERTICAL TRANSPORT ASSEMBLY together with REAR CHUTE ASSEMBLY.
- 6) Remove REAR CHUTE ASSEMBLY. (RRP 5.1)

[Replacement]

- 1) Attach REAR CHUTE ASSEMBLY. (RRP 5.1)
- 2) Turn VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1) at 90 degrees in the direction of an arrow, attach connector (P/J603) and connector (P/J604) connected to the main unit.

NOTE

Pay attention to avoid the harness being caught between the main unit and VERTICAL TRANSPORT ASSEMBLY when carrying out the work shown below.

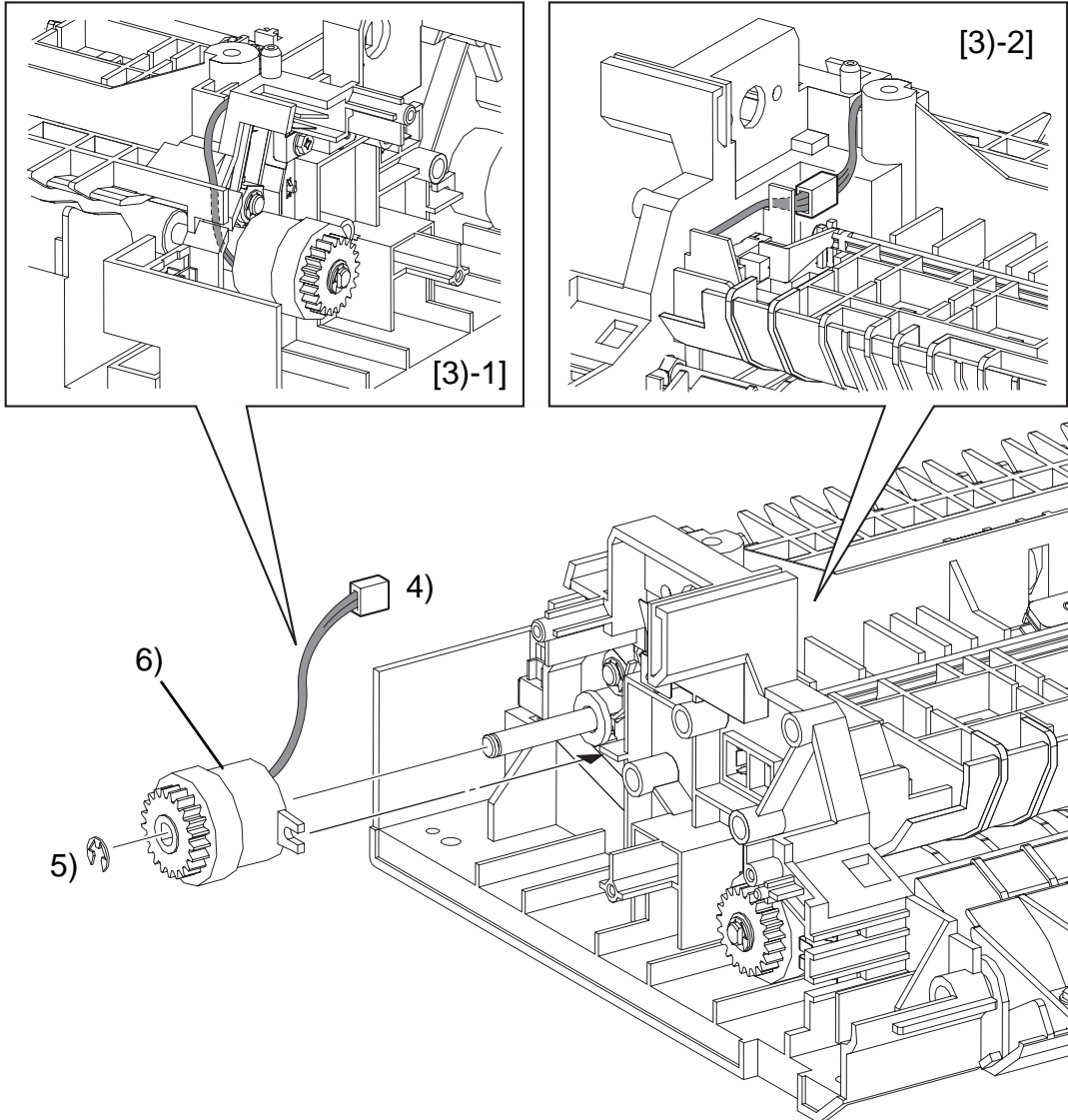
- 3) Match VERTICAL TRANSPORT ASSEMBLY to the fitting position of main unit together with REAR CHUTE ASSEMBLY (PL 5.1.2).
- 4) Open REAR CHUTE ASSEMBLY.
- 5) Fix VERTICAL TRANSPORT ASSEMBLY to the main unit using four screws (silver, with a flange, 8mm).
- 6) Close REAR CHUTE ASSEMBLY.

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RRP5.4 CLUTCH ASSY PH: REGI (PL 5.2.2)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE

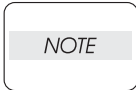


Leg_Sec03_058FB

RRP5.4 CLUTCH ASSY PH: REGI (PL 5.2.2)

[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove MOTOR-PH. (RRP 5.11)
- 3) Remove GEAR ASSY DRIVE. (RRP 5.14)



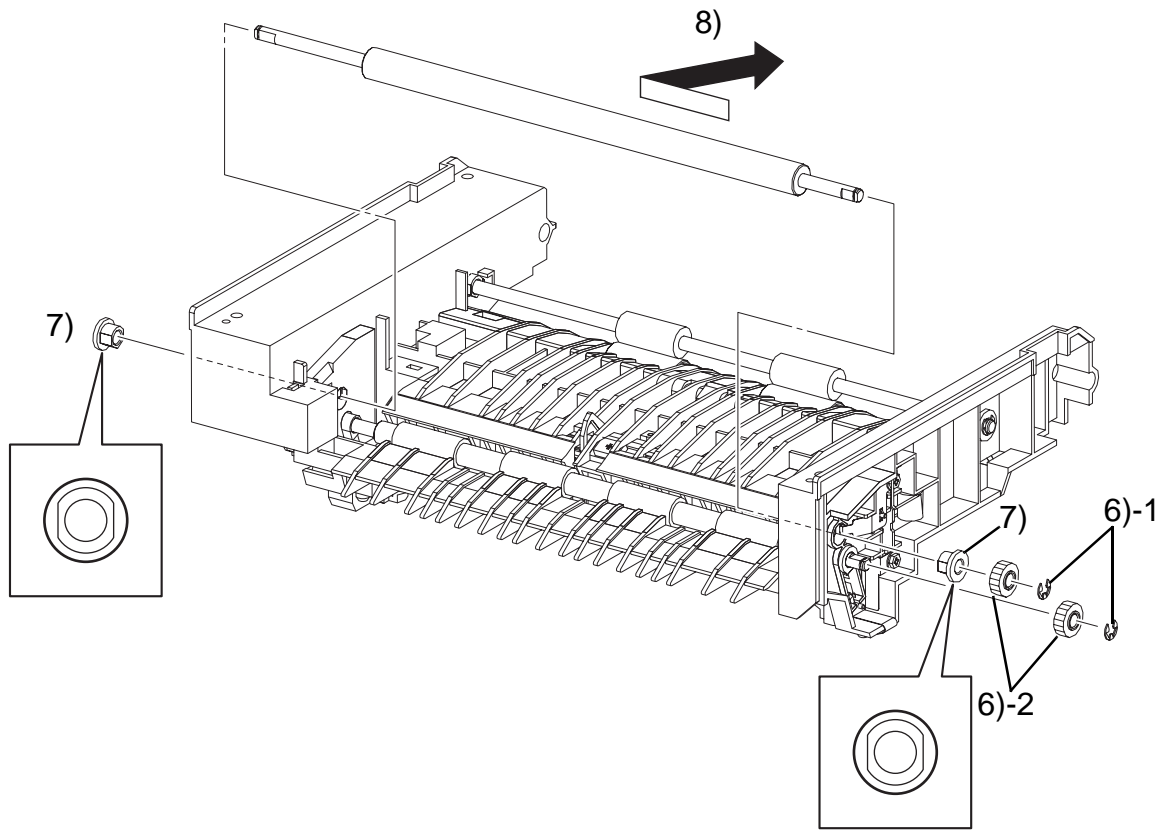
When carrying out the work shown below, leave the relay connector on the harness side.

- 4) Remove connector (P/J203) of CLUTCH ASSY PH: REGI (PL 5.2.2) and remove harness of CLUTCH ASSY PH: REGI from the groove of VERTICAL TRANSPORT ASSEMBLY.
- 5) Remove an E ring that fixes CLUTCH ASSY PH: REGI to VERTICAL TRANSPORT ASSEMBLY.
- 6) Remove CLUTCH ASSY PH: REGI from VERTICAL TRANSPORT ASSEMBLY.

[Replacement]

- 1) Match the hole position of CLUTCH ASSY PH: REGI to the D-cut section of the shaft of ROLL-REGI (PL 5.2.4) and attach CLUTCH ASSY PH: REGI in such a manner that the convex of VERTICAL TRANSPORT ASSEMBLY is placed in the concave of CLUTCH ASSY PH: REGI.
- 2) Fix CLUTCH ASSY PH: REGI to VERTICAL TRANSPORT ASSEMBLY using an E ring.
- 3) Attach connector (P/J203) of CLUTCH ASSY PH: REGI and lay harness of CLUTCH ASSY PH: REGI to the groove of VERTICAL TRANSPORT ASSEMBLY.
- 4) Attach GEAR ASSY DRIVE. (RRP 5.14)
- 5) Attach MOTOR-PH. (RRP 5.11)
- 6) Attach FRAME-ASSY-PH. (RRP 5.3)

RRP5.5 ROLL-REGI (PL 5.2.4)



Leg_Sec03_059FB

RRP5.5 ROLL-REGI (PL 5.2.4)

[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove REAR CHUTE ASSEMBLY. (RRP 5.1)
- 3) Remove MOTOR-PH. (RRP 5.11)
- 4) Remove GEAR ASSY DRIVE. (RRP 5.14)
- 5) Remove CLUTCH ASSY PH: REGI. (RRP 5.4)
- 6) Remove two E rings that fix GEAR-REGI (PL 5.2.6) from VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1) and remove two GEAR-REGIs.
- 7) Remove BEARING METALS (PL 5.2.3) on right and left sides that fix ROLL-REGI (PL 5.2.4) from VERTICAL TRANSPORT ASSEMBLY.
- 8) Move ROLL-REGI to left side once, pull out the shaft of ROLL-REGI from right side bearing of VERTICAL TRANSPORT ASSEMBLY and remove ROLL-REGI.

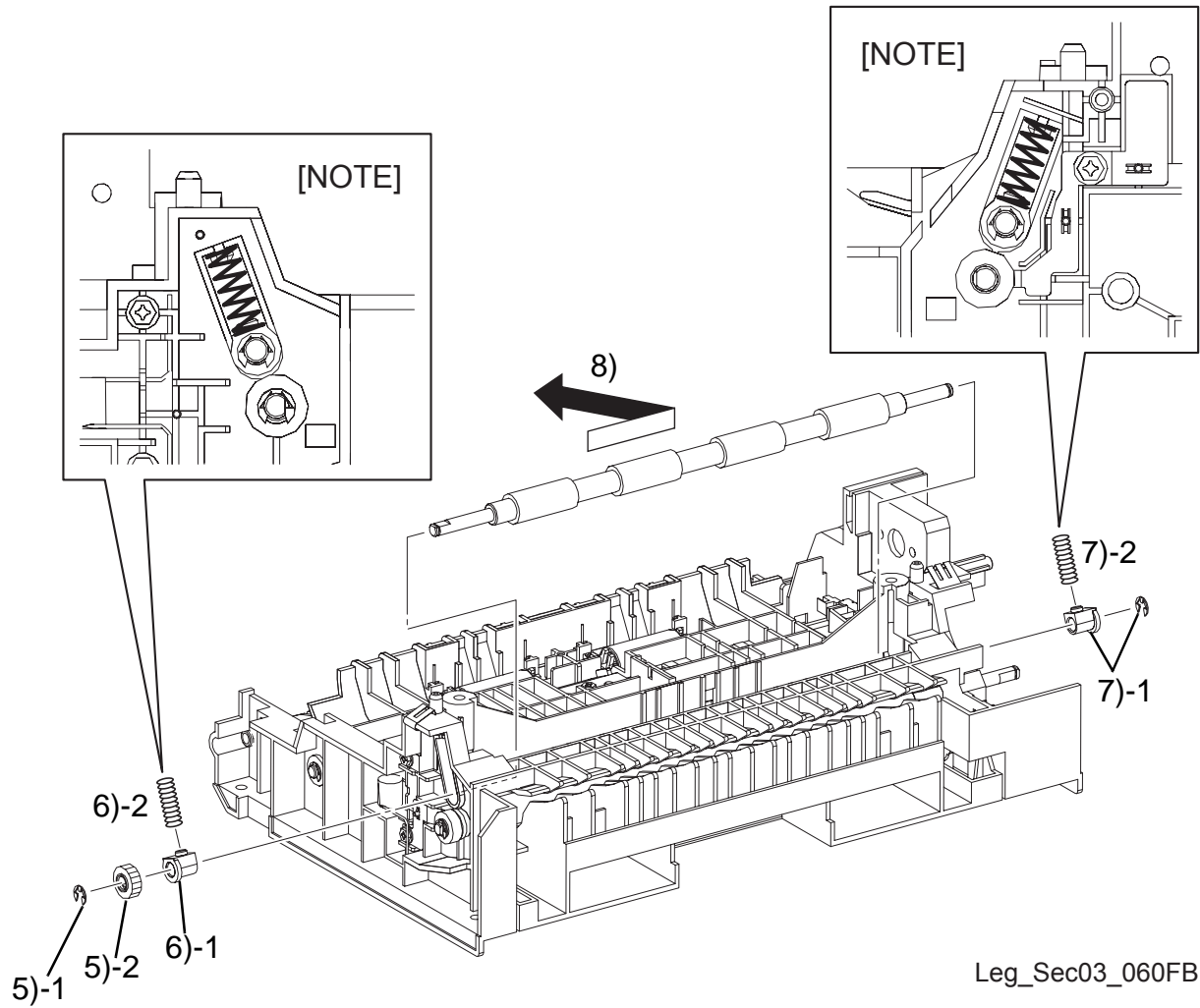
[Replacement]

- 1) After placing the left side of shaft of ROLL-REGI in the left side bearing of VERTICAL TRANSPORT ASSEMBLY, move ROLL-REGI to right side and attach it.
- 2) Match the double D-cut section of BEARING METAL to right and left sides shaft of FRAME-ASSY PH, attach BEARING METAL and fix ROLL-REGI.
- 3) Attach GEAR-REGI to the right side shaft of ROLL-REGI and right side shaft of ROLL ASSY-REGI (PL 5.2.8), and fix them using two E rings.
- 4) Attach CLUTCH ASSY PH: REGI. (RRP 5.4)
- 5) Attach GEAR ASSY DRIVE. (RRP 5.14)
- 6) Attach MOTOR-PH. (RRP 5.11)
- 7) Attach REAR CHUTE ASSEMBLY. (RRP 5.1)
- 8) Attach FRAME-ASSY-PH. (RRP 5.3)

RRP5.6 ROLL ASSY-REGI (PL 5.2.8)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



Leg_Sec03_060FB

RRP5.6 ROLL ASSY-REGI (PL 5.2.8)

[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove MOTOR-PH. (RRP 5.11)
- 3) Remove GEAR ASSY DRIVE. (RRP 5.14)
- 4) Remove CLUTCH ASSY PH: REGI. (RRP 5.4)
- 5) Remove E ring that fixes GEAR-REGI (PL 5.2.6) on ROLL ASSY-REGI (PL 5.2.8) from VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1) and remove GEAR-REGI.
- 6) Remove the right side BEARING RUBBER (PL 5.2.5) that fixes ROLL ASSY-REGI and metallic color of SPRING-REGI R (METAL)(PL 5.2.7) from VERTICAL TRANSPORT ASSEMBLY.
- 7) Remove the left side BEARING RUBBER that fixes ROLL ASSY-REGI and black color of SPRING-REGI L (BLACK) (PL 5.2.9) from VERTICAL TRANSPORT ASSEMBLY.
- 8) Move ROLL ASSY-REGI to left side once, pull out the shaft of ROLL ASSY-REGI from the right side bearing of VERTICAL TRANSPORT ASSEMBLY and remove ROLL ASSY-REGI.

[Replacement]

- 1) After placing the left side shaft of ROLL ASSY-REGI in the left side bearing of VERTICAL TRANSPORT ASSEMBLY, move ROLL ASSY-REGI to right side and attach it.
- 2) Fix ROLL ASSY-REGI to VERTICAL TRANSPORT ASSEMBLY using BEARING RUBBER at right and left sides.

NOTE

Be careful not to attach metallic color of SPRING-REGI R (METAL) and black color of SPRING-REGI L (BLACK) to incorrect position when carrying out the work shown below.

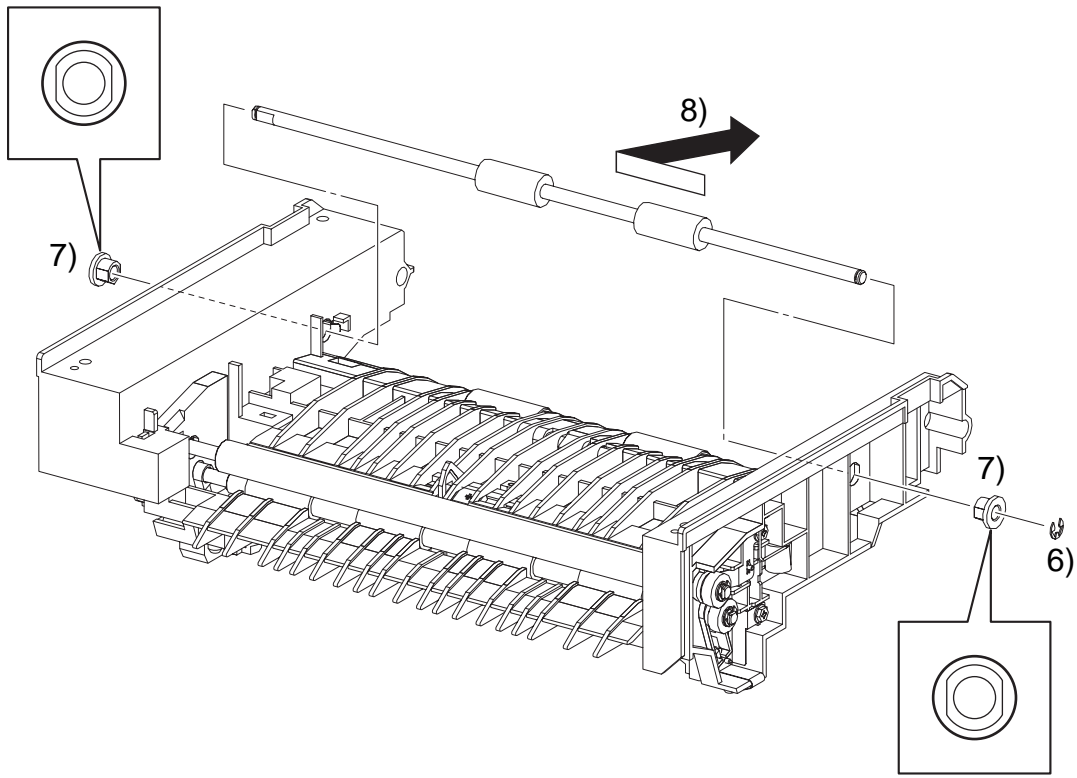
- 3) Attach SPRING-REGI R (METAL) to the right side boss of BEARING RUBBER that fixes ROLL ASSY-REGI and attach SPRING-REGI R (METAL) to the right side bearing of the boss of VERTICAL TRANSPORT ASSEMBLY.
- 4) Attach SPRING-REGI L (BLACK) to the left side boss of BEARING RUBBER that fixes ROLL ASSY-REGI and attach SPRING-REGI L (BLACK) to the left side bearing of the boss of VERTICAL TRANSPORT ASSEMBLY.

NOTE

Check that SPRING-REGI R (METAL) and SPRING-REGI L (BLACK) are placed in the boss of BEARING RUBBER and boss of bearing of VERTICAL TRANSPORT ASSEMBLY on both sides.

- 5) Attach GEAR-REGI to the right side of shaft of ROLL ASSY-REGI and fix it using E ring.
- 6) Attach CLUTCH ASSY PH: REGI. (RRP 5.4)
- 7) Attach GEAR ASSY DRIVE. (RRP 5.14)
- 8) Attach MOTOR-PH. (RRP 5.11)
- 9) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)

RRP5.7 ROLL ASSY-PRE REGI (PL 5.2.12)



Leg_Sec03_061FB

RRP5.7 ROLL ASSY-PRE REGI (PL 5.2.12)

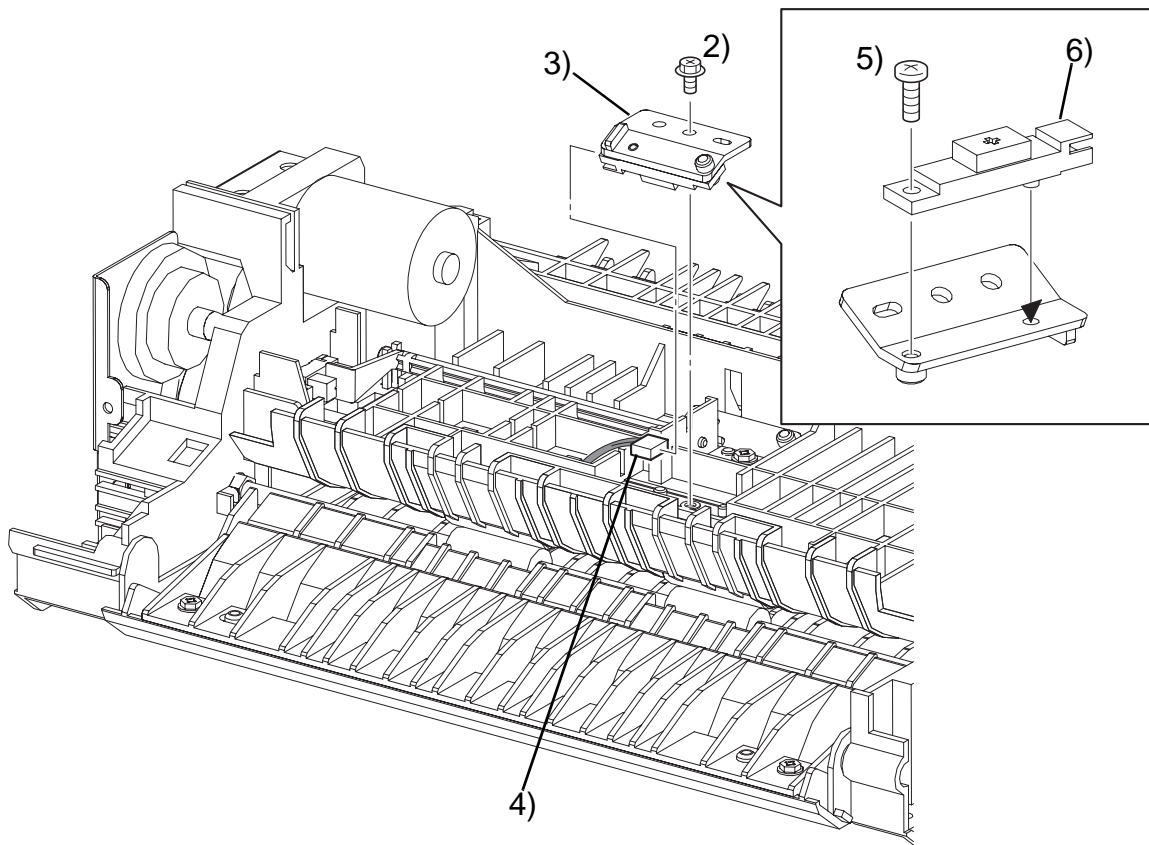
[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove REAR CHUTE ASSEMBLY. (RRP 5.1)
- 3) Remove MOTOR-PH. (RRP 5.11)
- 4) Remove GEAR ASSY DRIVE. (RRP 5.14)
- 5) Remove CLUTCH ASSY PH: PRE REGI. (RRP 5.12)
- 6) Remove E ring that fixes the right side of shaft of ROLL ASSY-PRE REGI (PL 5.2.12) from VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1).
- 7) Remove right and left BEARING METALS (PL 5.2.3) that fix ROLL ASSY-PRE REGI from VERTICAL TRANSPORT ASSEMBLY.
- 8) Move ROLL ASSY-PRE REGI to left side once, and then pull out the shaft of ROLL ASSY-PRE REGI from right side bearing of VERTICAL TRANSPORT ASSEMBLY and remove ROLL ASSY-PRE REGI.

[Replacement]

- 1) After inserting the left side shaft of ROLL ASSY-PRE REGI in the left side bearing of VERTICAL TRANSPORT ASSEMBLY, move ROLL ASSY-PRE REGI to right side and attach it.
- 2) Match the double D-cut section of BEARING METAL to the right and left sides bearing of VERTICAL TRANSPORT ASSEMBLY, attach BEARING METAL and fix ROLL ASSY-PRE REGI.
- 3) Fix right side shaft of ROLL ASSY-PRE REGI using E ring.
- 4) Attach CLUTCH ASSY PH: PRE REGI. (RRP 5.12)
- 5) Attach GEAR ASSY DRIVE. (RRP 5.14)
- 6) Attach MOTOR-PH. (RRP 5.11)
- 7) Attach REAR CHUTE ASSEMBLY. (RRP 5.1)
- 8) Attach FRAME-ASSY-PH. (RRP 5.3)

RRP5.8 SENSOR (PL 5.2.16)

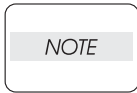


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RRP5.8 SENSOR (PL 5.2.16)

[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove a screw (silver, with a flange, tap, 8mm) that fixes BRACKET-SENSOR OHP (PL 5.2.15) to VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1).



VERTICAL TRANSPORT ASSEMBLY and BRACKET-SENSOR OHP are connected with harness, so they should not be set far apart when carrying out the work shown below.

- 3) Remove BRACKET-SENSOR OHP from VERTICAL TRANSPORT ASSEMBLY together with SENSOR (PL 5.2.16).
- 4) Remove connector (P/J101) of SENSOR.
- 5) Remove a screw (silver, tap, 8mm) that fixes SENSOR to BRACKET-SENSOR OHP.
- 6) Remove SENSOR from BRACKET-SENSOR OHP.

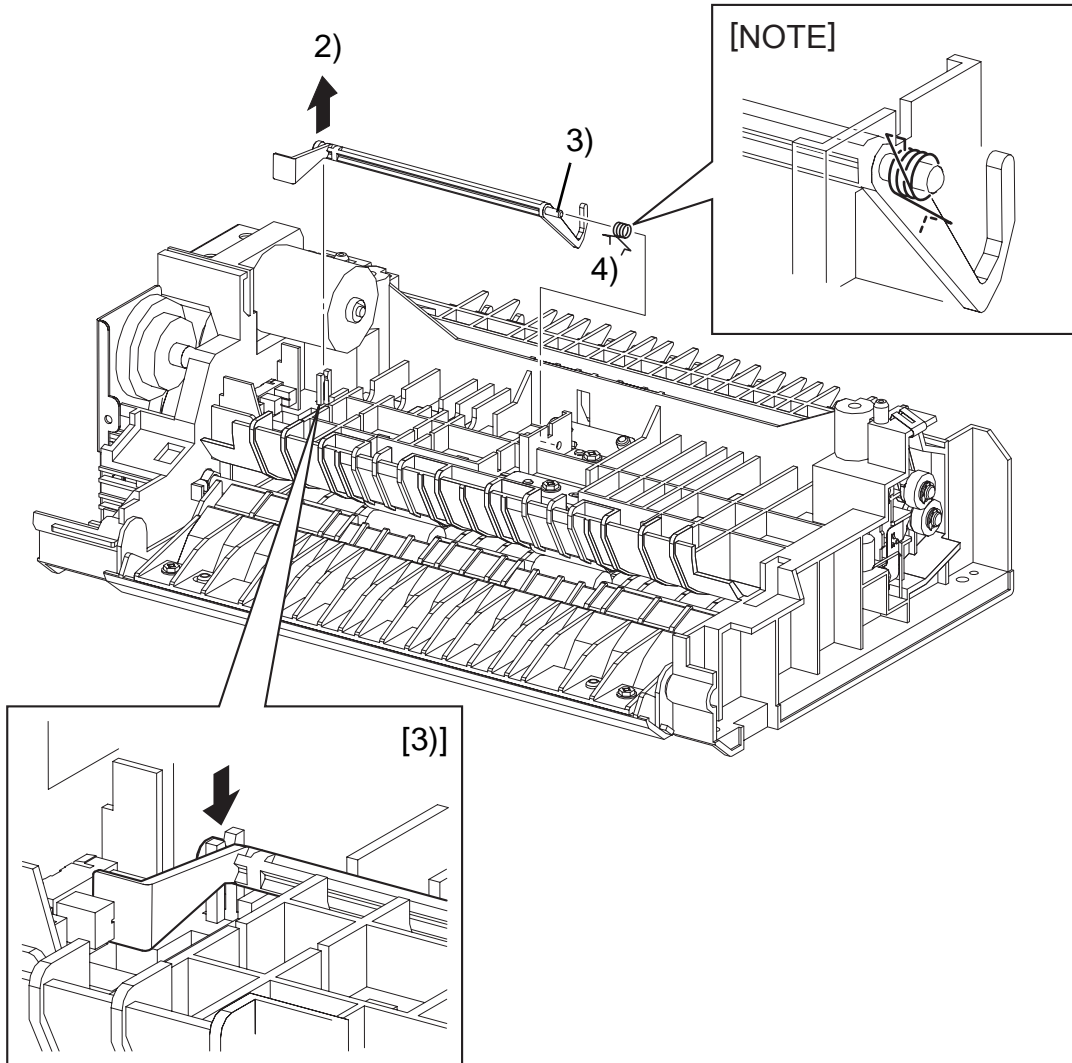
[Replacement]

- 1) Match the boss of SENSOR to the hole in BRACKET-SENSOR OHP, and attach SENSOR to BRACKET-SENSOR OHP.
- 2) Fix SENSOR to BRACKET-SENSOR OHP using a screw (silver, tap, 8mm).
- 3) Attach connector (P/J101) of SENSOR.
- 4) Match the hole in BRACKET-SENSOR OHP to the boss of VERTICAL TRANSPORT ASSEMBLY, and attach BRACKET-SENSOR OHP and SENSOR.
- 5) Fix BRACKET-SENSOR OHP to VERTICAL TRANSPORT ASSEMBLY using a screw (silver, with a flange, tap, 8mm).
- 6) Attach FRAME-ASSY-PH. (RRP 5.3)

RRP5.9 ACTUATOR-REGI (PL 5.2.18)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



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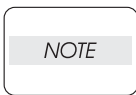
RRP5.9 ACTUATOR-REGI (PL 5.2.18)

[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove left side shaft of ACTUATOR-REGI (PL 5.2.18) from hook of VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1).
- 3) Pull out the right shaft of ACTUATOR-REGI from the hole in VERTICAL TRANSPORT ASSEMBLY, and remove ACTUATOR-REGI together with SPRING-ACTUATOR (PL 5.2.17).
- 4) Remove SPRING-ACTUATOR from ACTUATOR-REGI.

[Replacement]

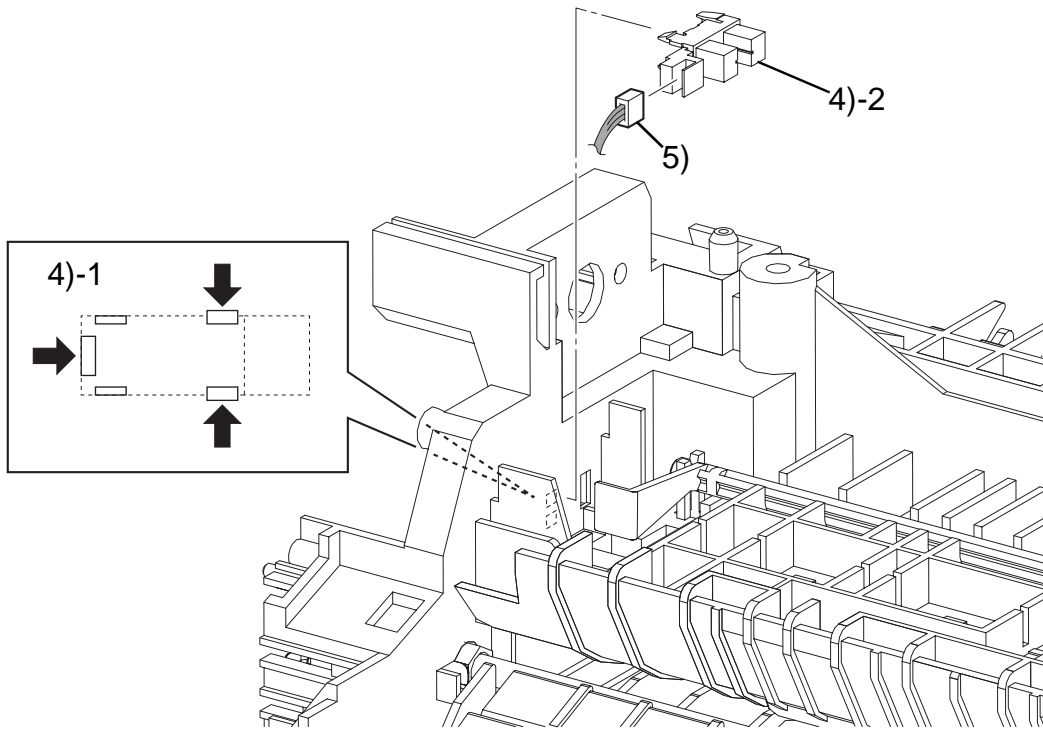
- 1) Attach SPRING-ACTUATOR to ACTUATOR-REGI.
- 2) Place the right shaft of ACTUATOR-REGI in the hole of VERTICAL TRANSPORT ASSEMBLY, and hook SPRING-ACTUATOR on the notched of VERTICAL TRANSPORT ASSEMBLY.



SPRING-ACTUATOR should be hooked on ACTUATOR-REGI and VERTICAL TRANSPORT ASSEMBLY properly.

- 3) Fix the left side shaft of ACTUATOR-REGI using the hook of VERTICAL TRANSPORT ASSEMBLY.
- 4) Attach FRAME-ASSY-PH. (RRP 5.3)

RRP5.10 PHOTO SENSOR (PL 5.2.19)



Leg_Sec03_065FB

RRP5.10 PHOTO SENSOR (PL 5.2.19)

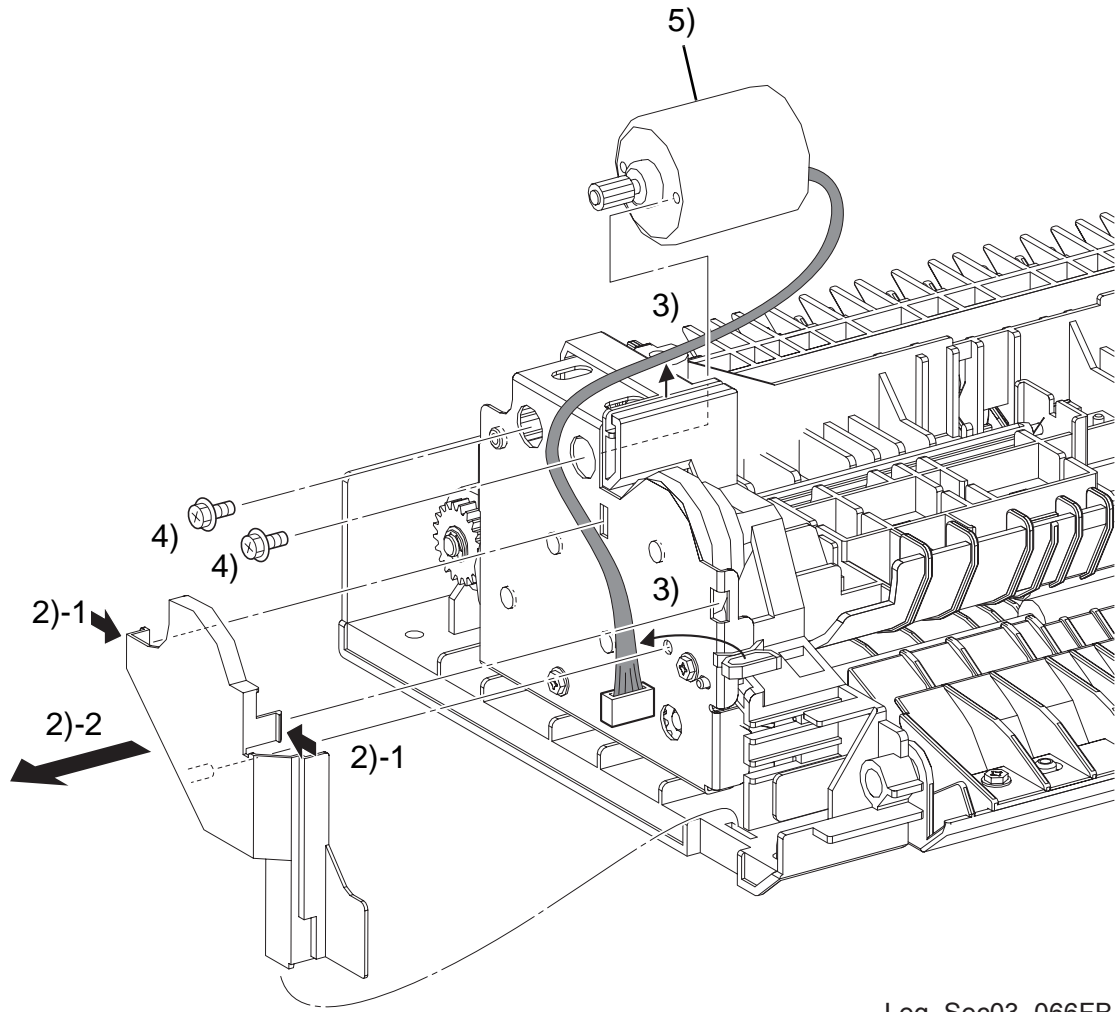
[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove MOTOR-PH. (RRP 5.11)
- 3) Remove GEAR ASSY DRIVE. (RRP 5.14)
- 4) Release the three hooks that fix PHOTO SENSOR to VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1) and remove PHOTO SENSOR.
- 5) Remove connector (P/J102) of PHOTO SENSOR (PL 5.2.19).

[Replacement]

- 1) Attach connector (P/J102) of PHOTO SENSOR.
- 2) Match the three hooks of PHOTO SENSOR to the fitting position and attach PHOTO SENSOR to VERTICAL TRANSPORT ASSEMBLY.
- 3) Attach GEAR ASSY DRIVE. (RRP 5.14)
- 4) Attach MOTOR-PH. (RRP 5.11)
- 5) Attach FRAME-ASSY-PH. (RRP 5.3)

RRP5.11 MOTOR-PH (PL 5.2.20)



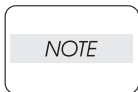
Leg_Sec03_066FB

RRP5.11 MOTOR-PH (PL 5.2.20)

[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Release the two hooks that fix COVER-HARNESS to VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1) and remove COVER-HARNESS.
- 3) Release a clamp on GEAR ASSY DRIVE (PL 5.2.24), and remove the harness of MOTOR-PH (PL 5.2.20) from the groove of VERTICAL TRANSPORT ASSEMBLY.
- 4) Remove the two screws (silver, with a flange, 6mm) that fix MOTOR-PH to VERTICAL TRANSPORT ASSEMBLY.
- 5) Remove MOTOR-PH from VERTICAL TRANSPORT ASSEMBLY.

[Replacement]



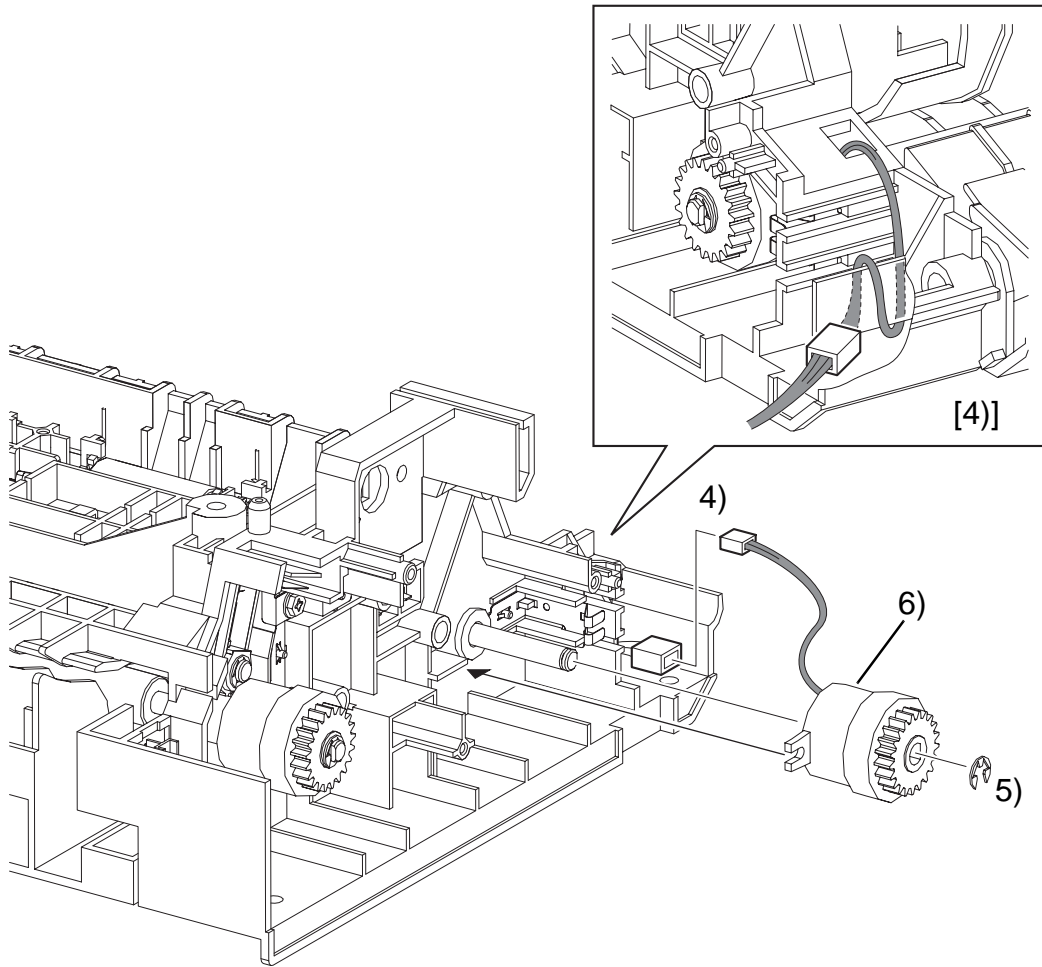
Pay attention to the fitting direction of MOTOR-PH when carrying out the work shown below.

- 1) Attach MOTOR-PH to VERTICAL TRANSPORT ASSEMBLY in such a direction that harness of MOTOR-PH comes to the front.
- 2) Fix MOTOR-PH on VERTICAL TRANSPORT ASSEMBLY using two screws (silver, with a flange, 6mm).
- 3) Lay the harness of MOTOR-PH to the groove of VERTICAL TRANSPORT ASSEMBLY, and fix it using a clamp on GEAR ASSY DRIVE.
- 4) Match the boss and the convex of COVER-HARNESS to the hole of VERTICAL TRANSPORT ASSEMBLY and fix it using two hooks.
- 5) Attach FRAME-ASSY-PH. (RRP 5.3)

RRP5.12 CLUTCH ASSY PH: PRE REGI (PL 5.2.22)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_067FB

RRP5.12 CLUTCH ASSY PH: PRE REGI (PL 5.2.22)

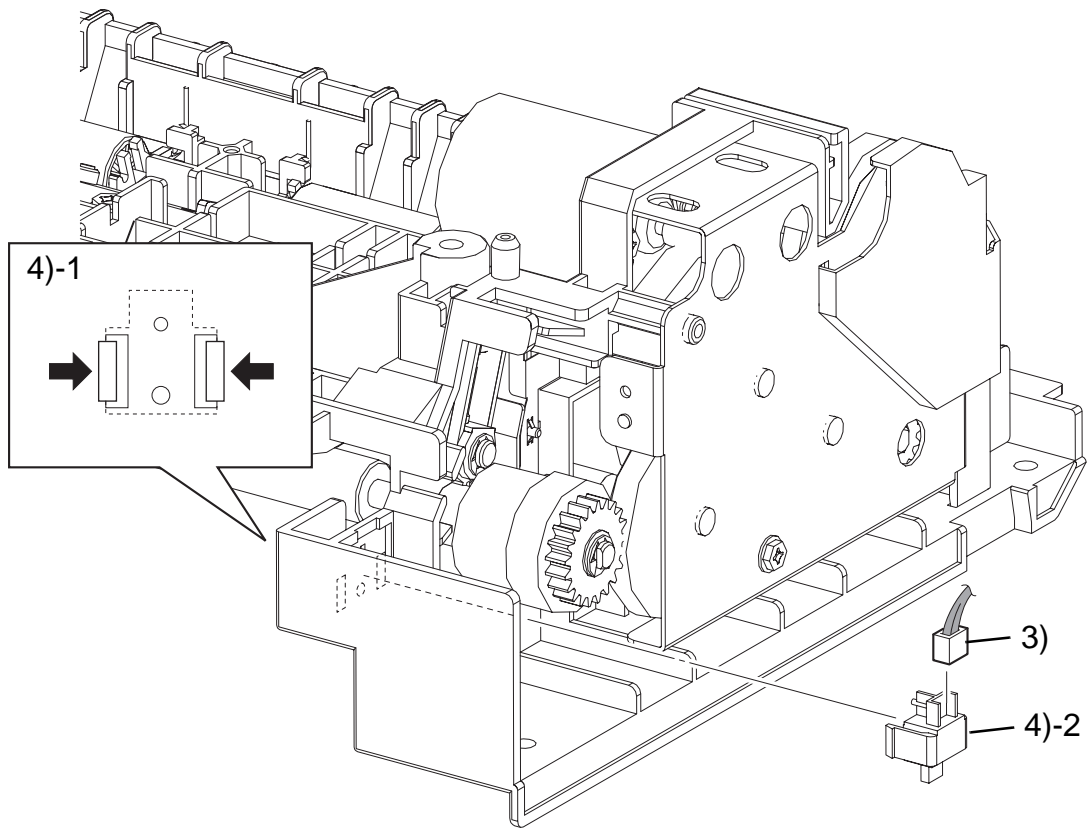
[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove MOTOR-PH. (RRP 5.11)
- 3) Remove GEAR ASSY DRIVE. (RRP 5.14)
- 4) Remove connector (P/J202) of CLUTCH ASSY PH: PRE REGI (PL 5.2.22) and remove harness of CLUTCH ASSY PH: PRE REGI from the groove of VERTICAL TRANSPORT ASSEMBLY.
- 5) Remove an E ring that fixes CLUTCH ASSY PH: PRE REGI to VERTICAL TRANSPORT ASSEMBLY.
- 6) Remove CLUTCH ASSY PH: PRE REGI from VERTICAL TRANSPORT ASSEMBLY, and remove the harness of CLUTCH ASSY PH: PRE REGI from the hole in VERTICAL TRANSPORT ASSEMBLY.

[Replacement]

- 1) Insert the harness of CLUTCH ASSY PH: PRE REGI into the hole in VERTICAL TRANSPORT ASSEMBLY.
- 2) Match the hole position of CLUTCH ASSY PH: PRE REGI to the D-cut section of the shaft of ROLL ASSY-PRE REGI (PL 5.2.12), and attach CLUTCH ASSY PH: PRE REGI in such a manner that the convex of VERTICAL TRANSPORT ASSEMBLY is placed in the concave of CLUTCH ASSY PH: PRE REGI.
- 3) Fix CLUTCH ASSY PH: PRE REGI to VERTICAL TRANSPORT ASSEMBLY using an E ring.
- 4) Attach connector (P/J202) of CLUTCH ASSY PH: PRE REGI, and lay the harness of CLUTCH ASSY PH: PRE REGI to the groove of VERTICAL TRANSPORT ASSEMBLY.
- 5) Attach GEAR ASSY DRIVE. (RRP 5.14)
- 6) Attach MOTOR-PH. (RRP 5.11)
- 7) Attach FRAME-ASSY-PH. (RRP 5.3)

RRP5.13 FUSER CHUTE INTERLOCK (PL 5.2.23)



Leg_Sec03_068FB

RRP5.13 FUSER CHUTE INTERLOCK (PL 5.2.23)

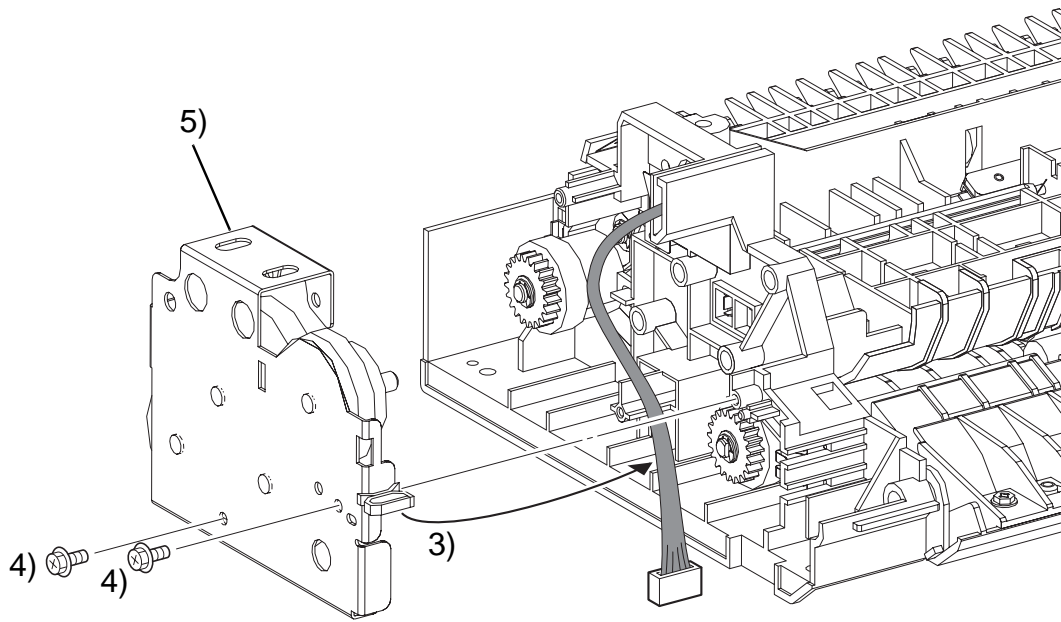
[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove REAR CHUTE ASSEMBLY. (RRP 5.1)
- 3) Remove the connector (P/J100) of FUSER CHUTE INTERLOCK (PL 5.2.23).
- 4) Release the two hooks that fix FUSER CHUTE INTERLOCK to VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1) and remove FUSER CHUTE INTERLOCK.

[Replacement]

- 1) Match the two hooks of FUSER CHUTE INTERLOCK to the fitting position and attach FUSER CHUTE INTERLOCK to VERTICAL TRANSPORT ASSEMBLY.
- 2) Attach the connector (P/J100) of FUSER CHUTE INTERLOCK.
- 3) Attach REAR CHUTE ASSEMBLY. (RRP 5.1)
- 4) Attach FRAME-ASSY-PH. (RRP 5.3)

RRP5.14 GEAR ASSY DRIVE (PL 5.2.24)



Leg_Sec03_069FB

RRP5.14 GEAR ASSY DRIVE (PL 5.2.24)

[Removal]

- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove MOTOR-PH. (RRP 5.11)
- 3) Release the clamp on GEAR ASSY DRIVE (PL 5.2.24), and remove the harness.
- 4) Remove the two screws (silver, with a flange, tap, 8mm) that fix GEAR ASSY DRIVE to VERTICAL TRANSPORT ASSEMBLY (PL 5.2.1).
- 5) Remove GEAR ASSY DRIVE from VERTICAL TRANSPORT ASSEMBLY.

[Replacement]

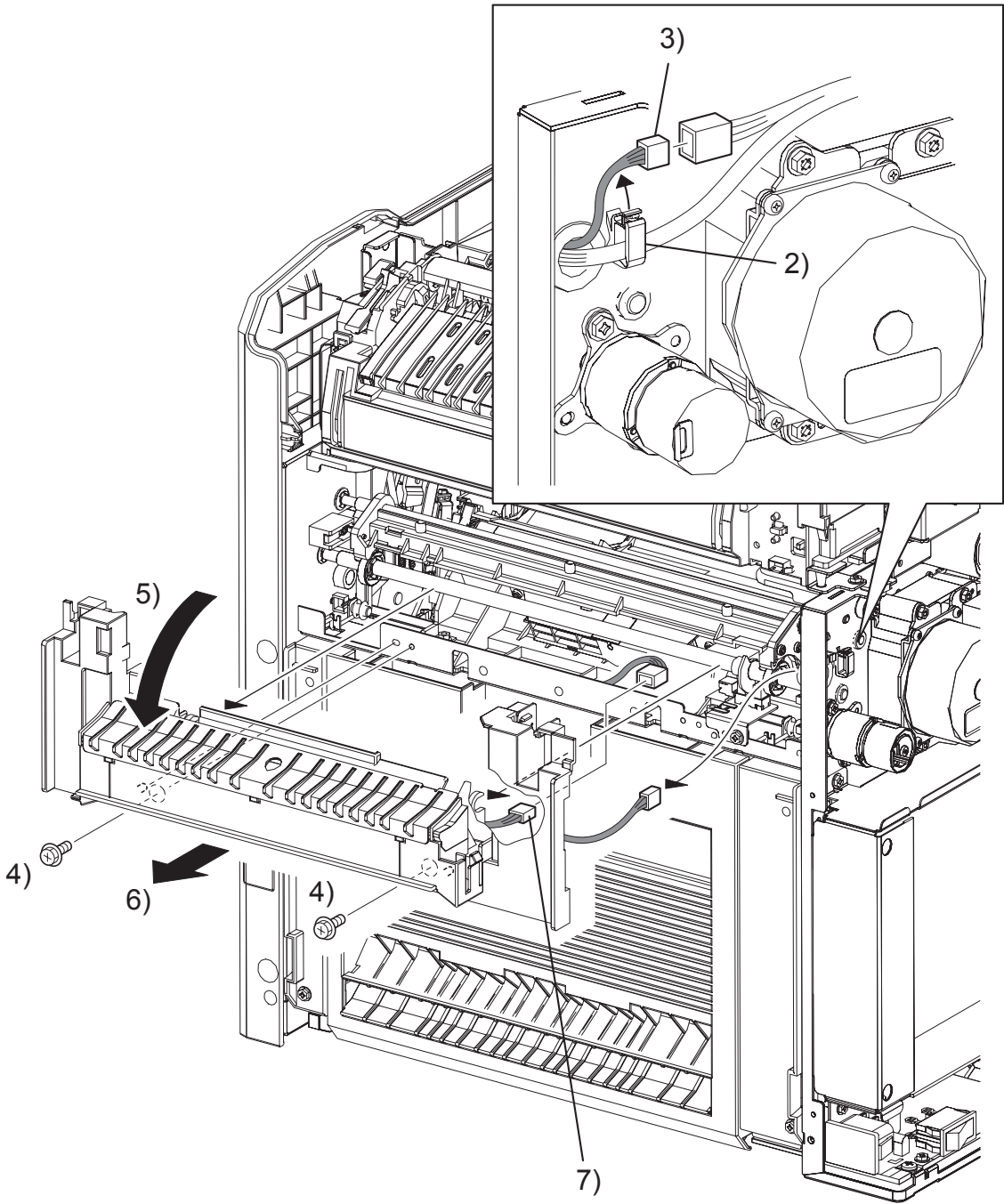
- 1) Match the hole in GEAR ASSY DRIVE to the boss of VERTICAL TRANSPORT ASSEMBLY, and attach GEAR ASSY DRIVE.
- 2) Fix GEAR ASSY DRIVE to VERTICAL TRANSPORT ASSEMBLY using the two screws (silver, with a flange, tap, 8mm).
- 3) Fix the harness to GEAR ASSY DRIVE using a clamp.
- 4) Attach MOTOR-PH. (RRP 5.11)
- 5) Attach FRAME-ASSY-PH. (RRP 5.3)

RRP6. TRANSFER

RRP6.1 FUSER CHUTE ASSEMBLY (PL 6.1.1), BIAS TRANSFER ROLL(BTR) COVER (PL 6.1.13)

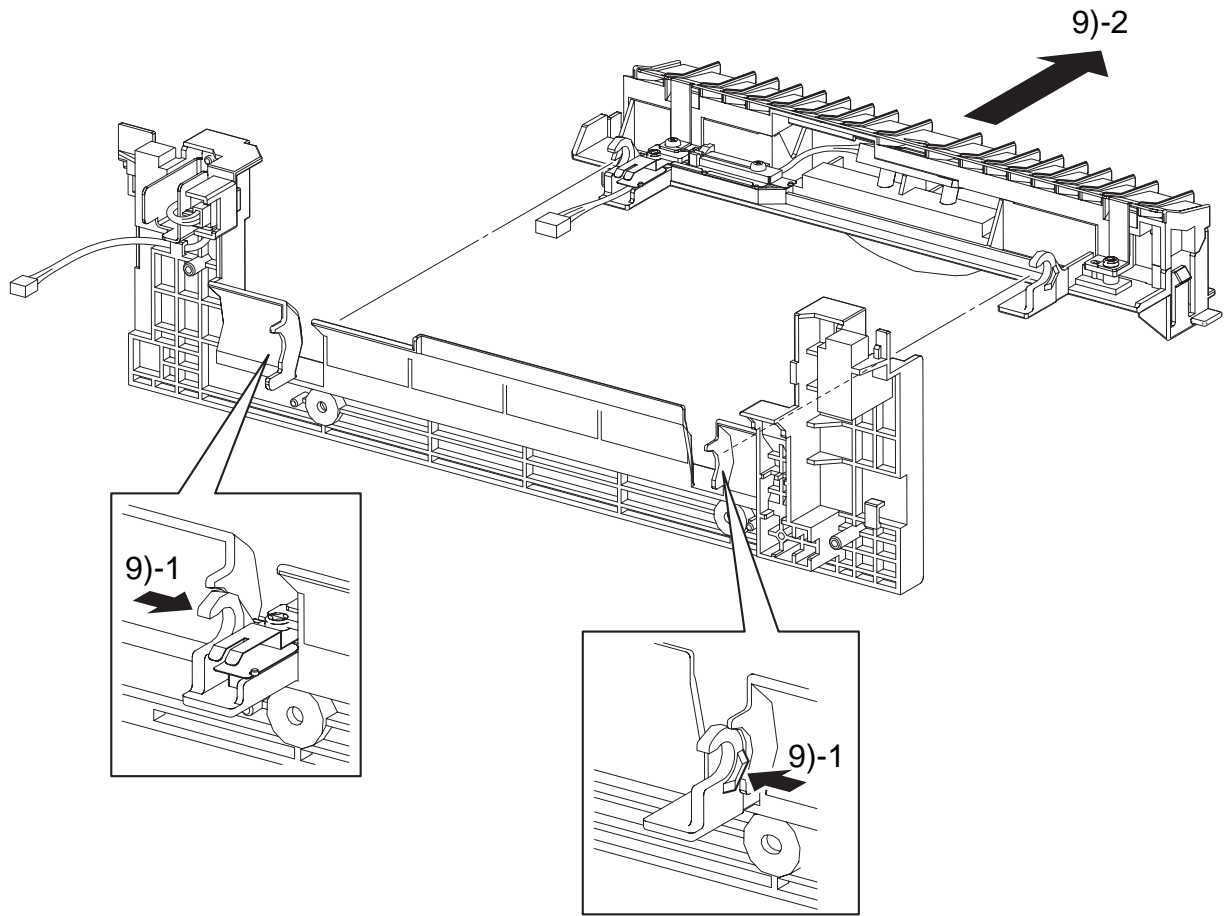
NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



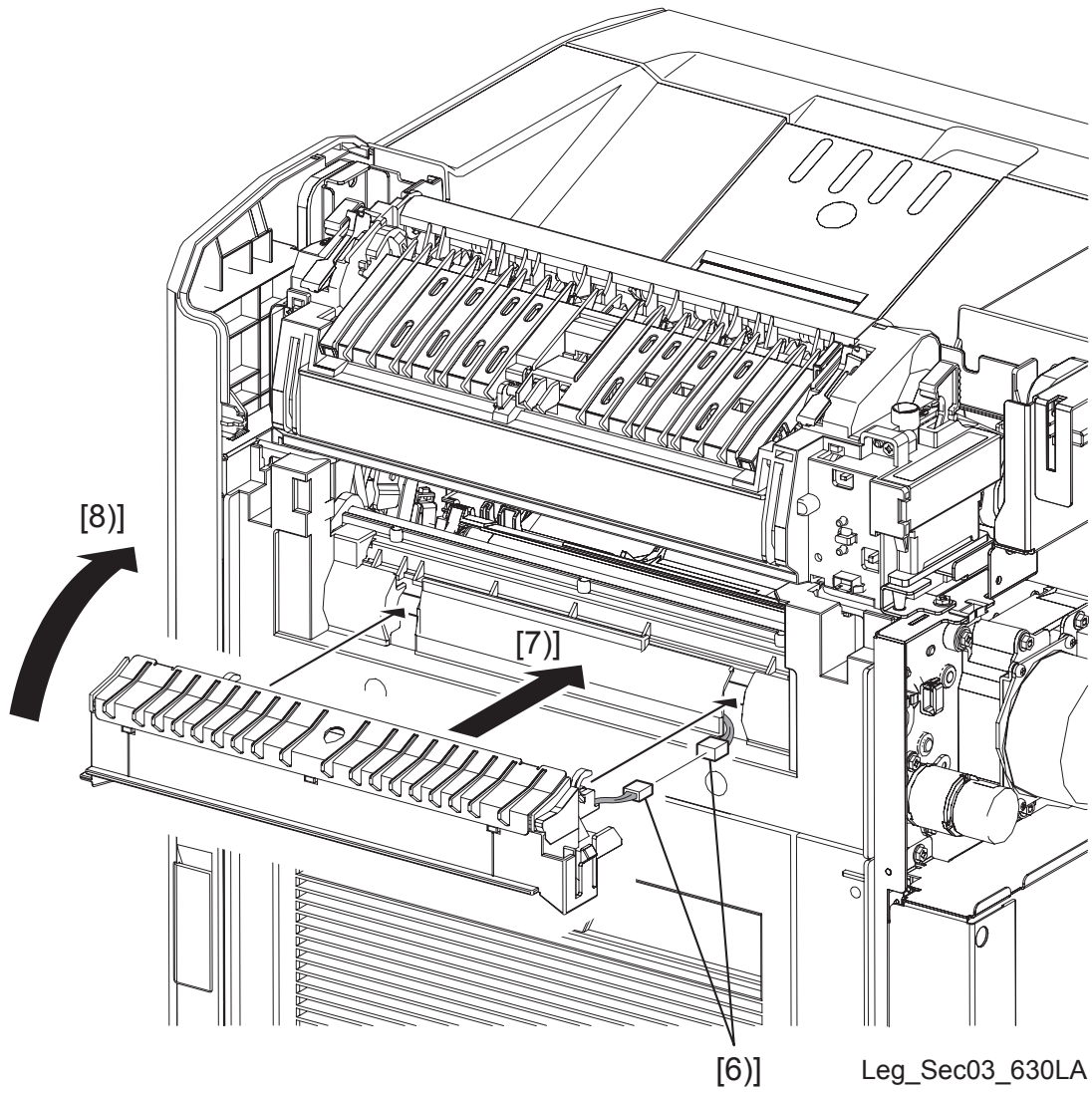
Leg_Sec03_629LA

RRP6.1 FUSER CHUTE ASSEMBLY (PL 6.1.1), BIAS TRANSFER ROLL(BTR) COVER (PL 6.1.13)



Leg_Sec03_149FB

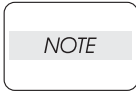
RRP6.1 FUSER CHUTE ASSEMBLY (PL 6.1.1), BIAS TRANSFER ROLL(BTR) COVER (PL 6.1.13)



RRP6.1 FUSER CHUTE ASSEMBLY (PL 6.1.1), BIAS TRANSFER ROLL(BTR) COVER (PL 6.1.13)

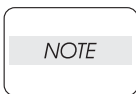
[Removal]

- 1) Remove LEFT COVER. (PPR 1.10)
- 2) Release the clamp that fixes the harness of BIAS TRANSFER ROLL(BTR) COVER (PL 6.1.13), remove the harness.



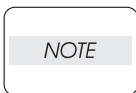
When carrying out the work shown below, leave the relay connector on the harness side.

- 3) Remove the connector (P/J621) of connecting to the main unit, put the connector in the hole of the main unit.
- 4) Remove the two screws (silver, with a flange, 8mm) that fixes BIAS TRANSFER ROLL(BTR) COVER to the main unit.
- 5) Open FUSER CHUTE ASSEMBLY (PL 6.1.1).



The main unit and FUSER CHUTE ASSEMBLY are connected with harness, so they should not be set far apart when carrying out the work shown below.

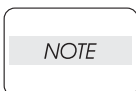
- 6) Separate BIAS TRANSFER ROLL(BTR) COVER together with FUSER CHUTE ASSEMBLY a little from the main unit.



When carrying out the work shown below, leave the relay connector on the harness side.

- 7) Remove the connector (P/J620) of FUSER CHUTE ASSEMBLY connecting to the main unit.
- 8) Remove BIAS TRANSFER ROLL(BTR) COVER together with FUSER CHUTE ASSEMBLY from the main unit.
- 9) Push the hinge of FUSER CHUTE ASSEMBLY to the inside and remove FUSER CHUTE ASSEMBLY from BIAS TRANSFER ROLL(BTR) COVER.

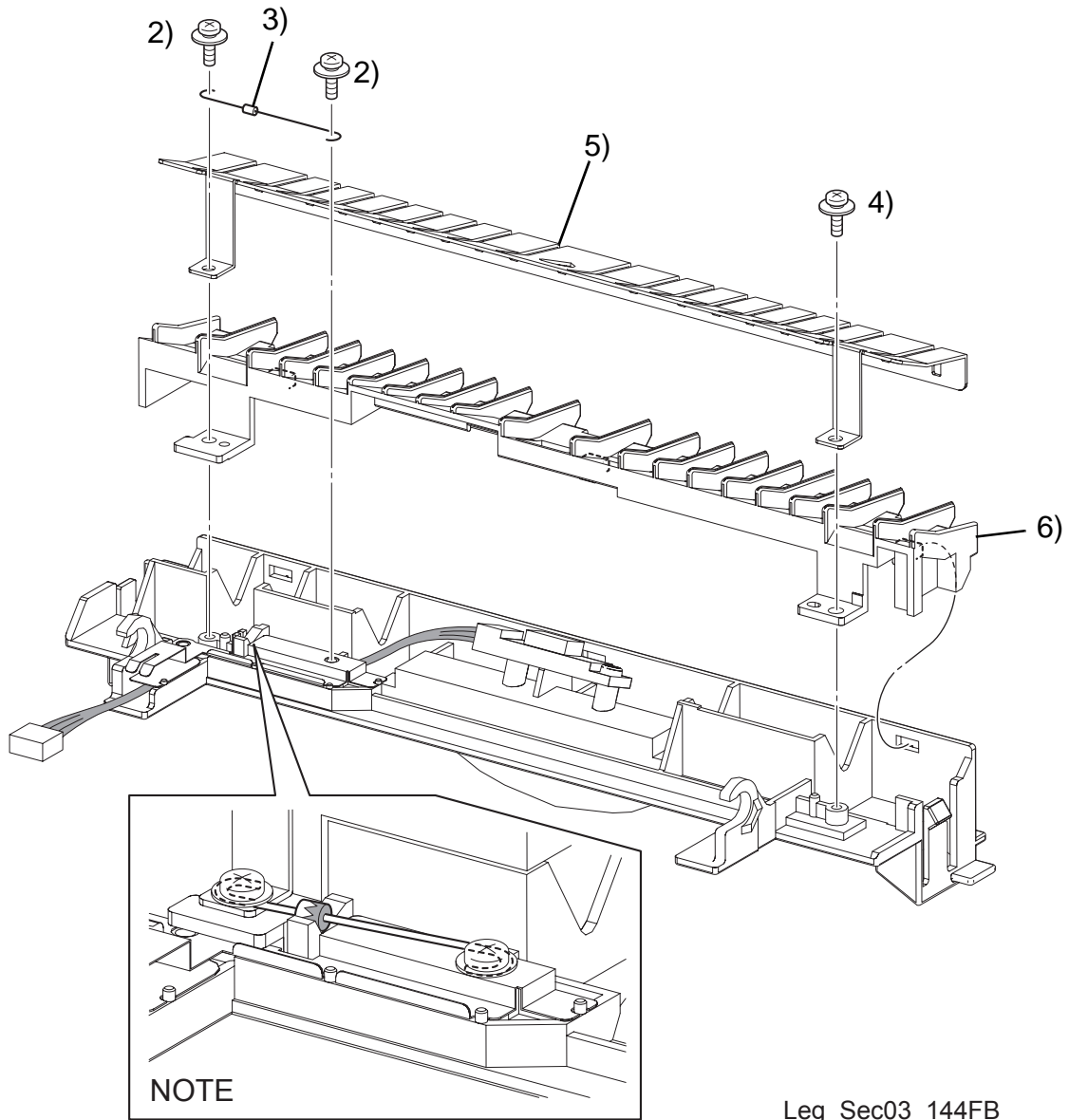
[Replacement]



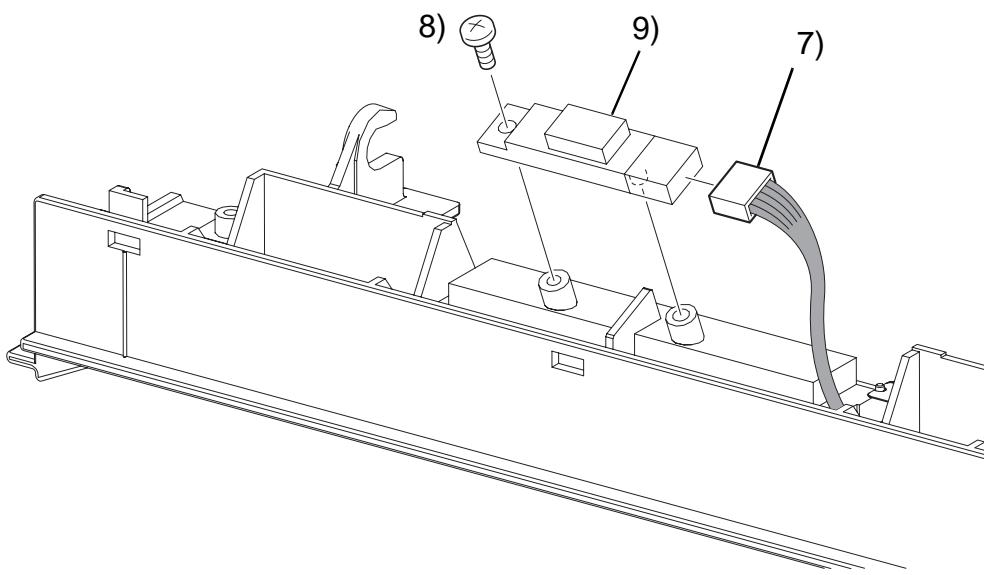
The harness should not be caught between the main unit and BIAS TRANSFER ROLL(BTR) COVER when carrying out the work shown below.

- 1) Pull up the connector of the harness of BIAS TRANSFER ROLL(BTR) COVER (PL 6.1.13) from the hole of the main unit.
- 2) Match the boss of BIAS TRANSFER ROLL(BTR) COVER to the hole of the main unit and attach BIAS TRANSFER ROLL(BTR) COVER.
- 3) Pull out the relay connector of connecting to FUSER CHUTE ASSEMBLY (PL 6.1.1) from the left side notched of BIAS TRANSFER ROLL(BTR) COVER.
- 4) Attach BIAS TRANSFER ROLL(BTR) COVER to the main unit using two screws (silver, with a flange, 8mm).
- 5) Connect the connector (P/J621) of the harness of BIAS TRANSFER ROLL(BTR) COVER to the main unit, fix the harness using the clamp.
- 6) Connect the connector (P/J620) of FUSER CHUTE ASSEMBLY to the main unit, put the connector into the inside of the main unit, through the left side notched of BIAS TRANSFER ROLL(BTR) COVER.
- 7) Engage the U groove on the hinge of both right and left sides of FUSER CHUTE ASSEMBLY with the shaft of CAM ASSY-2ND (PL 6.1.11), and attach FUSER CHUTE ASSEMBLY to the main unit.
- 8) Close FUSER CHUTE ASSEMBLY.
- 9) Attach LEFT COVER. (RRP 1.10)

RRP6.2 SENSOR JAM 2 (PL 6.1.3)



Leg_Sec03_144FB



Leg_Sec03_145FB

RRP6.2 SENSOR JAM 2 (PL 6.1.3)

[Removal]

- 1) Remove FUSER CHUTE ASSEMBLY. (RRP 6.1)
- 2) Remove two screws (silver, with a washer, tap, 8mm) that fix DIODE (PL 6.1.28) to FUSER CHUTE ASSEMBLY (PL 6.1.1).
- 3) Remove DIODE from FUSER CHUTE ASSEMBLY.
- 4) Remove a screw (silver, with a washer, tap, 8mm) that fixes CHUTE-FSR (PL 6.1.4) and PLATE DIS 2ND (PL 6.1.38) to FUSER CHUTE ASSEMBLY.
- 5) Remove PLATE DIS 2ND from FUSER CHUTE ASSEMBLY.
- 6) Remove CHUTE-FSR from FUSER CHUTE ASSEMBLY.
- 7) Remove the connector (P/J111) of SENSOR JAM 2 (PL 6.1.3).
- 8) Remove a screw (silver, tap, 6mm) that fixes SENSOR JAM 2 to FUSER CHUTE ASSEMBLY.
- 9) Remove SENSOR JAM 2 from FUSER CHUTE ASSEMBLY.

[Replacement]

- 1) Match the boss of SENSOR JAM 2 (PL 6.1.3) to the hole in FUSER CHUTE ASSEMBLY (PL 6.1.1), and attach SENSOR JAM 2.
- 2) Fix SENSOR JAM 2 to FUSER CHUTE ASSEMBLY using a screw (silver, tap, 6mm).
- 3) Attach the connector (P/J111) of SENSOR JAM 2.
- 4) Match the three convex of CHUTE-FSR (PL 6.1.4) to the hole of FUSER CHUTE ASSEMBLY and then match the hole of CHUTE-FSR to the boss of FUSER CHUTE ASSEMBLY, attach CHUTE-FSR.
- 5) Attach PLATE DIS 2ND to FUSER CHUTE ASSEMBLY.
- 6) Fix CHUTE-FSR and the right side of PLATE DIS 2ND to FUSER CHUTE ASSEMBLY using a screw (silver, with a washer, tap, 8mm).

NOTE

Pay sufficient attention on the fitting direction of DIODE FUSER when carrying out the work shown below.

Mount DIODE FUSER in a way that the white paint side of DIODE FUSER is oriented to the side jointly fastened with CHUTE-FSR.

- 7) Match DIODE (PL 6.1.28) to the concave of FUSER CHUTE ASSEMBLY and attach it.

NOTE

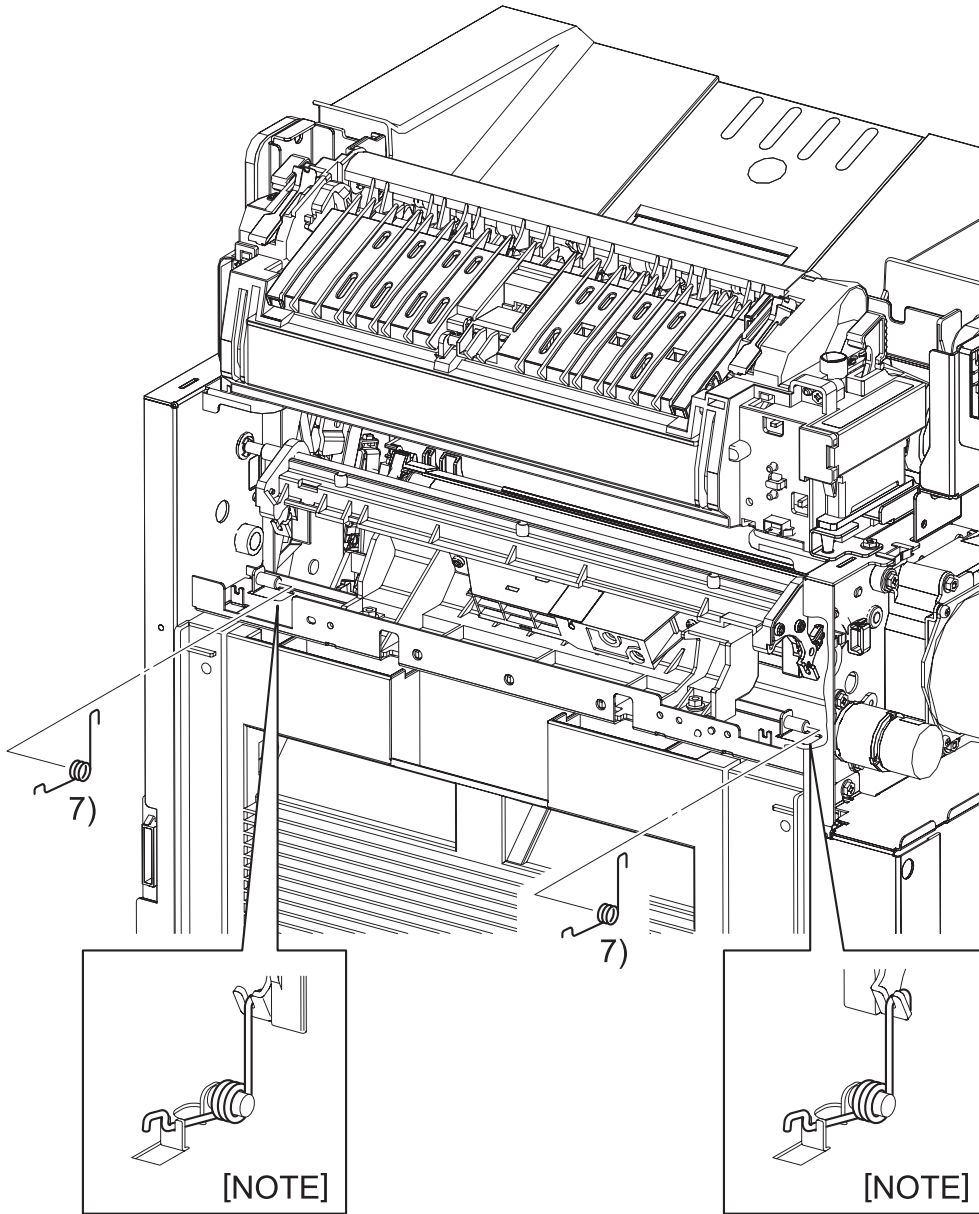
Hold the terminal of DIODE FUSER between washer and plate at attaching when carrying out the work shown below.

- 8) Fix the right side terminal of DIODE to FUSER CHUTE ASSEMBLY using a screw (silver, with a washer, tap, 8mm).
- 9) Fix the left side terminal of DIODE and left side of CHUTE-FSR to FUSER CHUTE ASSEMBLY using a screw (silver, with a washer, tap, 8mm) and a washer.
- 10) Attach FUSER CHUTE ASSEMBLY. (RRP 6.1)

RRP6.3 BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY (PL 6.1.5)

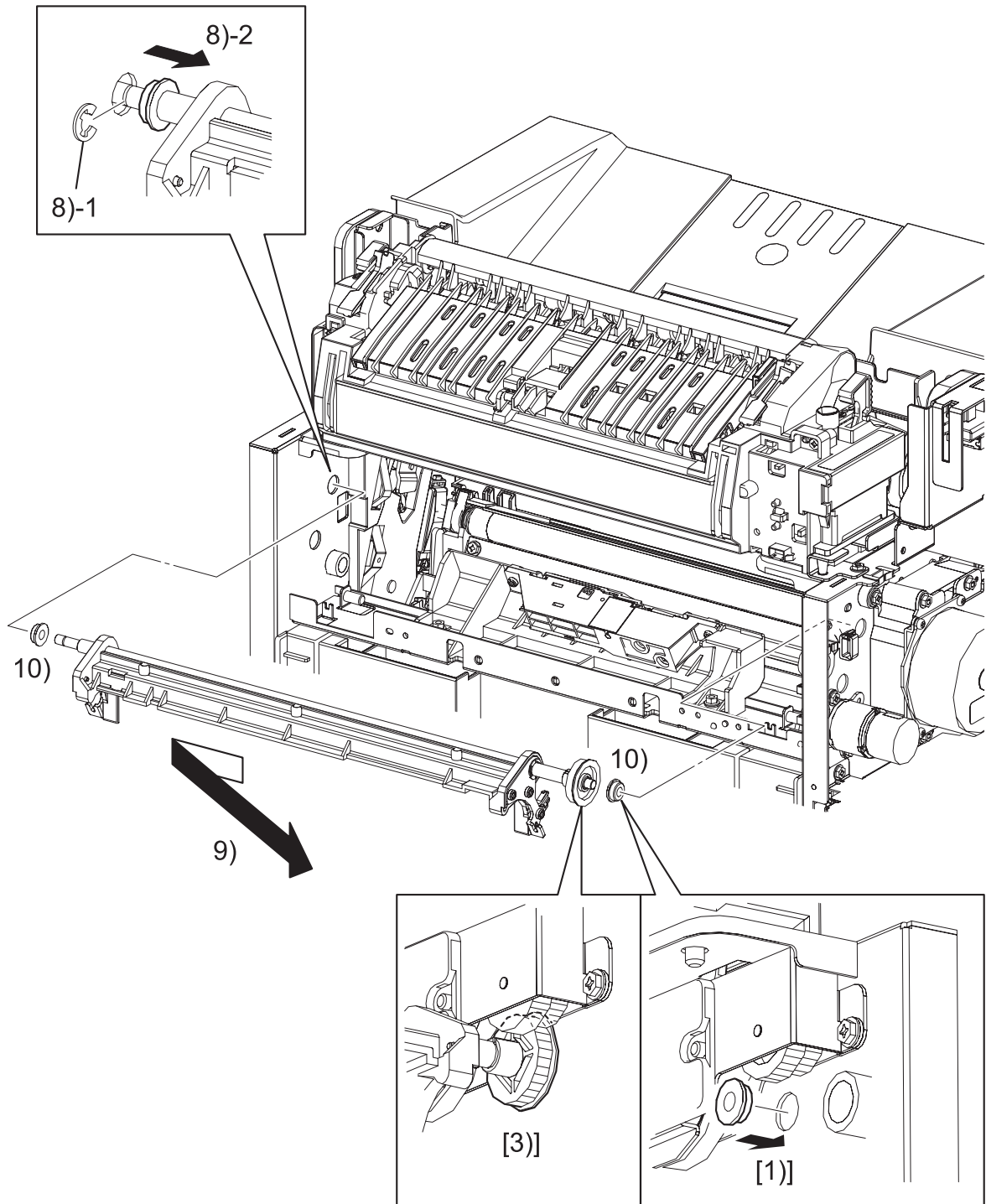
NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_631LA

RRP6.3 BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY (PL 6.1.5)



Leg_Sec03_632LA

RRP6.3 BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY (PL 6.1.5)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 4) Remove 2ND BTR ASSY. (RRP 6.4)
- 5) Remove PLATE BIAS-2ND ASSY. (RRP 6.11)
- 6) Remove CAM ASSY-2ND. (RRP 6.5)
- 7) Remove SPRING-2ND (PL 6.1.20) that fixes both right and left sides of BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY (PL 6.1.5) to the main unit.
- 8) Remove an E ring that fixes the right side shaft of BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY to the main unit, and move BEARING-BRUSH CAM (PL 6.1.9) to the left side.

NOTE

Pay attention not to drop or loose BEARING-BRUSH CAM when carrying out the work shown below.

- 9) Move BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY to right side once, pull out the shaft of BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY from the left side bearing of the main unit and remove BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY and BEARING-BRUSH CAM.
- 10) Remove BEARING-BRUSH CAM from BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY.

[Replacement]

- 1) Attach BEARING-BUSH CAM (PL 6.1.9) to the left side bearing of the main unit.
- 2) Attach BEARING-BRUSH CAM to the right side shaft of BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY.
- 3) After placing the right side shaft of BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY in the right side bearing of the main unit, move BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY to left side and put the flange of GEAR 27 (PL 6.1.6) on FRAME-ASSY 2ND in the back of gear of DRIVE ASSY BTR (PL 11.1.1), attach BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY.
- 4) Place the right side of BEARING-BRUSH CAM of BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY in the right side bearing of the main unit and fix it with an E ring.

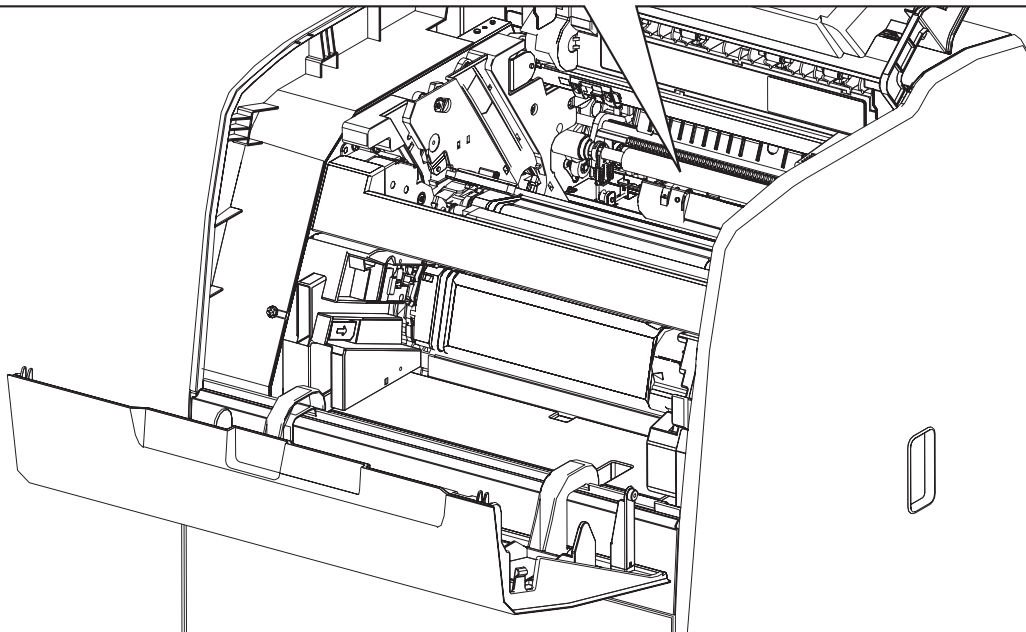
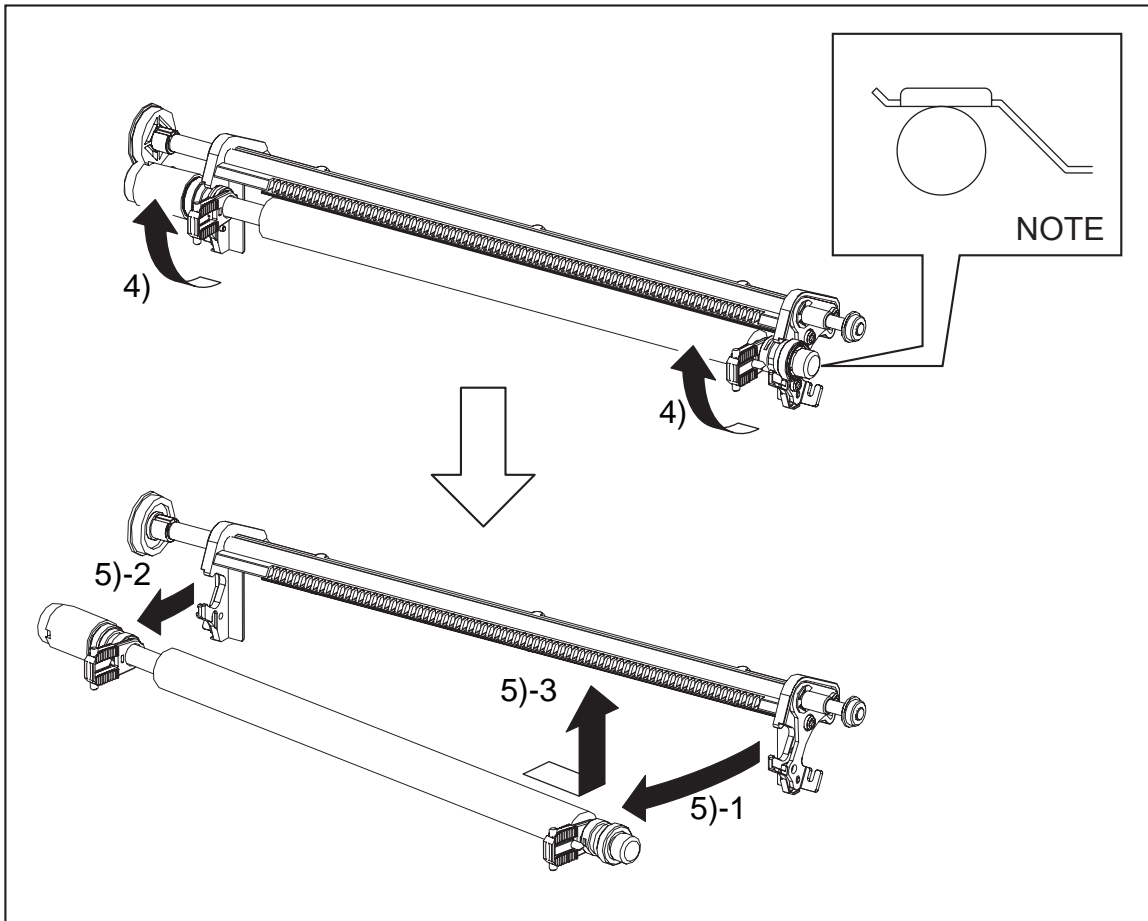
NOTE

Be sure to hook SPRING-2ND to the concave of the main unit and BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY properly when carrying out the work shown below.

- 5) Fix both right and left sides of BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY to the main unit using SPRING-2ND (PL 6.1.20).
- 6) Attach CAM ASSY-2ND. (RRP 6.5)
- 7) Attach PLATE BIAS-2ND ASSY. (RRP 6.11)
- 8) Attach 2ND BTR ASSY. (RRP 6.4)
- 9) Attach FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 10) Attach LEFT COVER. (RRP 1.10)
- 11) Attach COVER ASSY RH. (RRP 1.12)

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RRP6.4 2ND BTR ASSY (PL 6.1.10)

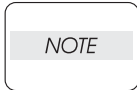


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RRP6.4 2ND BTR ASSY (PL 6.1.10)

[Removal]

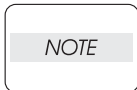
- 1) Open COVER FRONT-U (PL 1.1.14).
- 2) Open TOP COVER (PL 1.1.1).
- 3) Remove IBT (PL 7.1.1).



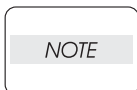
When carrying out the work shown below, push LATCH ROTARY (PL 9.1.3) of DEVELOPER LATCH ASSEMBLY (PL 9.1.1) to release the latch, turn DEVELOPER ROTOR FRAME ASSEMBLY (PL 9.2.9) manually, move HOUSING ASSY-DEVE, and avoid your hand or arm being stained by the toner of MAG ROLL.

- 4) Turn the lever on both left and right sides of 2ND BTR ASSY (PL 6.1.10) toward you, and release the lever lock from BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY (PL 6.1.5).
- 5) Hold lever of 2ND BTR ASSY and pull out the right side of 2ND BTR ASSY from BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY, pull out the left side and remove 2ND BTR ASSY from the main unit.

[Replacement]

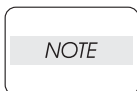


When carrying out the work shown below, push LATCH ROTARY (PL 9.1.3) of DEVELOPER LATCH ASSEMBLY (PL 9.1.1) to release the latch, turn DEVELOPER ROTOR FRAME ASSEMBLY (PL 9.2.9) manually, move HOUSING ASSY-DEVE, and avoid your hand or arm being stained by the toner of MAG ROLL.



When carrying out the work shown below, make sure to place the right side shaft section of 2ND BTR ASSY underneath the terminal section of PLATE BIAS-2ND ASSY (PL 6.1.23).

- 1) After placing the left side gear of 2ND BTR ASSY (PL 6.1.10) to the main unit, engage the right and left bearings of 2ND BTR ASSY with BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY (PL 6.1.5) and attach it.



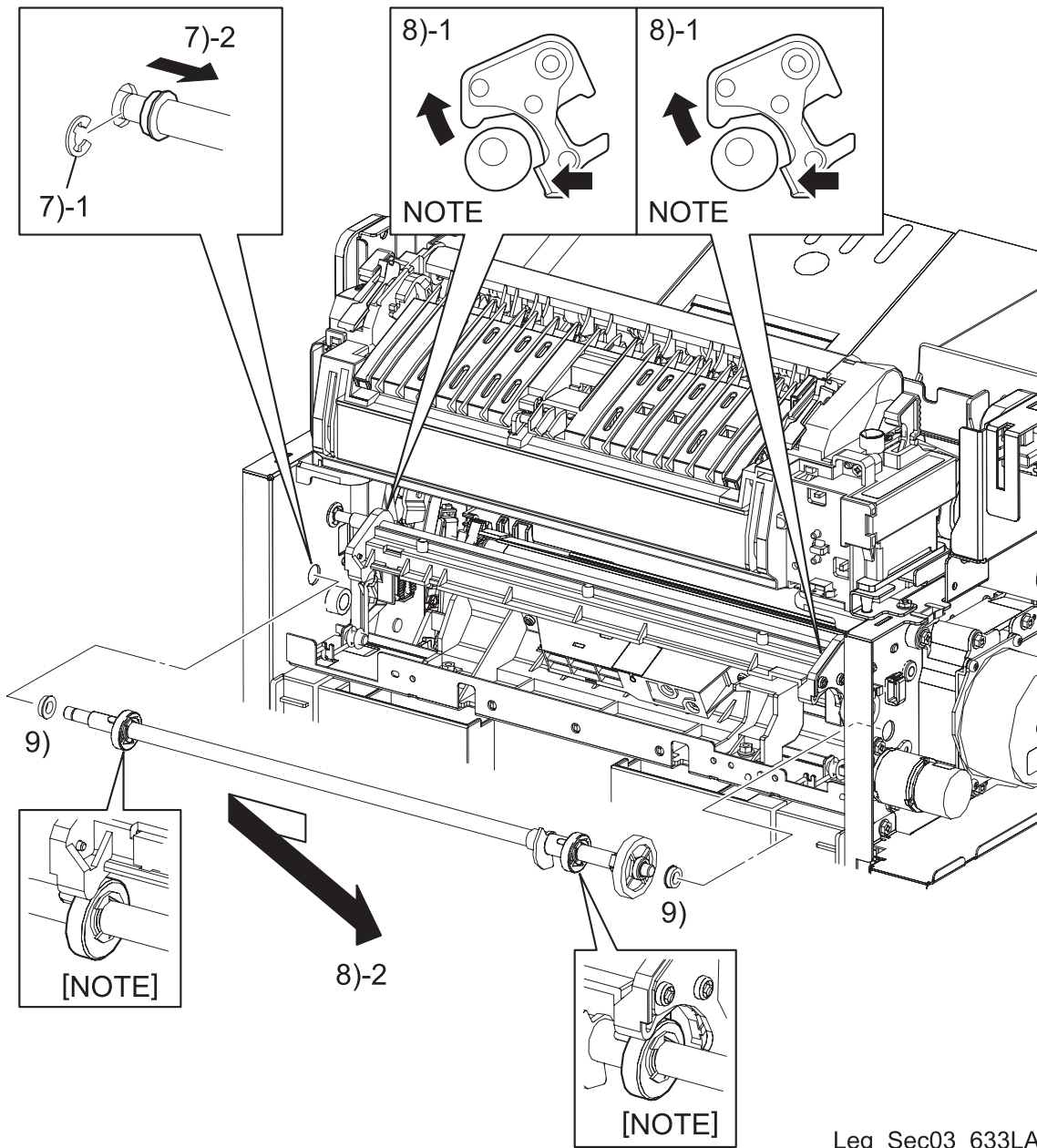
After attaching 2ND BTR ASSY, make sure that the levers located at both left and right move smoothly up and down.

- 2) Turn the levers located at both left and right of 2ND BTR ASSY downward, and lock the levers to BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY.
- 3) Attach IBT (PL 7.1.1).
- 4) Close TOP COVER (PL 1.1.1).
- 5) Close COVER FRONT-U (PL 1.1.14).

RRP6.5 CAM ASSY-2ND (PL 6.1.11)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE

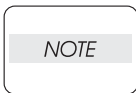


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RRP6.5 CAM ASSY-2ND (PL 6.1.11)

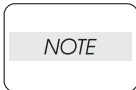
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 4) Remove 2ND BTR ASSY. (RRP 6.4)



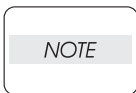
It is not necessary to remove WIRE ASSY 2BTR (PL 6.1.30) from PLATE BIAS-2ND ASSY (PL 6.1.23) when carrying out the work shown below.

- 5) Remove PLATE BIAS-2ND ASSY. (RRP 6.11)



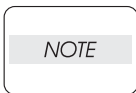
It is not necessary to remove PHOTO SENSOR: 2BTR RETRACT (PL 6.1.19) from BRACKET-PHOTO SENSOR (PL 6.1.35) when carrying out the work shown below.

- 6) Remove PHOTO SENSOR: 2BTR RETRACT. (RRP 6.9)



Pay attention not to drop or loose BEARING when carrying out the work shown below.

- 7) Remove an E ring that fixes the right side shaft of CAM ASSY-2ND (PL 6.1.11) to the main unit and move BEARING (PL 6.1.12) to left side.

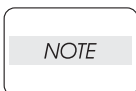


When carrying out the work shown below, it will become easier if BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY is pushed in the arrow direction and released BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY from the cam section of CAM ASSY-2ND.

- 8) Move CAM ASSY-2ND to right side once, pull out the shaft of CAM ASSY-2ND from the left side bearing of the main unit and remove CAM ASSY-2ND together with BEARING.
- 9) Remove BEARING from CAM ASSY-2ND.

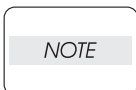
[Replacement]

- 1) Attach BEARING (PL 6.1.12) to the left side bearing of the main unit.
- 2) Attach BEARING to the right side shaft of CAM ASSY-2ND (PL 6.1.11).



When carrying out the work shown below, it will become easier if BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY is pushed in the arrow direction and released from the cam section of CAM ASSY 2ND.

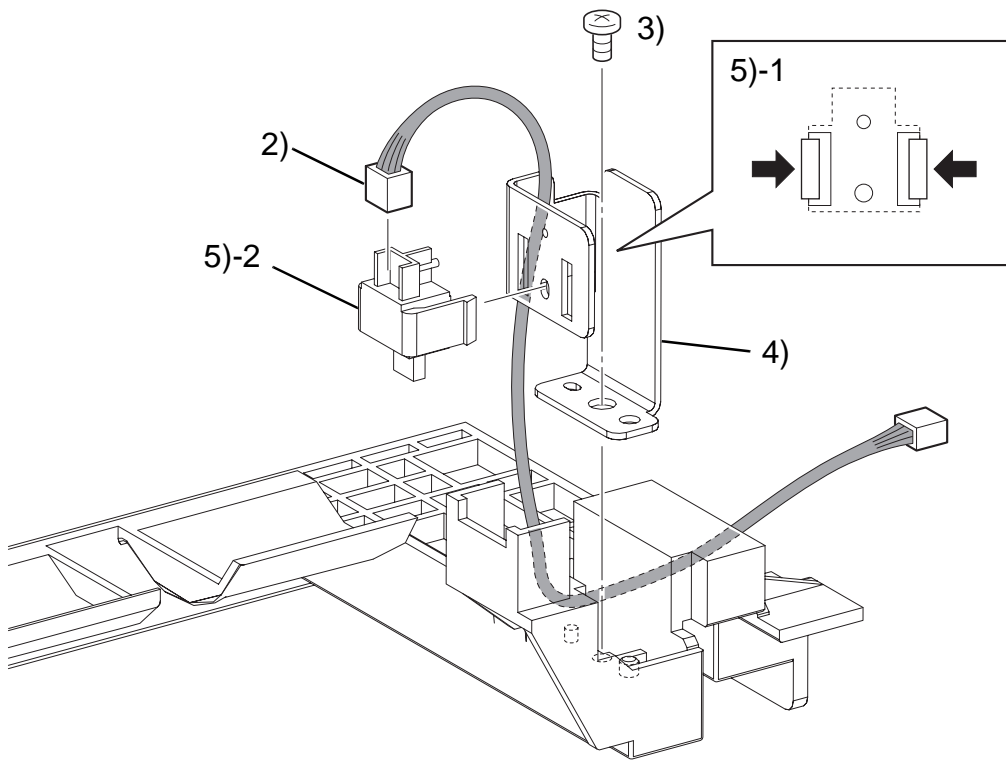
- 3) After placing the right side shaft of CAM ASSY-2ND in the right side bearing of the main unit, move CAM ASSY-2ND to left side and attach CAM ASSY-2ND together with BEARING.
- 4) Place the right side BEARING of CAM ASSY-2ND in the right side bearing of the main unit and fix it with an E ring.



Check that cam of CAM ASSY-2ND matches the cam holder of BIAS TRANSFER ROLL(BTR) FRAME ASSEMBLY.

- 5) Attach PHOTO SENSOR: 2BTR RETRACT. (RRP 6.9)
- 6) Attach PLATE BIAS-2ND ASSY. (RRP 6.11)
- 7) Attach 2ND BTR ASSY. (RRP 6.4)
- 8) Attach FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 9) Attach LEFT COVER. (RRP 1.10)
- 10) Attach COVER ASSY RH. (RRP 1.12)

RRP6.7 FUSER CHUTE INTERLOCK (PL 6.1.15)



Leg_Sec03_071FB

RRP6.7 FUSER CHUTE INTERLOCK (PL 6.1.15)

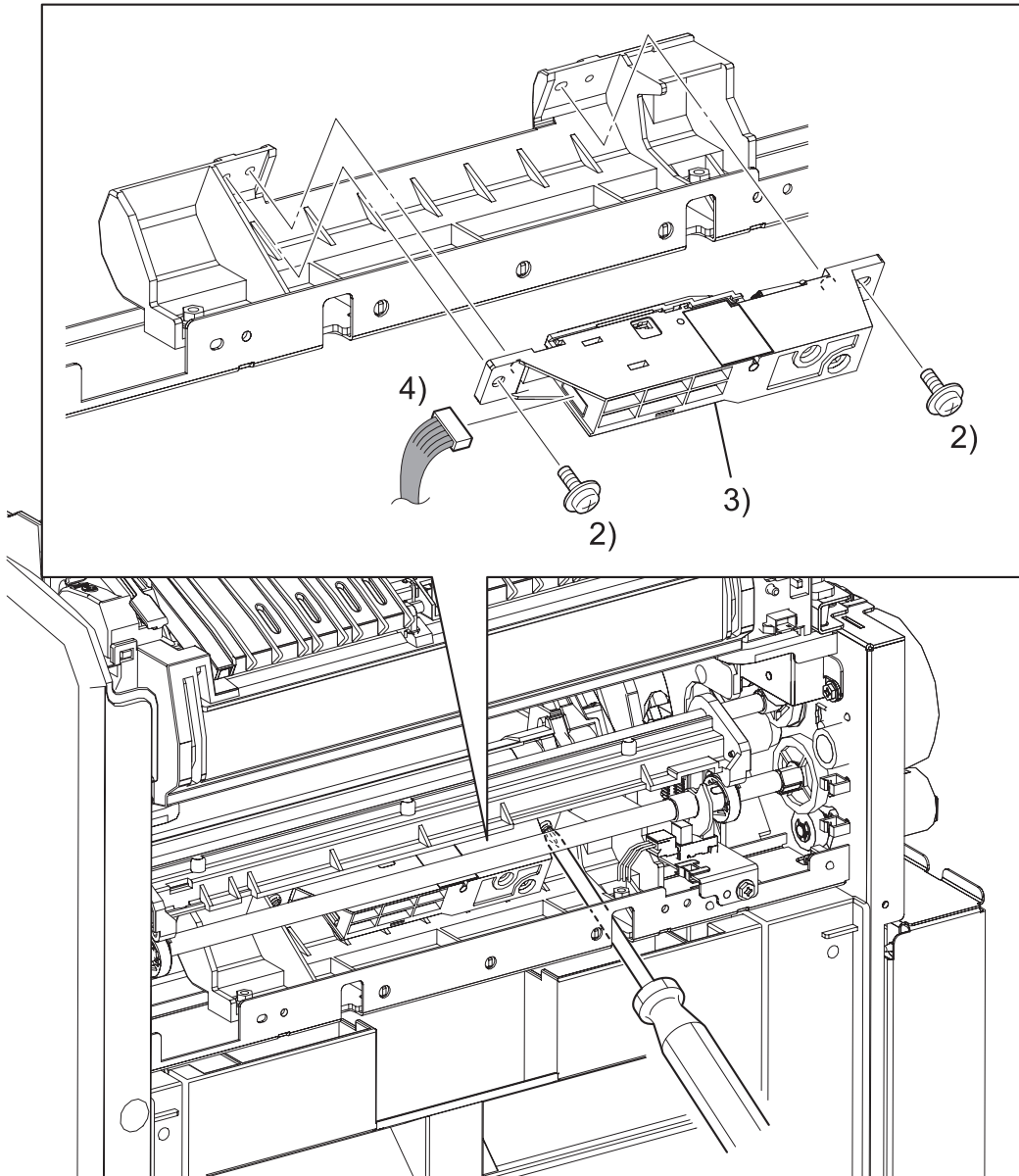
[Removal]

- 1) Remove FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 2) Remove the connector (P/J113) of FUSER CHUTE INTERLOCK (PL 6.1.15).
- 3) Remove a screw (silver, tap, 6mm) that fixes BRACKET-SWITCH 2ND (PL 6.1.14) to COVER-RR 2ND (PL 6.1.16).
- 4) Remove BRACKET-SWITCH 2ND from COVER-RR 2ND together with FUSER CHUTE INTERLOCK.
- 5) Release the two hooks that fix FUSER CHUTE INTERLOCK to BRACKET-SWITCH 2ND and remove FUSER CHUTE INTERLOCK.

[Replacement]

- 1) Match the hooks of FUSER CHUTE INTERLOCK to the fitting position and attach it to BRACKET-SWITCH 2ND.
- 2) Match the hole in BRACKET-SWITCH 2ND to the boss of COVER-RR 2ND and attach it together with FUSER CHUTE INTERLOCK.
- 3) Fix BRACKET-SWITCH 2ND to COVER-RR 2ND using a screw (silver, tap, 6mm).
- 4) Attach the connector (P/J113) of FUSER CHUTE INTERLOCK.
- 5) Attach FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)

RRP6.8 AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY (PL 6.1.18)

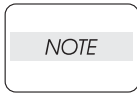


Leg_Sec03_634LA

RRP6.8 AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY (PL 6.1.18)

[Removal]

- 1) Remove FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 2) Remove two screws (silver, with a washer, tap, 8mm) that fix AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY (PL 6.1.18) to the main unit.



AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY is connected to the main unit with harness, so they should not be set far apart when carrying out the work shown below.

- 3) Remove AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY from the main unit.
- 4) Remove connector (P/J431) of AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY.

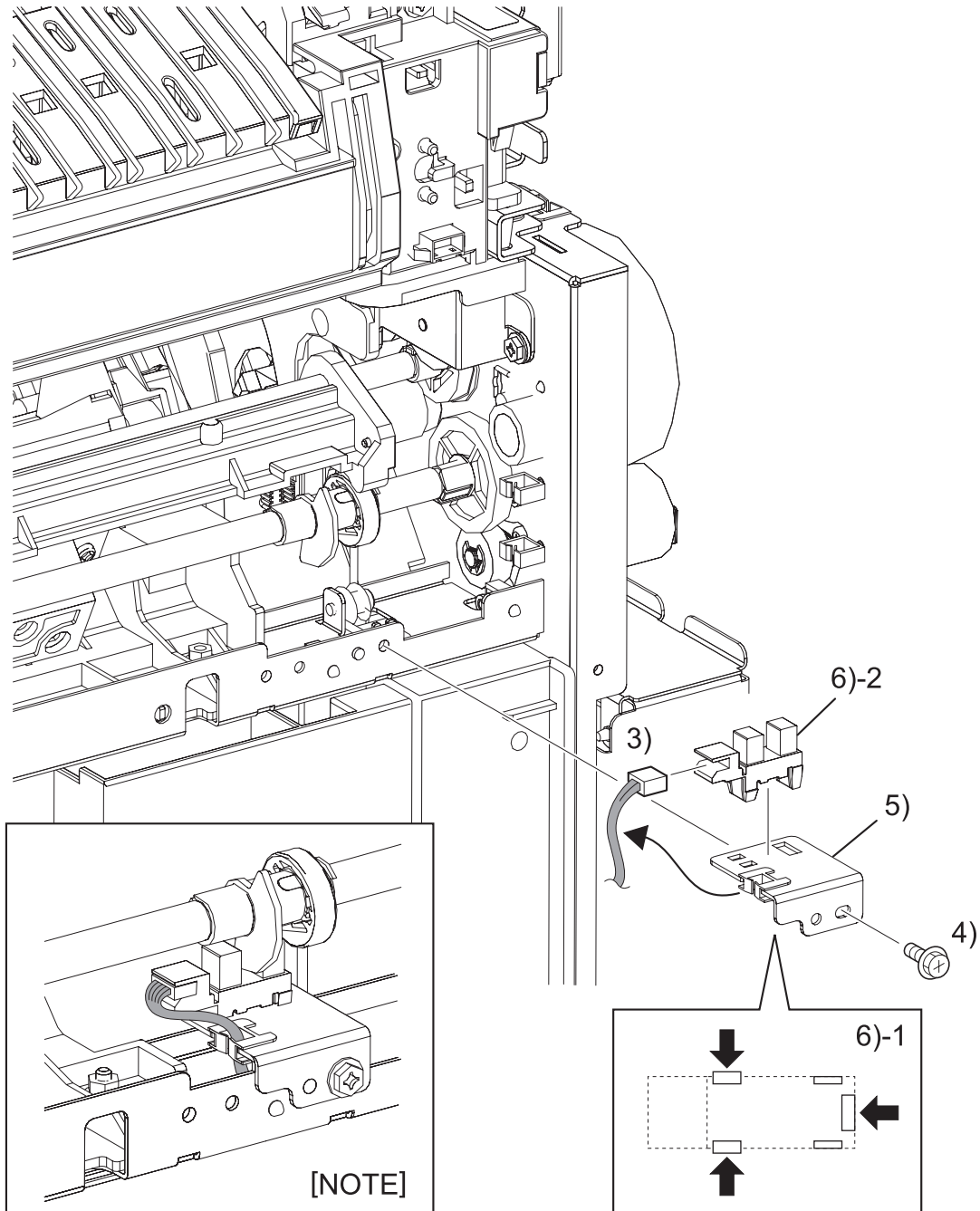
[Replacement]

- 1) Attach connector (P/J431) of AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY.
- 2) Match the boss of AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY to the hole in the main unit and attach AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY.
- 3) Fix AUTOMATIC DENSITY CONTROL(ADC) SENSOR ASSEMBLY to the main unit using two screws (silver, with a washer, tap, 8mm).
- 4) Attach FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)

RRP6.9 PHOTO SENSOR: 2BTR RETRACT (PL 6.1.19)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



Leg_Sec03_635LA

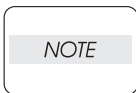
RRP6.9 PHOTO SENSOR: 2BTR RETRACT (PL 6.1.19)

[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Remove FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 3) Remove the connector (P/J112) of PHOTO SENSOR: 2BTR RETRACT.
- 4) Remove a screw (silver, with a flange, 8mm) that fixes BRACKET-PHOTO SENSOR (PL 6.1.35) to the main unit.
- 5) Remove BRACKET-PHOTO SENSOR from the main unit together with PHOTO SENSOR: 2BTR RETRACT.
- 6) Release the three hooks that fix PHOTO SENSOR: 2BTR RETRACT to BRACKET-PHOTO SENSOR and remove PHOTO SENSOR: 2BTR RETRACT.

[Replacement]

- 1) Match the three hooks of PHOTO SENSOR: 2BTR RETRACT to the fitting position and attach it to BRACKET-PHOTO SENSOR.
- 2) Match the hole in BRACKET-PHOTO SENSOR to the boss of the main unit and attach it together with PHOTO SENSOR: 2BTR RETRACT.
- 3) Fix BRACKET-PHOTO SENSOR to the main unit using a screw (silver, with a flange, 8mm).
- 4) Attach connector (P/J112) of PHOTO SENSOR: 2BTR RETRACT.



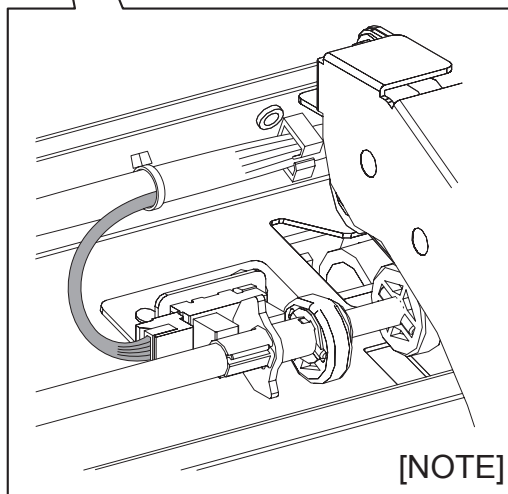
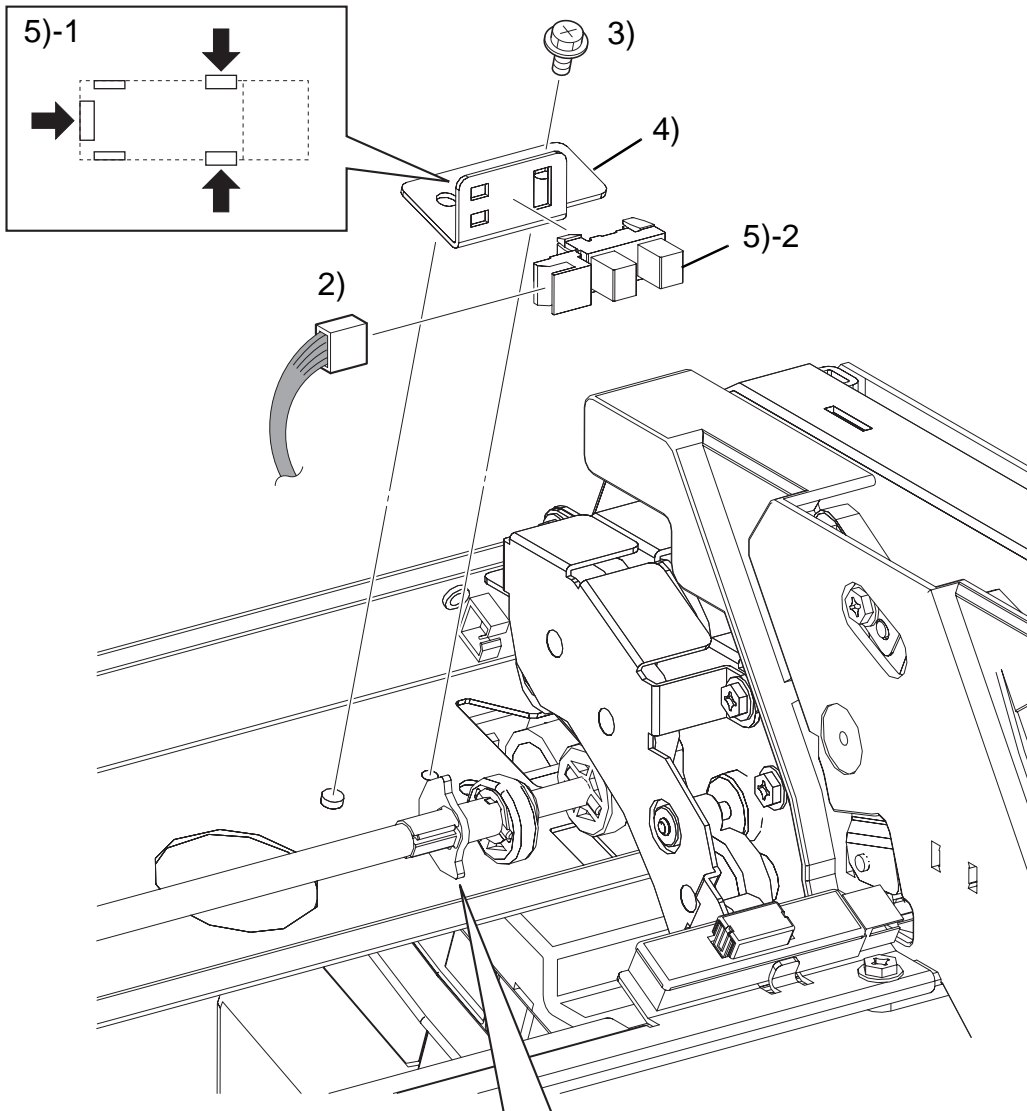
Check that shutter of CAM ASSY-2ND is placed in the sensor part PHOTO SENSOR: 2BTR RETRACT.

- 5) Attach FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 6) Attach LEFT COVER. (RRP 1.10)

RRP6.10 PHOTO SENSOR: IBT RETRACT (PL 6.1.19)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



[NOTE]

Leg_Sec03_074FB

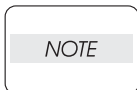
RRP6.10 PHOTO SENSOR: IBT RETRACT (PL 6.1.19)

[Removal]

- 1) Remove COVER INNER U. (RRP 1.14)
- 2) Remove the connector (P/J107) of PHOTO SENSOR: IBT RETRACT (PL 6.1.19).
- 3) Remove a screw (silver, with a flange, 6mm) that fix BRACKET-SENSOR CLN (PL 6.1.37) to the main unit.
- 4) Remove BRACKET-SENSOR CLN from the main unit together with PHOTO SENSOR: IBT RETRACT.
- 5) Release the three hooks that fix PHOTO SENSOR: IBT RETRACT to BRACKET-SENSOR CLN and remove PHOTO SENSOR: IBT RETRACT.

[Replacement]

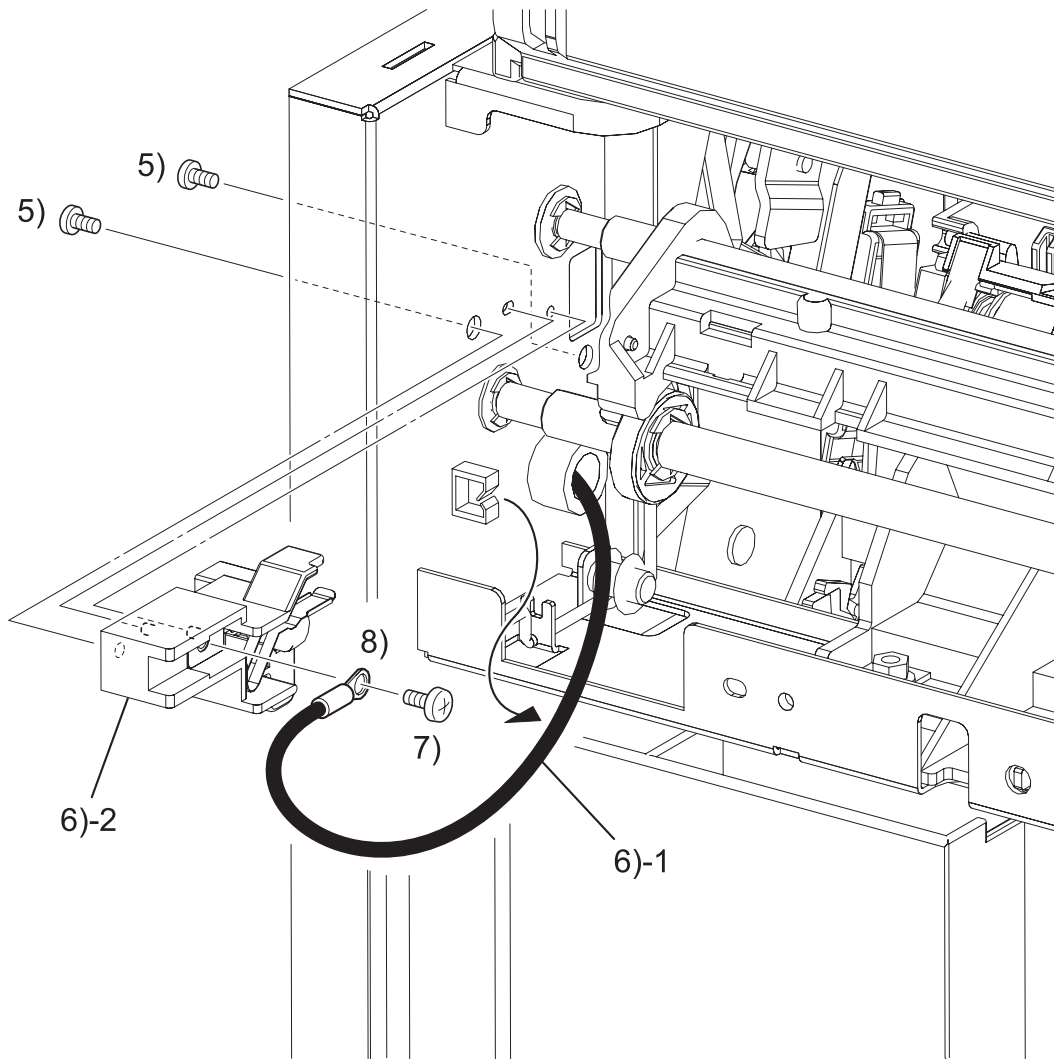
- 1) Match the three hooks of PHOTO SENSOR: IBT RETRACT (PL 6.1.19) to the fitting position and attach PHOTO SENSOR: IBT RETRACT to BRACKET-SENSOR CLN.
- 2) Match the hole in BRACKET-SENSOR CLN to the boss of the main unit and attach BRACKET-SENSOR CLN together with PHOTO SENSOR: IBT RETRACT.



Check that shutter of IBT CAM ASSEMBLY is placed in the sensing section of PHOTO SENSOR: IBT RETRACT.

- 3) Fix BRACKET-SENSOR CLN to the main unit using a screw (silver, with a flange, 6mm).
- 4) Attach the connector (P/J107) of PHOTO SENSOR: IBT RETRACT.
- 5) Attach COVER INNER U. (RRP 1.14)

RRP6.11 PLATE BIAS-2ND ASSY (PL 6.1.23)



Leg_Sec03_636LA

RRP6.11 PLATE BIAS-2ND ASSY (PL 6.1.23)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 4) Remove 2ND BTR ASSY. (RRP 6.4)
- 5) Remove the two screws (silver, tap, 6mm) that fix PLATE BIAS-2ND ASSY (PL 6.1.23) to the main unit.

NOTE

Main unit and PLATE BIAS-2ND ASSY are connected with WIRE ASSY 2BTR, so they should not be set far apart when carrying out the work shown below.

- 6) Release the clamp that fix WIRE ASSY 2BTR (PL 6.1.30) and move PLATE BIAS-2ND ASSY from the main unit a little.
- 7) Remove a screw (silver, tap, 6mm) that fixes terminal part of WIRE ASSY 2BTR on PLATE BIAS-2ND ASSY.
- 8) Remove WIRE ASSY 2BTR from PLATE BIAS-2ND ASSY and remove PLATE BIAS-2ND ASSY.

[Replacement]

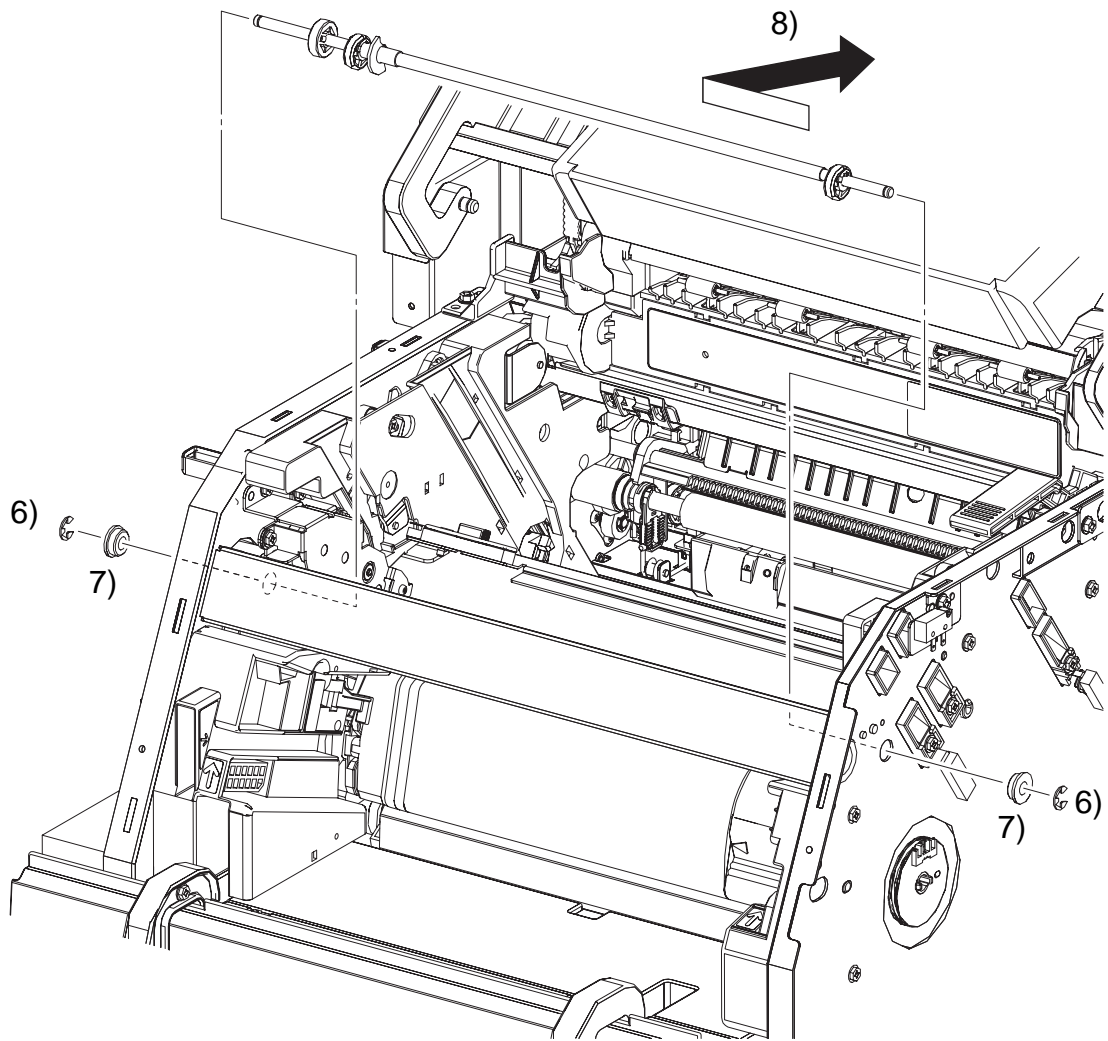
- 1) Attach WIRE ASSY 2BTR (PL 6.1.30) to PLATE BIAS-2ND ASSY (PL 6.1.23).
- 2) Fix terminal part of WIRE ASSY 2BTR to PLATE BIAS-2ND ASSY using a screw (silver, tap, 6mm).

NOTE

Lay WIRE ASSY 2BTR connected to PLATE BIAS-2ND ASSY, so that it doesn't touch CAM ASSY-2ND when carrying out the work shown below.

- 3) Match the boss of PLATE BIAS-2ND ASSY to the hole in the main unit and attach PLATE BIAS-2ND ASSY.
- 4) Fix PLATE BIAS-2ND ASSY to the main unit using two screws (silver, tap, 6mm) and fix WIRE ASSY 2BTR by the clamp.
- 5) Attach 2ND BTR ASSY. (RRP 6.4)
- 6) Attach FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 7) Attach LEFT COVER. (RRP 1.10)
- 8) Attach COVER ASSY RH. (RRP 1.12)

RRP6.12 IBT CAM ASSEMBLY (PL 6.1.24)

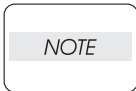


Leg_Sec03_075FB

RRP6.12 IBT CAM ASSEMBLY (PL 6.1.24)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove COVER INNER U. (RRP 1.14)
- 4) Remove PWBA MCU. (RRP 12.6)

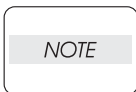


It is not necessary to remove PHOTO SENSOR: IBT RETRACT (PL 6.1.19) from BRACKET-SENSOR CLN (PL 6.1.37) when carrying out the work shown below.

- 5) Remove PHOTO SENSOR: IBT RETRACT. (RRP 6.10)
- 6) Remove the right and left E rings that fix IBT CAM ASSEMBLY (PL 6.1.24) to the main unit.
- 7) Remove the right and left BEARING-BRUSH CAM (PL 6.1.9) that fix IBT CAM ASSEMBLY to the main unit.
- 8) Move IBT CAM ASSEMBLY to left side once, pull out the shaft of IBT CAM ASSEMBLY from the right bearing of the main unit and remove IBT CAM ASSEMBLY.

[Replacement]

- 1) After placing the left side shaft of IBT CAM ASSEMBLY in the left side bearing of the main unit, move IBT CAM ASSEMBLY to the right side and attach IBT CAM ASSEMBLY.
- 2) Fix IBT CAM ASSEMBLY to the main unit using the right and left BEARING-BRUSH CAMs.
- 3) Fix IBT CAM ASSEMBLY to the main unit using right and left E rings.
- 4) Attach PHOTO SENSOR: IBT RETRACT. (RRP 6.10)

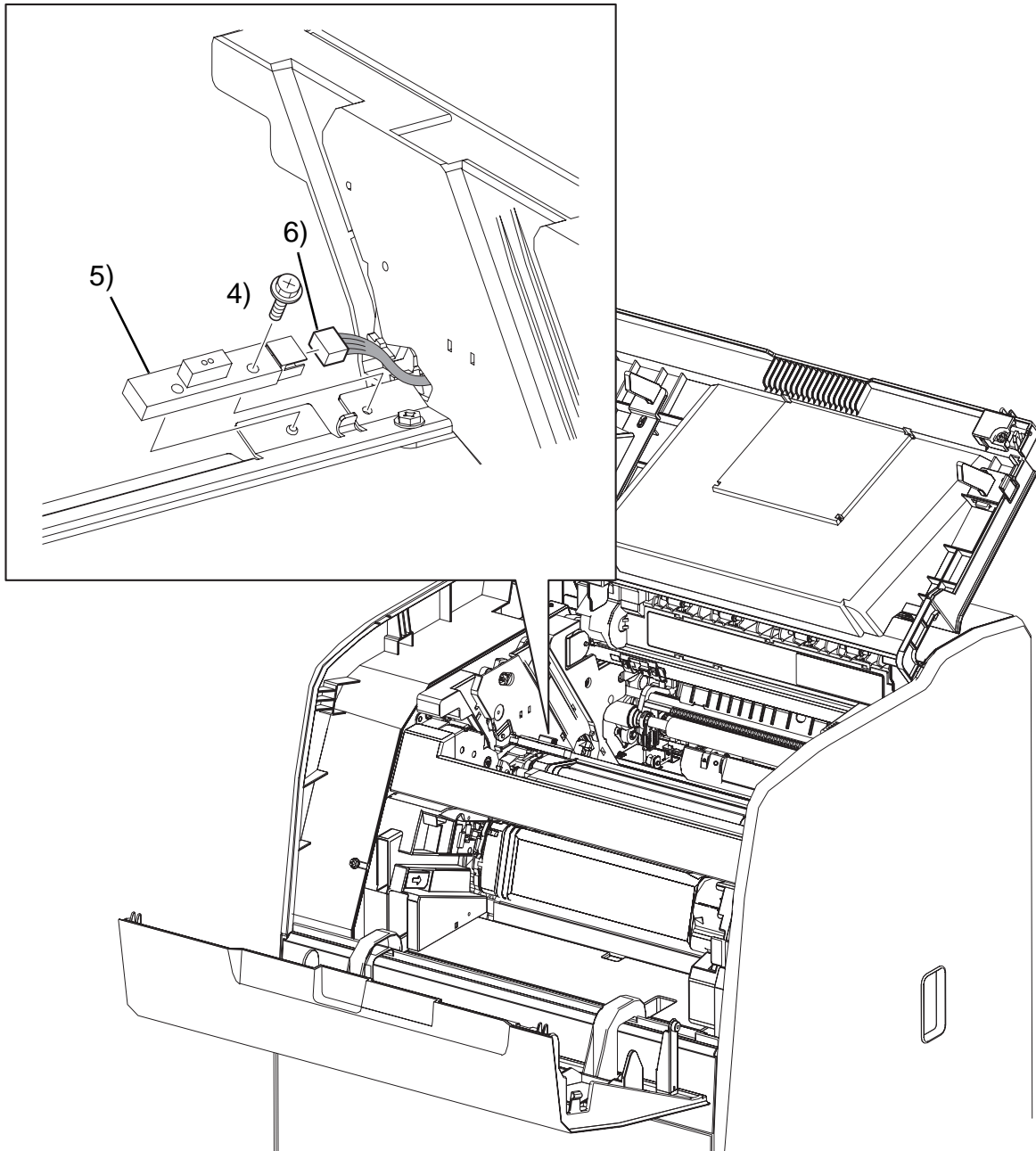


Check that shutter of IBT CAM ASSEMBLY is placed in the sensing section of PHOTO SENSOR.

- 5) Attach PWBA MCU. (RRP 12.6)
- 6) Attach COVER INNER U. (RRP 1.14)
- 7) Attach LEFT COVER. (RRP 1.10)
- 8) Attach COVER ASSY RH. (RRP 1.12)

RRP7. XERO

RRP7.1 IBT SENSOR (PL 7.1.2)



Leg_Sec03_076FB

RRP7.1 IBT SENSOR (PL 7.1.2)

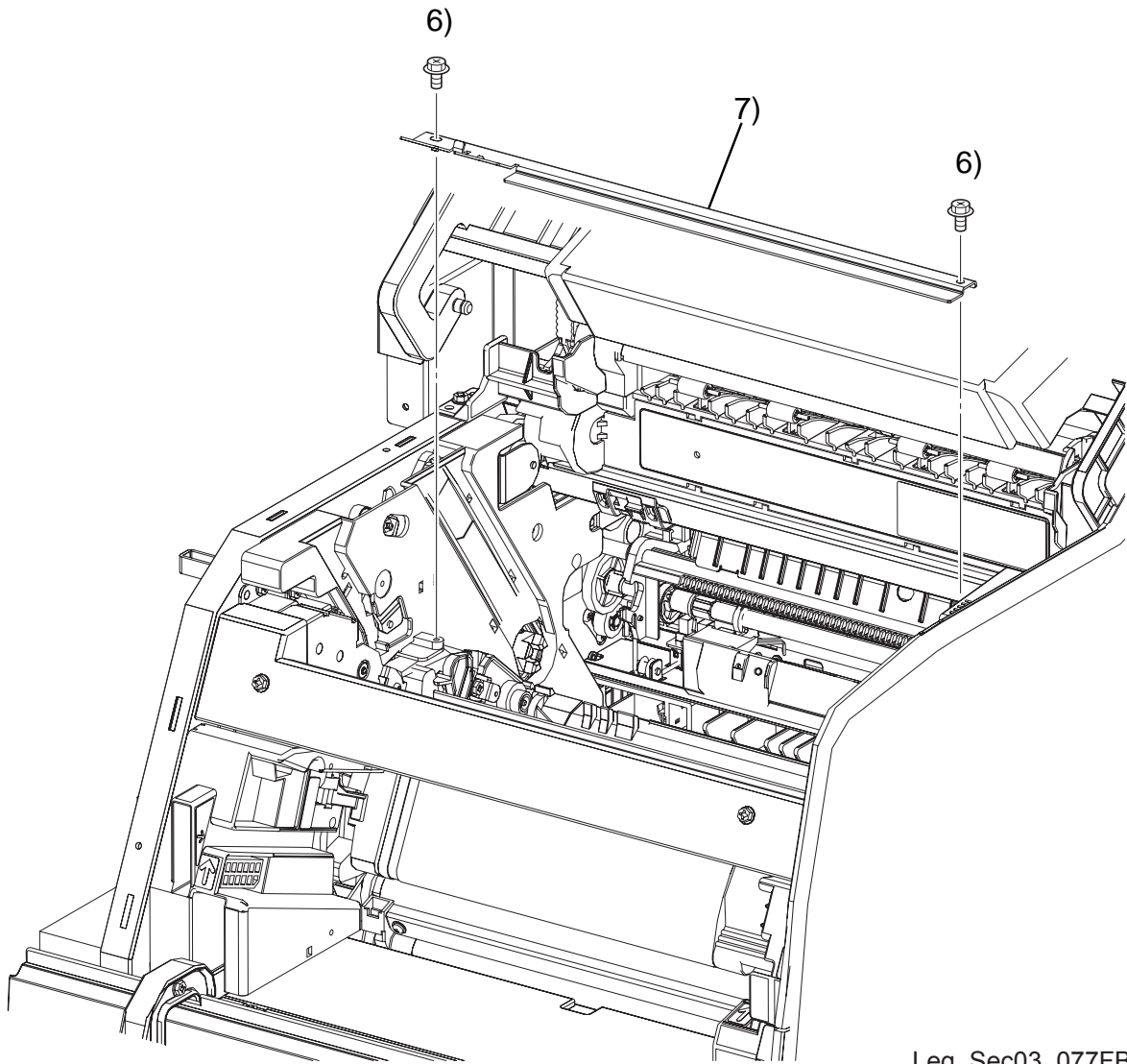
[Removal]

- 1) Open COVER FRONT-U (PL 1.1.14).
- 2) Open TOP COVER (PL 1.1.1).
- 3) Remove IBT (PL 7.1.1).
- 4) Remove a screw (silver, with a flange, 10mm) that fixes IBT SENSOR (PL 7.1.2) to PLATE-TR-0 (PL 7.1.3).
- 5) Remove IBT SENSOR from PLATE-TR-0.
- 6) Remove connector (P/J108) of IBT SENSOR (PL 7.1.2).

[Replacement]

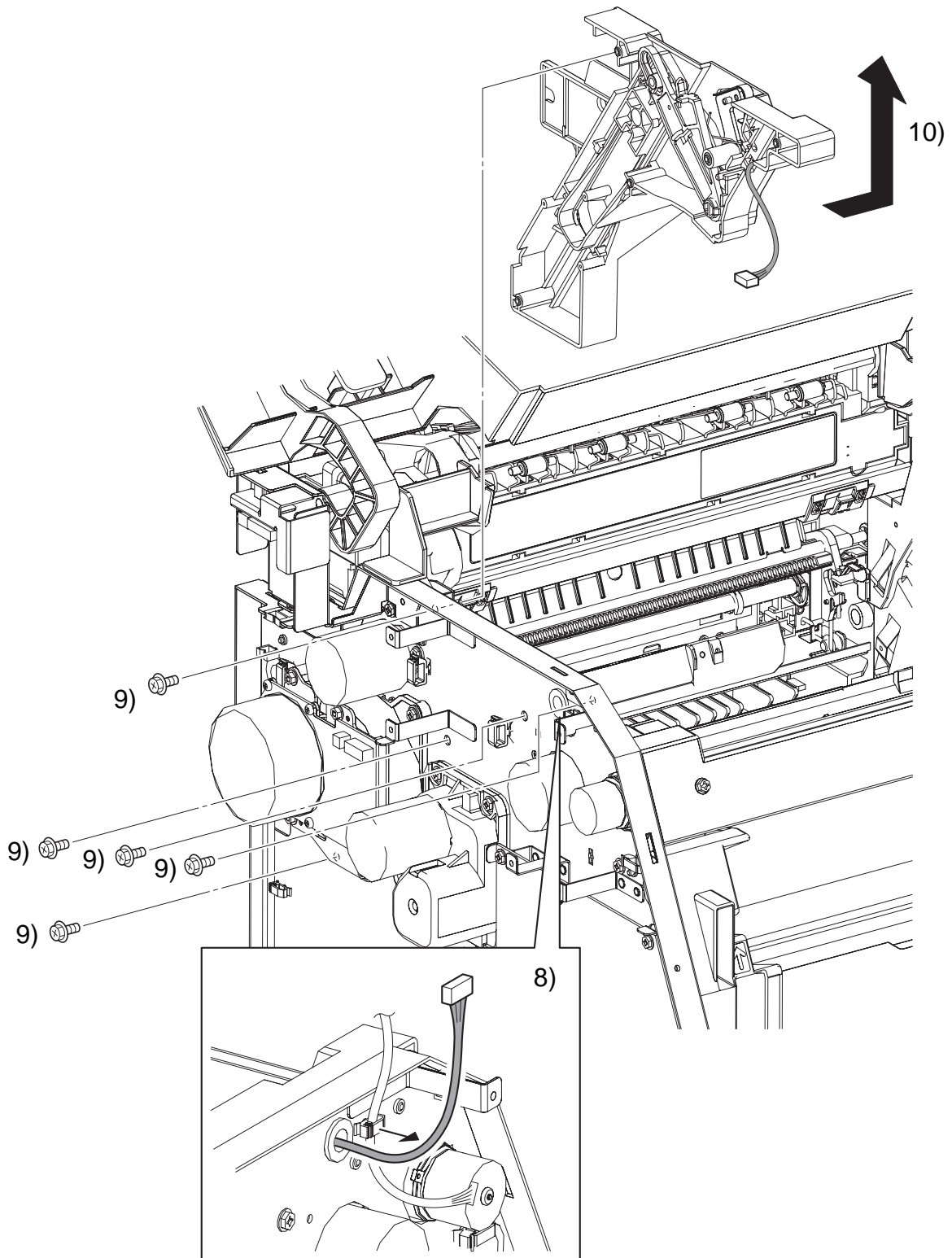
- 1) Attach connector (P/J108) of IBT SENSOR.
- 2) Match the hole in IBT SENSOR to the boss of PLATE-TR-0 and attach IBT SENSOR.
- 3) Fix IBT SENSOR to PLATE-TR-0 using a screw (silver, with a flange, 10mm).
- 4) Attach IBT.
- 5) Close TOP COVER.
- 6) Close COVER FRONT-U.

RRP7.2 LEFT IBT GUIDE ASSEMBLY (PL 7.1.4)



Leg_Sec03_077FB

RRP7.2 LEFT IBT GUIDE ASSEMBLY (PL 7.1.4)

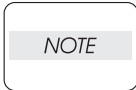


Leg_Sec03_078FB

RRP7.2 LEFT IBT GUIDE ASSEMBLY (PL 7.1.4)

[Removal]

- 1) Remove 2ND BTR ASSY. (RRP 6.4)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove PWBA MCU. (RRP 12.6)

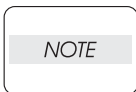


It is not necessary to remove the connector of ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD when carrying out the work shown below.

- 4) Remove CHASSIS ASSY ESS. (RRP 12.10)
- 5) Remove IBT SENSOR. (RRP 7.1)
- 6) Remove two screws (silver, with a flange, tap, 6mm) that fix PLATE-TR-0 (PL 7.1.3) to LEFT IBT GUIDE ASSEMBLY (PL 7.1.4) and RIGHT IBT GUIDE ASSEMBLY (PL 7.1.12).
- 7) Remove PLATE-TR-0 from LEFT IBT GUIDE ASSEMBLY and RIGHT IBT GUIDE ASSEMBLY.
- 8) Release the clamp that fixes HARNESS-ASSY XERO (PL 7.1.27) on the left side of the main unit.
- 9) Remove five screws (silver, with a flange, tap, 6mm) that fix LEFT IBT GUIDE ASSEMBLY to the main unit.
- 10) Remove LEFT IBT GUIDE ASSEMBLY from the main unit.

[Replacement]

- 1) Place HARNESS-ASSY XERO (PL 7.1.27) in the hole on the left side of the main unit, match the boss of LEFT IBT GUIDE ASSEMBLY (PL 7.1.4) to the hole in the main unit and attach LEFT IBT GUIDE ASSEMBLY.
- 2) Fix LEFT IBT GUIDE ASSEMBLY to the main unit using five screws (silver, with a flange, tap, 6mm).
- 3) Fix HARNESS-ASSY XERO on the left side of the main unit using a clamp.
- 4) Attach PLATE-TR-0 to LEFT IBT GUIDE ASSEMBLY and RIGHT IBT GUIDE ASSEMBLY (PL 7.1.12).
- 5) Fix PLATE-TR-0 to LEFT IBT GUIDE ASSEMBLY and RIGHT IBT GUIDE ASSEMBLY using two screws (silver, with a flange, tap, 6mm).



Open and close TOP COVER (PL 1.1.1) and confirm movement of the coupling of MOTOR ASSY P/R (PL 11.1.6).

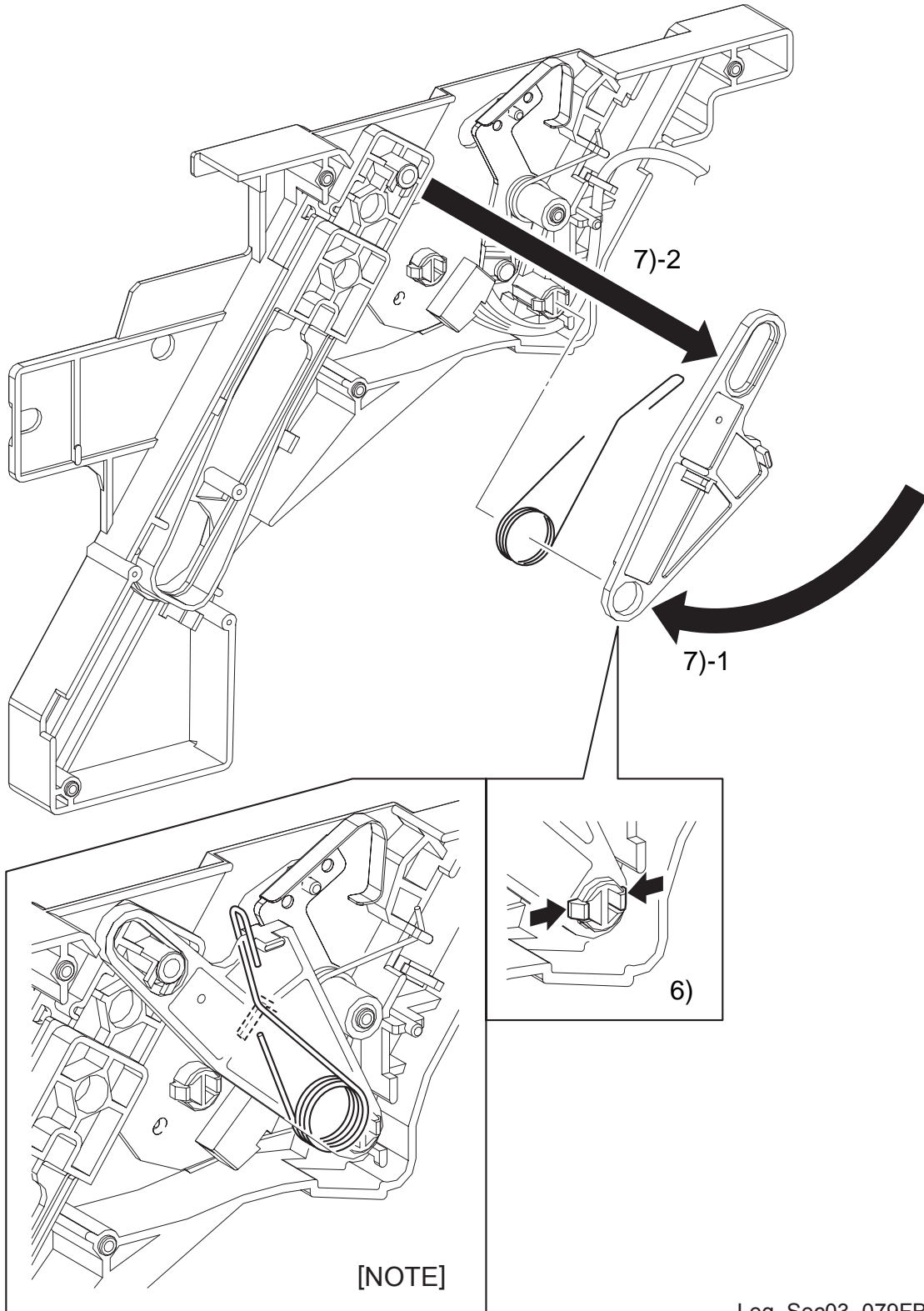
- 6) Attach IBT SENSOR. (RRP 7.1)
- 7) Attach CHASSIS ASSY ESS. (RRP 12.10)
- 8) Attach PWBA MCU. (RRP 12.6)
- 9) Attach LEFT COVER. (RRP 1.10)
- 10) Attach 2ND BTR ASSY. (RRP 6.4)

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RRP7.3 ANTENNA ASSY (PL 7.1.10)

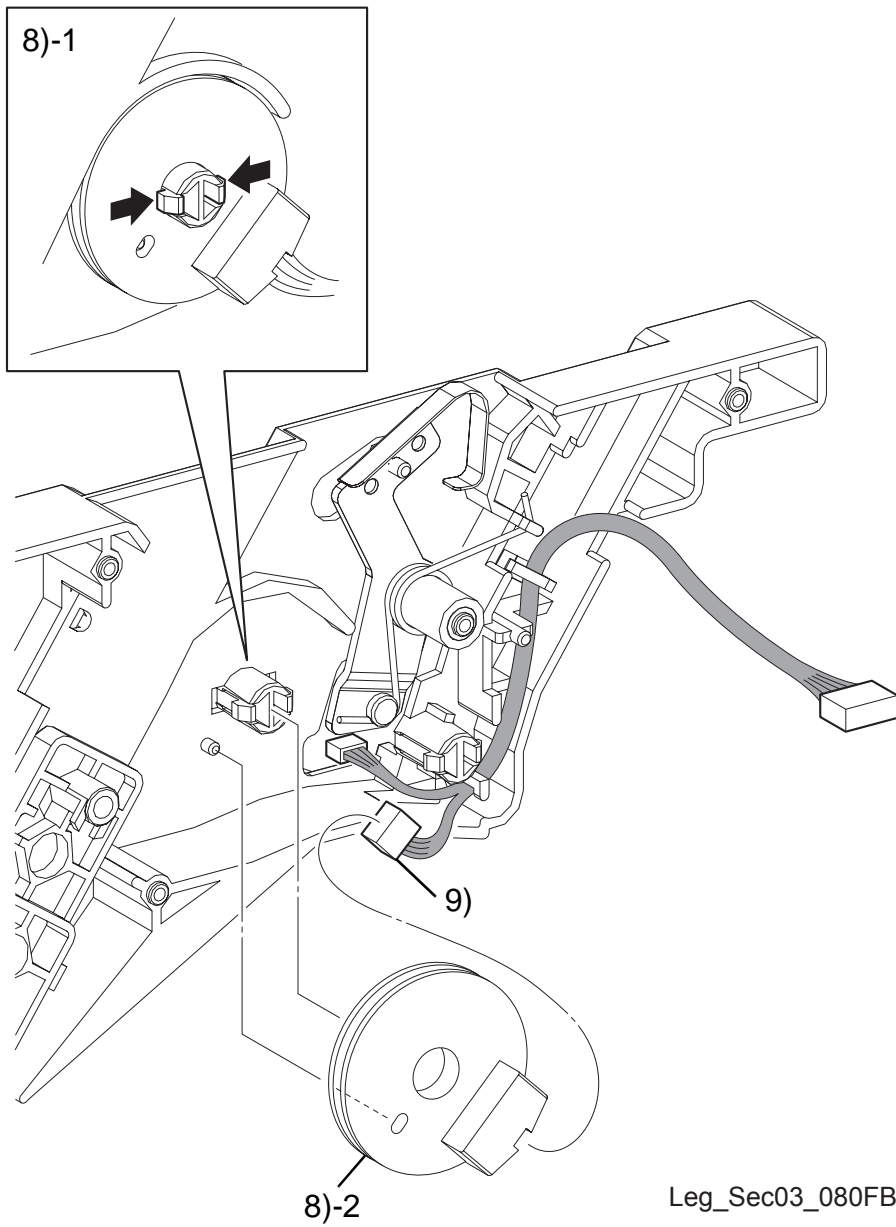
NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_079FB

RRP7.3 ANTENNA ASSY (PL 7.1.10)



Leg_Sec03_080FB

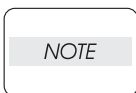
RRP7.3 ANTENNA ASSY (PL 7.1.10)

[Removal]

- 1) Remove 2ND BTR ASSY. (RRP 6.4)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove PWBA MCU. (RRP 12.6)
- 4) Remove CHASSIS ASSY ESS. (RRP 12.10)
- 5) Remove LEFT IBT GUIDE ASSEMBLY. (RRP 7.2)
- 6) Release hook that fixes ARM-COUPLING (PL 7.1.7) to LEFT IBT GUIDE ASSEMBLY (PL 7.1.4) and remove ARM-COUPLING from the shaft of LEFT IBT GUIDE ASSEMBLY together with SPRING-TORSION ARM (PL 7.1.8).
- 7) Rotate ARM-COUPLING at 90 degrees and remove ARM-COUPLING.
- 8) Release hook that fixes ANTENNA ASSY (PL 7.1.10) to LEFT IBT GUIDE ASSEMBLY and remove ANTENNA ASSY.
- 9) Remove connector (P/J109) of ANTENNA ASSY.

[Replacement]

- 1) Attach connector (P/J109) of ANTENNA ASSY (PL 7.1.10).
- 2) Match the hole in ANTENNA ASSY to the boss of LEFT IBT GUIDE ASSEMBLY (PL 7.1.4), and attach ANTENNA ASSY and fix it with hook.
- 3) Attach SPRING-TORSION ARM (PL 7.1.8) to ARM-COUPLING (PL 7.1.7) and place the oval hole of ARM-COUPLING in the shaft of LINK-COUPLING (PL 7.1.9).
- 4) Rotate ARM-COUPLING at 90 degrees, attach it to the shaft of LEFT IBT GUIDE ASSEMBLY with hook and hook SPRING-TORSION ARM to the notched of LEFT IBT GUIDE ASSEMBLY.



Be sure to hook SPRING-TORSION ARM to ARM-COUPLING and LEFT IBT GUIDE ASSEMBLY properly.

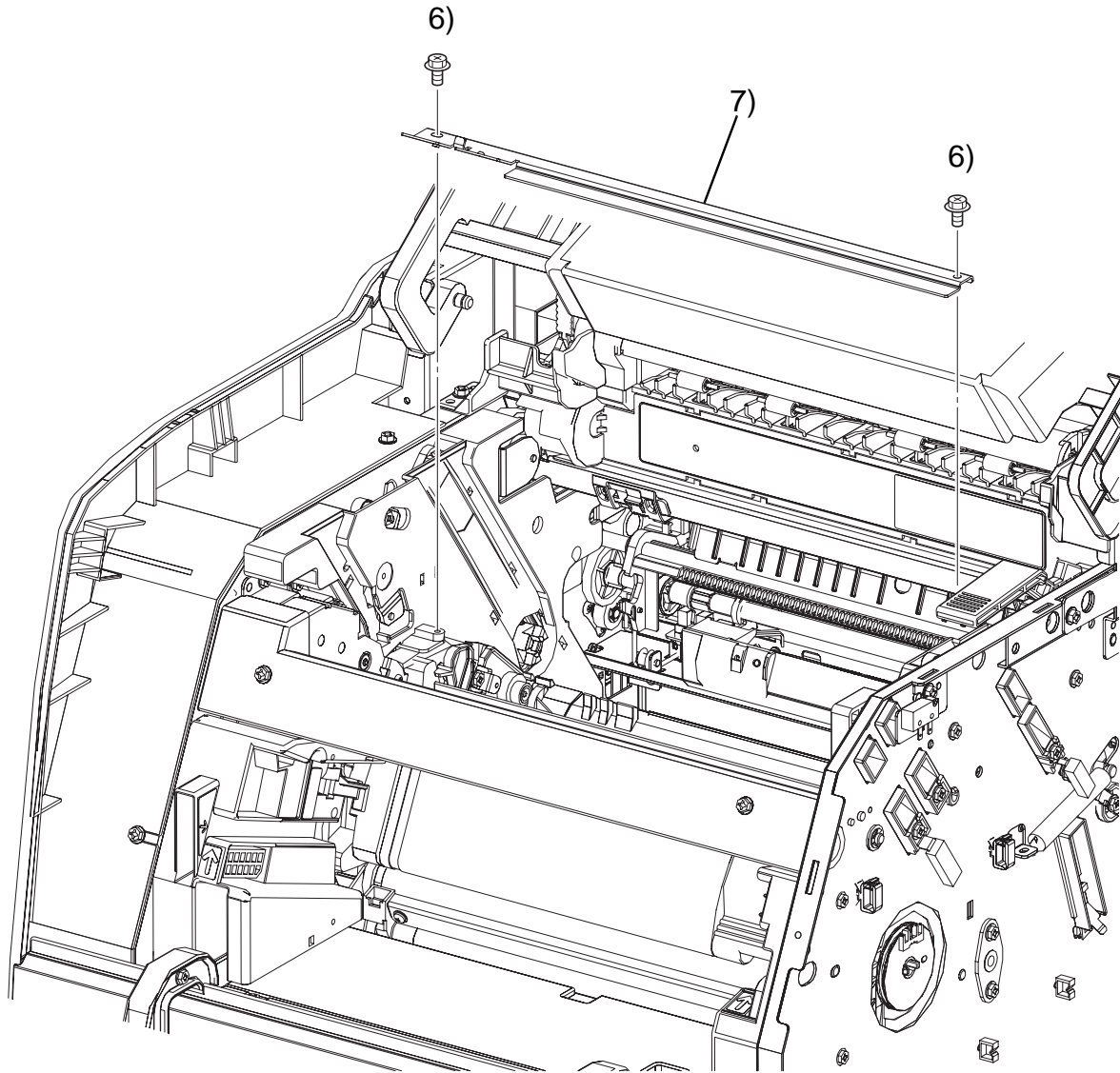
- 5) Remove LEFT IBT GUIDE ASSEMBLY. (RRP 7.2)
- 6) Attach CHASSIS ASSY ESS. (RRP 12.10)
- 7) Attach PWBA MCU. (RRP 12.6)
- 8) Attach LEFT COVER. (RRP 1.10)
- 9) Attach 2ND BTR ASSY. (RRP 6.4)

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RRP7.4 RIGHT IBT GUIDE ASSEMBLY (PL 7.1.12)

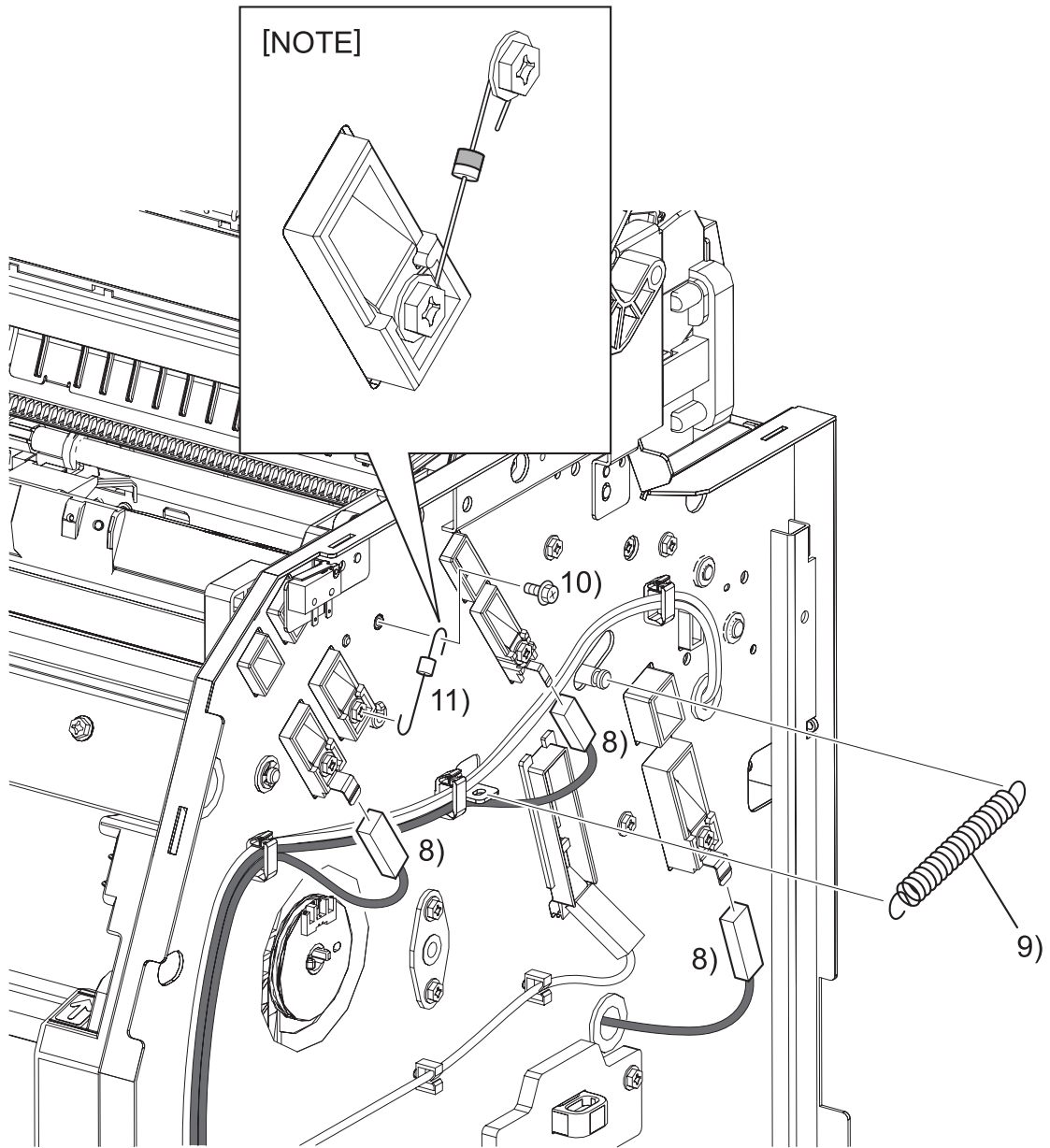
Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



Leg_Sec03_081FB

RRP7.4 RIGHT IBT GUIDE ASSEMBLY (PL 7.1.12)



Leg_Sec03_618LA

RRP7.4 RIGHT IBT GUIDE ASSEMBLY (PL 7.1.12)

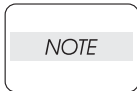
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove 2ND BTR ASSY. (RRP 6.4)
- 3) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 4) Remove BCR CLEANING ASSEMBLY. (RRP 7.5)
- 5) Remove IBT SENSOR. (RRP 7.1)
- 6) Remove the two screws (silver, with a flange, tap, 6mm) that fix PLATE-TR-0 (PL 7.1.3) to LEFT IBT GUIDE ASSEMBLY (PL 7.1.4) and RIGHT IBT GUIDE ASSEMBLY (PL 7.1.12).
- 7) Remove PLATE-TR-0 from LEFT IBT GUIDE ASSEMBLY and RIGHT IBT GUIDE ASSEMBLY.
- 8) Remove WIRE ASSY 1 BTR (PL 7.1.24), WIRE ASSY IBT (PL 7.1.25) and WIRE ASSY BCR (PL 7.1.26) from RIGHT IBT GUIDE ASSEMBLY.
- 9) Remove SPRING -LATCH (PL 7.1.36) hooked on the main unit and the stud of RIGHT IBT GUIDE ASSEMBLY
- 10) Remove a screw (silver, with a flange, tap, 6mm) that fastens both RIGHT IBT GUIDE ASSEMBLY and the rear side of DIODE (PL 7.1.29) to the main unit.
- 11) Loosen a screw in RIGHT IBT GUIDE ASSEMBLY that fixes the front side of DIODE and remove DIODE.
- 12) Remove a screw (silver, with a flange, tap, 6mm) that fastens both PLATE-ASSY GND (PL 7.1.37) and RIGHT IBT GUIDE ASSEMBLY to the main unit and remove PLATE-ASSY GND.
- 13) Remove the remaining six screws (silver, with a flange, tap, 6mm) that fix RIGHT IBT GUIDE ASSEMBLY to the main unit.
- 14) Pull out the convex of RIGHT IBT GUIDE ASSEMBLY from the hole in main unit and remove RIGHT IBT GUIDE ASSEMBLY.

RRP7.4 RIGHT IBT GUIDE ASSEMBLY (PL 7.1.12)

[Replacement]

- 1) Match the boss and the convex of RIGHT IBT GUIDE ASSEMBLY to the hole in the main unit and attach RIGHT IBT GUIDE ASSEMBLY.
- 2) Fix RIGHT IBT GUIDE ASSEMBLY to the main unit using the six screws (silver, with a flange, tap, 6mm).

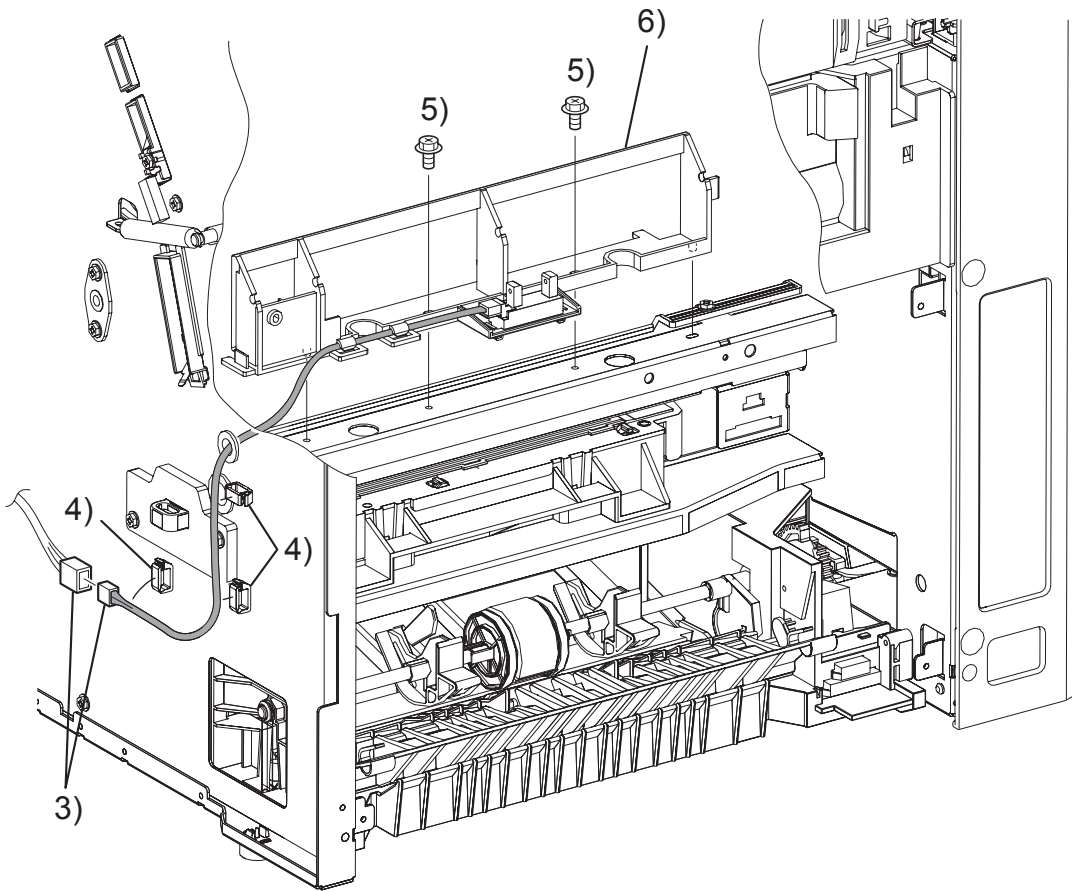


Pay attention to setting direction of DIODE when carrying out the work shown below. Mount the diode in a way that the white paint side of the diode is oriented to the side jointly fastened with RIGHT IBT GUIDE ASSEMBLY.

- 3) Attach PLATE-ASSY GND and fasten both PLATE-ASSY GND and RIGHT IBT GUIDE ASSEMBLY to the main unit using a screw (silver, with a flange, tap, 6mm) to fix them.
- 4) Fix the front part of DIODE on the RIGHT IBT GUIDE ASSEMBLY using a screw and attach DIODE.
- 5) Fasten both RIGHT IBT GUIDE ASSEMBLY and the rear side of DIODE to the main unit using a screw (silver, with a flange, tap, 6mm) and fix them.
- 6) Attach SPRING-LATCH to the main unit and the stud section of the RIGHT IBT GUIDE ASSEMBLY.
- 7) Attach WIRE ASSY 1 BTR, WIRE ASSY IBT and WIRE ASSY BCR to RIGHT IBT GUIDE ASSEMBLY.
- 8) Attach PLATE-TR-0 to LEFT IBT GUIDE ASSEMBLY and RIGHT IBT GUIDE ASSEMBLY.
- 9) Fix PLATE-TR-0 to LEFT IBT GUIDE ASSEMBLY and RIGHT IBT GUIDE ASSEMBLY using the two screws (silver, with a flange, tap, 6mm).
- 10) Attach IBT SENSOR. (RRP 7.1)
- 11) Attach BCR CLEANING ASSEMBLY. (RRP 7.5)
- 12) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 13) Attach 2ND BTR ASSY. (RRP 6.4)
- 14) Attach COVER ASSY RH. (RRP 1.12)

Blank Page

RRP7.5 BCR CLEANING ASSEMBLY (PL 7.1.19)

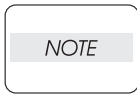


Leg_Sec03_620LA

RRP7.5 BCR CLEANING ASSEMBLY (PL 7.1.19)

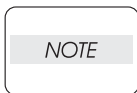
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)



When carrying out the work shown below, leave the relay connector on the harness side.

- 3) Remove the connector (P/J617) of BCR CLEANING ASSEMBLY (PL 7.1.19) at the right side of the main unit.
- 4) Release a clamp on right side of the main unit and move the harness of BCR CLEANING ASSEMBLY towards the inside of the main unit from the hole at right side of the main unit.

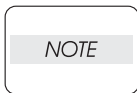


When carrying out the work shown below, push LATCH ROTARY (PL 9.1.3) of DEVELOPER LATCH ASSEMBLY (PL 9.1.1) to release the latch, turn DEVELOPER ROTOR FRAME ASSEMBLY(PL 9.2.9) manually, move HOUSING ASSY-DEVE, and avoid your hand or arm being stained by the toner of MAG ROLL.

- 5) Remove two screws (silver, with a flange, 6mm) that fix BCR CLEANING ASSEMBLY to the main unit.
- 6) Remove BCR CLEANING ASSEMBLY from the main unit.

[Replacement]

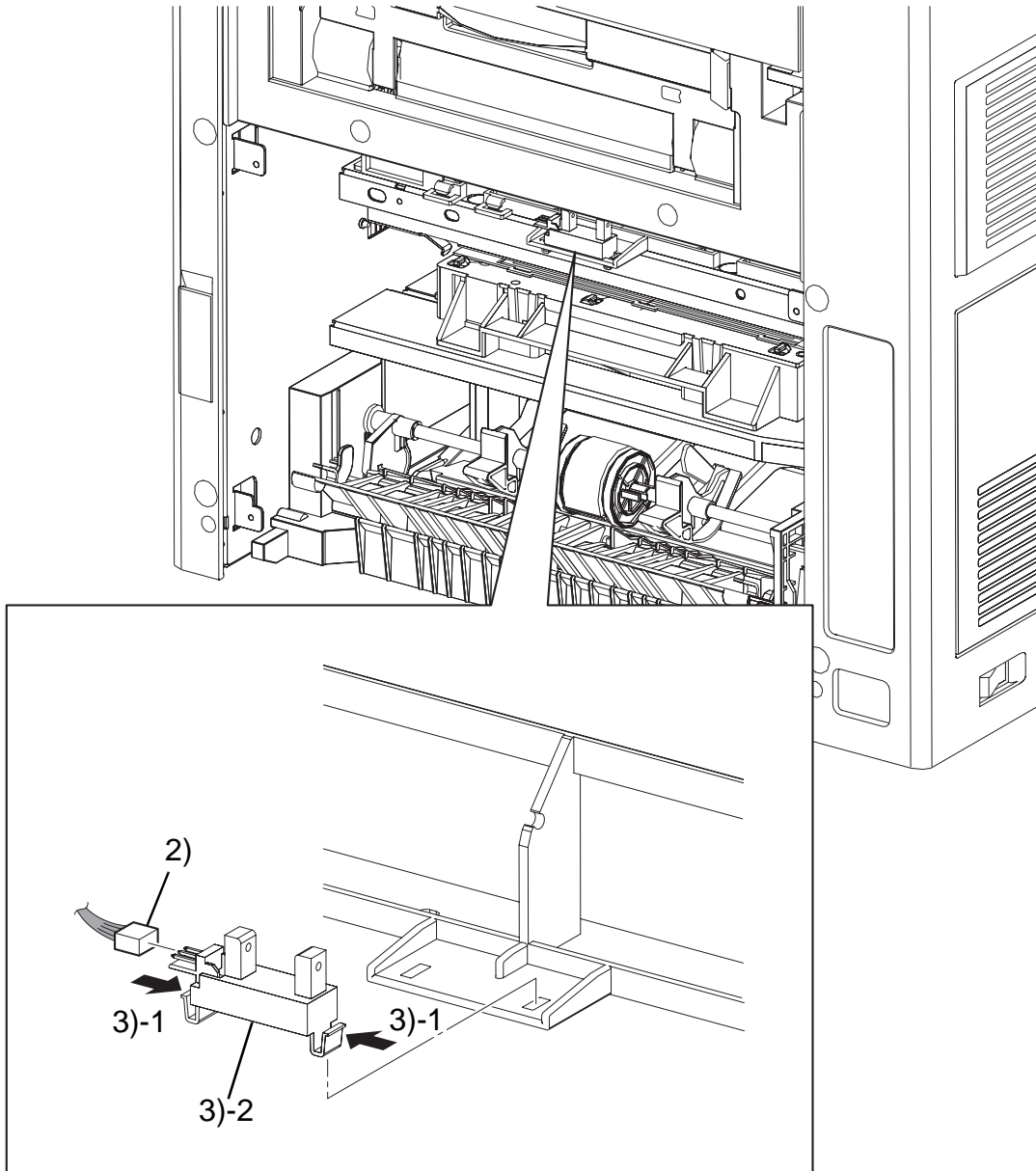
- 1) Match the boss of BCR CLEANING ASSEMBLY to the hole in the main unit and attach it.



When carrying out the work shown below, push LATCH ROTARY (PL 9.1.3) of DEVELOPER LATCH ASSEMBLY (PL 9.1.1) to release the latch, turn DEVELOPER ROTOR FRAME ASSEMBLY(PL 9.2.9) manually, move HOUSING ASSY-DEVE, and avoid your hand or arm being stained by the toner of MAG ROLL.

- 2) Fix BCR CLEANING ASSEMBLY to the main unit using the two screws (silver, with a flange, 6mm).
- 3) Move the harness of BCR CLEANING ASSEMBLY to outside through the hole on right side of the main unit and attach connector (P/L 617) of BCR CLEANING ASSEMBLY.
- 4) Fix the harness of BCR CLEANING ASSEMBLY on the right side of the main unit using a clamp.
- 5) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 6) Attach COVER ASSY RH. (RRP 1.12)

RRP7.7 SENSOR TNER FULL (PL 7.1.30)



Leg_Sec03_183LA

RRP7.7 SENSOR TNER FULL (PL 7.1.30)

[Removal]

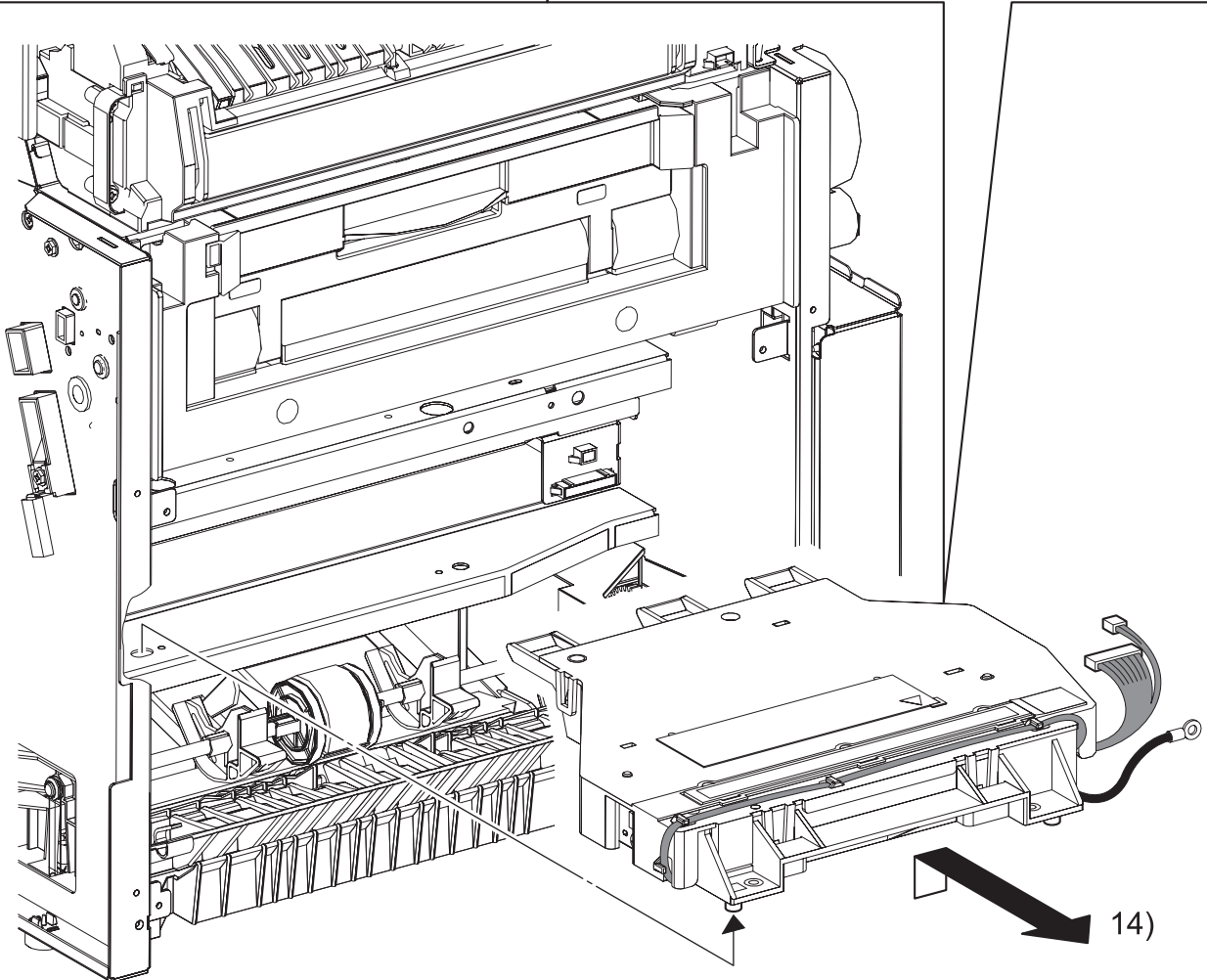
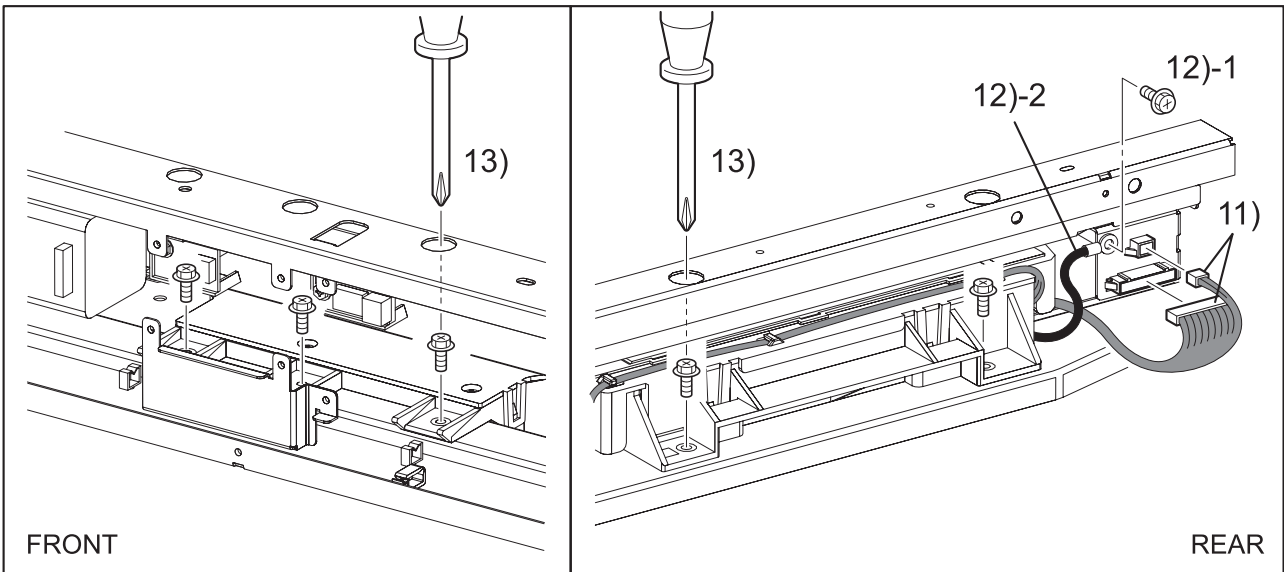
- 1) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 2) Remove connector (P/J126) of SENSOR TNER FULL (PL 7.1.30).
- 3) Release two hooks that fixes SENSOR TNER FULL to the main unit and remove SENSOR TNER FULL.

[Replacement]

- 1) Match the two hooks of SENSOR TNER FULL to fitting position and attach it to the main unit.
- 2) Attach connector (P/J126) of SENSOR TNER FULL.
- 3) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)

RRP8. ROS

RRP8.1 PRINT HEAD ASSEMBLY (PL 8.1.1)



Leg_Sec03_621LA

RRP8.1 PRINT HEAD ASSEMBLY (PL 8.1.1)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove COVER INNER L. (RRP 1.13)
- 6) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 7) Remove BCR CLEANING ASSEMBLY. (RRP 7.5)
- 8) Remove CLEANER. (RRP 8.2)
- 9) Remove HIGH VOLTAGE POWER SUPPLY(HVPS). (RRP 12.1)
- 10) Remove ROTOR CONTROL BOARD. (RRP 12.2)
- 11) Remove connector (P/J601) and connector (P/J602) of PRINT HEAD ASSEMBLY.
- 12) Remove a screw (silver, with a flange, 6mm) that fix the earth wire of PRINT HEAD ASSEMBLY to the main unit and remove the earth wire from the main unit.

NOTE

When carrying out the work shown below, push LATCH ROTARY (PL 9.1.3) of DEVELOPER LATCH ASSEMBLY (PL 9.1.1) to release the latch, turn DEVELOPER ROTOR FRAME ASSEMBLY(PL 9.2.9) manually, move HOUSING ASSY-DEVE, and avoid your hand or arm being stained by the toner of MAG ROLL.

- 13) Remove five screws (silver, with a flange, 10mm) that fix PRINT HEAD ASSEMBLY (PL 8.1.1) to the main unit.
- 14) Lift PRINT HEAD ASSEMBLY up a little to remove the boss of PRINT HEAD ASSEMBLY from the hole in main unit and remove it towards the rear side of the main unit.

[Replacement]

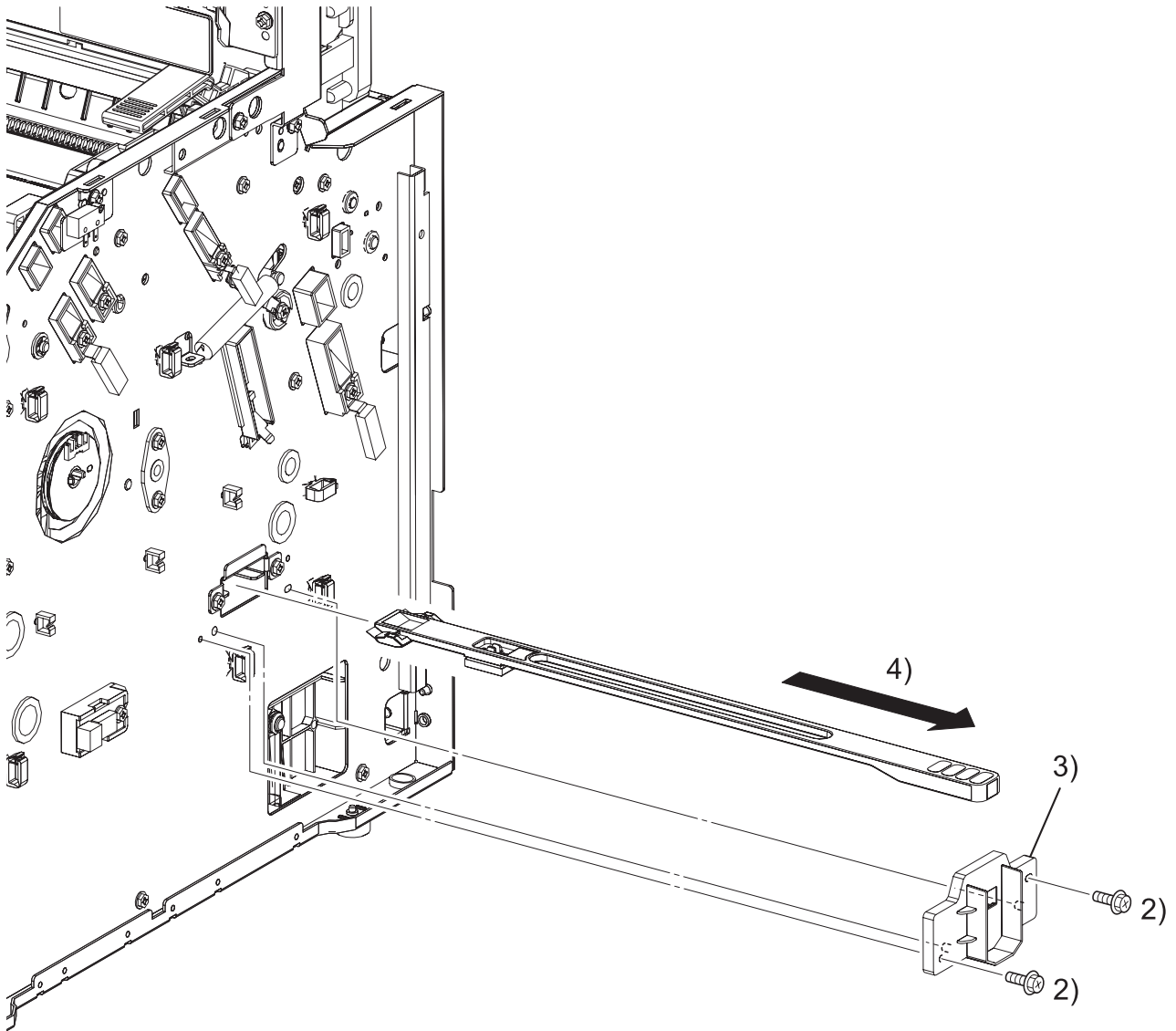
- 1) Match the boss of PRINT HEAD ASSEMBLY to the hole in the main unit and attach PRINT HEAD ASSEMBLY.

NOTE

When carrying out the work shown below, push LATCH ROTARY (PL 9.1.3) of DEVELOPER LATCH ASSEMBLY (PL 9.1.1) to release the latch, turn DEVELOPER ROTOR FRAME ASSEMBLY(PL 9.2.9) manually, move HOUSING ASSY-DEVE, and avoid your hand or arm being stained by the toner of MAG ROLL.

- 2) Fix PRINT HEAD ASSEMBLY to the main unit using five screws (silver, with a flange, 10mm).
- 3) Attach the earth wire of PRINT HEAD ASSEMBLY to the main unit using a screw (silver, with a flange, 6mm).
- 4) Attach connector (P/J601) and connector (P/J602) of PRINT HEAD ASSEMBLY.
- 5) Attach ROTOR CONTROL BOARD. (RRP 12.2)
- 6) Attach HIGH VOLTAGE POWER SUPPLY(HVPS). (RRP 12.1)
- 7) Attach CLEANER. (RRP 8.2)
- 8) Attach BCR CLEANING ASSEMBLY. (RRP 7.5)
- 9) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 10) Attach COVER INNER L. (RRP 1.13)
- 11) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 12) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 13) Attach LEFT COVER. (RRP 1.10)
- 14) Attach COVER ASSY RH. (RRP 1.12)

RRP8.2 CLEANER (PL 8.1.2)



Leg_Sec03_622LA

RRP8.2 CLEANER (PL 8.1.2)

[Removal]

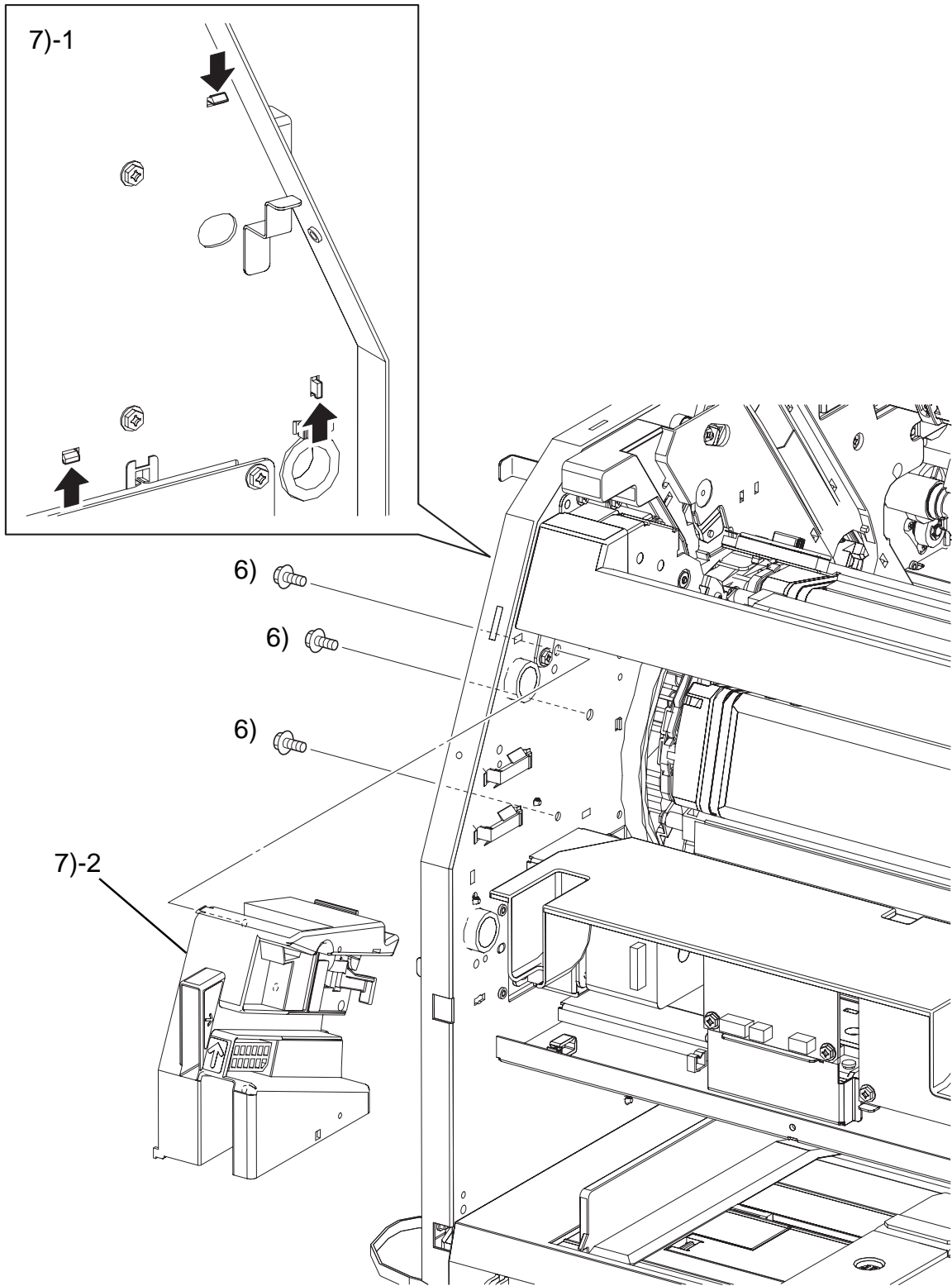
- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove two screws (silver, with a flange, 10mm) that fix GUIDE-ROS CLN (PL 8.1.3) to the main unit.
- 3) Remove GUIDE-ROS CLN from the main unit.
- 4) Remove CLEANER (PL 8.1.2) from the main unit.

[Replacement]

- 1) Match CLEANER to the rail of main unit and fit it.
- 2) Match the boss of GUIDE-ROS CLN to the hole in the main unit and attach it.
- 3) Fix GUIDE-ROS CLN to the main unit using two screws (silver, with a flange, 10mm).
- 4) Attach COVER ASSY RH. (RRP 1.12)

RRP9. DEVE

RRP9.1 DEVELOPER LATCH ASSEMBLY (PL 9.1.1)



Leg_Sec03_088LA

RRP9.1 DEVELOPER LATCH ASSEMBLY (PL 9.1.1)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 6) Remove three screws (silver, with a flange, tap, 8mm) that fixes DEVELOPER LATCH ASSEMBLY (PL 9.1.1) to the main unit.
- 7) Release the hooks at three locations that fix DEVELOPER LATCH ASSEMBLY to the main unit and remove DEVELOPER LATCH ASSEMBLY.

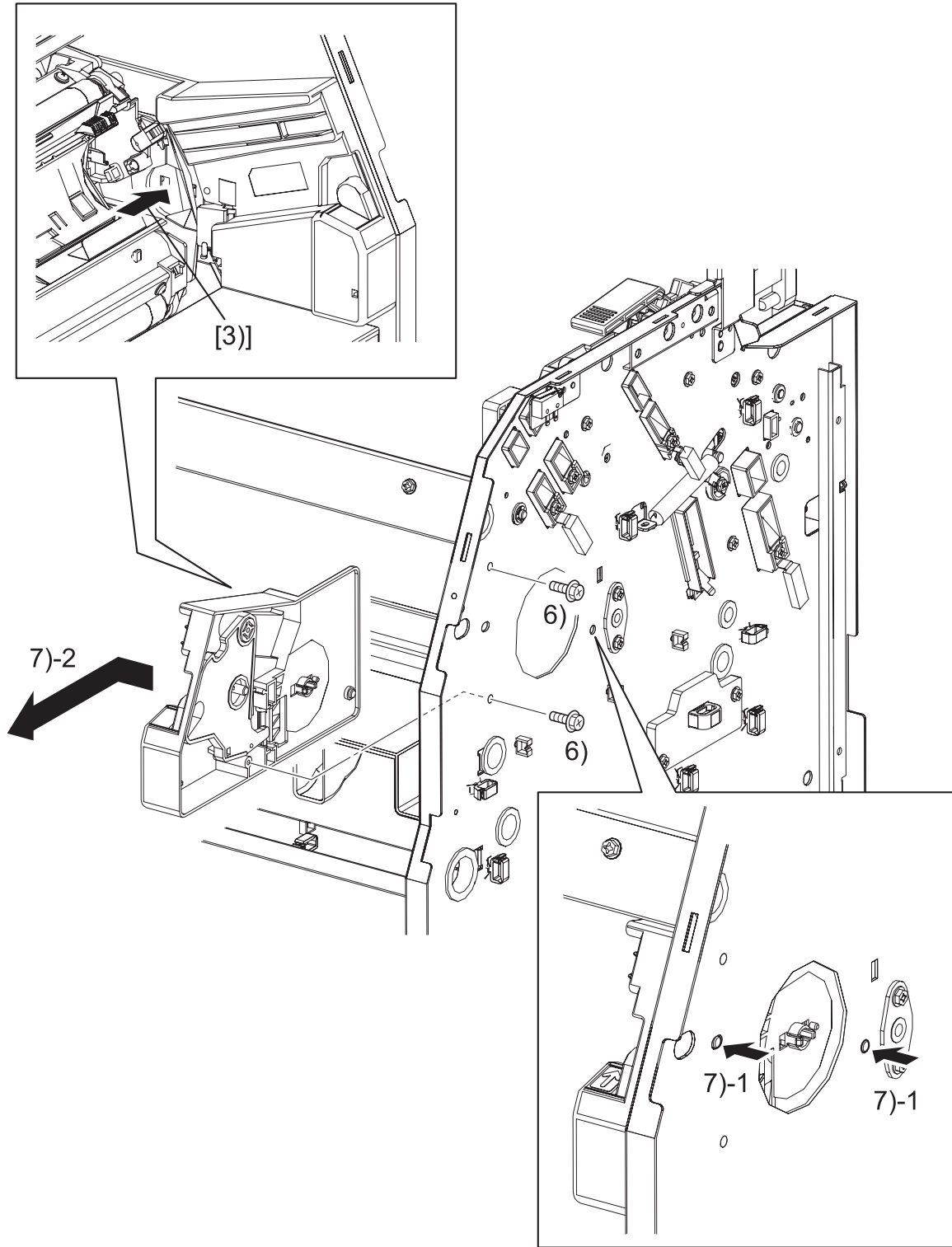
[Replacement]

- 1) Match three hooks of DEVELOPER LATCH ASSEMBLY to the fitting position and attach it to the main unit.
- 2) Fix DEVELOPER LATCH ASSEMBLY to the main unit using three screws (silver, with a flange, tap, 8mm).
- 3) Attach LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 4) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 6) Attach LEFT COVER. (RRP 1.10)
- 7) Attach COVER ASSY RH. (RRP 1.12)

RRP9.2 TONER CARTRIDGE SENSOR (PL 9.1.6)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



Leg_Sec03_623LA

RRP9.2 TONER CARTRIDGE SENSOR (PL 9.1.6)

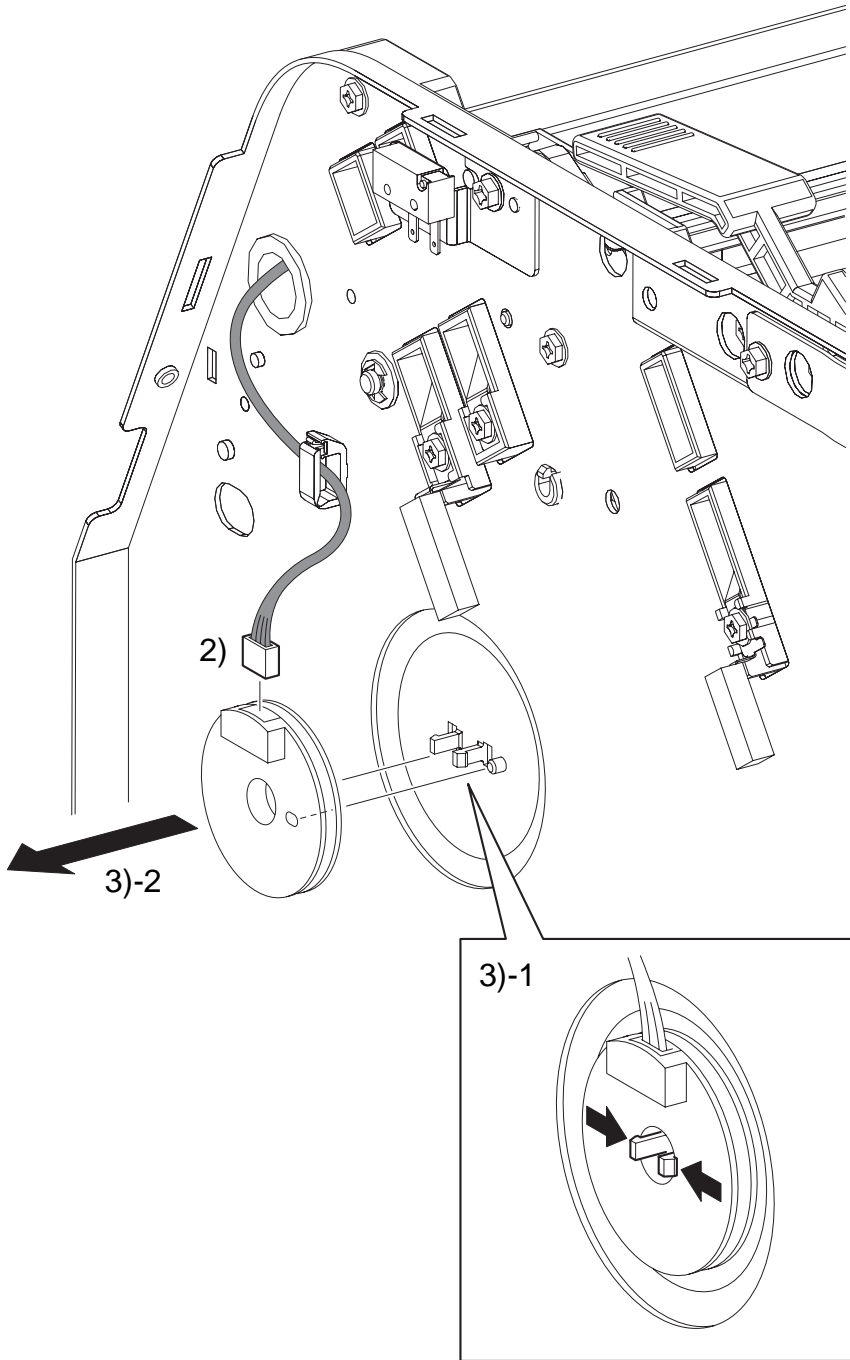
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove ANTENNA CTRG. (RRP 9.3)
- 6) Remove the two screws (silver, with a flange, tap, 8mm) that fix TONER CARTRIDGE SENSOR (PL 9.1.6) to the main unit.
- 7) Push the boss that fix TONER CARTRIDGE SENSOR to the main unit and remove TONER CARTRIDGE SENSOR.

[Replacement]

- 1) Attach the toner cartridge disturbing in the fitting position of TONER CARTRIDGE SENSOR (PL 9.1.6).
- 2) Match the boss part of TONER CARTRIDGE SENSOR to the fitting positions and attach it to the main unit.
- 3) Push TONER CARTRIDGE SENSOR from inside of the main unit (hole of the DEVELOPER ROTOR FRAME ASSEMBLY(PL 9.2.9) and fit the boss section of TONER CARTRIDGE SENSOR into the hole of the main unit.
- 4) Fix TONER CARTRIDGE SENSOR to the main unit using the two screws (silver, with a flange, tap, 8mm).
- 5) Attach ANTENNA CTRG. (RRP 9.3)
- 6) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 7) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 8) Attach LEFT COVER. (RRP 1.10)
- 9) Attach COVER ASSY RH. (RRP 1.12)
- 10) Attach the toner cartridge.

RRP9.3 ANTENNA CTRG (PL 9.1.10)



Leg_Sec03_091FB

RRP9.3 ANTENNA CTRG (PL 9.1.10)

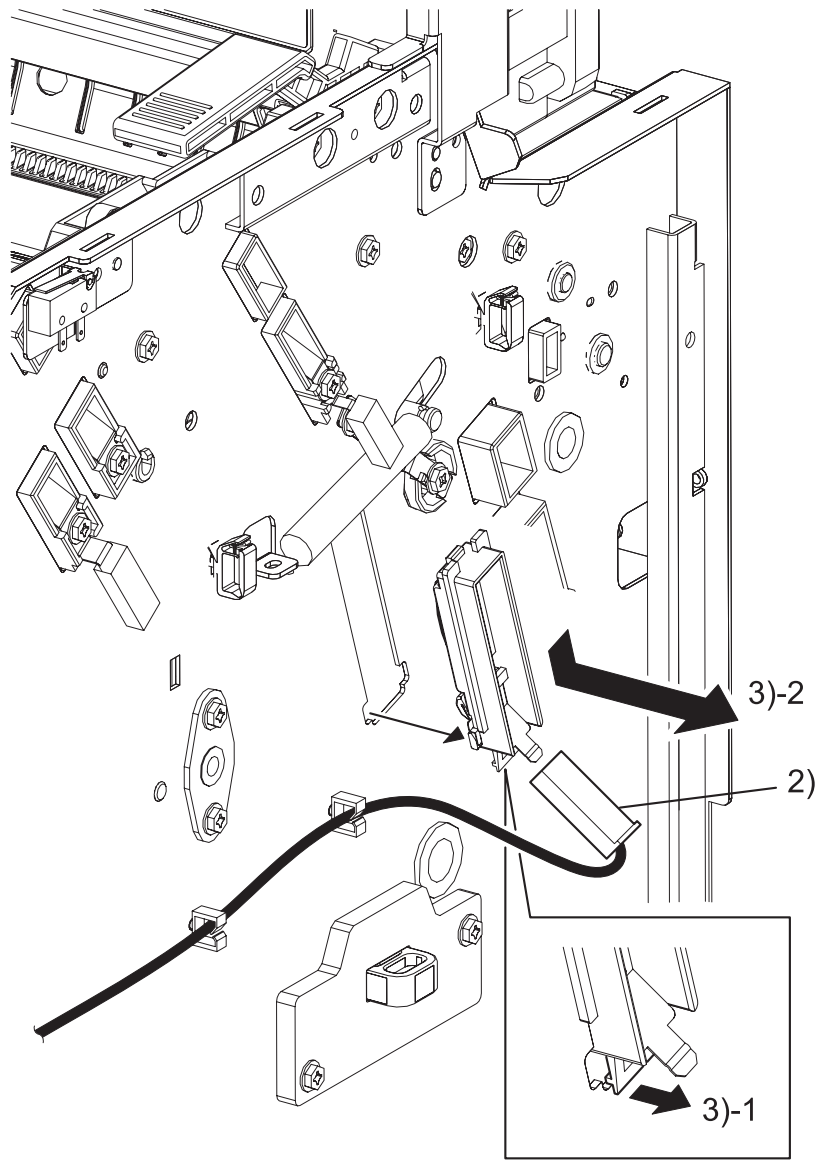
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove connector (P/J106) of ANTENNA CTRG (PL 9.1.10).
- 3) Release two hooks that fixes ANTENNA CTRG to TONER CARTRIDGE SENSOR (PL 9.1.6) and remove ANTENNA CTRG.

[Replacement]

- 1) Match the hole of ANTENNA CTRG to the boss of TONER CARTRIDGE SENSOR, attach ANTENNA CTRG and fix it using two hooks.
- 2) Attach connector (P/J106) of ANTENNA CTRG.
- 3) Attach COVER ASSY RH. (RRP 1.12)

RRP9.4 HOLDER ASSY-BIAS (PL 9.1.11)



Leg_Sec03_624LA

RRP9.4 HOLDER ASSY-BIAS (PL 9.1.11)

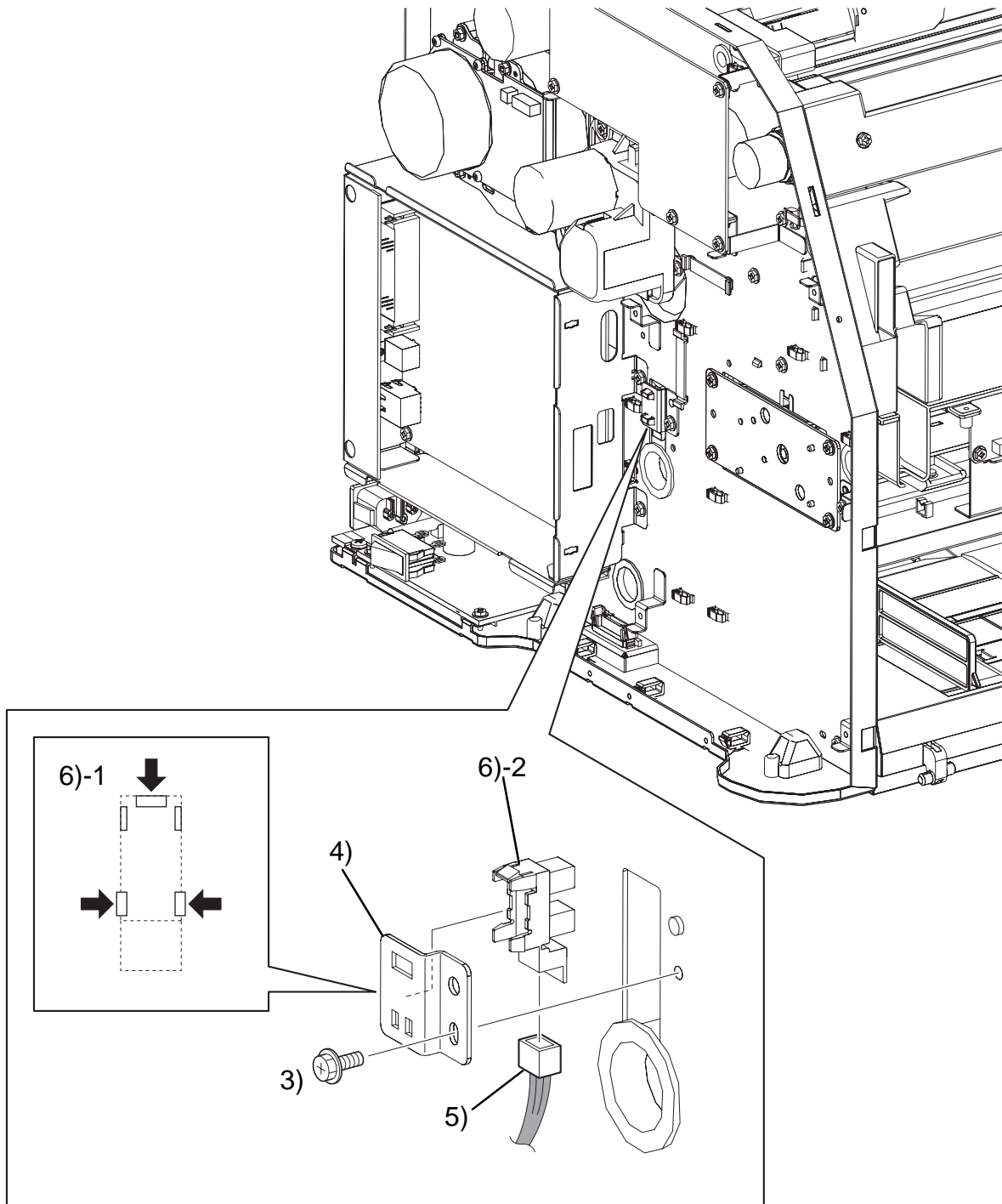
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove WIRE ASSY DEVE (PL 9.1.14) connected to HOLDER ASSY-BIAS (PL 9.1.11).
- 3) Release hook of HOLDER ASSY-BIAS to move it to bottom side of the main unit, match the convex of HOLDER ASSY-BIAS to the notched of the main unit and remove HOLDER ASSY-BIAS.

[Replacement]

- 1) Match the convex of HOLDER ASSY-BIAS to the notched of the fitting hole in the main unit, move HOLDER ASSY-BIAS upwards and fix it with a hook.
- 2) Attach WIRE ASSY DEVE to HOLDER ASSY-BIAS.
- 3) Attach COVER ASSY RH. (RRP 1.12)

RRP9.5 PHOTO SENSOR (PL 9.1.12)



Leg_Sec03_093LA

RRP9.5 PHOTO SENSOR (PL 9.1.12)

[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Remove LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 3) Remove a screw (silver, with a flange, 6mm) that fixes BRACKET SENSOR (PL 9.1.13) to the main unit.
- 4) Remove BRACKET SENSOR from the main unit together with PHOTO SENSOR (PL 9.1.12).
- 5) Remove connector (P/J105) of PHOTO SENSOR.
- 6) Release the hooks at three locations that fix PHOTO SENSOR to BRACKET SENSOR and remove PHOTO SENSOR.

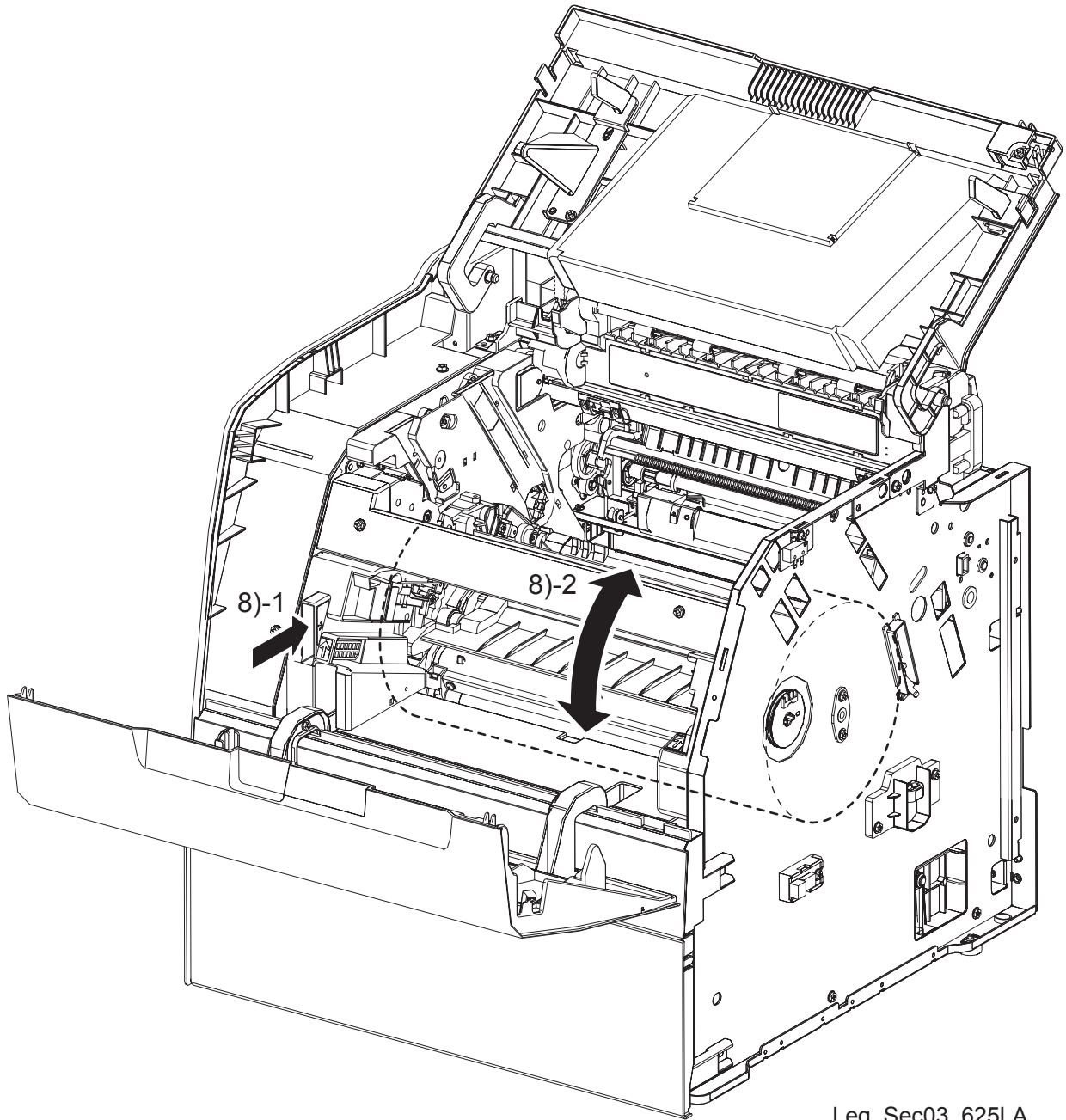
[Replacement]

- 1) Match three hooks of PHOTO SENSOR to fitting position and attach it to BRACKET SENSOR.
- 2) Attach connector (P/J105) of PHOTO SENSOR.
- 3) Match hole of BRACKET SENSOR to the boss of the main unit and attach BRACKET SENSOR together with PHOTO SENSOR.
- 4) Fix BRACKET SENSOR to main unit using a screw (silver, with a flange, 6mm).
- 5) Attach LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 6) Attach LEFT COVER. (RRP 1.10)

RRP9.6 DEVELOPER HOUSING, BLACK (PL 9.2.5), DEVELOPER HOUSING, YELLOW (PL 9.2.6), DEVELOPER HOUSING, MAGENTA (PL 9.2.7), DEVELOPER HOUSING, CYAN (PL 9.2.8)

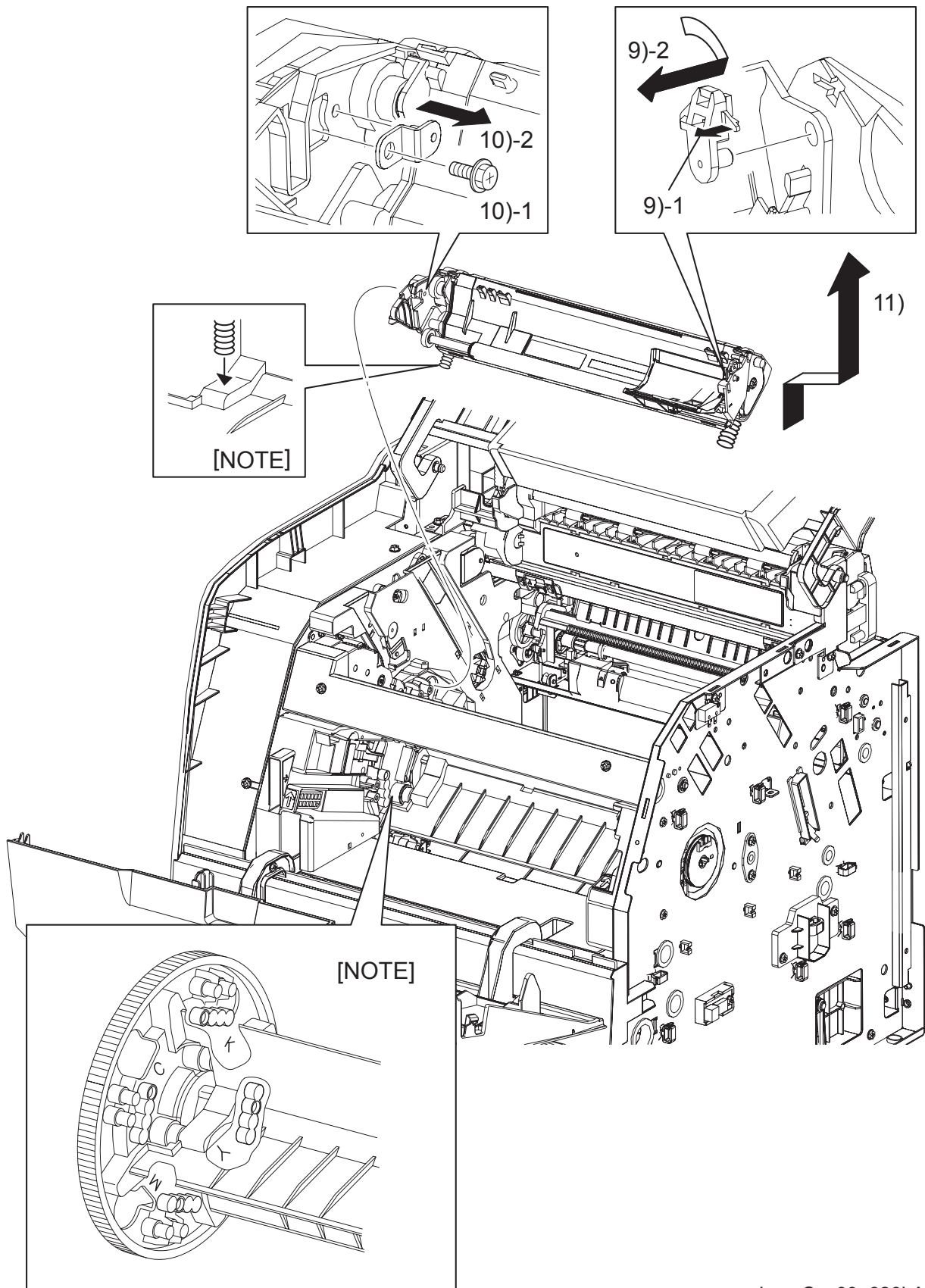
NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_625LA

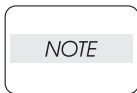
RRP9.6 DEVELOPER HOUSING, BLACK (PL 9.2.5), DEVELOPER HOUSING, YELLOW (PL 9.2.6), DEVELOPER HOUSING, MAGENTA (PL 9.2.7), DEVELOPER HOUSING, CYAN (PL 9.2.8)



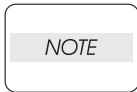
Leg_Sec03_626LA

RRP9.6 DEVELOPER HOUSING, BLACK (PL 9.2.5), DEVELOPER HOUSING, YELLOW (PL 9.2.6), DEVELOPER HOUSING, MAGENTA (PL 9.2.7), DEVELOPER HOUSING, CYAN (PL 9.2.8)

[Removal]



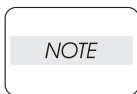
When removing the toner cartridge, place a few sheets of copy paper on COVER FRONT-U to prevent contamination by toner.



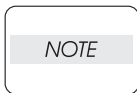
Before removing HOUSING ASSY-DEVE, remove remaining toner on HOUSING ASSY-DEVE using a suction unit such as a vacuum cleaner.



Do not absorb the toner with a general-purpose vacuume cleaner to avoid the risk of flashing off.

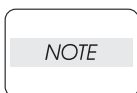


When sucking remaining toner from HOUSING ASSY-DEVE using a suction unit such as a vacuum cleaner, attach the earth cord to the end of the cleaner in order to release static electricity from the end of suction unit.



When sucking remaining toner on HOUSING ASSY-DEVE using a suction unit such as a vacuum cleaner, pay attention to prevent spreading toner on to each sensor part on HOUSING ASSY-DEVE due to static electricity.

- 1) Remove the toner cartridge.
- 2) Remove COVER ASSY RH. (RRP 1.12)
- 3) Remove TOP COVER. (RRP 1.1)
- 4) Remove 2ND BTR ASSY. (RRP 6.4)
- 5) Remove VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 6) Remove BCR CLEANING ASSEMBLY. (RRP 7.5)
- 7) Remove RIGHT IBT GUIDE ASSEMBLY. (RRP 7.4)
- 8) Push LATCH ROTARY (PL 9.1.3) of DEVELOPER LATCH ASSEMBLY (PL 9.1.1) to release latch, rotate DEVELOPER ROTOR FRAME ASSEMBLY (PL 9.2.9) by hand and move HOUSING ASSY-DEVE to be removed to the place where removal work can be done easily.



After moving HOUSING ASSY-DEVE, check that DEVELOPER ROTOR FRAME ASSEMBLY is properly locked by LATCH ROTARY.

- 9) Release hook of PIVOT AD (PL 9.2.11) that fixes the right side of HOUSING ASSY-DEVE to DEVELOPER ROTOR FRAME ASSEMBLY and remove PIVOT AD.
- 10) Remove a screw (silver, with a flange, tap, 8mm) that fixes PIVOT ASSY (PL 9.2.10), which is used to fix the left side of HOUSING ASSY-DEVE to FRAME ASSY-ROTARY, and remove PIVOT ASSY.
- 11) Lift up the right side of HOUSING ASSY-DEVE, release gear part at left side of HOUSING ASSY-DEVE from the gear of FRAME ASSY-ROTARY, and remove HOUSING ASSY-DEVE.

RRP9.6 DEVELOPER HOUSING, BLACK (PL 9.2.5), DEVELOPER HOUSING, YELLOW (PL 9.2.6), DEVELOPER HOUSING, MAGENTA (PL 9.2.7), DEVELOPER HOUSING, CYAN (PL 9.2.8)

[Replacement]

NOTE

A hole is provided to the extrusion of DEVELOPER ROTOR FRAME ASSEMBLY to prevent from incorrect insertion of HOUSING ASSY-DEVE. K, Y, M and C are marked on DEVELOPER ROTOR FRAME ASSEMBLY in different colors to indicate attachment positions of HOUSING ASSY-DEVE.

- 1) Attach HOUSING ASSY-DEVE by matching the gear section at the left side of HOUSING ASSY-DEVE having the same color as the marking on DEVELOPER ROTOR FRAME ASSEMBLY (PL 9.2.9) to the gear section of FRAME ASSY-ROTARY.

NOTE

Make sure to place the springs at both sides of the lower part of HOUSING ASSY-DEVE on the spring housing of DEVELOPER ROTOR FRAME ASSEMBLY without fail.

NOTE

The spring used at the lower part of HOUSING ASSY-DEVE is thick on the right side and thin on the left side.

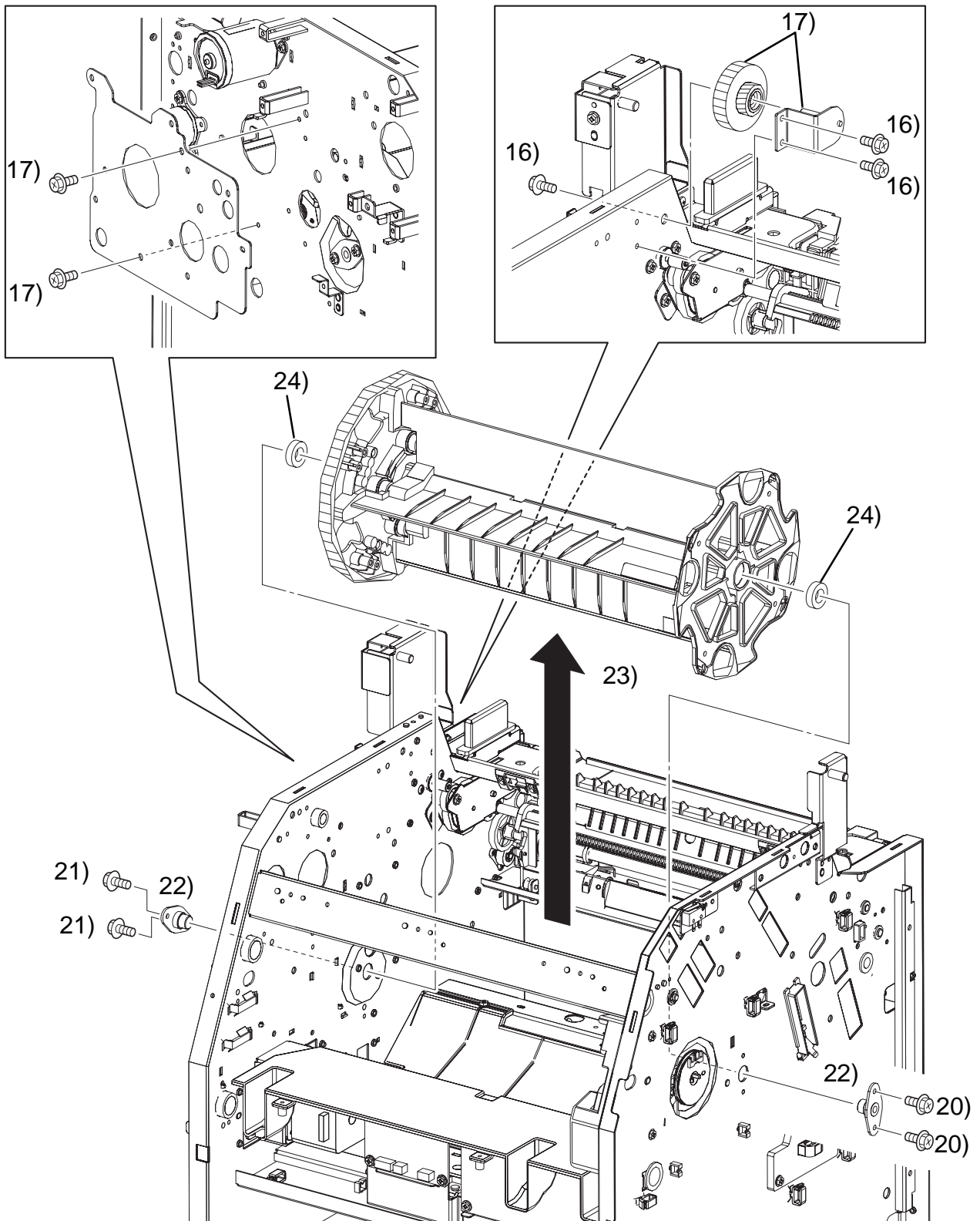
- 2) Match the hole in HOUSING ASSY-DEVE to the fitting hole at left side of FRAME ASSY-ROTARY, insert the shaft of PIVOT ASSY (PL 9.2.10) and fix the left side of HOUSING ASSY-DEVE using a screw (silver, with a flange, tap, 8mm).
- 3) Match the hole in HOUSING ASSY-DEVE to the fitting hole on right side of FRAME ASSY-ROTARY, insert the shaft of PIVOT AD, fix a hook of PIVOT AD and attach HOUSING ASSY-DEVE.

NOTE

Don't use removed PIVOT AD again, but use new parts inside KIT.

- 4) Attach RIGHT IBT GUIDE ASSEMBLY. (RRP 7.4)
- 5) Attach BCR CLEANING ASSEMBLY. (RRP 7.5)
- 6) Attach VERTICAL TRANSPORT ASSEMBLY. (RRP 5.3)
- 7) Attach 2ND BTR ASSY. (RRP 6.4)
- 8) Attach TOP COVER. (RRP 1.1)
- 9) Attach COVER ASSY RH. (RRP 1.12)
- 10) Attach the toner cartridge.
- 11) Clean the window section of PRINT HEAD ASSEMBLY (PL 8.1.1) using CLEANER (PL 8.1.2).

RRP9.7 DEVELOPER ROTOR FRAME ASSEMBLY(PL 9.2.9)



Leg_Sec03_096FB

RRP9.7 DEVELOPER ROTOR FRAME ASSEMBLY(PL 9.2.9)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove TOP COVER. (RRP 1.1)
- 3) Remove LEFT COVER. (RRP 1.10)
- 4) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 5) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 6) Remove PWBA MCU. (RRP 12.6)
- 7) Remove LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 8) Remove CHASSIS ASSY ESS. (RRP 12.10)
- 9) Remove LEFT IBT GUIDE ASSEMBLY. (RRP 7.2)
- 10) Remove RIGHT IBT GUIDE ASSEMBLY. (RRP 7.4)
- 11) Remove IBT CLEANING DRIVE ASSEMBLY. (RRP 11.2)
- 12) Remove DEVELOPMENT MOTOR. (RRP 11.5)
- 13) Remove PHOTORECEPTOR MOTOR. (RRP 11.6)
- 14) Remove DEVELOPER LATCH ASSEMBLY. (RRP 9.1)
- 15) Remove PHOTO SENSOR. (RRP 9.5)
- 16) Remove HOUSING ASSY-DEVE. (RRP 9.6)
- 17) Remove the two screws that fix PLATE LEFT to the main unit and remove PLATE LEFT.
- 18) Remove three screws (silver, with a flange, 6mm) that fix BRACKET ASSY 2ND GEAR (PL 10.1.5) to the main unit.
- 19) Remove BRACKET ASSY 2ND GEAR and GEAR 2ND (PL 10.1.4) from the main unit.
- 20) Remove two screws (silver, with a flange, 6mm) that fix SHAFT ASSY-ROTARY (PL 9.2.12) at the right side of the main unit.
- 21) Remove two screws (silver, with a flange, 6mm) that fix SHAFT ASSY-ROTARY at the left side of the main unit.
- 22) Remove SHAFT ASSY-ROTARY from both sides of the main unit.

NOTE

Be sure not to loose BEARING BALL when carrying out the work shown below.

- 23) Remove DEVELOPER ROTOR FRAME ASSEMBLY(PL 9.2.9) together with BEARING BALL (PL 9.2.14) upwards.
- 24) Remove BEARING BALL from FRAME ASSY-ROTARY.

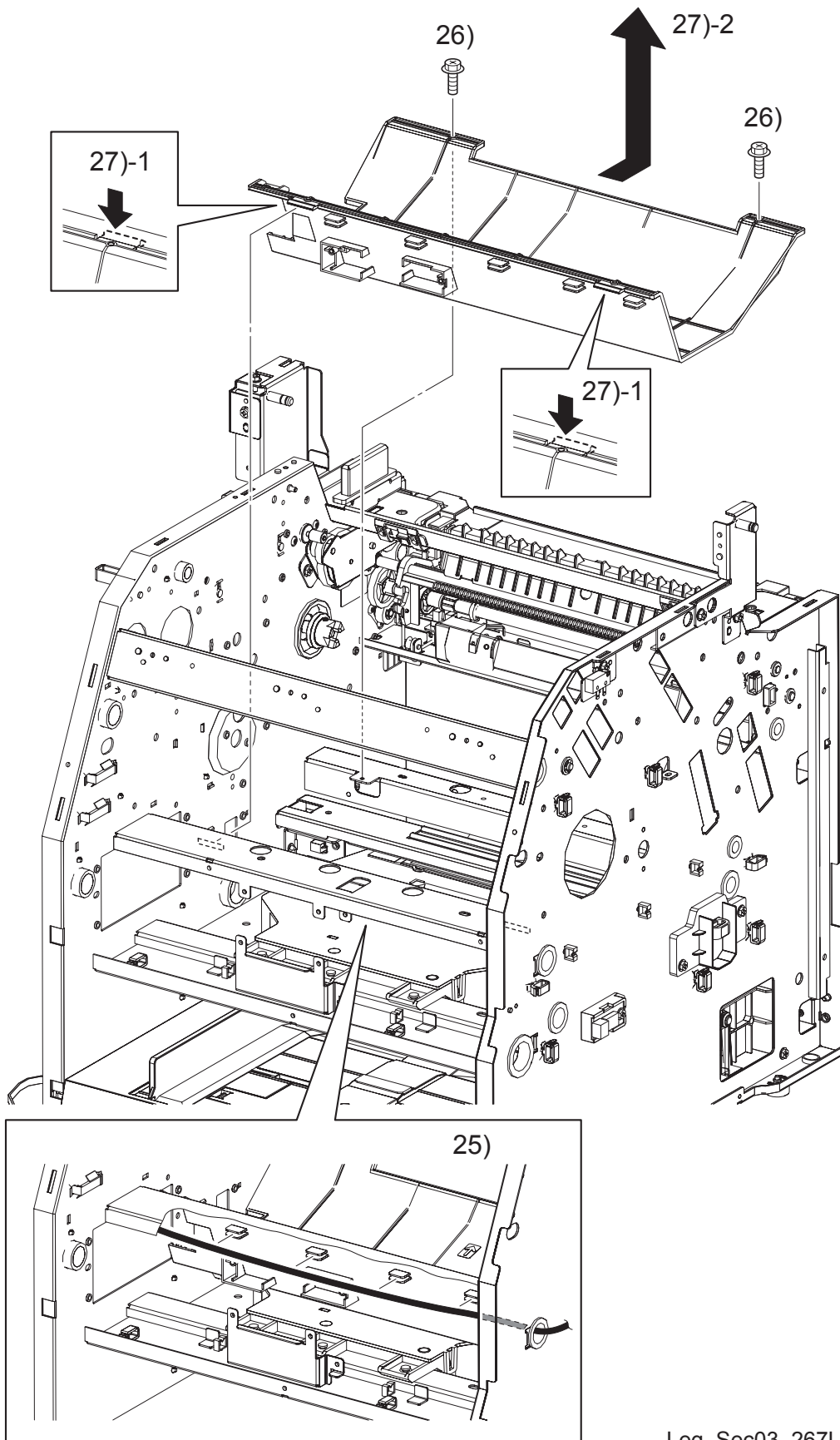
RRP9.7 DEVELOPER ROTOR FRAME ASSEMBLY(PL 9.2.9)

[Replacement]

- 1) Attach BEARING BALL (PL 9.2.14) to DEVELOPER ROTOR FRAME ASSEMBLY(PL 9.2.9).
- 2) Match DEVELOPER ROTOR FRAME ASSEMBLYto the fitting place so that its gear part comes to the left side and attach it.
- 3) Place the shaft of SHAFT ASSY-ROTARY in the hole of DEVELOPER ROTOR FRAME ASSEMBLYand fix DEVELOPER ROTOR FRAME ASSEMBLYto the main unit.
- 4) Fix SHAFT ASSY-ROTARY at the left side of the main unit using the two screws (silver, with a flange, 6mm).
- 5) Fix SHAFT ASSY-ROTARY at the right side of the main unit using the two screws (silver, with a flange, 6mm).
- 6) Attach BRACKET ASSY 2ND GEAR and GEAR 2ND to the main unit.
- 7) Fix BRACKET ASSY 2ND GEAR to the main unit using the three screws (silver, with a flange, 6mm).
- 8) Attach PLATE LEFT to the main unit using the two screws (silver, with a flange, 6mm).
- 9) Attach HOUSING ASSY-DEVE. (RRP 9.6)
- 10) Attach PHOTO SENSOR. (RRP 9.5)
- 11) Attach DEVELOPER LATCH ASSEMBLY. (RRP 9.1)
- 12) Attach PHOTORECEPTOR MOTOR. (RRP 11.6)
- 13) Attach DEVELOPMENT MOTOR. (RRP 11.5)
- 14) Attach IBT CLEANING DRIVE ASSEMBLY. (RRP 11.2)
- 15) Attach RIGHT IBT GUIDE ASSEMBLY. (RRP 7.4)
- 16) Attach LEFT IBT GUIDE ASSEMBLY. (RRP 7.2)
- 17) Attach CHASSIS ASSY ESS. (RRP 12.10)
- 18) Attach LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 19) Attach PWBA MCU. (RRP 12.6)
- 20) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 21) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 22) Attach LEFT COVER. (RRP 1.10)
- 23) Attach TOP COVER. (RRP 1.1)
- 24) Attach COVER ASSY RH. (RRP 1.12)

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RRP9.8 COVER ROTARY BOTTOM (PL 9.2.13)



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RRP9.8 COVER ROTARY BOTTOM (PL 9.2.13)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove TOP COVER. (RRP 1.1)
- 3) Remove LEFT COVER. (RRP 1.10)
- 4) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 5) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 6) Remove COVER INNER L. (RRP 1.13)
- 7) Remove PWBA MCU. (RRP 12.6)
- 8) Remove LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 9) Remove CHASSIS ASSY ESS. (RRP 12.10)
- 10) Remove LEFT IBT GUIDE ASSEMBLY. (RRP 7.2)
- 11) Remove RIGHT IBT GUIDE ASSEMBLY. (RRP 7.4)
- 12) Remove IBT CLEANING DRIVE ASSEMBLY. (RRP 11.2)
- 13) Remove DEVELOPMENT MOTOR. (RRP 11.5)
- 14) Remove PHOTORECEPTOR MOTOR. (RRP 11.6)
- 15) Remove DEVELOPER LATCH ASSEMBLY. (RRP 9.1)
- 16) Remove TONER CARTRIDGE SENSOR. (RRP 9.2)
- 17) Remove HOLDER ASSY-BIAS. (RRP 9.4)
- 18) Remove PHOTO SENSOR. (RRP 9.5)
- 19) Remove HOUSING ASSY-DEVE. (RRP 9.6)
- 20) Remove FRAME ASSY-ROTARY. (RRP 9.7)
- 21) Remove DEVELOPER ROTOR MOTOR. (RRP 11.4)
- 22) Remove HIGH VOLTAGE POWER SUPPLY(HVPS). (RRP 12.1)
- 23) Remove ROTOR CONTROL BOARD. (RRP 12.2)
- 24) Remove PWBA CRUM. (RRP 12.4)
- 25) Remove WIRE ASSY DEVE (PL 9.1.14) from COVER ROTARY BOTTOM (PL 9.2.13).
- 26) Remove the two screws (silver, with a flange, 10mm) that fix COVER ROTARY BOTTOM to the main unit.
- 27) Slide COVER ROTARY BOTTOM backward, release the left and right hooks of COVER ROTARY BOTTOM from the main unit, and remove COVER ROTARY BOTTOM.

RRP9.8 COVER ROTARY BOTTOM (PL 9.2.13)

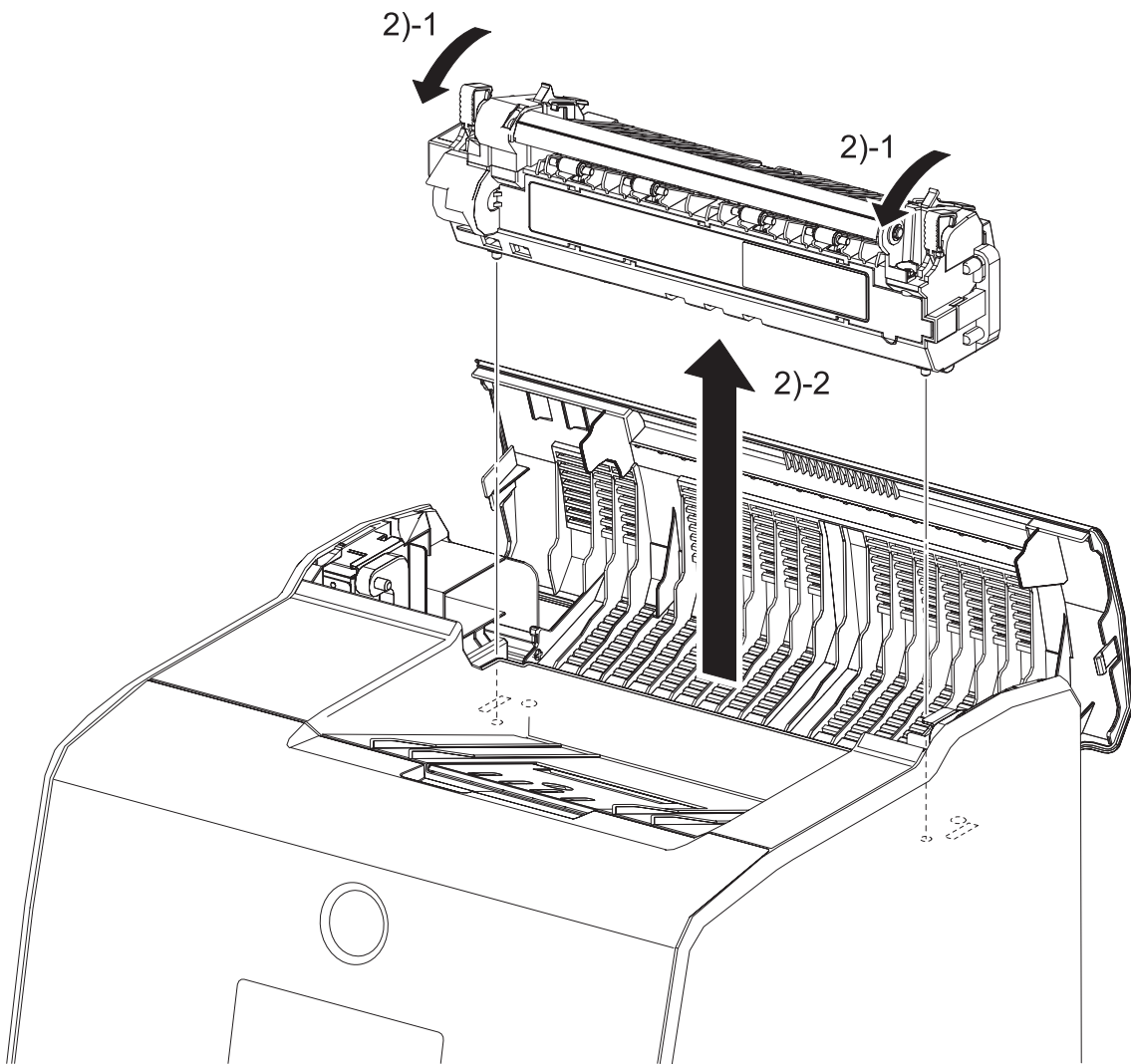
[Replacement]

- 1) Align the two hooks at the left and right of COVER ROTARY BOTTOM to the holes of the main unit, and attach COVER ROTARY BOTTOM.
- 2) Fix COVER ROTARY BOTTOM to the main unit using the two screws (silver, with a flange, 10mm).
- 3) Lay WIRE ASSY DEVE on COVER ROTARY BOTTOM, attach it.
- 4) Attach PWBA CRUM. (RRP 12.4)
- 5) Attach ROTOR CONTROL BOARD. (RRP 12.2)
- 6) Attach HIGH VOLTAGE POWER SUPPLY(HVPS). (RRP 12.1)
- 7) Attach DEVELOPER ROTOR MOTOR. (RRP 11.4)
- 8) Attach FRAME ASSY-ROTARY. (RRP 9.7)
- 9) Attach HOUSING ASSY-DEVE. (RRP 9.6)
- 10) Attach PHOTO SENSOR. (RRP 9.5)
- 11) Attach HOLDER ASSY-BIAS. (RRP 9.4)
- 12) Attach TONER CARTRIDGE SENSOR. (RRP 9.2)
- 13) Attach DEVELOPER LATCH ASSEMBLY. (RRP 9.1)
- 14) Attach PHOTORECEPTOR MOTOR. (RRP 11.6)
- 15) Attach DEVELOPMENT MOTOR. (RRP 11.5)
- 16) Attach IBT CLEANING DRIVE ASSEMBLY. (RRP 11.2)
- 17) Attach RIGHT IBT GUIDE ASSEMBLY. (RRP 7.4)
- 18) Attach LEFT IBT GUIDE ASSEMBLY. (RRP 7.2)
- 19) Attach CHASSIS ASSY ESS. (RRP 12.10)
- 20) Attach LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 21) Attach PWBA MCU. (RRP 12.6)
- 22) Attach COVER INNER L. (RRP 1.13)
- 23) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 24) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 25) Attach LEFT COVER. (RRP 1.10)
- 26) Attach TOP COVER. (RRP 1.1)
- 27) Attach COVER ASSY RH. (RRP 1.12)

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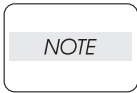
RRP10.FUSER

RRP10.1 FUSER (PL 10.1.1)



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RRP10.1 FUSER (PL 10.1.1)



FUSER part is very hot, so pay sufficient attention at work to avoid burns, etc.

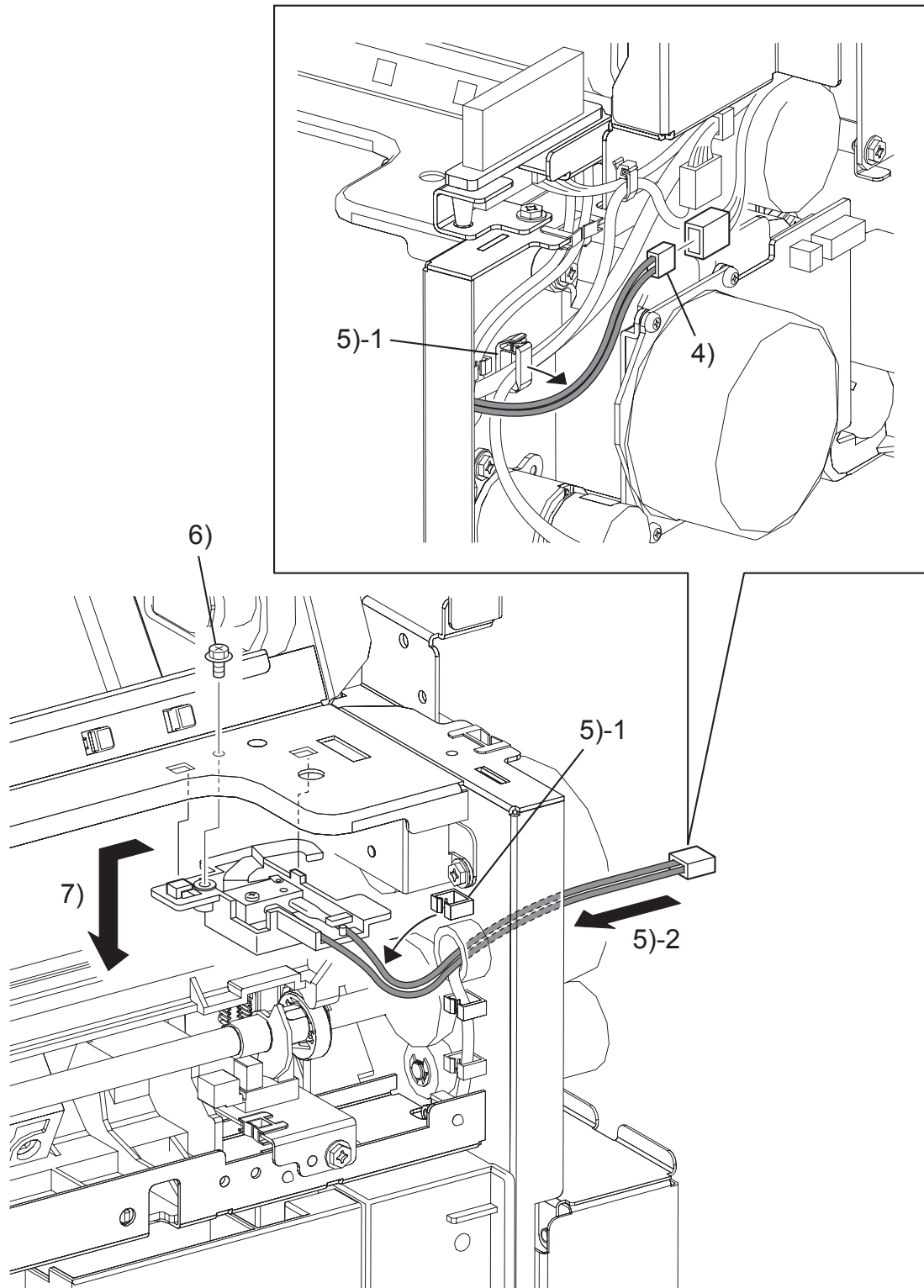
[Removal]

- 1) Open FUSER COVER (PL 1.1.6).
- 2) Raise levers on both sides of FUSER (PL 10.1.1) to release lock and remove FUSER.

[Replacement]

- 1) Match connector and boss part on FUSER side to connector and hole on main unit side and attach FUSER.
- 2) Return levers on both sides of FUSER and lock it to the main unit properly.
- 3) Close FUSER COVER.

RRP10.2 FUSER LOCK SWITCH (PL 10.1.6)

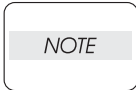


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RRP10.2 FUSER LOCK SWITCH (PL 10.1.6)

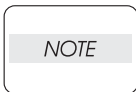
[Removal]

- 1) Remove FUSER. (RRP 10.1)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)



When carrying out the work shown below, leave the relay connector on the harness side.

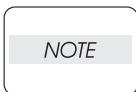
- 4) Remove the connector (P/J128, blue) of FUSER LOCK SWITCH (PL 10.1.2).
- 5) Release the two clamps that fix the harness of FUSER LOCK SWITCH and remove the harness of FUSER LOCK SWITCH, and insert the connector of FUSER LOCK SWITCH inside the main unit through the hole of the main unit.



When carrying out the work shown below, be careful for falling down FUSER LOCK SWITCH.

- 6) Remove a screw (silver, with a flange, tap, 6mm) that fix FUSER LOCK SWITCH to the main unit.
- 7) Move FUSER LOCK SWITCH to the right side, release the hook of FUSER LOCK SWITCH from the hole of the main unit and remove FUSER LOCK SWITCH.

[Replacement]

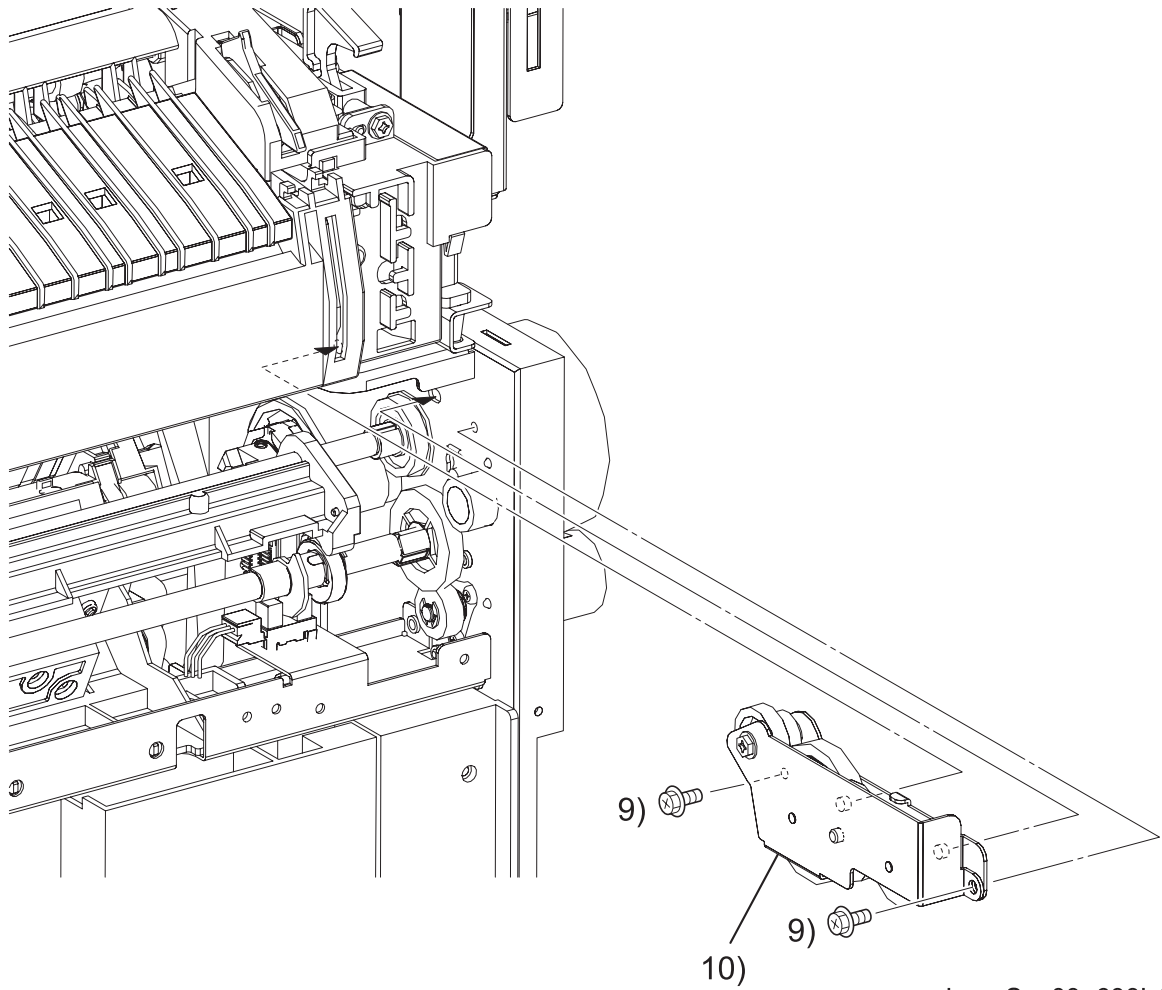


When carrying out the work shown below, be careful for falling down FUSER LOCK SWITCH.

- 1) Match the hook and convex of FUSER LOCK SWITCH (PL 10.1.6) to the hole of the main unit, move FUSER LOCK SWITCH to the left side and attach it.
- 2) Attach a hand to the under part of FUSER LOCK SWITCH and attach FUSER LOCK SWITCH to the main unit using a screw (silver, with a flange, tap, 6mm).
- 3) Pull out the connector of FUSER LOCK SWITCH from the hole of the main unit.
- 4) Connect the connector (P/J128, blue) of FUSER LOCK SWITCH and fix the harness of FUSER LOCK SWITCH using two clamps.
- 5) Attach FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 6) Attach LEFT COVER. (RRP 1.10)
- 7) Attach FUSER. (RRP 10.1)

RRP11.DRIVE

RRP11.1 DRIVE ASSY BTR (PL 11.1.1)



Leg_Sec03_638LA

RRP11.1 DRIVE ASSY BTR (PL 11.1.1)

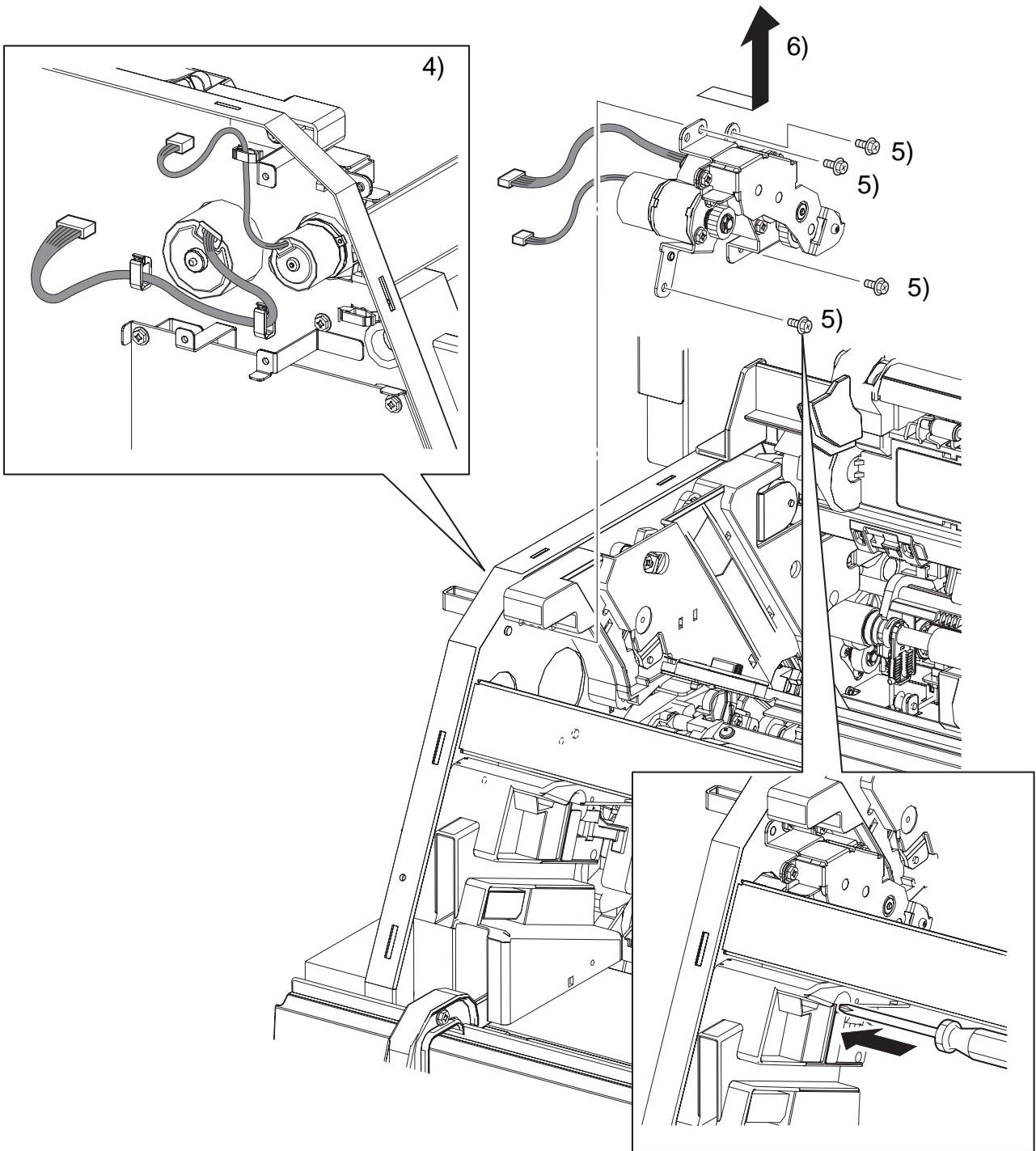
[Removal]

- 1) Remove COVER-ASSY RH. (RRP 1.12)
- 2) Remove TOP COVER. (RRP 1.1)
- 3) Remove 2ND BTR ASSY. (RRP 6.4)
- 4) Remove LEFT COVER. (RRP 1.10)
- 5) Remove PWBA MCU. (RRP 12.6)
- 6) Remove CHASSIS ASSY ESS. (RRP 12.10)
- 7) Remove LEFT IBT GUIDE ASSEMBLY. (RRP 7.2)
- 8) Remove FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 9) Remove two screws (silver, with a flange, 6mm) that fix DRIVE ASSY BTR (PL 11.1.1) to the main unit.
- 10) Remove DRIVE ASSY BTR from the main unit.

[Replacement]

- 1) Match the shaft of DRIVE ASSY BTR to the hole of main unit and attach DRIVE ASSY BTR.
- 2) Fix DRIVE ASSY BTR to the main unit using two screws (silver, with a flange, 6mm).
- 3) Attach FUSER CHUTE ASSEMBLY, BIAS TRANSFER ROLL(BTR) COVER. (RRP 6.1)
- 4) Attach LEFT IBT GUIDE ASSEMBLY. (RRP 7.2)
- 5) Attach CHASSIS ASSY ESS. (RRP 12.10)
- 6) Attach PWBA MCU. (RRP 12.6)
- 7) Attach LEFT COVER. (RRP 1.10)
- 8) Attach 2ND BTR ASSY. (RRP 6.4)
- 9) Attach TOP COVER. (RRP 1.1)
- 10) Attach COVER ASSY RH. (RRP 1.12)

RRP11.2 IBT CLEANING DRIVE ASSEMBLY (PL 11.1.2)



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RRP11.2 IBT CLEANING DRIVE ASSEMBLY (PL 11.1.2)

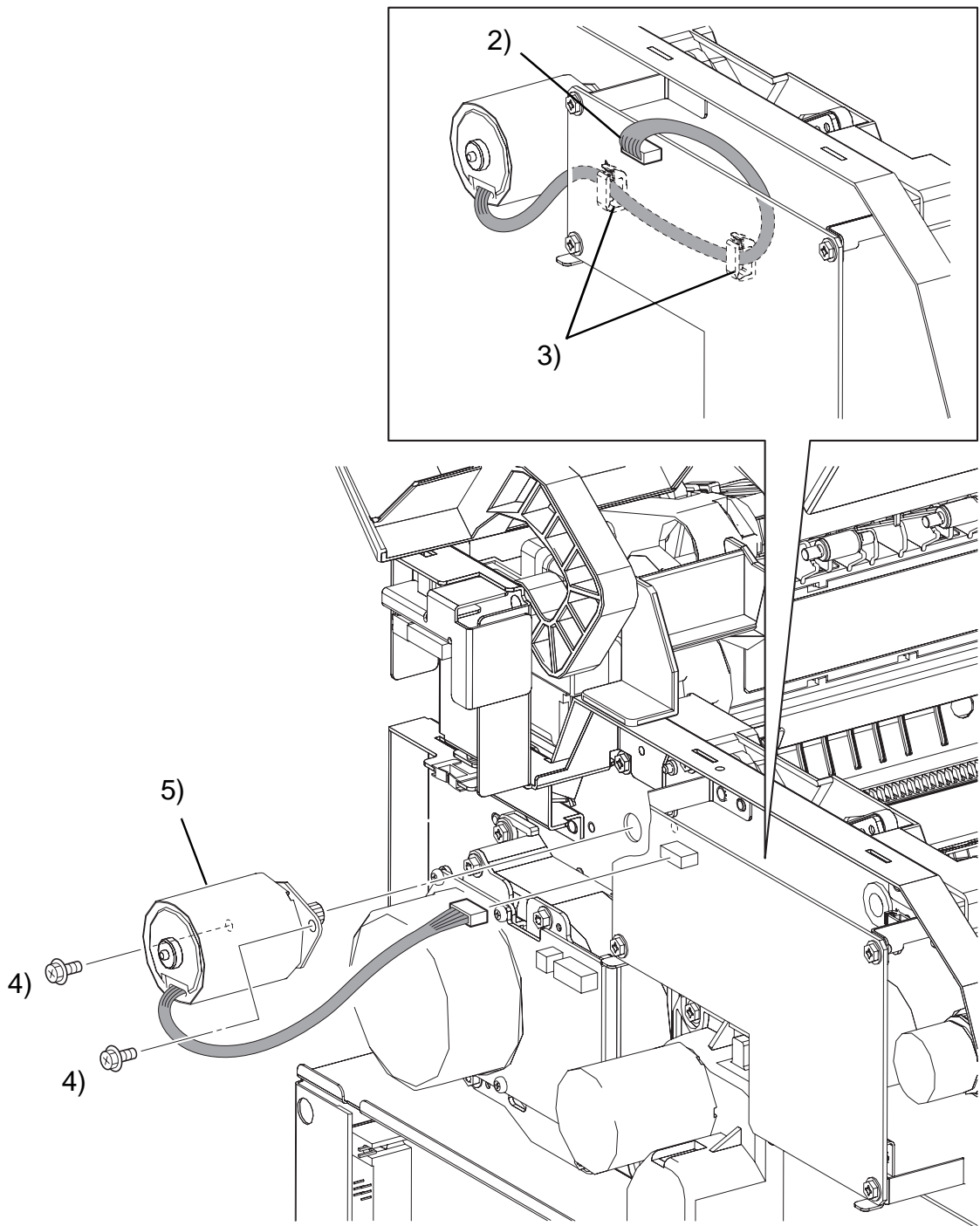
[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Remove COVER INNER U. (RRP 1.14)
- 3) Remove PWBA MCU. (RRP 12.6)
- 4) Release harness of IBT CLEANING DRIVE ASSEMBLY (PL 11.1.2) on the left side of main unit from clamp.
- 5) Remove four screws (silver, with a flange, 6mm) that fix IBT CLEANING DRIVE ASSEMBLY to the main unit.
- 6) Remove IBT CLEANING DRIVE ASSEMBLY from the main unit.

[Replacement]

- 1) Place the motor and harness of IBT CLEANING DRIVE ASSEMBLY in hole of main unit, match hole of IBT CLEANING DRIVE ASSEMBLY to the boss of main unit and attach IBT CLEANING DRIVE ASSEMBLY.
- 2) Fix IBT CLEANING DRIVE ASSEMBLY to the main unit using four screws (silver, with a flange, 6mm).
- 3) Fix harness of IBT CLEANING DRIVE ASSEMBLY using clamp on the left side of main unit.
- 4) Attach PWBA MCU. (RRP 12.6)
- 5) Attach COVER INNER U. (RRP 1.14)
- 6) Attach LEFT COVER. (RRP 1.10)

RRP11.3 FUSER DRIVE MOTOR (PL 11.1.3)



Leg_Sec03_100FB

RRP11.3 FUSER DRIVE MOTOR (PL 11.1.3)

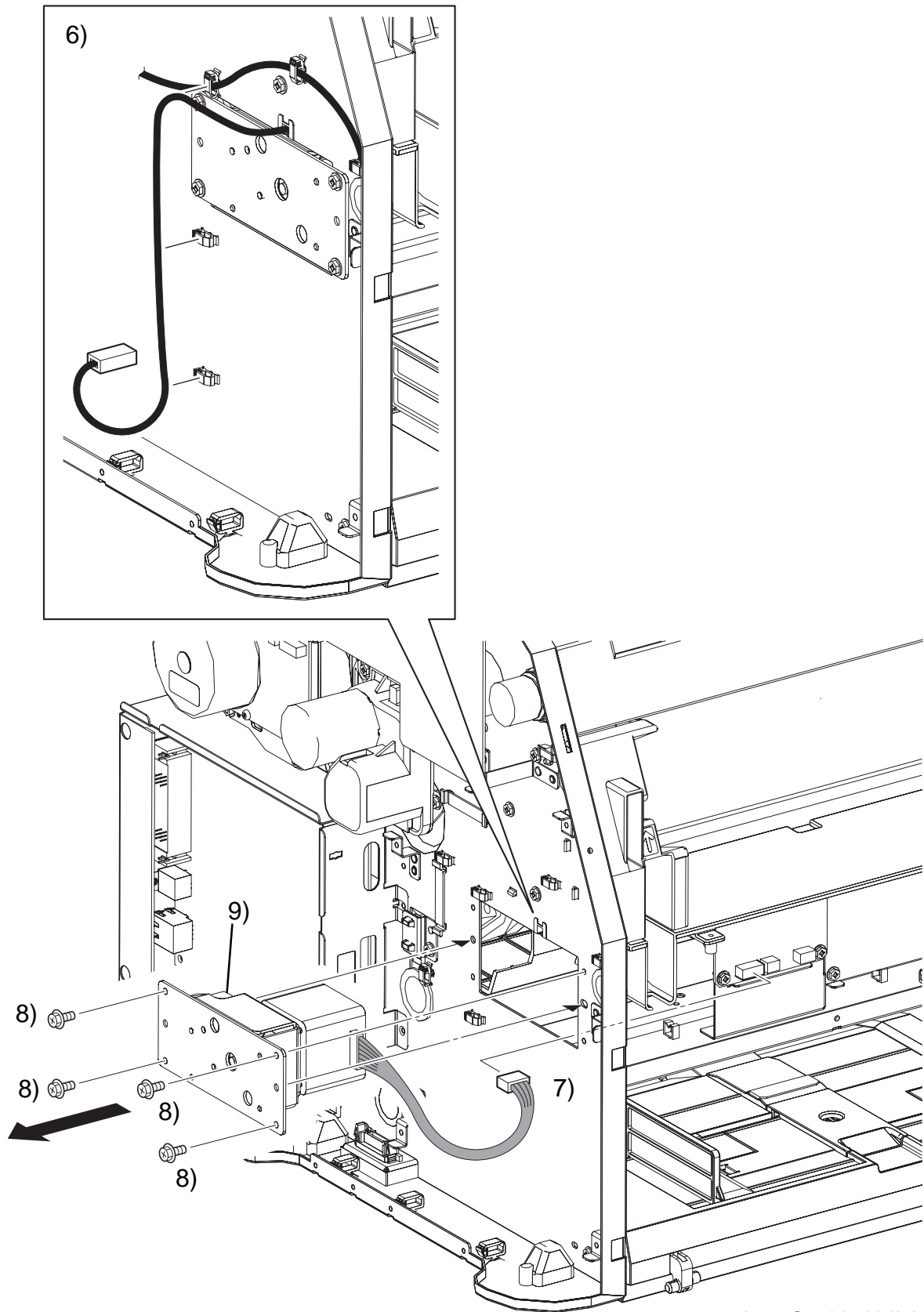
[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Remove the connector (P/J404) on MACHINE CONTROL UNIT(MCU)(PL 12.2.4).
- 3) Release the clamp that fix the harness of FUSER DRIVE MOTOR (PL 11.1.3), remove the harness.
- 4) Remove two screws (silver, with a flange, 4mm) that fix FUSER DRIVE MOTOR to the main unit.
- 5) Remove FUSER DRIVE MOTOR from the main unit.

[Replacement]

- 1) Attach FUSER DRIVE MOTOR to the main unit.
- 2) Fix FUSER DRIVE MOTOR to the main unit using two screws (silver, with a flange, 4mm).
- 3) Attach the connector (P/J404) on PWBA MCU.
- 4) Fix the harness of FUSER DRIVE MOTOR using clamp.
- 5) Attach LEFT COVER. (RRP 1.10)

RRP11.4 DEVELOPER ROTOR MOTOR (PL 11.1.4)



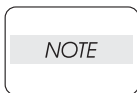
Leg_Sec03_101LA

RRP11.4 DEVELOPER ROTOR MOTOR (PL 11.1.4)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 6) Release clamp that fixes WIRE ASSY DEVE (PL 9.1.14), remove WIRE ASSY DEVE.
- 7) Remove connector (P/J433) on ROTOR CONTROL BOARD (PL 12.1.2).
- 8) Remove four screws (silver, with a flange, 6mm) that fix DEVELOPER ROTOR MOTOR (PL 11.1.4) to the main unit.
- 9) Remove DEVELOPER ROTOR MOTOR from the main unit.

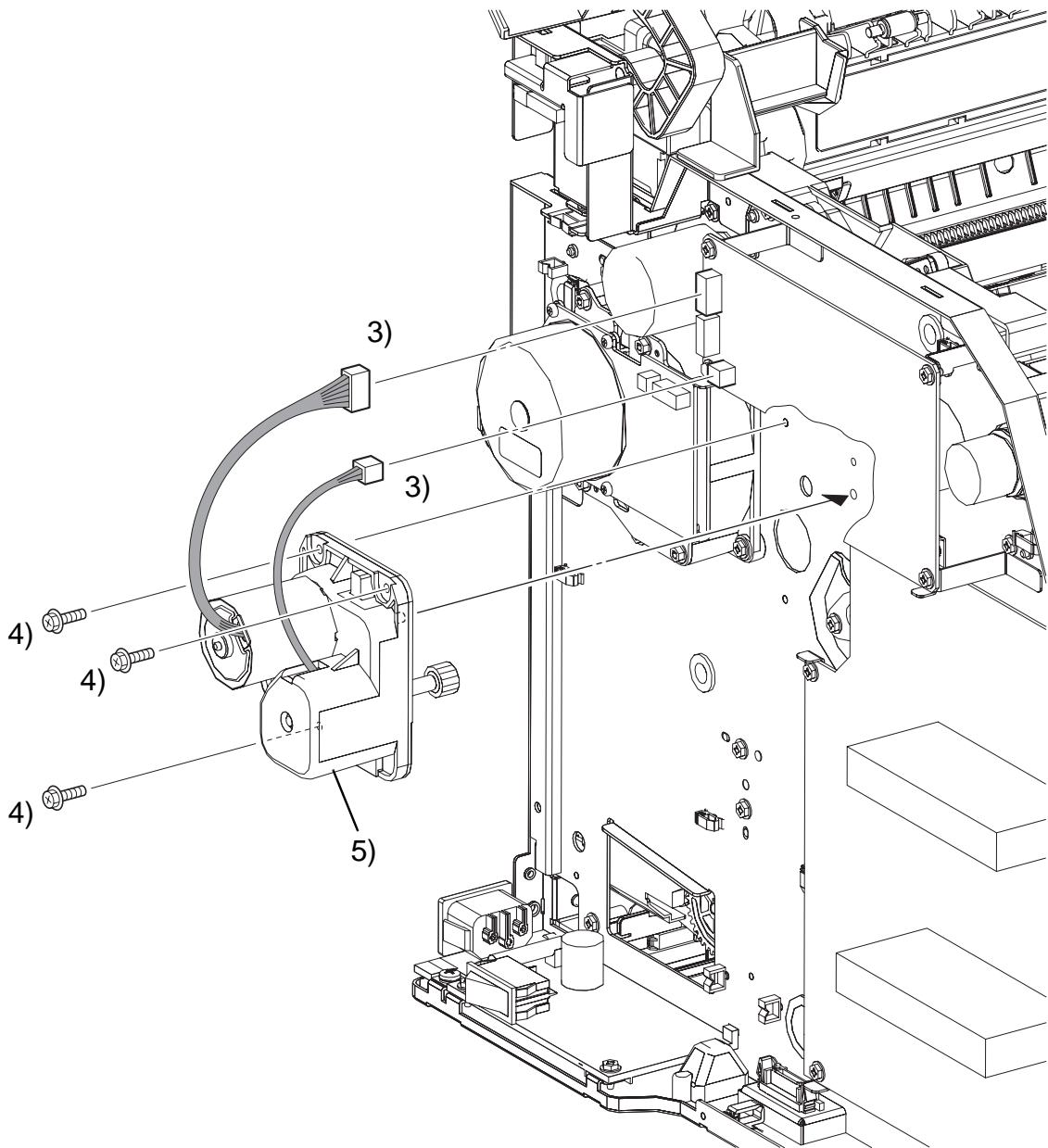
[Replacement]



WIRE ASSY DEVE should not be caught between the main unit and DEVELOPER ROTOR MOTOR when carrying out the work shown below.

- 1) Match the boss of DEVELOPER ROTOR MOTOR to the hole of main unit and attach it.
- 2) Fix DEVELOPER ROTOR MOTOR to the main unit using four screws (silver, with a flange, 6mm).
- 3) Attach connector (P/J433) on ROTOR CONTROL BOARD.
- 4) Fix WIRE ASSY DEVE with a clamp.
- 5) Attach LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 6) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 7) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 8) Attach LEFT COVER. (RRP 1.10)
- 9) Attach COVER ASSY RH. (RRP 1.12)

RRP11.5 DEVELOPMENT MOTOR (PL 11.1.5)

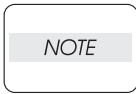


Leg_Sec03_102FB

RRP11.5 DEVELOPMENT MOTOR (PL 11.1.5)

[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)



It is not necessary to remove the connector of ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD when carrying out the work shown below.

- 2) Remove CHASSIS ASSY ESS. (RRP 12.10)
- 3) Remove connector (P/J405) and connector (P/J406) on MACHINE CONTROL UNIT(MCU)(PL 12.2.4).
- 4) Remove three screws (silver, with a flange, 10mm) that fix DEVELOPMENT MOTOR to the main unit.
- 5) Remove DEVELOPMENT MOTOR from the main unit.

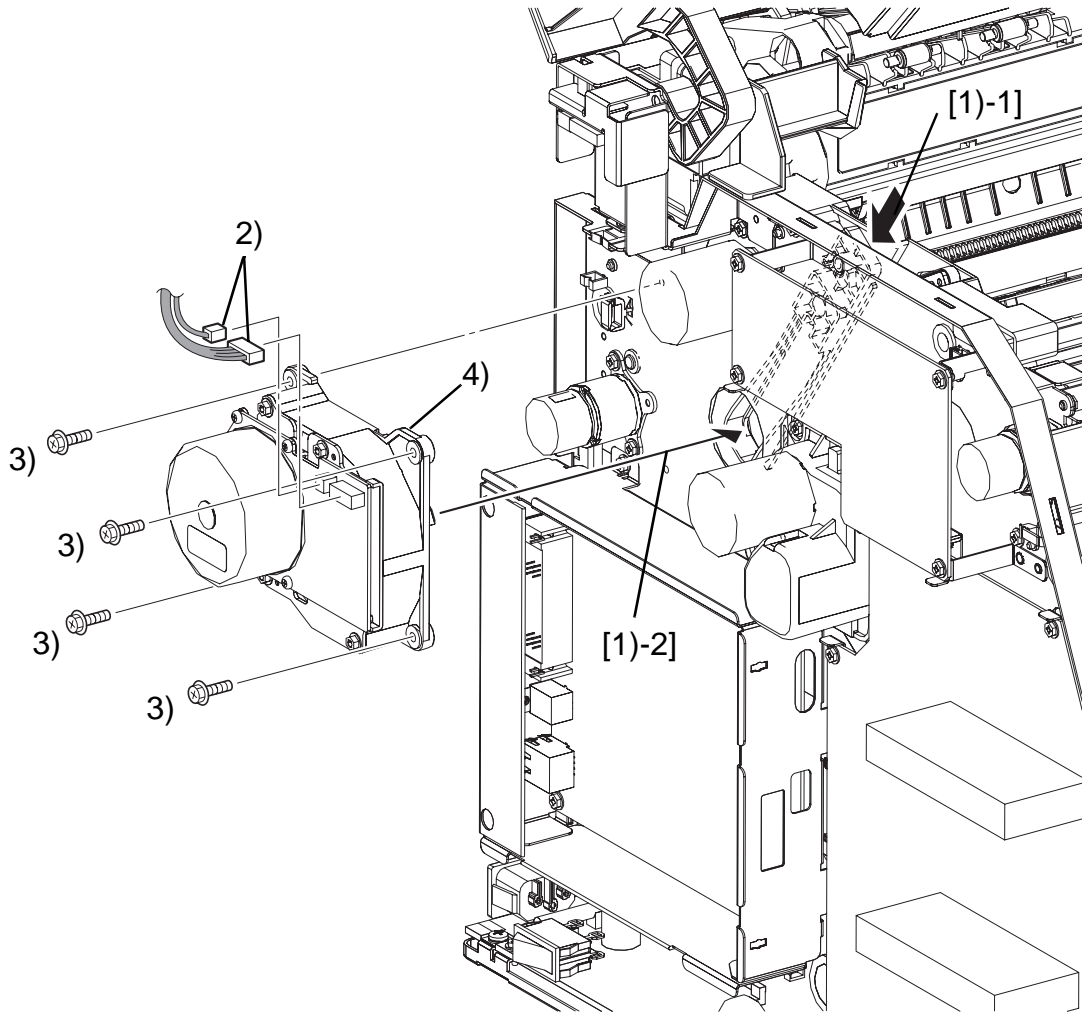
[Replacement]

- 1) Match the boss of DEVELOPMENT MOTOR to the hole of main unit and attach it.
- 2) Fix DEVELOPMENT MOTOR to the main unit using three screws (silver, with a flange, 10mm).
- 3) Attach connector (P/J405) and connector (P/J406) on PWBA MCU.
- 4) Attach CHASSIS ASSY ESS. (RRP 12.10)
- 5) Attach LEFT COVER. (RRP 1.10)

RRP11.6 PHOTORECEPTOR MOTOR (PL 11.1.6)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



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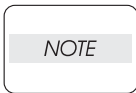
RRP11.6 PHOTORECEPTOR MOTOR (PL 11.1.6)

[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Remove connector (P/J200) and connector (P/J201) on PHOTORECEPTOR MOTOR (PL 11.1.6).
- 3) Remove four screws (silver, with a flange, 10mm) that fix PHOTORECEPTOR MOTOR to the main unit.
- 4) Remove PHOTORECEPTOR MOTOR from the main unit.

[Replacement]

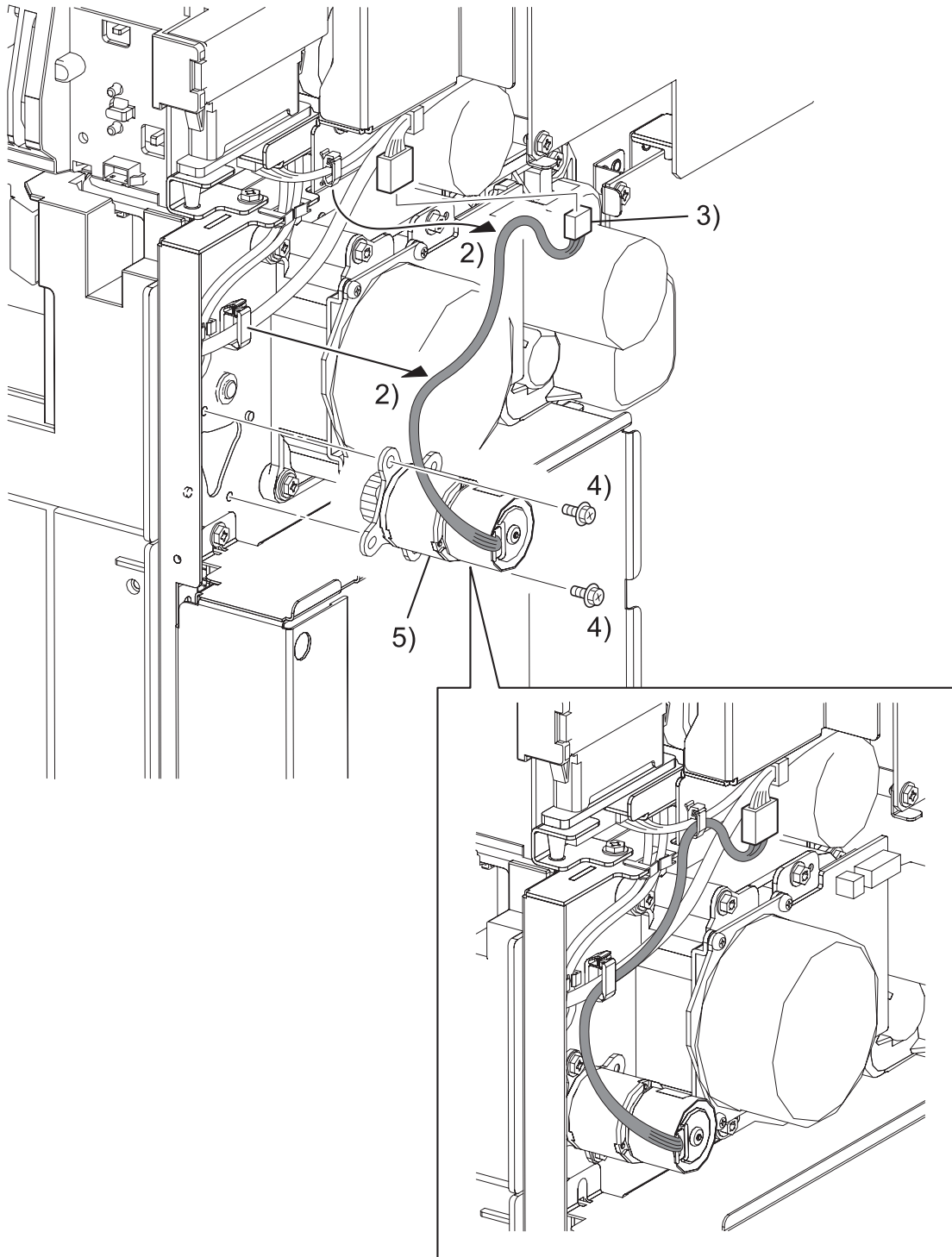
- 1) Give LINK-COUPLING (PL 7.1.9) a slight press, attach PHOTORECEPTOR MOTOR to the main unit.
- 2) Fix PHOTORECEPTOR MOTOR to the main unit using four screws (silver, with a flange, 10mm).



Open and close TOP COVER (PL 1.1.1) and confirm movement of the coupling of PHOTORECEPTOR MOTOR.

- 3) Attach connector (P/J200) and connector (P/J201) on PHOTORECEPTOR MOTOR.
- 4) Attach LEFT COVER. (RRP 1.10)

RRP11.7 BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR (PL 11.1.7)



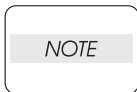
Leg_Sec03_628LA

RRP11.7 BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR (PL 11.1.7)

[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Release the clamps that fix the harness of BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR.
- 3) Remove the connector (P/J600) of BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR (PL 11.1.7).
- 4) Remove the two screws (silver, with a flange, 4mm) that fix BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR to the main unit.
- 5) Remove BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR from the main unit.

[Replacement]

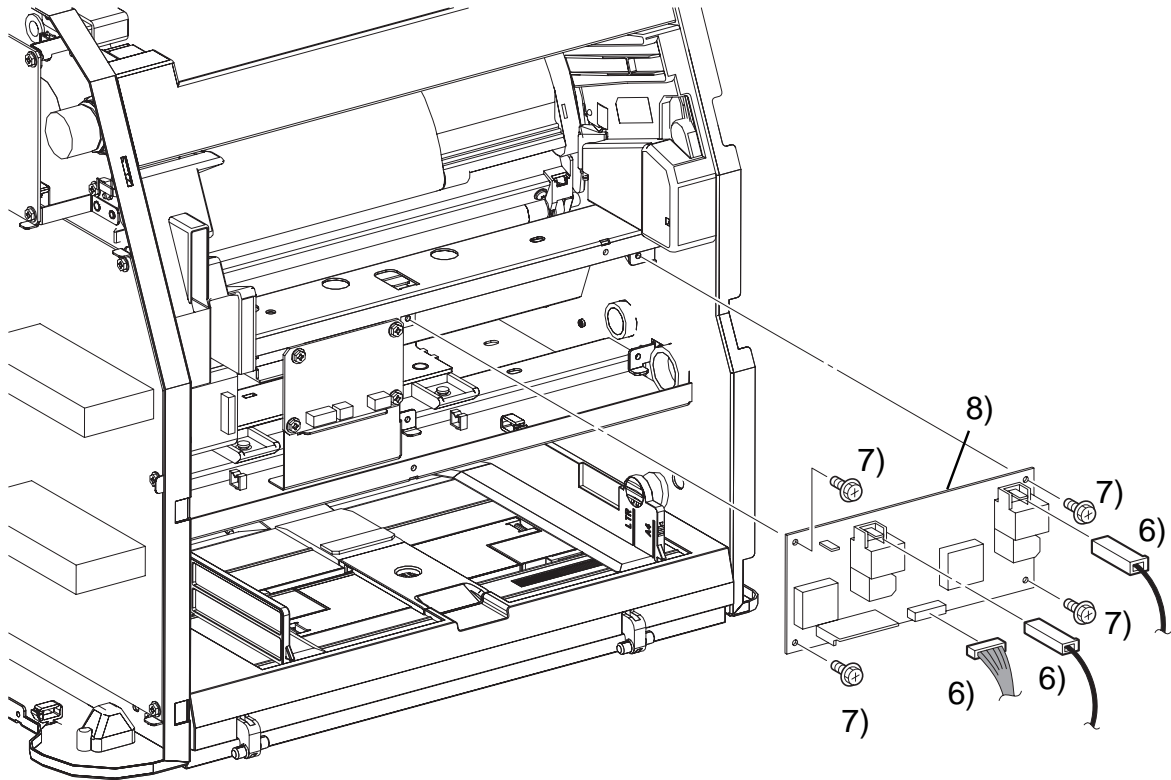


Pay attention setting direction of BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR when carrying out the work shown below.

- 1) Attach BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR to the main unit so that the harness of BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR is directed rearward.
- 2) Fix BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR to the main unit using two screws (silver, with a flange, 4mm).
- 3) Attach the connector (P/J600) of BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR.
- 4) Fix the harness of BIAS TRANSFER ROLLER(BTR) RETRACTOR MOTOR with the clamp.
- 5) Attach LEFT COVER. (RRP 1.10)

RRP12.ELEC

RRP12.1 HIGH VOLTAGE POWER SUPPLY(HVPS) (PL 12.1.1)



Leg_Sec03_105LA

RRP12.1 HIGH VOLTAGE POWER SUPPLY(HVPS) (PL 12.1.1)

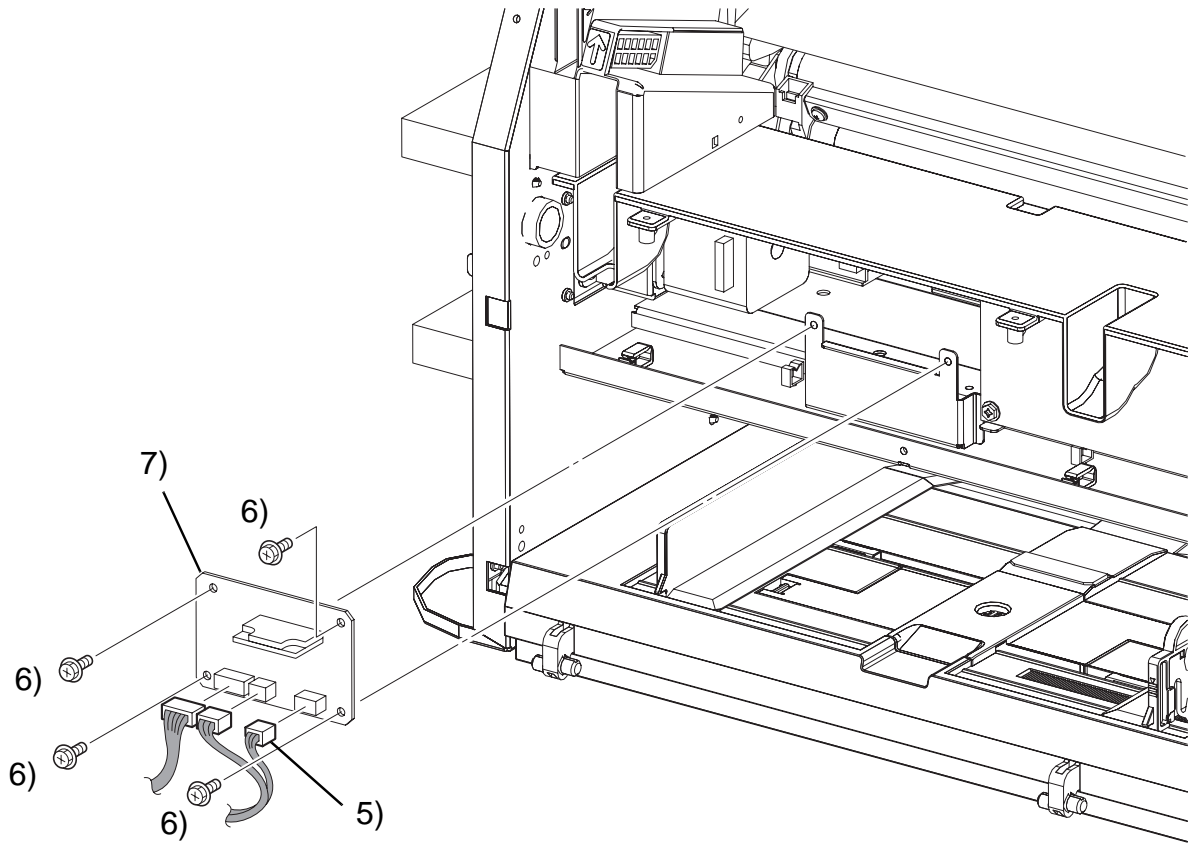
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove COVER INNER L. (RRP 1.13)
- 6) Remove connector (P/J516) on HIGH VOLTAGE POWER SUPPLY(HVPS) (PL 12.1.1), WIRE ASSY 2BTR (PL 6.1.30), and WIRE ASSY IBT (PL 7.1.25).
- 7) Remove four screws (silver, with a flange, 6mm) that fix HIGH VOLTAGE POWER SUPPLY (HVPS) to the main unit.
- 8) Remove HIGH VOLTAGE POWER SUPPLY(HVPS) from the main unit.

[Replacement]

- 1) Attach HIGH VOLTAGE POWER SUPPLY(HVPS) to the main unit.
- 2) Fix HIGH VOLTAGE POWER SUPPLY(HVPS) to the main unit using four screws (silver, with a flange, 6mm).
- 3) Attach connector (P/J516) on HIGH VOLTAGE POWER SUPPLY(HVPS), WIRE ASSY 2BTR (PL 6.1.30), and WIRE ASSY IBT (PL 7.1.25).
- 4) Attach COVER INNER L. (RRP 1.13)
- 5) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 6) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 7) Attach LEFT COVER. (RRP 1.10)
- 8) Attach COVER ASSY RH. (RRP 1.12)

RRP12.2 ROTOR CONTROL BOARD (PL 12.1.2)



Leg_Sec03_106FB

RRP12.2 ROTOR CONTROL BOARD (PL 12.1.2)

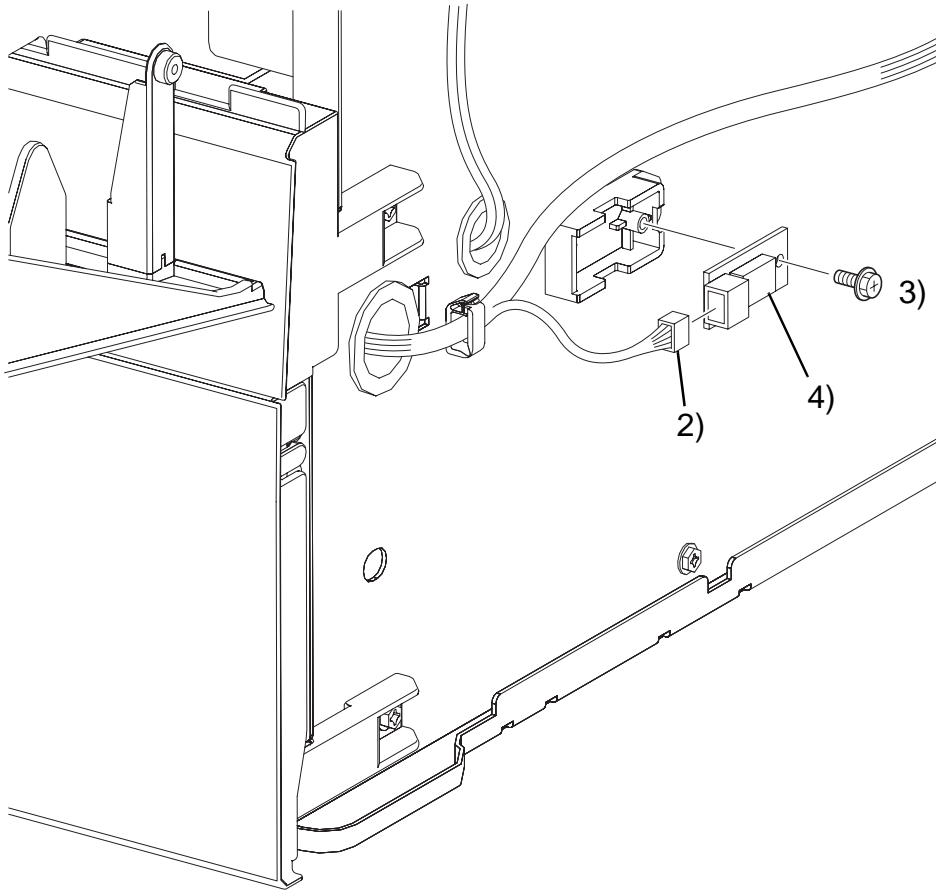
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove connector (P/J430), connector (P/J432) and connector (P/J433) on ROTOR CONTROL BOARD (PL 12.1.2).
- 6) Remove four screws (silver, with a flange, 6mm) that fix ROTOR CONTROL BOARD to the main unit.
- 7) Remove ROTOR CONTROL BOARD from the main unit.

[Replacement]

- 1) Attach ROTOR CONTROL BOARD to the main unit.
- 2) Fix ROTOR CONTROL BOARD to the main unit using four screws (silver, with a flange, 6mm).
- 3) Attach connector (P/J430), connector (P/J432) and connector (P/J433) on ROTOR CONTROL BOARD.
- 4) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 6) Attach LEFT COVER. (RRP 1.10)
- 7) Attach COVER ASSY RH. (RRP 1.12)

RRP12.3 SENSOR ASSY (PL 12.1.3)



Leg_Sec03_107LA

RRP12.3 SENSOR ASSY (PL 12.1.3)

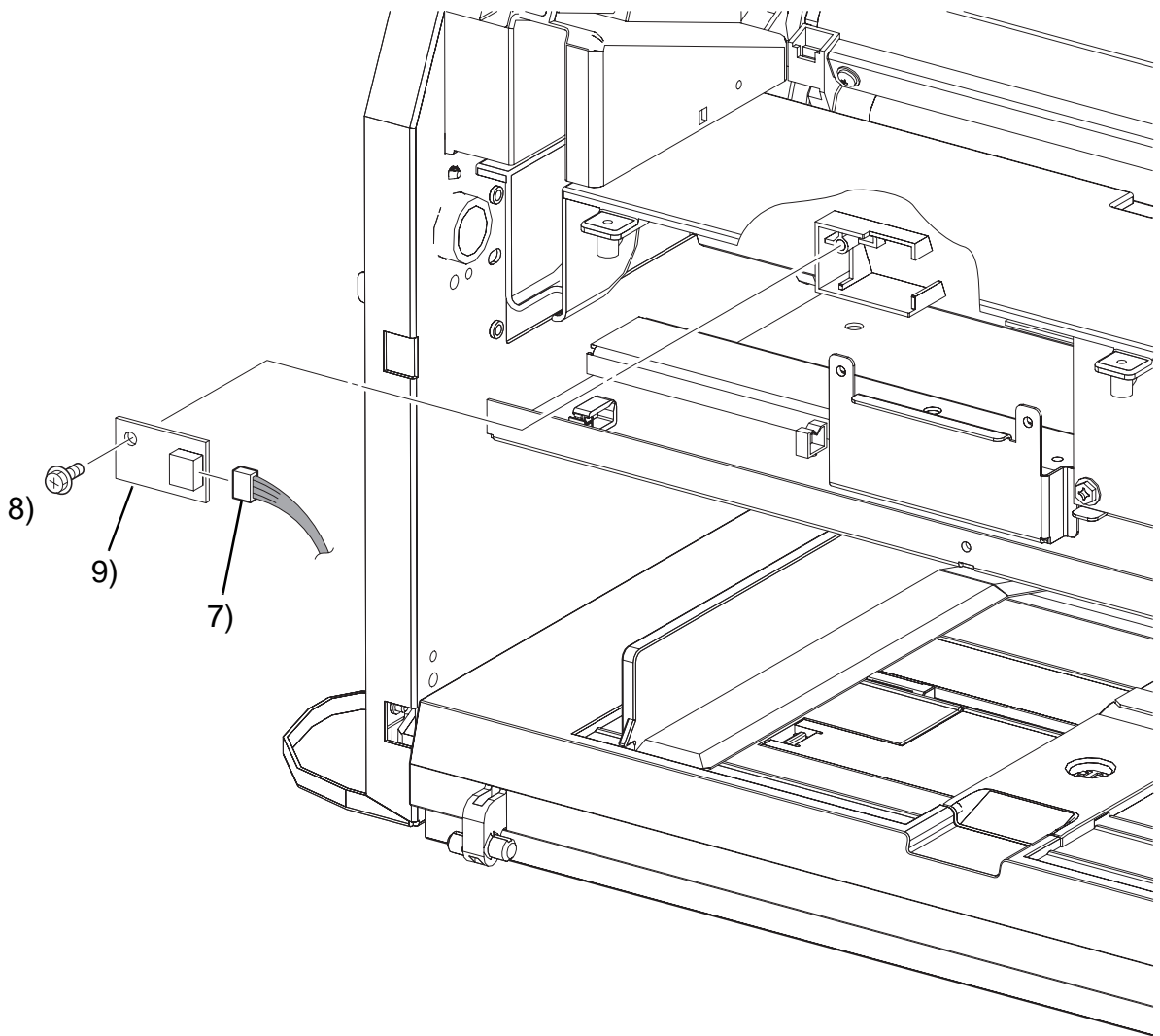
[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove connector (P/J104) on SENSOR ASSY (PL 12.1.3).
- 3) Remove a screw (silver, with a flange, tap, 8mm) that fixes SENSOR ASSY to the main unit.
- 4) Remove SENSOR ASSY from the main unit.

[Replacement]

- 1) Attach SENSOR ASSY to the main unit.
- 2) Fix SENSOR ASSY to the main unit using a screw (silver, with a flange, tap, 8mm).
- 3) Attach connector (P/J104) on SENSOR ASSY.
- 4) Attach COVER ASSY RH. (RRP 1.12)

RRP12.4 PWBA CRUM (PL 12.1.4)



Leg_Sec03_108FB

RRP12.4 PWBA CRUM (PL 12.1.4)

[Removal]

- 1) Remove COVER ASSY RH. (RRP 1.12)
- 2) Remove LEFT COVER. (RRP 1.10)
- 3) Remove MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 4) Remove LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 5) Remove LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 6) Remove DEVELOPER ROTOR MOTOR. (RRP 11.4)
- 7) Remove connector (P/J429) on PWBA CRUM (PL 12.1.4).
- 8) Remove a screw (silver, with a flange, tap, 8mm) that fixes PWBA CRUM to the main unit.
- 9) Remove PWBA CRUM from the main unit.

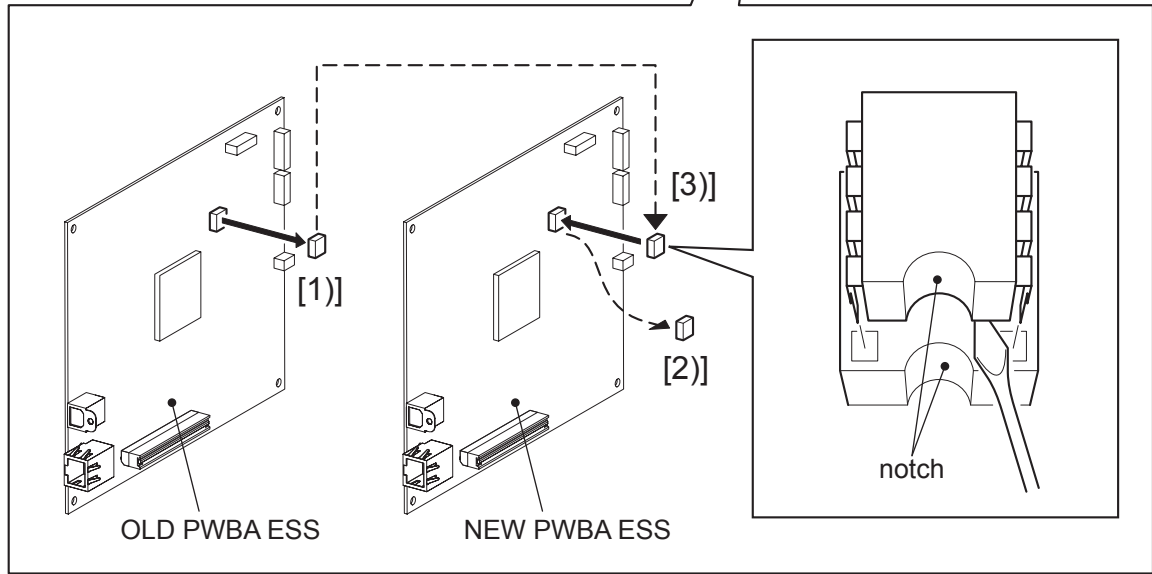
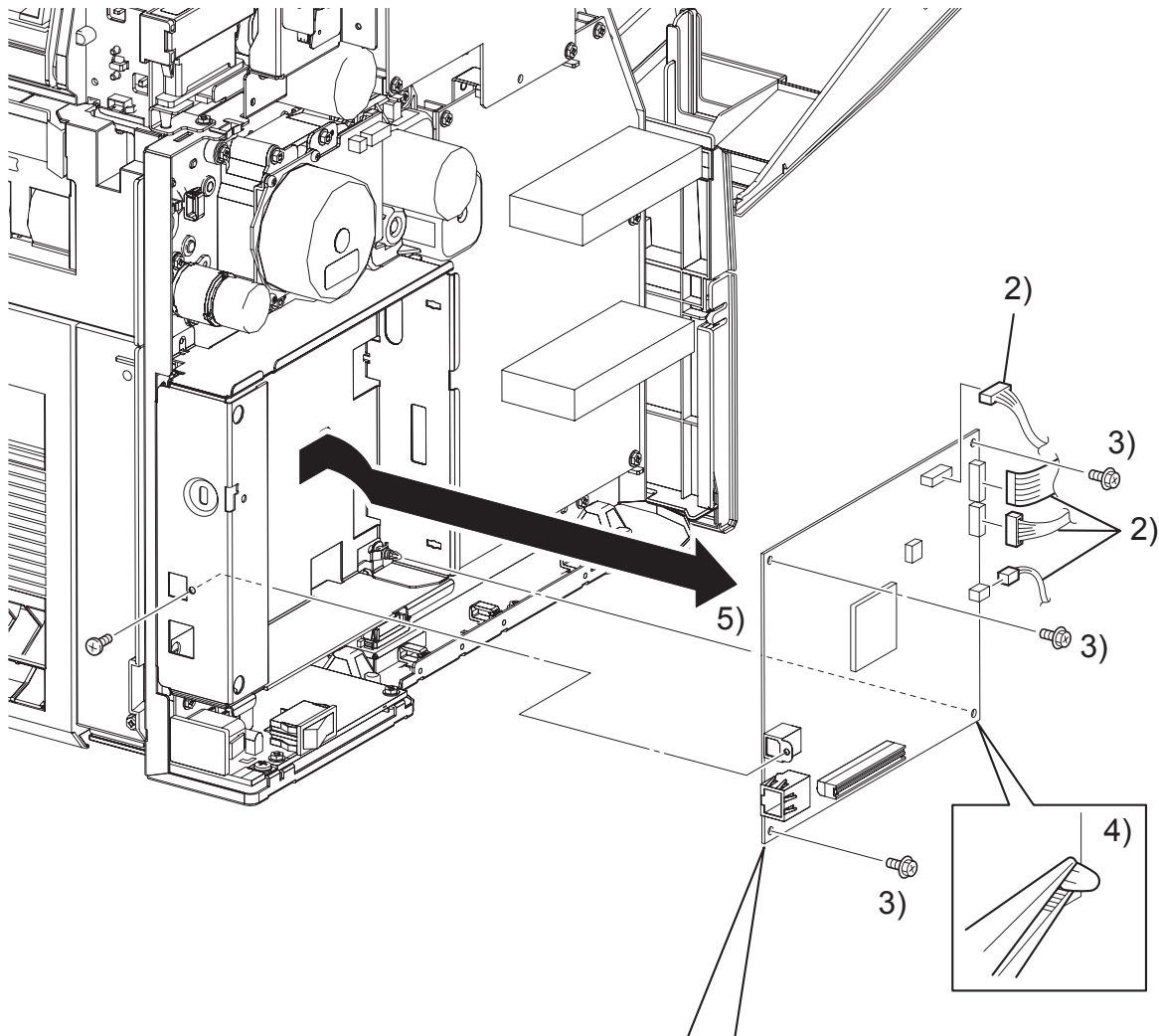
[Replacement]

- 1) Attach PWBA CRUM to the main unit.
- 2) Fix PWBA CRUM to the main unit using a screw (silver, with a flange, tap, 8mm).
- 3) Attach connector (P/J429) on PWBA CRUM.
- 4) Attach DEVELOPER ROTOR MOTOR. (RRP 11.4)
- 5) Attach LOW/HIGH VOLTAGE POWER SUPPLY. (RRP 12.7)
- 6) Attach LOWER FRONT COVER and COVER FRONT-U. (RRP 1.8)
- 7) Attach MULTIPURPOSE FEEDER COVER. (RRP 1.7)
- 8) Attach LEFT COVER. (RRP 1.10)
- 9) Attach COVER ASSY RH. (RRP 1.12)

RRP12.5 ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD (PL 12.2.2)

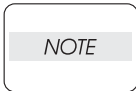
NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_614LA

RRP12.5 ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD (PL 12.2.2)

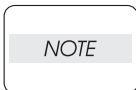


Use the wrist strap to protect the PWB from the electrostatic.

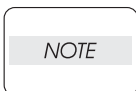
[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Remove the four connectors (P/J 70, P/J 71, P/J 72 and P/J 129) on ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD(PL 12.2.2).
- 3) Remove the three screws (silver, with a flange, 6mm) that fix ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD to CHASSIS A (PL 12.2.1) and remove the two screws that fixes the connector of interface.
- 4) Release the hook of the SUPPORT LOCKING 4.8 (PL12.2.29) that fixes the under hole of the front side of the ELECTRONIC SUB SYSTEM (ESS) CONTROLLER BOARD.
- 5) Release the connector of interface on ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD from the hole in CHASSIS A, and remove PWBA ESS.

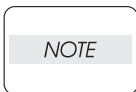
[Replacement]



Replacement procedures 1) to 3) are applicable to the case when ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD is replaced, and they are not applicable in the case of removal only.

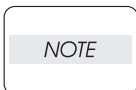


Do not press the PWB when removing the NVM ROM.

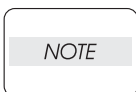


When carrying out the work shown below, be careful not to bend the NVM terminals.

- 1) Remove NVM from the IC socket on the old PWBA ESS, removed from the main unit, using a small screwdriver.
- 2) Remove NVM from the IC socket on the new ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD using a small screwdriver.



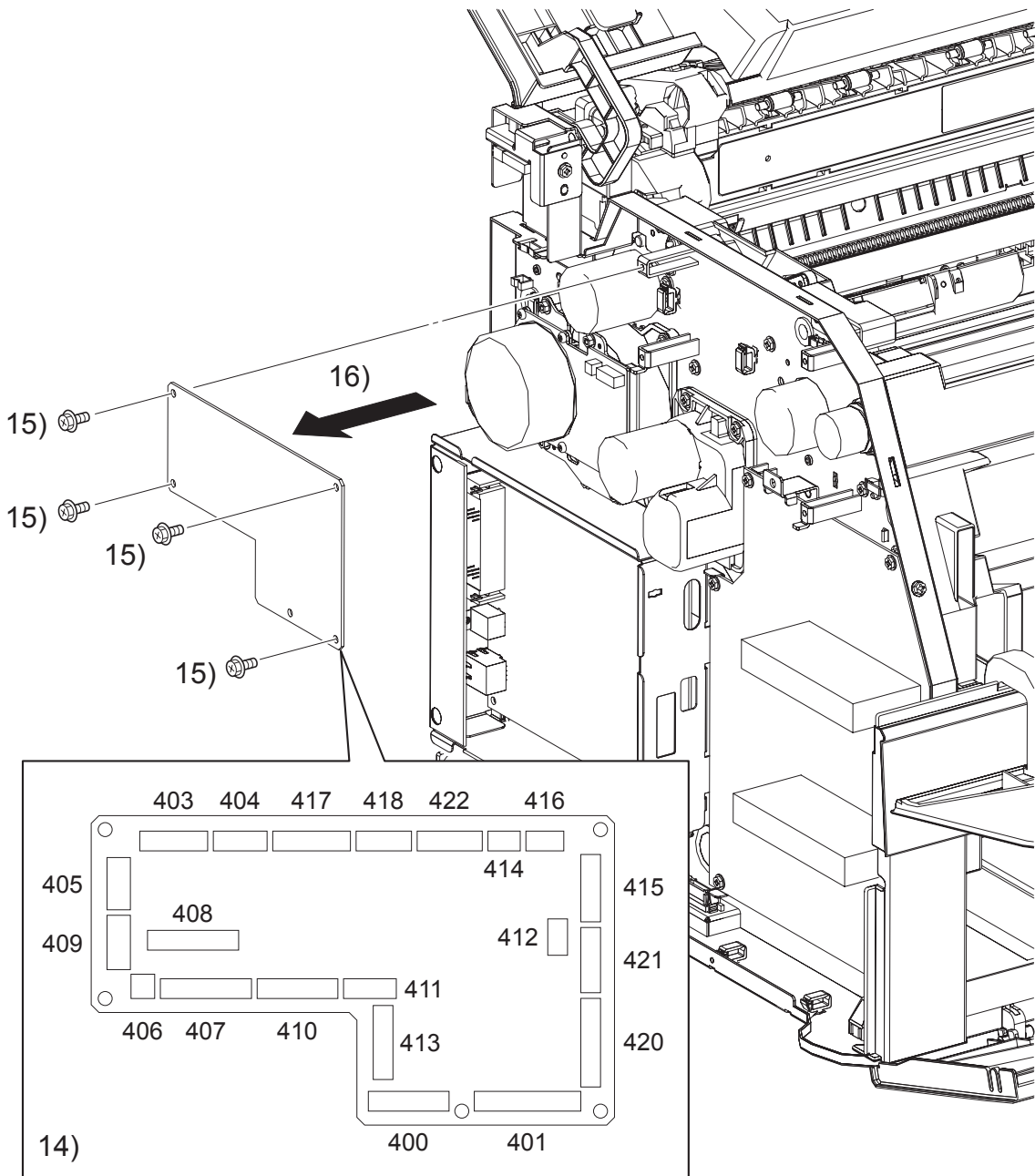
Do not use NVM removed from the new PWBA ESS.



When carrying out the work shown below, pay attention to the mounting direction of NVM.

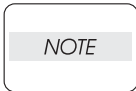
- 3) Attach NVM removed from the old ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD by aligning the notch of IC socket on the new ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD and the notch of NVM.
- 4) Place the connector of interface on ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD in the hole of CHASSIS A first, and then attach PWBA ESS.
- 5) Fix the under hole of the front side of the ELECTRONIC SUB SYSTEM (ESS) CONTROLLER BOARD using the hook of the SUPPORT LOCKING 4.8.
- 6) Fix ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD to CHASSIS A using the three screws (silver, with a flange, 6mm) and fix the connector of interface using the two screws.
- 7) Attach the four connectors (P/J 70, P/J 71, P/J 72 and P/J 129) on PWBA ESS.
- 8) Attach LEFT COVER. (RRP 1.10)

RRP12.6 MACHINE CONTROL UNIT(MCU)(PL 12.2.4)



Leg_Sec03_110LB

RRP12.6 MACHINE CONTROL UNIT(MCU)(PL 12.2.4)



Removal procedures 1) to 10) and replacement procedures 6) to 15) are applicable to the case when MACHINE CONTROL UNIT(MCU)is replaced.

Use the wrist strap to protect the PWB from the electrostatic.

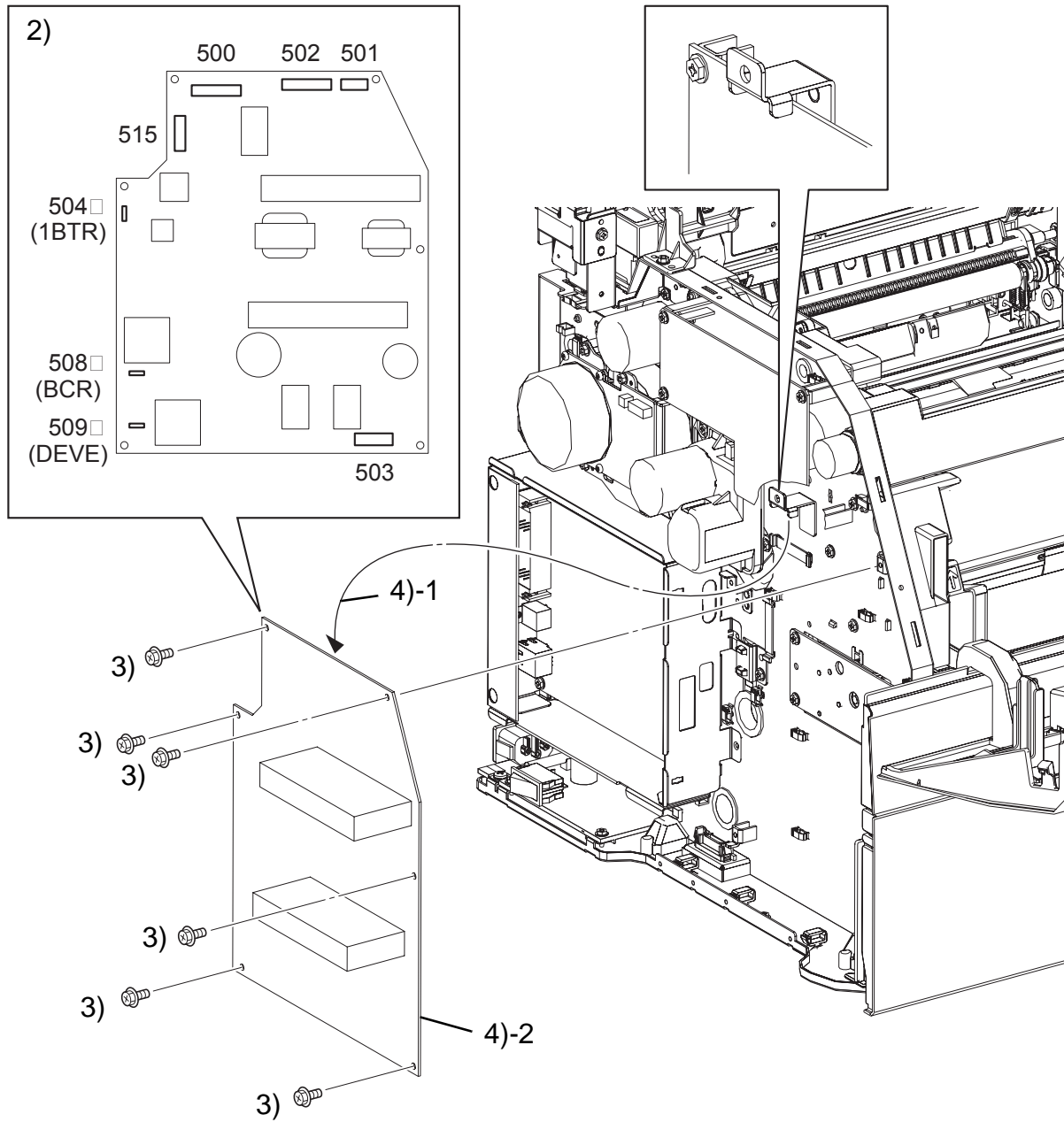
[Removal]

- 1) Execute diagnostic operation of NVM Save, and evacuate MCU data.
- 2) When turning on the power while pressing the ► key, the ◀ key and the menu key on the control panel.
- 3) Enter the password, push the ▲ key twice and push the ◀ key once. The diagnostic screen comes up.
- 4) Press the ▼ key several times and display the message of IOT Diag. Press the ◀ key once.
- 5) Press the ▼ key several times and display the message of NVM settings. Press the ◀ key once.
- 6) Press the ▼ key several times and display the message of MVM Save. Press the ◀ key once.
- 7) Press the ◀ key once and MVM Save is executed.
- 8) After the NVM Save is finished, press the cancel key several times and display the message of IOT Diag.
- 9) Press the ▼ key several times and display the message of Complete.
- 10) Press the ◀ key three times and display the message of Ready to Print.
- 11) Turn off the power.
- 12) Remove the power cord from the outlet.
- 13) Remove LEFT COVER. (RRP 1.10)
- 14) Remove the all connectors on MACHINE CONTROL UNIT(MCU)(PL 12.2.4).
- 15) Remove the four screws (silver, with a flange, 6mm) that fix MACHINE CONTROL UNIT(MCU)to the main unit.
- 16) Remove MACHINE CONTROL UNIT(MCU)from the main unit.

[Replacement]

- 1) Attach MACHINE CONTROL UNIT(MCU)to the main unit.
- 2) Fix MACHINE CONTROL UNIT(MCU)to the main unit using the four screws (silver, with a flange, 6mm).
- 3) Attach the all connectors on PWBA MCU.
- 4) Attach LEFT COVER. (RRP 1.10)
- 5) Plug in the power cord to the outlet, and turn the power ON.
- 6) Execute diagnostic operation of NVM Load, and write the data into MCU.
- 7) When turning on the power while pressing the ► key, the ◀ key and the menu key on the control panel.
- 8) Enter the password, push the ▲ key twice and push the ◀ key once. The diagnostic message is displayed.
- 9) Press the ▼ key several times and display the message of IOT Diag. Press the ◀ key once.
- 10) Press the ▼ key several times and display the message of NVM settings. Press the ◀ key once.
- 11) Press the ▼ key several times and display the message of MVM Load. Press the ◀ key once.
- 12) Press the ◀ key once and MVM Load is executed.
- 13) After the NVM Load is finished, press the cancel key several times and display the message of IOT Diag.
- 14) Press the ▼ key several times and display the message of Complete.
- 15) Press the ◀ key three and display the message of Ready to Print.

RRP12.7 LOW/HIGH VOLTAGE POWER SUPPLY (PL 12.2.6)



Leg_Sec03_111LA

RRP12.7 LOW/HIGH VOLTAGE POWER SUPPLY (PL 12.2.6)

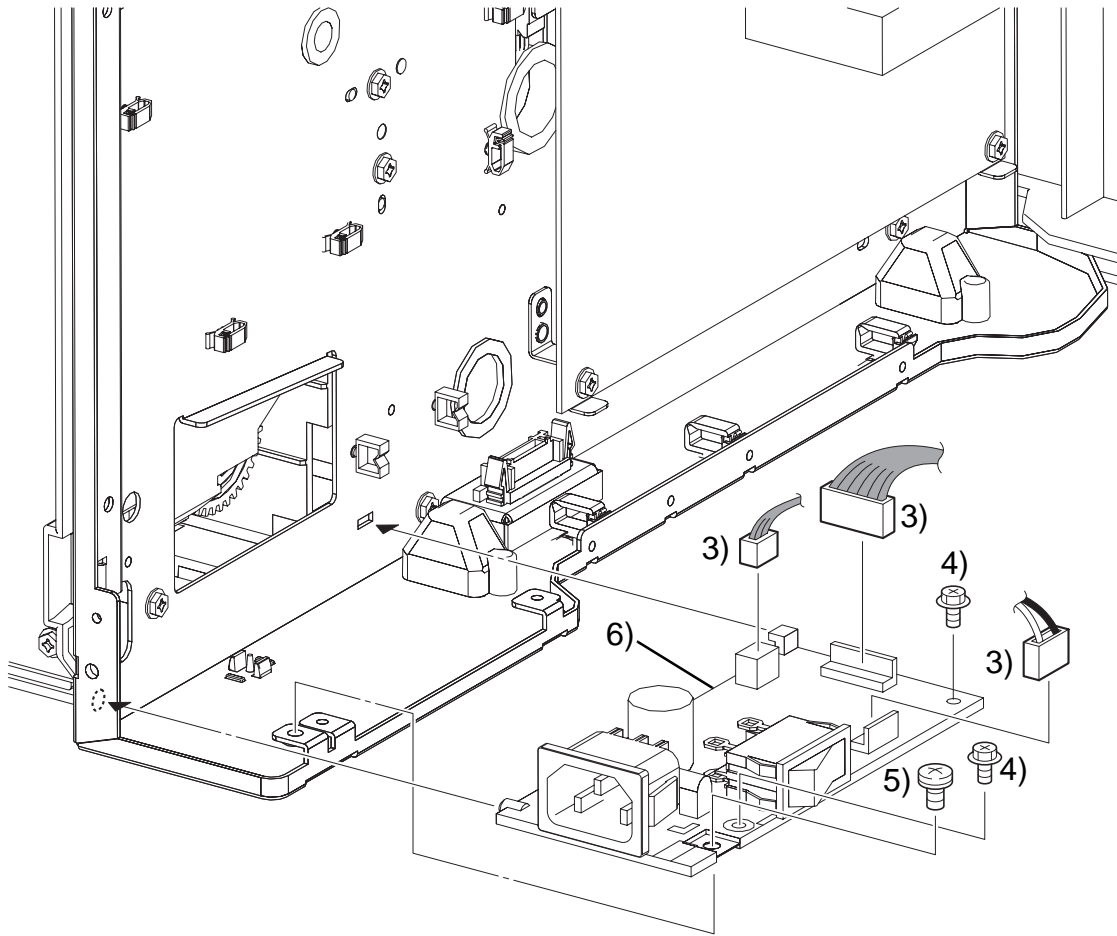
[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Remove all connectors on LOW/HIGH VOLTAGE POWER SUPPLY (PL 12.2.6).
- 3) Remove six screws (silver, with a flange, 6mm) that fix LOW/HIGH VOLTAGE POWER SUPPLY to the main unit.
- 4) Remove the upper part of LOW/HIGH VOLTAGE POWER SUPPLY from the convex of the bracket on the main unit, remove LOW/HIGH VOLTAGE POWER SUPPLY.

[Replacement]

- 1) Attach the upper part of LOW/HIGH VOLTAGE POWER SUPPLY to the convex of the bracket on the main unit, attach LOW/HIGH VOLTAGE POWER SUPPLY.
- 2) Fix LOW/HIGH VOLTAGE POWER SUPPLY to the main unit using six screws (silver, with a flange, 6mm).
- 3) Attach all connectors on LOW/HIGH VOLTAGE POWER SUPPLY.
- 4) Attach LEFT COVER. (RRP 1.10)

RRP12.9 FUSER CONTROLLER BOARD (PL 12.2.10)



Leg_Sec03_113FB

RRP12.9 FUSER CONTROLLER BOARD (PL 12.2.10)

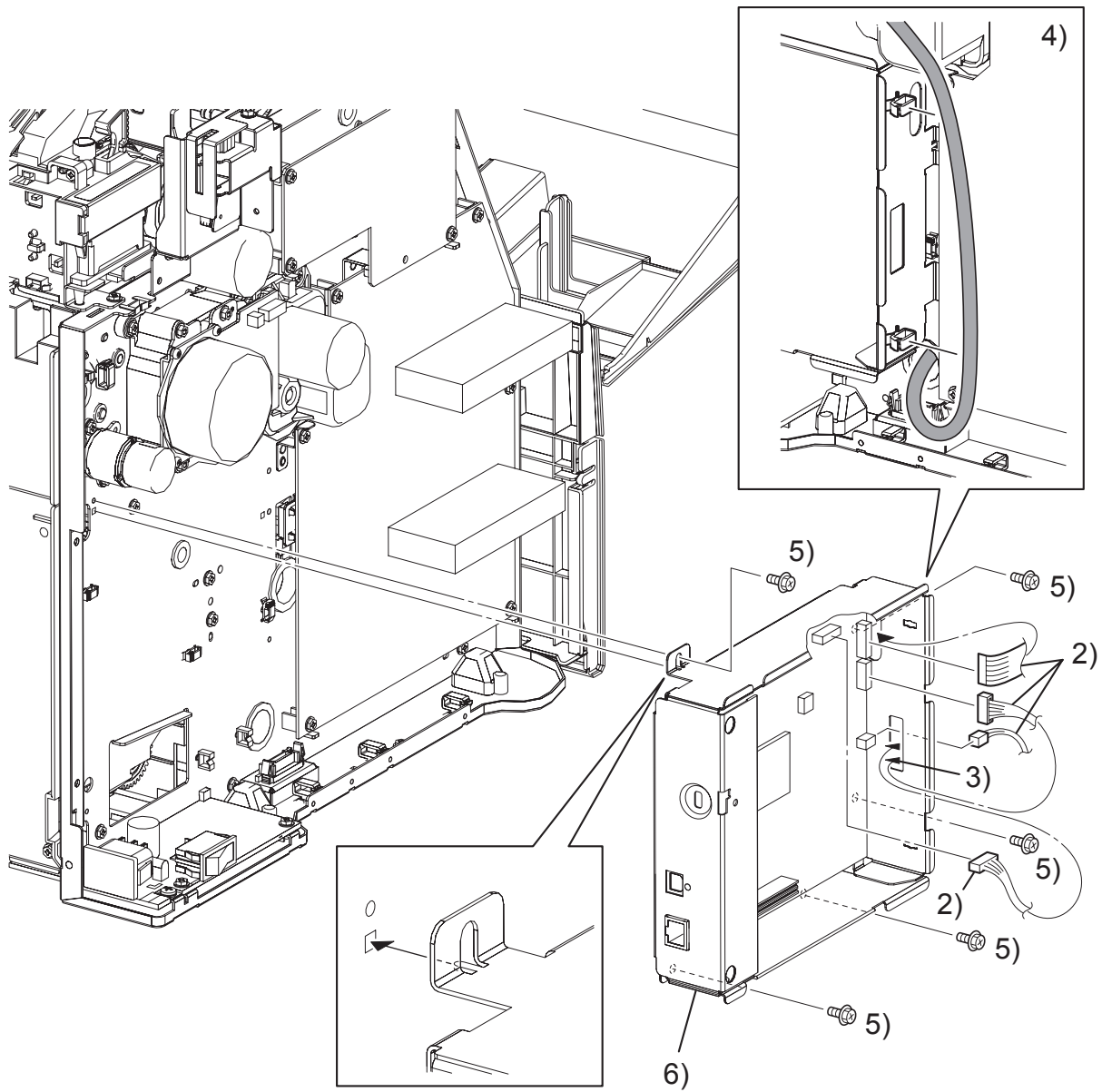
[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Remove CHASSIS ASSY ESS. (RRP 12.10)
- 3) Remove all connectors on FUSER CONTROLLER BOARD (PL 12.2.10).
- 4) Remove two screws (silver, with a flange, 8mm) that fix FUSER CONTROLLER BOARD to the main unit.
- 5) Remove a screw (silver, with a washer, 5mm) that fixes FUSER CONTROLLER BOARD to the main unit.
- 6) Remove FUSER CONTROLLER BOARD from the main unit.

[Replacement]

- 1) Match the boss part and convex of FUSER CONTROLLER BOARD to holes in main unit and attach FUSER CONTROLLER BOARD.
- 2) Fix FUSER CONTROLLER BOARD to the main unit using a screw (silver, with a washer, 5mm).
- 3) Fix FUSER CONTROLLER BOARD to the main unit using two screws (silver, with a flange, 8mm).
- 4) Attach all connectors on FUSER CONTROLLER BOARD.
- 5) Attach CHASSIS ASSY ESS. (RRP 12.10)
- 6) Attach LEFT COVER. (RRP 1.10)

RRP12.10 CHASSIS ASSY ESS (REFERENCE ONLY)



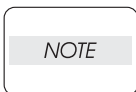
Leg_Sec03_615LA

RRP12.10 CHASSIS ASSY ESS (REFERENCE ONLY)

[Removal]

- 1) Remove LEFT COVER. (RRP 1.10)
- 2) Remove the connector (P/J129 and P/J700), the connector (P/J701) and the connector (P/J702) on ELECTRONIC SUB SYSTEM(ESS) CONTROLLER BOARD(PL 12.2.2).
- 3) Take out removed the connectors from the holes in CHASSIS A (PL 12.2.1).
- 4) Release the clamp on CHASSIS A and remove the harness on CHASSIS ASSY ESS.
- 5) Remove the five screws (silver, with a flange, 6mm) that fix CHASSIS ASSY ESS to the main unit.
- 6) Remove CHASSIS ASSY ESS from the main unit.

[Replacement]

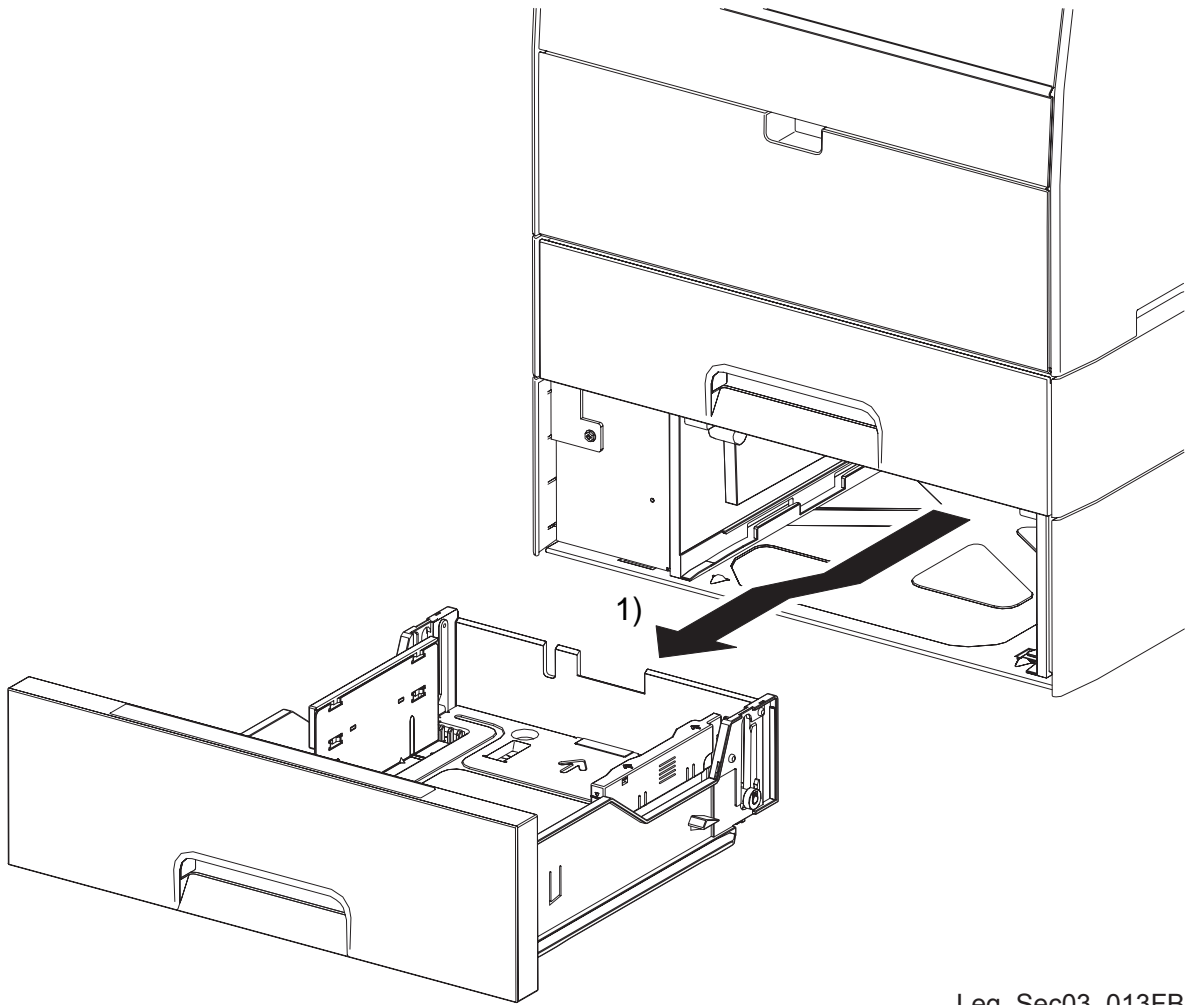


The harness should not be caught between the main unit and CHASSIS A when carrying out the work shown below.

- 1) Match the convex of CHASSIS ASSY ESS to the hole of the main unit, attach CHASSIS ASSY ESS.
- 2) Fix CHASSIS ASSY ESS to the main unit using the five screws (silver, with a flange, 6mm).
- 3) Insert removed the connectors through the holes in CHASSIS A.
- 4) Attach the connector (P/J129 and P/J700), the connector (P/J701) and the connector (P/J702) on PWBA ESS.
- 5) Fix the harness using the clamp on CHASSIS ASSY ESS.
- 6) Attach LEFT COVER. (RRP 1.10)

RRP14.500 PAPER CASSETTE & 500 PAPER FEEDER

RRP14.1 500 SHEET PAPER TRAY (PL 14.1.1)



Leg_Sec03_013FB

RRP14.1 500 SHEET PAPER TRAY (PL 14.1.1)

[Removal]

- 1) Pull out 500 SHEET PAPER TRAY (PL 14.1.1) till it stops, lift up the front side a little and remove 500 SHEET PAPER TRAY from 500 PAPER FEEDER.

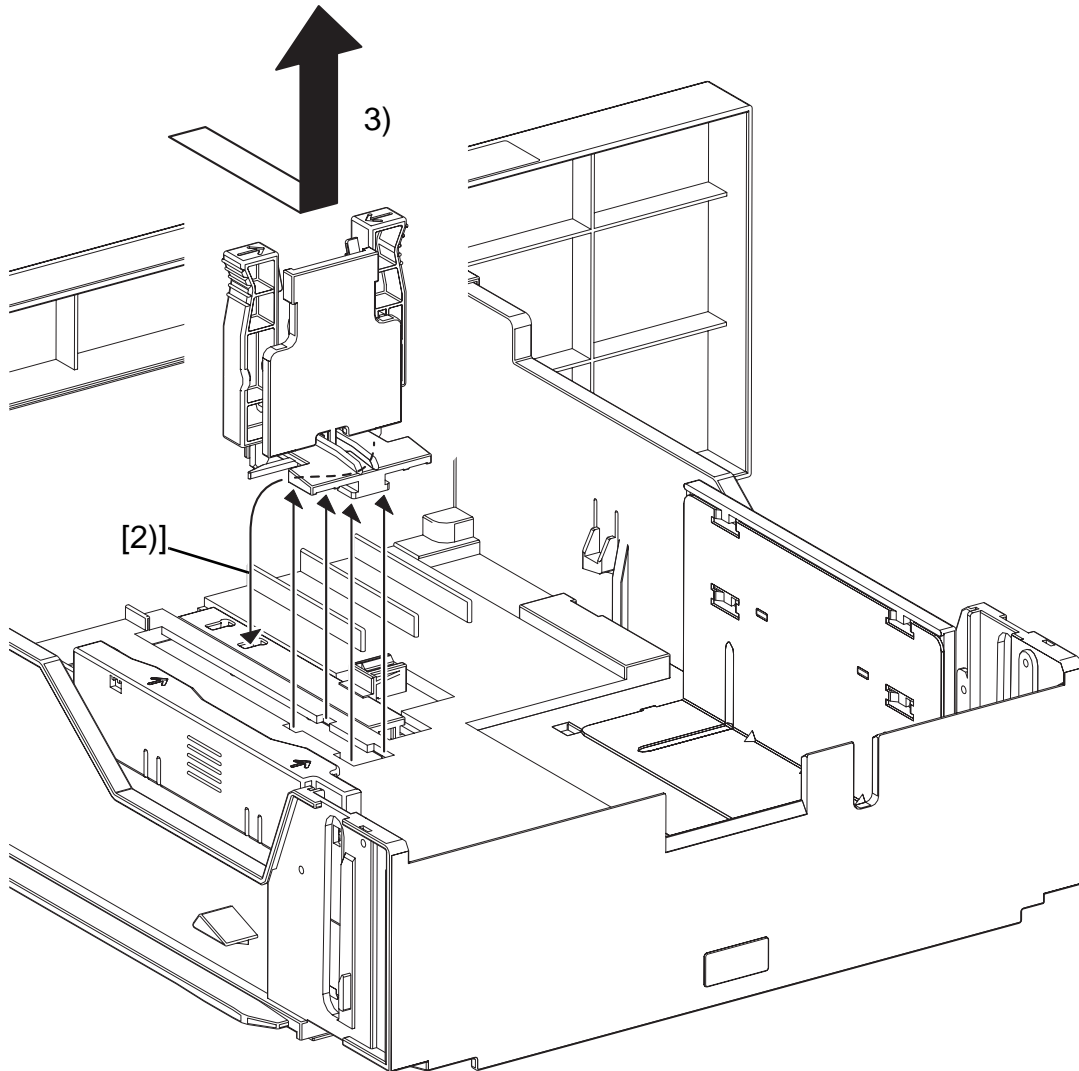
[Replacement]

- 1) While lifting up the front side of 500 SHEET PAPER TRAY a little, insert it in 500 PAPER FEEDER and push it in to the end in horizontal state.

RRP14.2 GUIDE END ASSY (PL 14.1.2)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_014FB

RRP14.2 GUIDE END ASSY (PL 14.1.2)

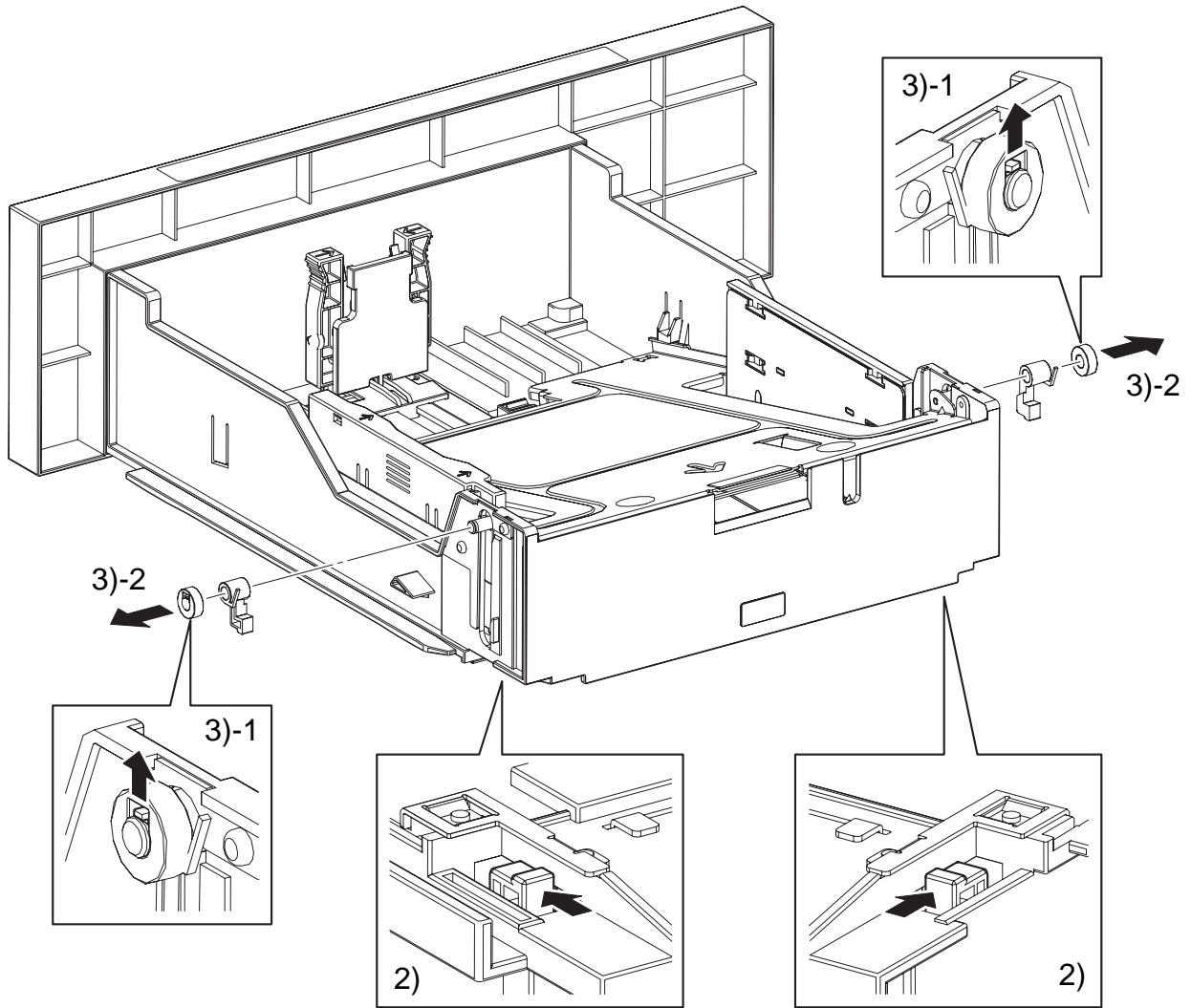
[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove PLATE ASSY BOTTOM. (RRP 14.3)
- 3) Slide GUIDE END ASSY (PL 14.1.2) to rear side, match the convex at four locations on GUIDE END ASSY to the notched of CASSETTE 500 (PL 14.1.15) and remove it upwards.

[Replacement]

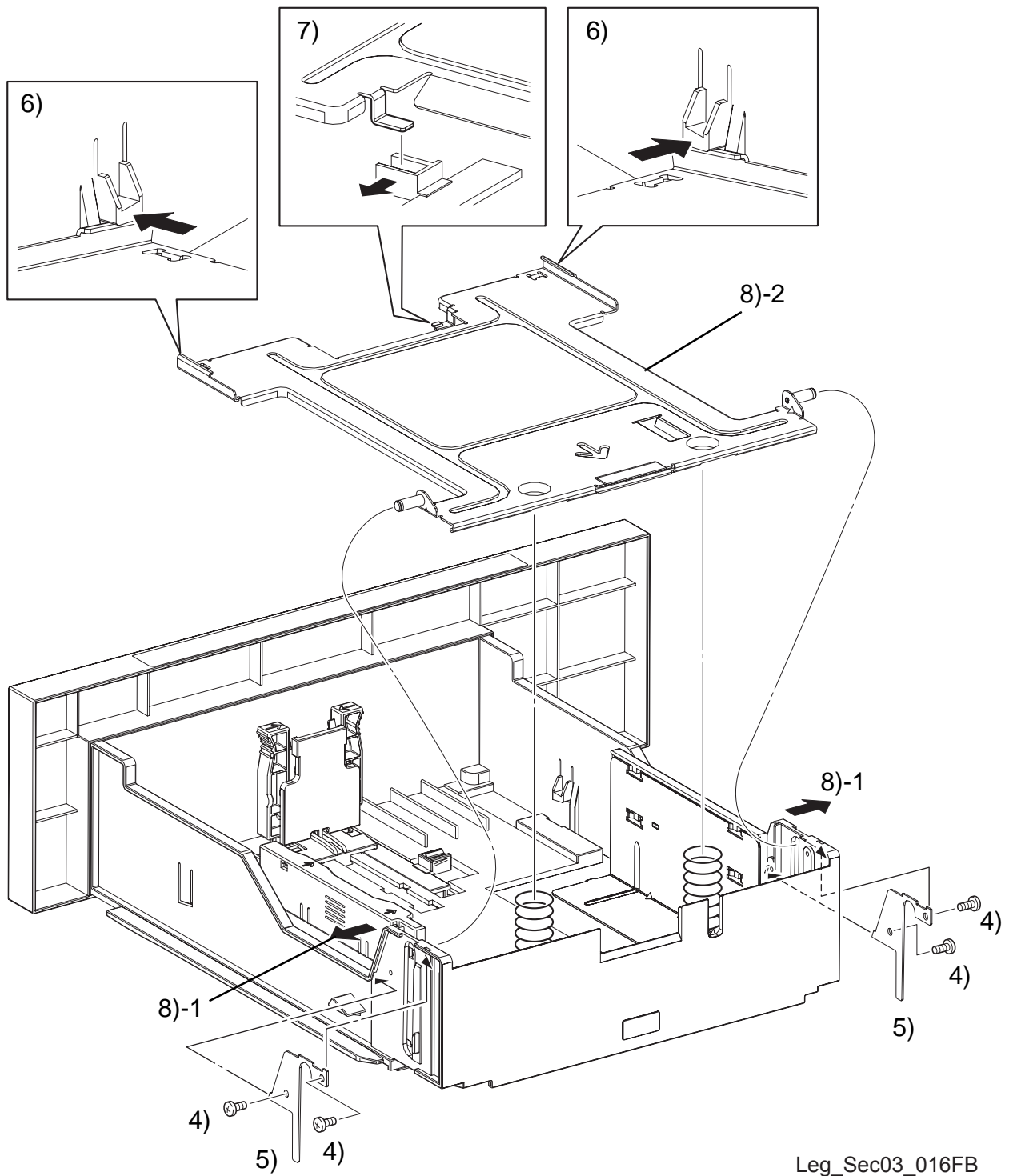
- 1) Match the convex at four locations on GUIDE END ASSY to the notched of CASSETTE 500 and attach it.
- 2) Slide GUIDE END ASSY to front side and insert the convex of GUIDE END ASSY in the groove of PLATE SLIDE 500.
- 3) Attach PLATE ASSY BOTTOM. (RRP 14.3)
- 4) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.3 PLATE ASSY BOTTOM (PL 14.1.3)



Leg_Sec03_015FB

RRP14.3 PLATE ASSY BOTTOM (PL 14.1.3)



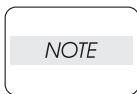
RRP14.3 PLATE ASSY BOTTOM (PL 14.1.3)

[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Slide LOCK LIFT R (PL 14.1.10) and LOCK LIFT L (PL 14.1.17) to release lock.
- 3) Release a hook of ROLL LINK (PL 14.1.11) fixed on the shaft of PLATE ASSY BOTTOM (PL 14.1.3) on both right and left sides, and remove ROLL LINK, LOCK LIFT R and LOCK LIFT L.
- 4) Remove four screws (silver, tap, 6mm) that fix right and left side of PLATE ROLL STOPPER 500 (PL 14.1.9) on 500 SHEET PAPER TRAY (PL 14.1.1).
- 5) Remove the convex of PLATE ROLL STOPPER from the hole of 500 SHEET PAPER TRAY, and remove the right and left side of PLATE ROLL STOPPER.
- 6) Push the hooks at two locations of CASSETTE 500 (PL 14.1.15) to release the front side of PLATE ASSY BOTTOM.
- 7) Remove the convex of PLATE ASSY BOTTOM from the concave of PLATE SLIDE 500 (PL 14.1.16).
- 8) Spread the side of CASSETTE 500, pull out the shaft of PLATE ASSY BOTTOM from oval hole in CASSETTE 500 and remove PLATE ASSY BOTTOM.

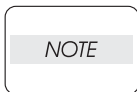
[Replacement]

- 1) Match the boss part on the rear side of PLATE ASSY BOTTOM (PL 14.1.3) to SPRING NF (PL 14.1.8).



Check that the boss part on the rear side of PLATE ASSY BOTTOM is placed in SPRING NF.

- 2) Spread the side of CASSETTE 500 (PL 14.1.15), insert the shaft of PLATE ASSY BOTTOM in the oval hole in CASSETTE 500 and attach PLATE ASSY BOTTOM.
- 3) Attach the convex of PLATE ASSY BOTTOM to the concave of PLATE SLIDE 500 (PL 14.1.16) and fix the front of PLATE ASSY BOTTOM using the two hooks of CASSETTE 500.

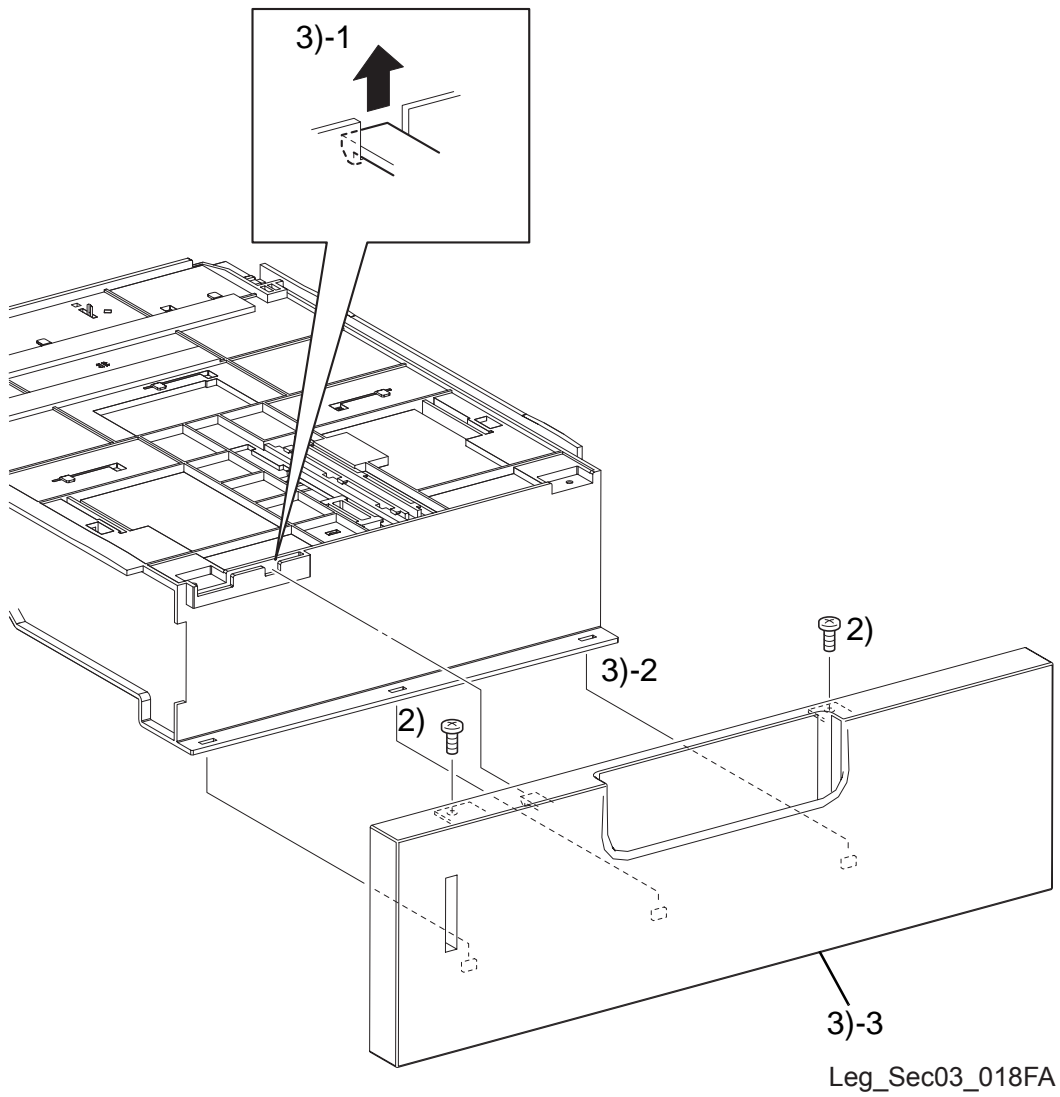


Convex of PLATE ASSY BOTTOM should be engaged in concave of PLATE SLIDE 500.

- 4) Match the convex of PLATE ROLL STOPPER to the hole of 500 SHEET PAPER TRAY (PL 14.1.1) and attach the right and left side of PLATE ROLL STOPPER.
- 5) Fix the right and left of PLATE ROLL STOPPER to 500 SHEET PAPER TRAY using the four screws (silver, tap, 6mm).
- 6) Attach LOCK LIFT R (PL 14.1.10), LOCK LIFT L (PL 14.1.17) and ROLL LINK (PL 14.1.11) to the shaft of PLATE ASSY BOTTOM on both right and left sides, and fix a hook of ROLL LINK in the groove of shaft of PLATE ASSY BOTTOM.
- 7) Push PLATE ASSY BOTTOM to lock LOCK LIFT R and LOCK LIFT L.
- 8) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

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RRP14.4 COVER FRONT CST 500 (PL 14.1.14)



RRP14.4 COVER FRONT CST 500 (PL 14.1.14)

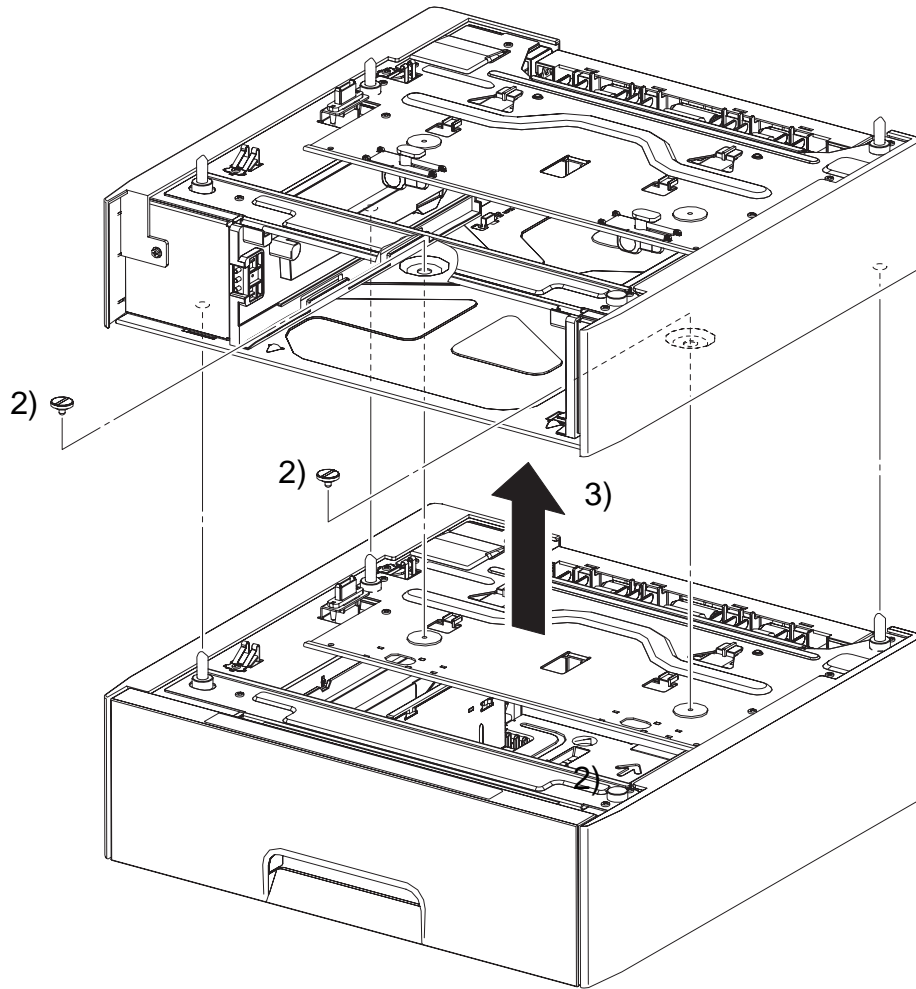
[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove two screws (silver, with a flange, tap, 8mm) that fix COVER FRONT CST 500 (PL 14.1.14) to 500 SHEET PAPER TRAY (PL 14.1.1).
- 3) Release a hook at the bottom of COVER FRONT CST 500 using a small screwdriver, lay COVER FRONT CST 500 towards front, and then release the convex at three locations on the rear side of COVER FRONT CST 500 from the hole of 500 SHEET PAPER TRAY. Remove COVER FRONT CST 500.

[Replacement]

- 1) Match the convex at three locations on the rear side of COVER FRONT CST 500 (PL 14.1.14) to the hole of 500 SHEET PAPER TRAY (PL 14.1.1), attach COVER FRONT CST 500. Fix a hook at the bottom of COVER FRONT CST 500.
- 2) Fix COVER FRONT CST 500 on 500 SHEET PAPER TRAY using two screws (silver, with a flange, tap, 8mm).
- 3) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.5 500 SHEET FEEDER ASSEMBLY (PL 14.2.15)



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RRP14.5 500 SHEET FEEDER ASSEMBLY (PL 14.2.15)

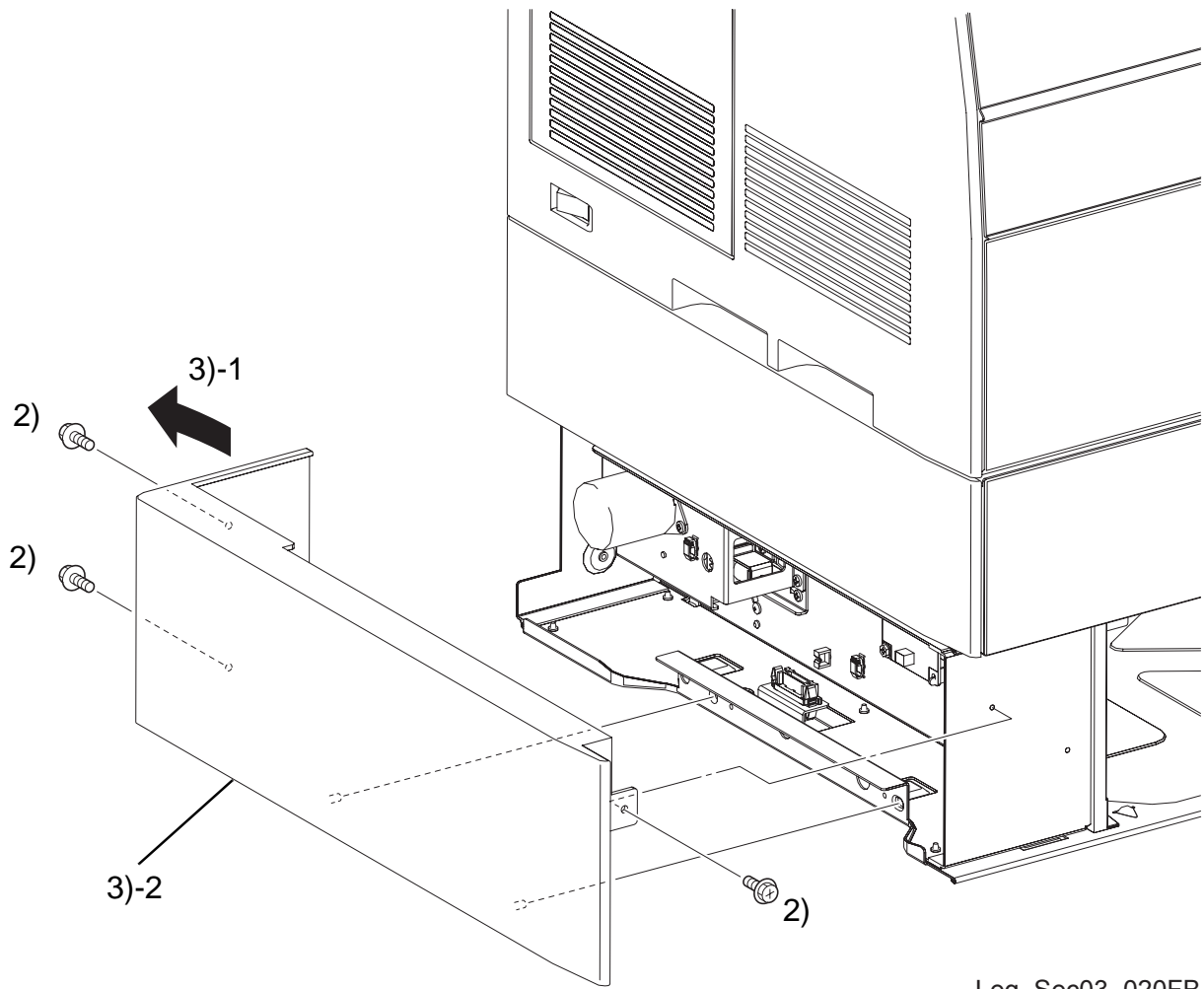
[Removal]

- 1) Remove the main unit from 250 SHEET FEEDER ASSEMBLY. (RRP 3.1)
- 2) Remove two SCREW JOINT FDR (PL 14.2.16) that fix 250 SHEET FEEDER ASSEMBLY to 500 SHEET FEEDER ASSEMBLY (PL 14.2.15).
- 3) List up 250 SHEET FEEDER ASSEMBLY and remove 500 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Match the fitting holes in 250 SHEET FEEDER ASSEMBLY to three bosses of 500 SHEET FEEDER ASSEMBLY and attach 250 SHEET FEEDER ASSEMBLY to 500 SHEET FEEDER ASSEMBLY.
- 2) Attach 250 SHEET FEEDER ASSEMBLY to 500 SHEET FEEDER ASSEMBLY (PL 14.2.15) using two SCREW JOINT FDR (PL 14.2.16).
- 3) Attach the main unit to 250 SHEET FEEDER ASSEMBLY. (RRP 3.1)

RRP14.6 500 SHEET FEEDER LEFT COVER (PL 14.2.1)



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RRP14.6 500 SHEET FEEDER LEFT COVER (PL 14.2.1)

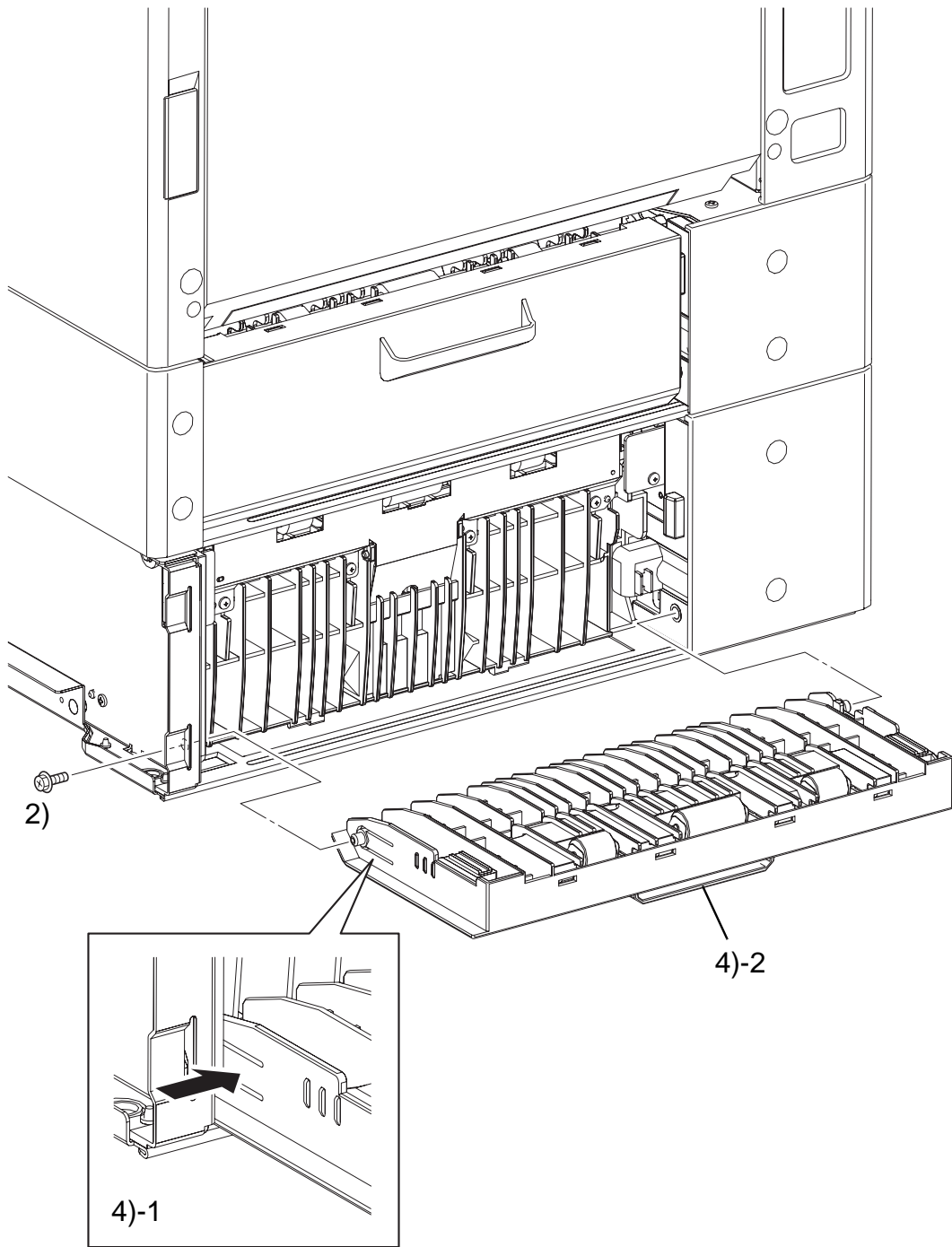
[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove three screws (silver, with a flange, 8mm) that fix 500 SHEET FEEDER LEFT COVER (PL 14.2.1) to 500 SHEET FEEDER ASSEMBLY.
- 3) Spread the rear side of 500 SHEET FEEDER LEFT COVER, remove 500 SHEET FEEDER LEFT COVER from 500 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Match the boss of 500 SHEET FEEDER LEFT COVER to the hole in 500 SHEET FEEDER ASSEMBLY and spread the rear side of 500 SHEET FEEDER LEFT COVER and attach 500 SHEET FEEDER LEFT COVER.
- 2) Fix 500 SHEET FEEDER LEFT COVER on 500 SHEET FEEDER ASSEMBLY using three screws (silver, with a flange, 8mm).
- 3) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.7 500 SHEET FEEDER CHUTE ASSEMBLY (PL 14.2.2)

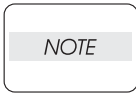


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RRP14.7 500 SHEET FEEDER CHUTE ASSEMBLY (PL 14.2.2)

[Removal]

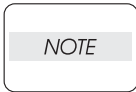
- 1) Remove 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 2) Remove a screw (silver, with a flange, tap, 8mm) that fix 500 SHEET FEEDER CHUTE ASSEMBLY (PL 14.2.2) to 500 SHEET FEEDER ASSEMBLY.



Try not to break the boss of 500 SHEET FEEDER CHUTE ASSEMBLY when carrying out the work shown below.

- 3) Open 500 SHEET FEEDER CHUTE ASSEMBLY (PL 14.2.2).
- 4) Depress the fitting part at right side of 500 SHEET FEEDER CHUTE ASSEMBLY, remove the boss part on the right side from the hole in 500 SHEET FEEDER ASSEMBLY and take out 500 SHEET FEEDER CHUTE ASSEMBLY.

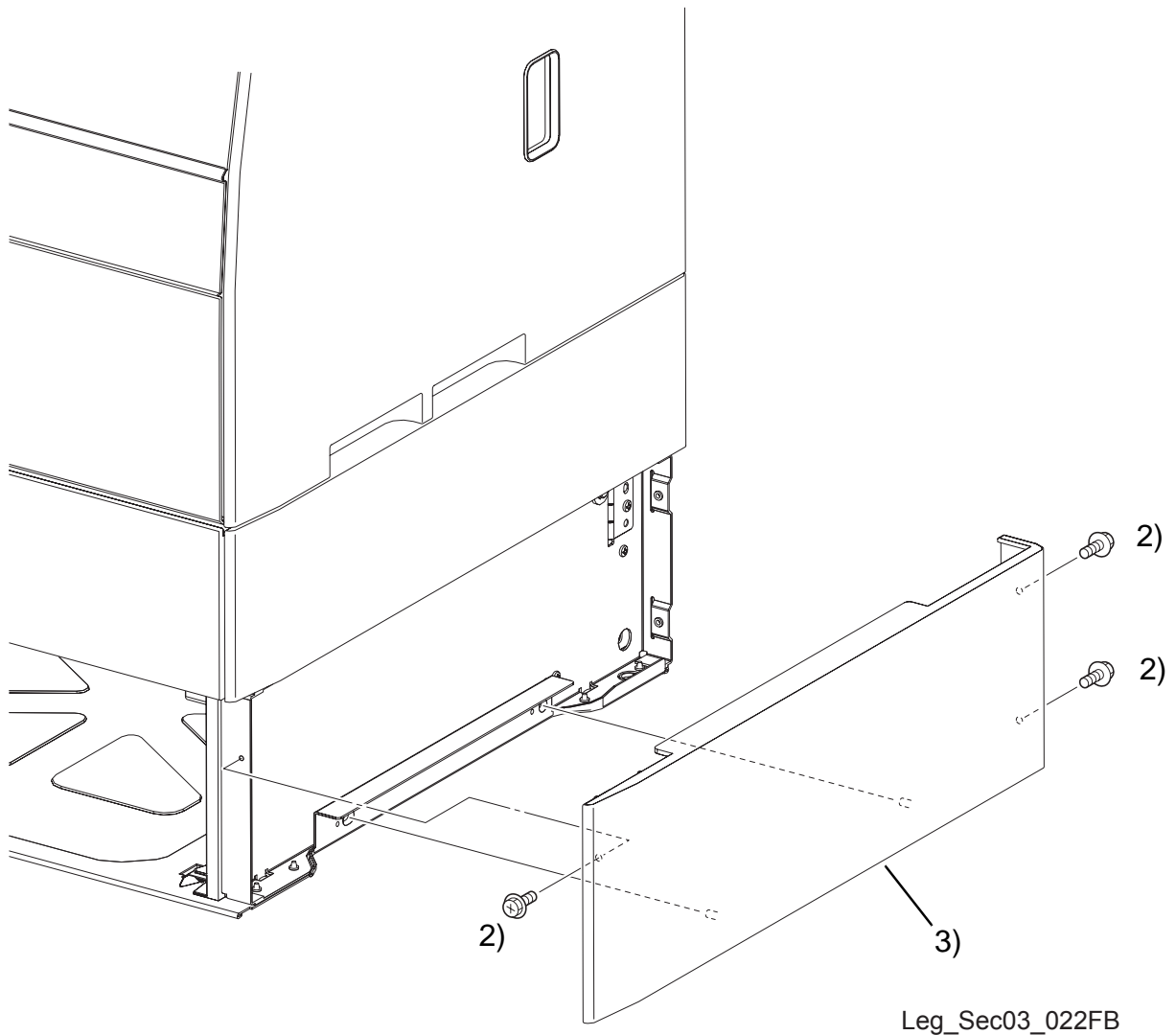
[Replacement]



Try not to break the boss of 500 SHEET FEEDER CHUTE ASSEMBLY when carrying out the work shown below.

- 1) With 500 SHEET FEEDER CHUTE ASSEMBLY open, insert the boss part on the left in the hole in 500 SHEET FEEDER ASSEMBLY, and then depress the boss part on the right side and attach 500 SHEET FEEDER CHUTE ASSEMBLY to 500 SHEET FEEDER ASSEMBLY.
- 2) Close 500 SHEET FEEDER CHUTE ASSEMBLY.
- 3) Attach 500 SHEET FEEDER CHUTE ASSEMBLY (PL 14.2.2) to 500 SHEET FEEDER ASSEMBLY using a screw (silver, with a flange, tap, 8mm).
- 4) Attach 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)

RRP14.8 500 SHEET FEEDER RIGHT COVER (PL 14.2.9)



RRP14.8 500 SHEET FEEDER RIGHT COVER (PL 14.2.9)

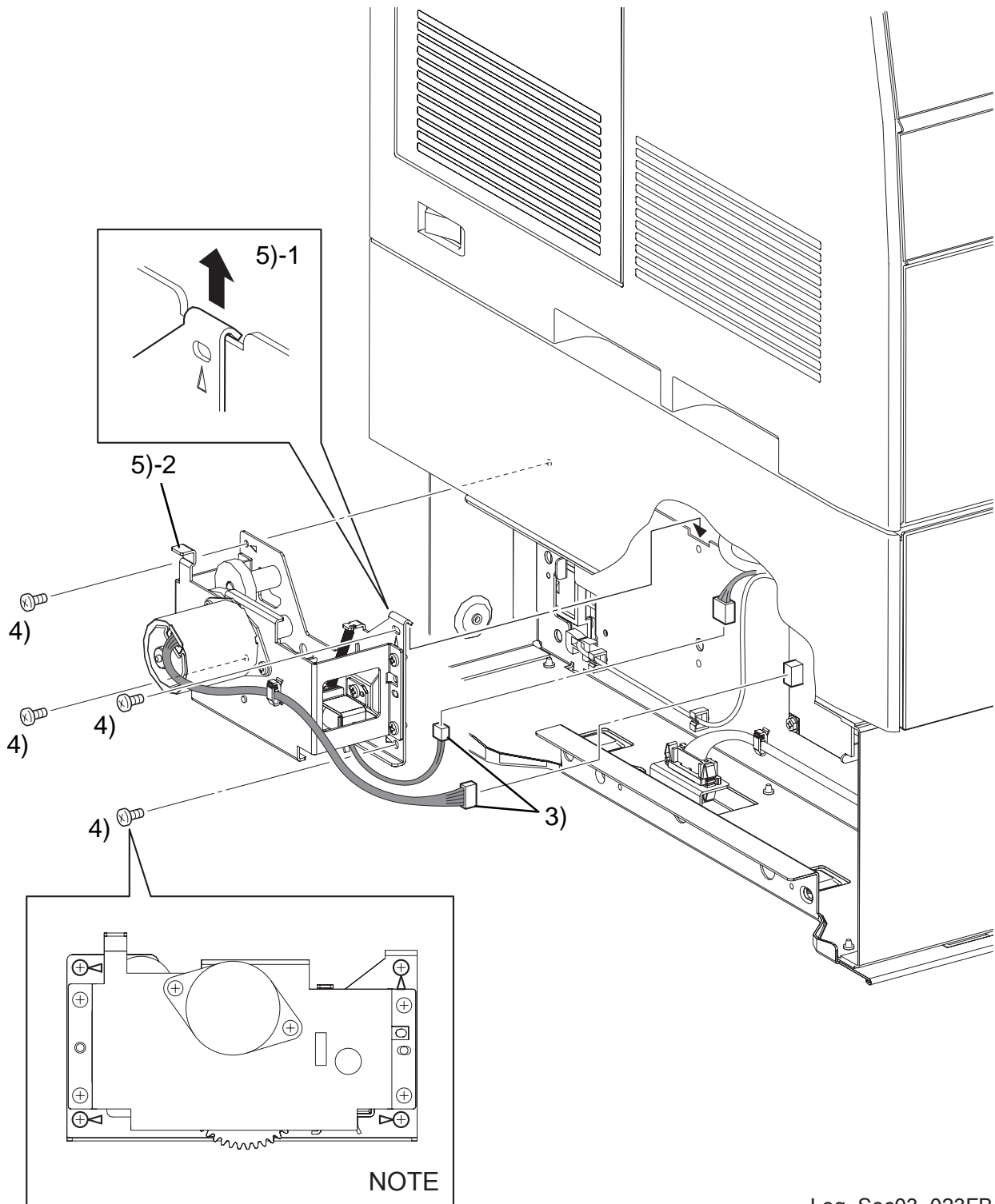
[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove three screws (silver, with a flange, 8mm) that fix 500 SHEET FEEDER RIGHT COVER (PL 14.2.9) to 500 SHEET FEEDER ASSEMBLY.
- 3) Remove 500 SHEET FEEDER RIGHT COVER from 500 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Match the boss of 500 SHEET FEEDER RIGHT COVER to the hole in 500 SHEET FEEDER ASSEMBLY and attach 500 SHEET FEEDER RIGHT COVER.
- 2) Fix 500 SHEET FEEDER RIGHT COVER to 500 SHEET FEEDER ASSEMBLY using three screws (silver, with a flange, 8mm).

RRP14.9 DRIVE ASSY FEED (PL 14.3.2)

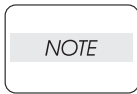


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RRP14.9 DRIVE ASSY FEED (PL 14.3.2)

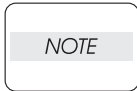
[Removal]

- 1) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 2) Remove CLUTCH ASSY PH. (RRP 14.11)



When carrying out the work shown below, leave the relay connector (P/J610) of SOLENOID FEED on the harness side.

- 3) Remove connector (P/J446) on PWBA MOT (PL 14.3.11) and connector (P/J610) of SOLENOID FEED (PL 14.3.3).



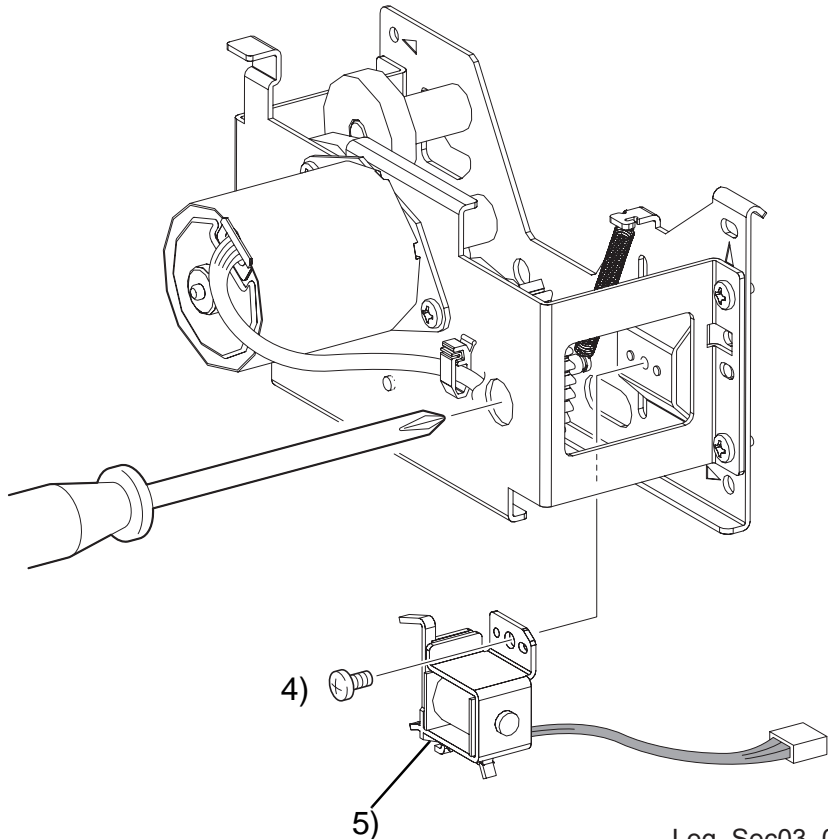
Screws to be removed in the work shown below are used to fix four corners (Δ mark) of DRIVE ASSY FEED, and other screws should not be removed.

- 4) Remove four screws (silver, 6mm) that fix DRIVE ASSY FEED (PL 14.3.2) to 500 SHEET FEEDER ASSEMBLY.
- 5) Remove the upper right convex of DRIVE ASSY FEED from 500 SHEET FEEDER ASSEMBLY, remove DRIVE ASSY FEED.

[Replacement]

- 1) Put the convex on upper right side of DRIVE ASSY FEED (PL 14.3.2) to the notch of 500 SHEET FEEDER ASSEMBLY. Match the hole of DRIVE ASSY FEED to the boss of 500 SHEET FEEDER ASSEMBLY and attach it.
- 2) Fix DRIVE ASSY FEED to 500 SHEET FEEDER ASSEMBLY using four screws (silver, 6mm).
- 3) Attach connector (P/J446) on PWBA MOT (PL 14.3.11) and connector (P/J610) of SOLENOID FEED (PL 14.3.3).
- 4) Attach CLUTCH ASSY PH. (RRP 14.11)
- 5) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)

RRP14.10 SOLENOID FEED (PL 14.3.3)



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RRP14.10 SOLENOID FEED (PL 14.3.3)

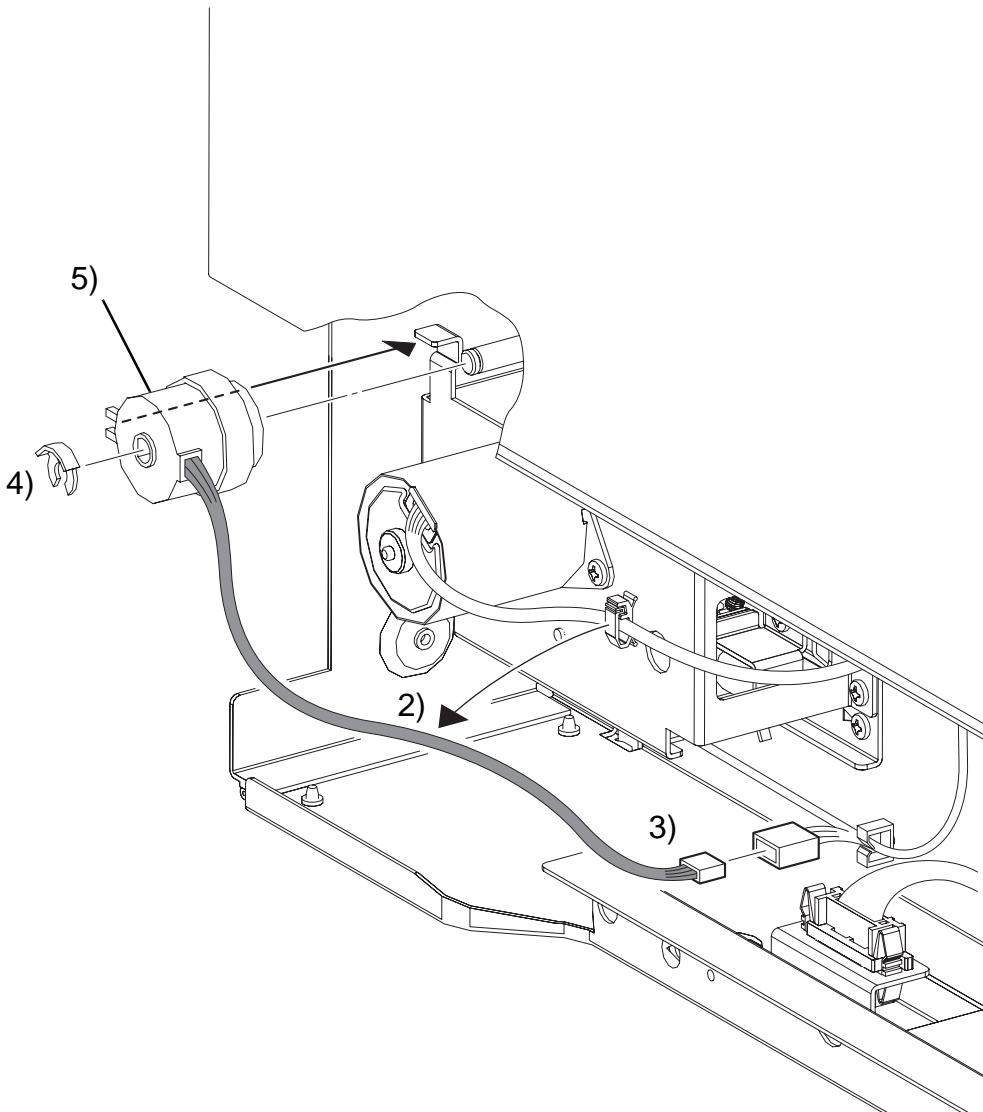
[Removal]

- 1) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 2) Remove CLUTCH ASSY PH. (RRP 14.11)
- 3) Remove DRIVE ASSY FEED. (RRP 14.9)
- 4) Remove a screw (silver, 6mm) that fixes SOLENOID FEED (PL 14.3.3) to DRIVE ASSY FEED (PL 14.3.2).
- 5) Remove SOLENOID FEED from DRIVE ASSY FEED.

[Replacement]

- 1) Match the hole of SOLENOID FEED to the boss of DRIVE ASSY FEED and attach it.
- 2) Fix SOLENOID FEED to DRIVE ASSY FEED using a screw (silver, 6mm).
- 3) Attach DRIVE ASSY FEED. (RRP 14.9)
- 4) Attach CLUTCH ASSY PH. (RRP 14.11)
- 5) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)

RRP14.11 CLUTCH ASSY PH (PL 14.3.5)



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RRP14.11 CLUTCH ASSY PH (PL 14.3.5)

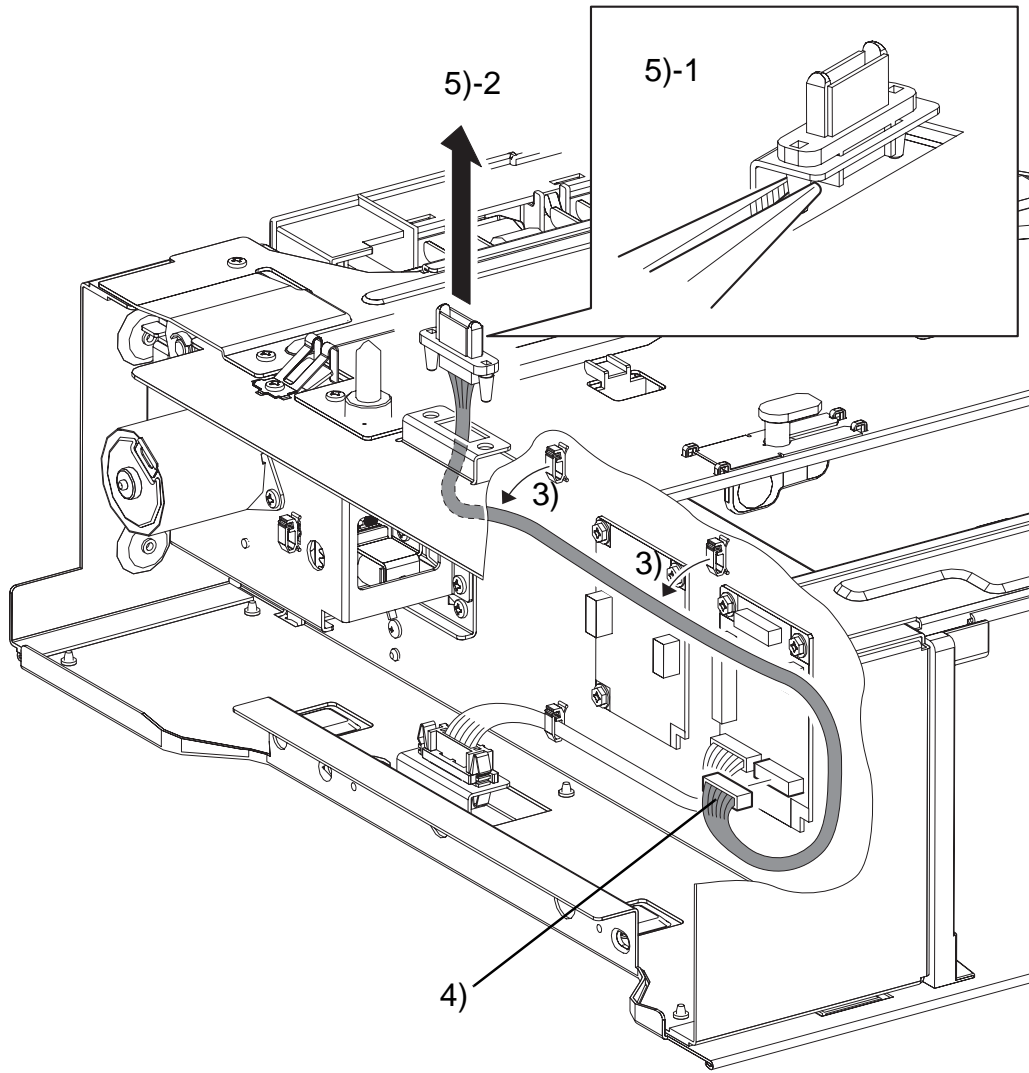
[Removal]

- 1) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 2) Release a clamp on DRIVE ASSY FEED (PL 14.3.2) and remove harness of CLUTCH ASSY PH.
- 3) Remove connector (P/J609) of CLUTCH ASSY PH (PL 14.3.5).
- 4) Remove a KL ring that fixes CLUTCH ASSY PH to 500 SHEET FEEDER ASSEMBLY.
- 5) Remove CLUTCH ASSY PH from 500 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Match the hole position of CLUTCH ASSY PH to D-cut section of the shaft of ROLL ASSY TURN (PL 14.3.8), and attach CLUTCH ASSY PH in such a manner that concave of DRIVE ASSY FEED is placed in the convex of CLUTCH ASSY PH.
- 2) Fix CLUTCH ASSY PH to 500 SHEET FEEDER ASSEMBLY using a KL ring.
- 3) Attach connector (P/J609) of CLUTCH ASSY PH.
- 4) Fix harness of CLUTCH ASSY PH using a clamp on DRIVE ASSY FEED.
- 5) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)

RRP14.12 HARNESS-ASSY FEED 1 (PL 14.3.6)



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RRP14.12 HARNESS-ASSY FEED 1 (PL 14.3.6)

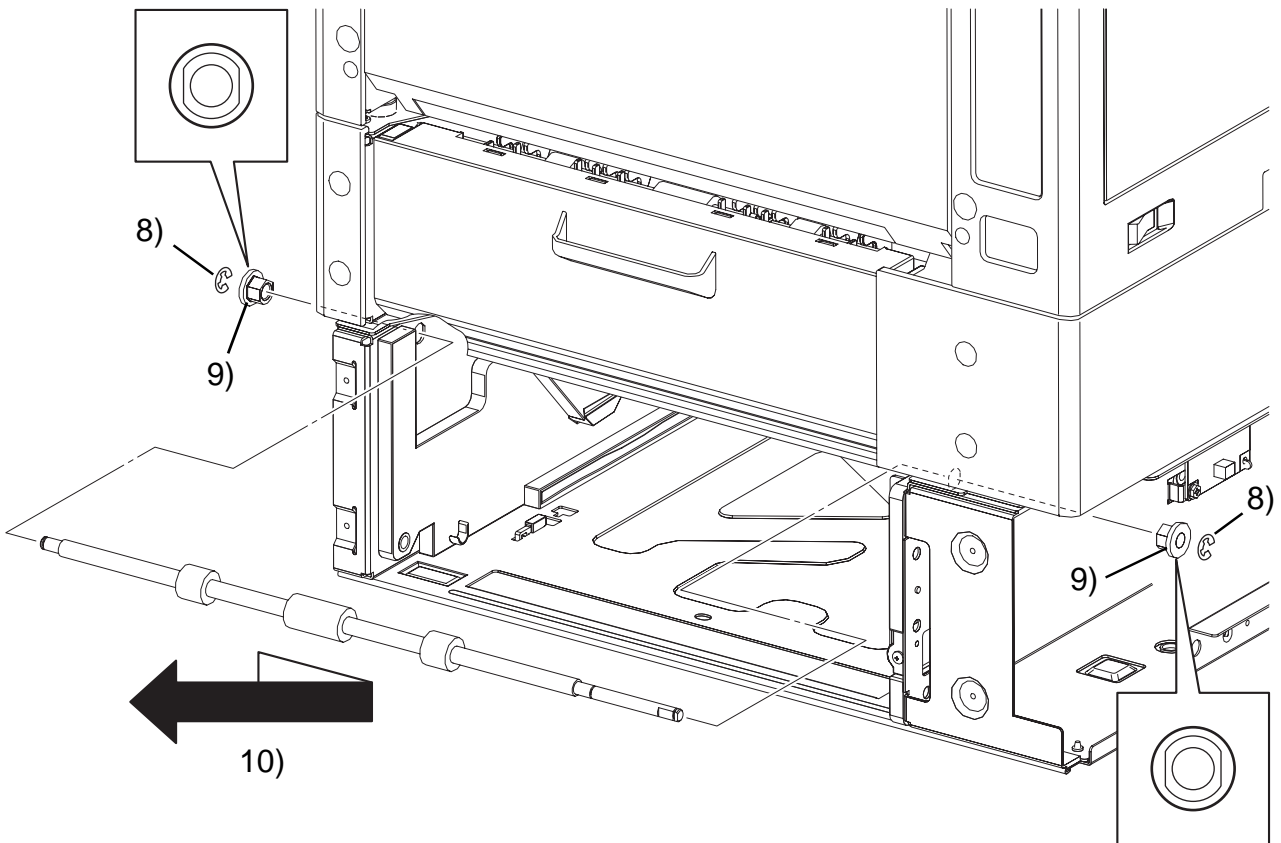
[Removal]

- 1) Remove 500 SHEET FEEDER ASSEMBLY. (RRP 14.5)
- 2) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 3) Release two clamps that fix the harness of HARNESS-ASSY FEED 1 (PL 14.3.6).
- 4) Remove connector (P/J435) on PWBA-TRAY CONT (PL 14.3.12).
- 5) Release the two hooks that fix HARNESS-ASSY FEED 1 to 500 SHEET FEEDER ASSEMBLY, and remove HARNESS-ASSY FEED 1.

[Replacement]

- 1) Put the connector (P/J435) of HARNESS-ASSY FEED 1 through the hole in 500 SHEET FEEDER ASSEMBLY.
- 2) Attach HARNESS-ASSY FEED 1 to 500 SHEET FEEDER ASSEMBLY and fix it using the two hooks.
- 3) Attach the connector (P/J435) on PWBA-TRAY CONT.
- 4) Fix the harness of HARNESS-ASSY FEED 1 using two clamps.
- 5) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 6) Attach 500 SHEET FEEDER ASSEMBLY. (RRP 14.5)

RRP14.13 ROLL ASSY TURN (PL 14.3.8)



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RRP14.13 ROLL ASSY TURN (PL 14.3.8)

[Removal]

- 1) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 2) Remove 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 3) Remove 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 4) Remove CLUTCH ASSY PH. (RRP 14.11)
- 5) Remove DRIVE ASSY FEED. (RRP 14.9)
- 6) Remove HOUSING ASSY FEED. (RRP 14.18)
- 7) Remove CHUTE ASSY RETARD. (RRP 14.29)
- 8) Remove the E rings that fix both sides of the shaft of ROLL ASSY TURN (PL 14.3.8) to 500 SHEET FEEDER ASSEMBLY.
- 9) Remove left and right BEARING EARTH (PL 14.3.7) that fix ROLL ASSY TURN from 500 SHEET FEEDER ASSEMBLY.
- 10) First slide ROLL ASSY TURN to the left, pull out the shaft of ROLL ASSY TURN from the right side bearing of 500 SHEET FEEDER ASSEMBLY, and remove ROLL ASSY TURN.

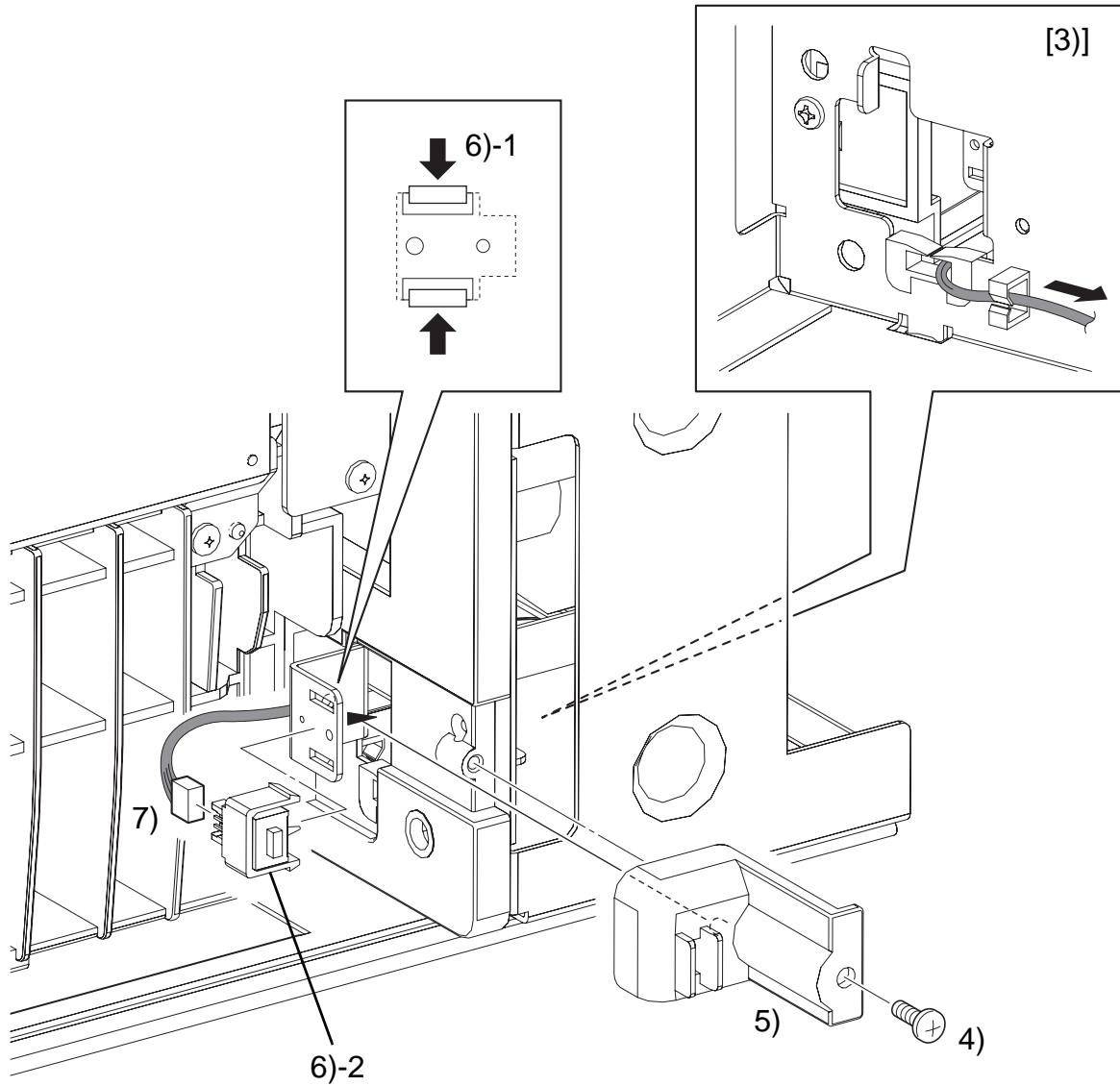
[Replacement]

- 1) After placing the left side shaft of ROLL ASSY TURN (PL 14.3.8) in the left side bearing of 500 SHEET FEEDER ASSEMBLY, slide ROLL ASSY TURN to the right and attach it.
- 2) Match the double D-cut section of BEARING EARTH (PL 14.3.7) to the right and left bearing of 500 SHEET FEEDER ASSEMBLY, attach BEARING EARTH and fix ROLL ASSY TURN.
- 3) Fix both sides of the shaft of ROLL ASSY TURN to 500 PAPER FEEDER ASSY using E rings.
- 4) Attach CHUTE ASSY RETARD. (RRP 14.29)
- 5) Attach HOUSING ASSY FEED. (RRP 14.18)
- 6) Attach DRIVE ASSY FEED. (RRP 14.9)
- 7) Attach CLUTCH ASSY PH. (RRP 14.11)
- 8) Attach 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 9) Attach 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 10) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)

RRP14.14 FUSER CHUTE INTERLOCK (PL 14.3.9)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



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RRP14.14 FUSER CHUTE INTERLOCK (PL 14.3.9)

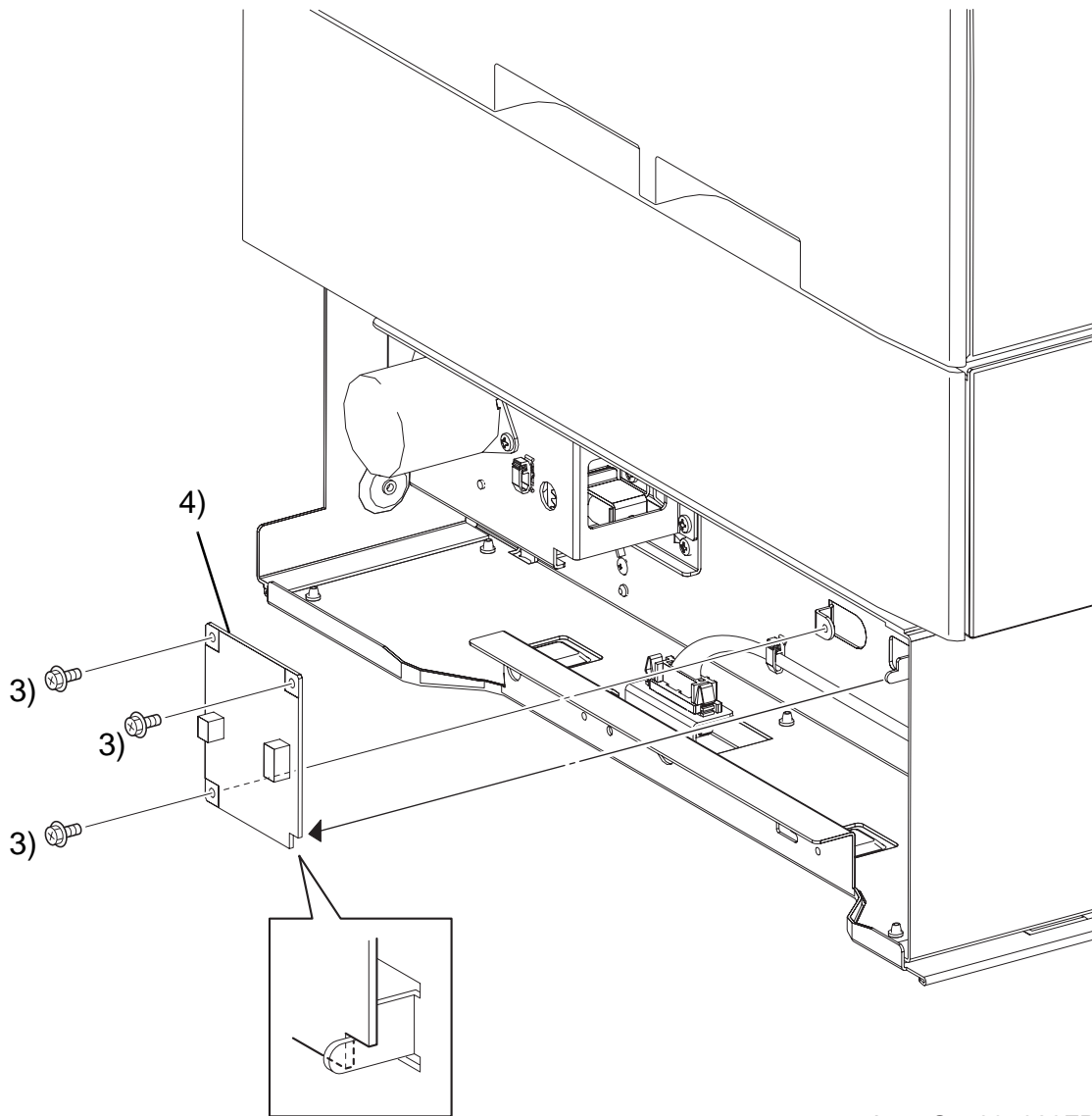
[Removal]

- 1) Remove 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 2) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 3) Remove 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 4) Remove a screw (silver, tap, 8mm) that fix CAP (PL 14.3.40) to 500 SHEET FEEDER ASSEMBLY.
- 5) Remove CAP from 500 SHEET FEEDER ASSEMBLY.
- 6) Release the two hooks that fix FUSER CHUTE INTERLOCK (PL 14.3.9) to 500 SHEET FEEDER ASSEMBLY and remove FUSER CHUTE INTERLOCK.
- 7) Remove connector (P/J121) of FUSER CHUTE INTERLOCK.

[Replacement]

- 1) Attach connector (P/J121) of FUSER CHUTE INTERLOCK (PL 14.3.9).
- 2) Match two hooks of FUSER CHUTE INTERLOCK to the fitting position of 500 SHEET FEEDER ASSEMBLY and attach FUSER CHUTE INTERLOCK.
- 3) Pull the harness of connector on FUSER CHUTE INTERLOCK from the outside of 500 SHEET FEEDER ASSEMBLY and tighten the loose harness of FUSER CHUTE INTERLOCK.
- 4) Match the boss of CAP (PL 14.3.40) to the hole of 500 SHEET FEEDER ASSEMBLY and attach it.
- 5) Fix CAP to 500 SHEET FEEDER ASSEMBLY using a screw (silver, tap, 8mm).
- 6) Attach 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 7) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 8) Attach 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)

RRP14.15 PWBA MOT (PL 14.3.11)



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RRP14.15 PWBA MOT (PL 14.3.11)

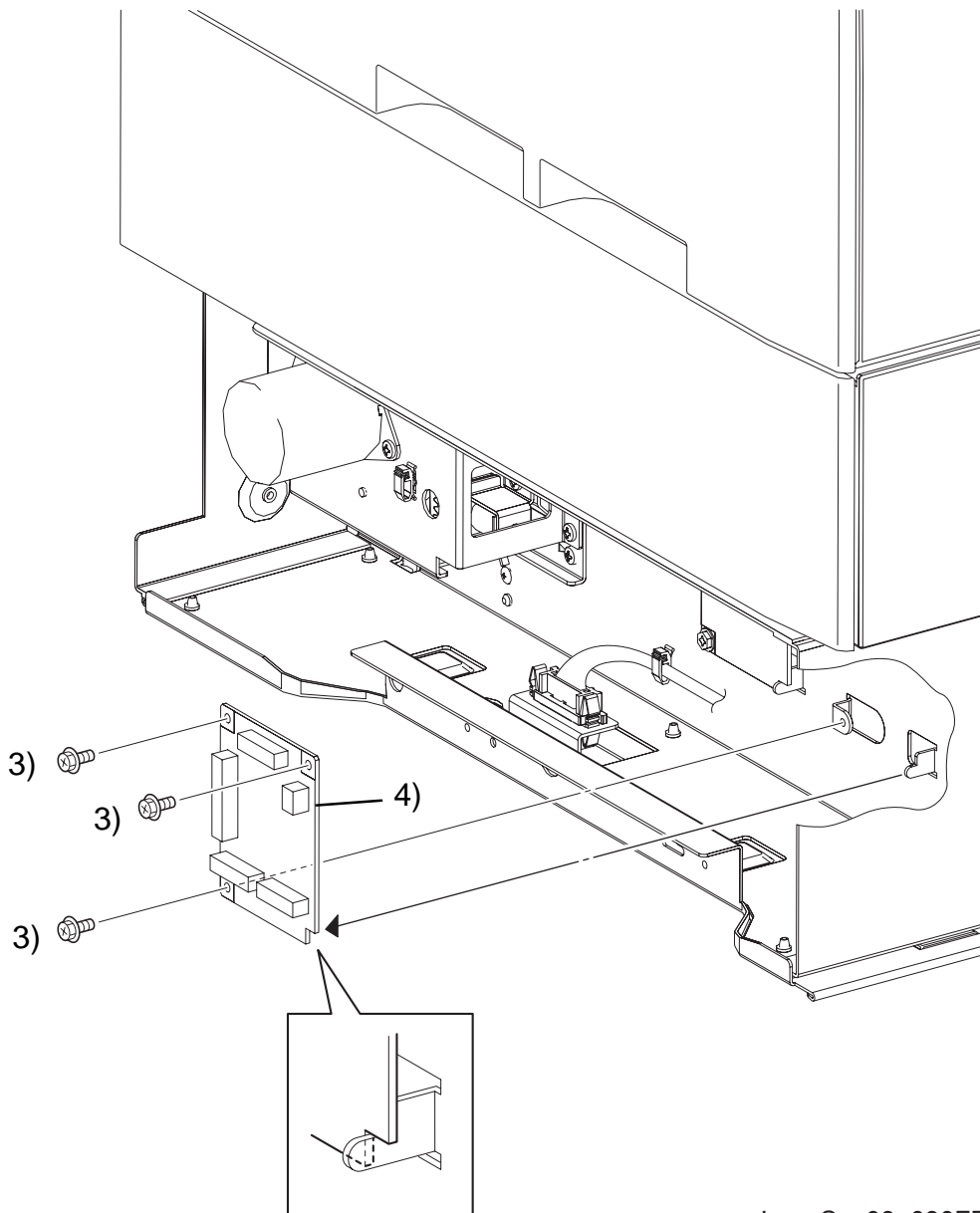
[Removal]

- 1) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 2) Remove the connector (P/J440) and the connector (P/J446) on PWBA MOT (PL 14.3.11).
- 3) Remove the three screws (silver, with a flange, 6mm) that fix PWBA MOT to 500 SHEET FEEDER ASSEMBLY.
- 4) Remove PWBA MOT from 500 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Align the lower right side notch of PWBA MOT to the convexed section of 500 PAPER FEEDR ASSY and attach it.
- 2) Fix PWBA MOT to 500 SHEET FEEDER ASSEMBLY using the three screws (silver, with a flange, 6mm).
- 3) Attach the connector (P/J440) and the connector (P/J446) on PWBA MOT.
- 4) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)

RRP14.16 PWBA TRAY CONT (PL 14.3.12)



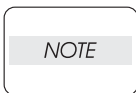
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RRP14.16 PWBA TRAY CONT (PL 14.3.12)

[Removal]

- 1) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 2) Remove connector (P/J435), connector (P/J436) and connector (P/J437) on PWBA TRAY CONT (PL 14.3.12).
- 3) Remove three screws (silver, with a flange, 6mm) that fix PWBA TRAY CONT to 500 SHEET FEEDER ASSEMBLY.
- 4) Remove PWBA TRAY CONT from 500 SHEET FEEDER ASSEMBLY.

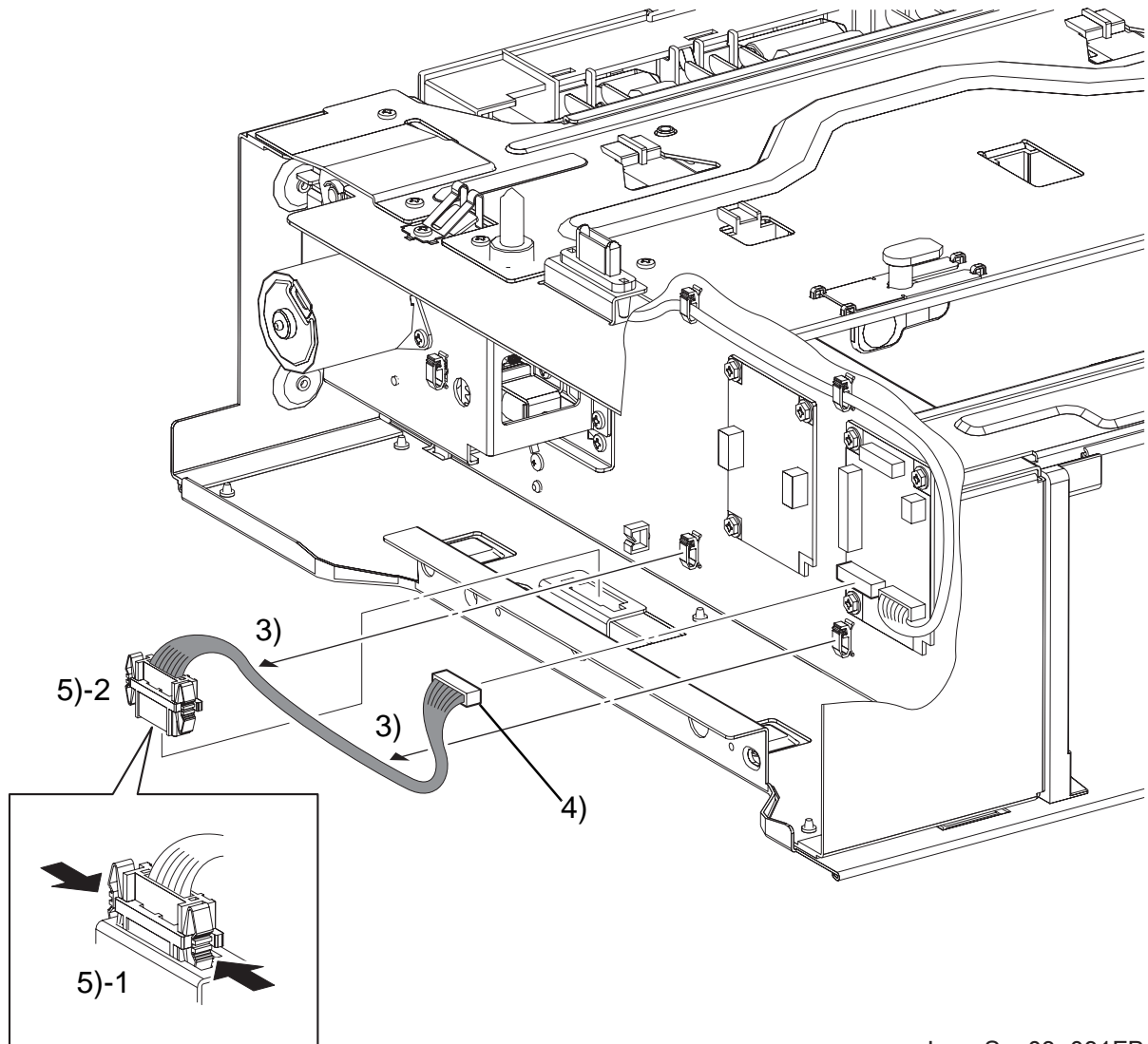
[Replacement]



The PWBA TRAY CONT is different for 250 SHEET FEEDER ASSEMBLY and for 500 SHEET FEEDER ASSEMBLY, so pay sufficient attention to avoid using incorrect one.

- Regarding PWBA TRAY CONT for 250 SHEET FEEDER ASSEMBLY, the silk screened marking on the board is in yellow and the solder resist is blue.
 - Regarding PWBA TRAY CONT for 500 SHEET FEEDER ASSEMBLY, the silk screened marking on the board is in white and the solder resist is green.
- 1) Align the lower right side hole of PWBA TRAY CONT to the convexed section of 500 PAPER FEEDR ASSY and attach it.
 - 2) Fix PWBA TRAY CONT to 500 SHEET FEEDER ASSEMBLY using three screws (silver, with a flange, 6mm).
 - 3) Attach connector (P/J435), connector (P/J436) and connector (P/J437) on PWBA TRAY CONT.
 - 4) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)

RRP14.17 HARNESS-ASSY FEED 2 (PL 14.3.13)



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RRP14.17 HARNESS-ASSY FEED 2 (PL 14.3.13)

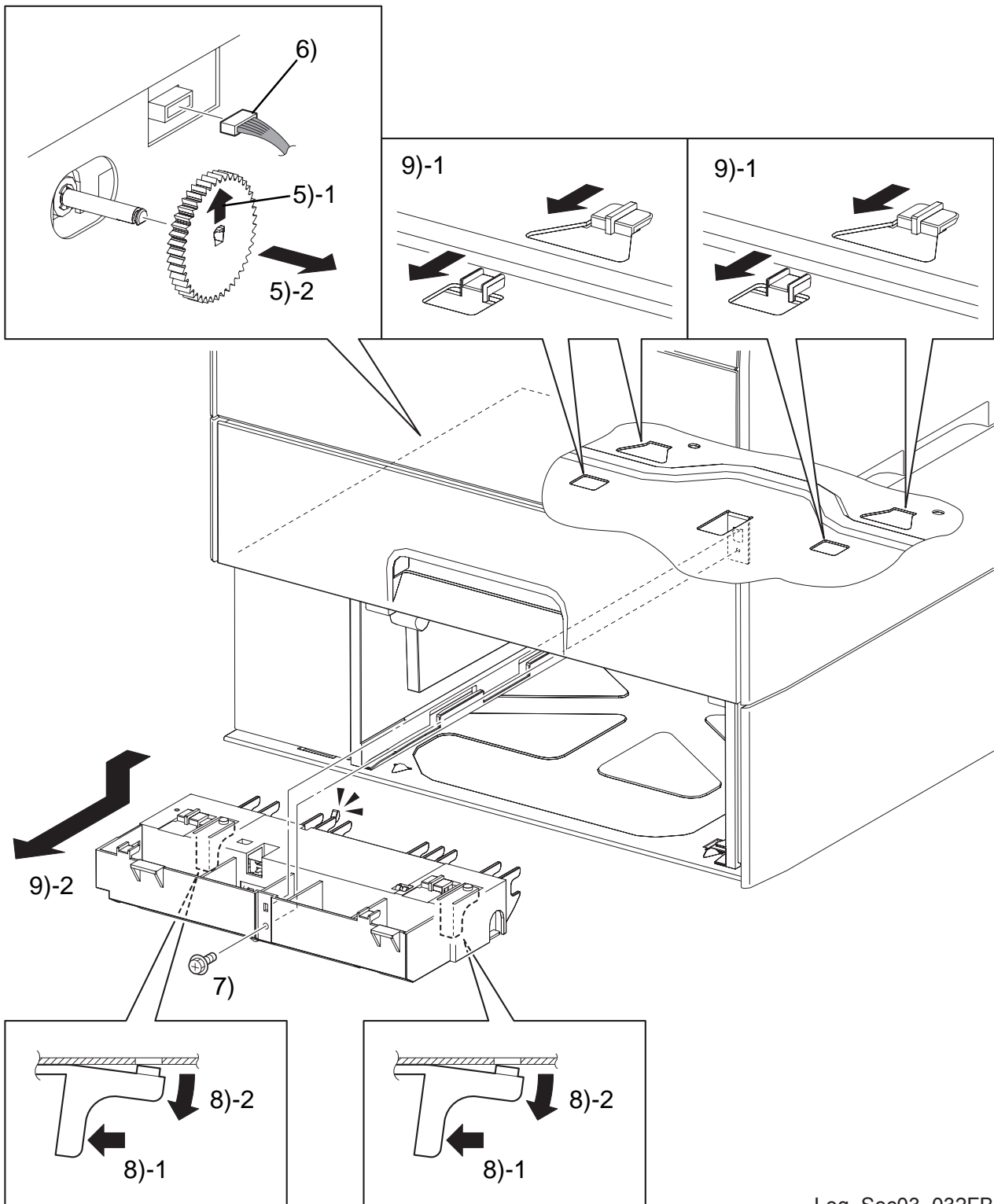
[Removal]

- 1) Remove 500 SHEET FEEDER ASSEMBLY. (RRP 14.5)
- 2) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 3) Release the two clamps that fix the harness of HARNESS-ASSY FEED 2 (PL 14.3.13).
- 4) Remove the connector (P/J436) on PWBA TRAY CONT (PL 14.3.12).
- 5) Release the hooks at two locations that fix HARNESS-ASSY FEED 2 to 500 SHEET FEEDER ASSEMBLY, and remove HARNESS-ASSY FEED 2.

[Replacement]

- 1) Attach HARNESS-ASSY FEED 2 on 500 SHEET FEEDER ASSEMBLY and fix it with two hooks.
- 2) Attach the connector (P/J436) on PWBA-TRAY CONT.
- 3) Fix the harness of HARNESS-ASSY FEED 2 using the two clamps.
- 4) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 5) Attach 500 SHEET FEEDER ASSEMBLY. (RRP 14.5)

RRP14.18 HOUSING ASSY FEED (PL 14.4.1)



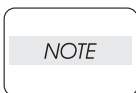
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RRP14.18 HOUSING ASSY FEED (PL 14.4.1)

[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 3) Remove CLUTCH ASSY PH. (RRP 14.11)
- 4) Remove DRIVE ASSY FEED. (RRP 14.9)
- 5) Release a hook of GEAR FEED (PL 14.3.4) fixed on the shaft of HOUSING ASSY FEED (PL 14.4.1) and remove GEAR FEED.
- 6) Remove connector (P/J618) of HOUSING ASSY FEED.
- 7) Remove a screw (silver, with a flange, 6mm) that fixes HOUSING ASSY FEED on 500 SHEET FEEDER ASSEMBLY.
- 8) Put both of your hands from the front side of 500 PAPER FEEDR ASSY, pull levers at two locations of HOUSING ASSY FEED toward you, and disengage the boss of HOUSING ASSY FEED from the hole of 500 PAPER FEEDR ASSY.
- 9) Move HOUSING ASSY FEED forward, release the hooks at four locations fixed on 500 SHEET FEEDER ASSEMBLY, disengage the hole of HOUSING ASSY FEED from front side convex of 500 SHEET FEEDER ASSEMBLY and remove HOUSING ASSY FEED downwards.

[Replacement]



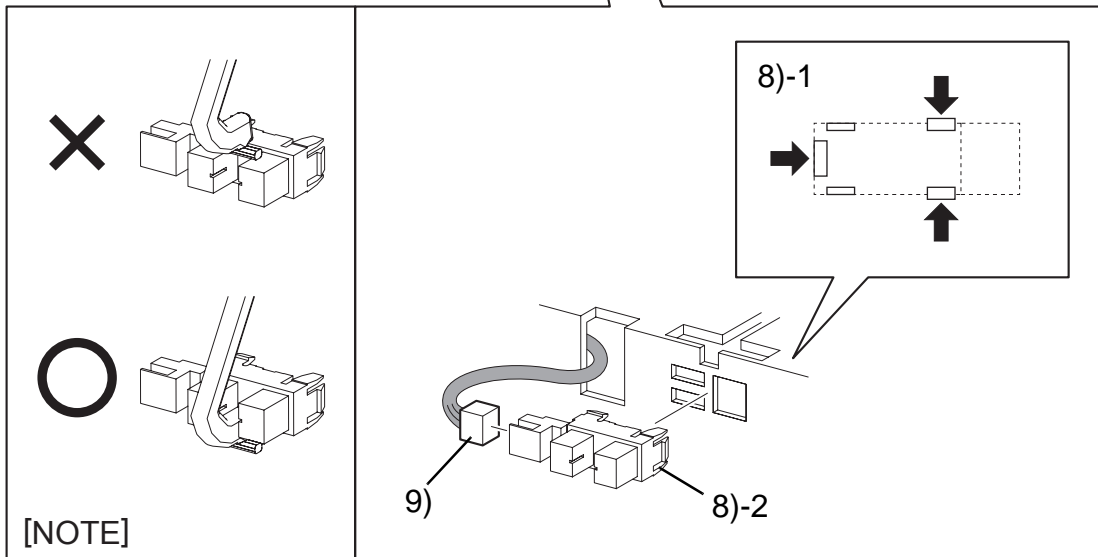
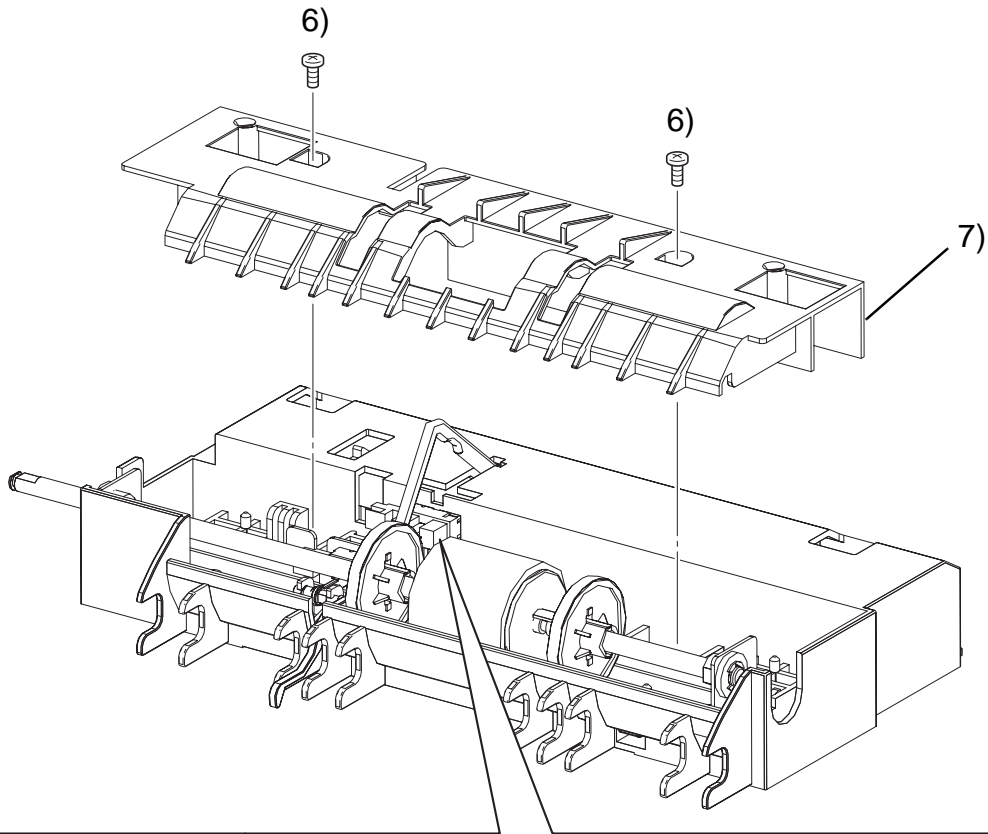
Try not to break ACTUATOR (PL 14.4.7) on HOUSING ASSY FEED when carrying out the work shown below.

- 1) Match the four hooks of HOUSING ASSY FEED (PL 14.4.1) to the fitting position of 500 SHEET FEEDER ASSEMBLY and attach it.
- 2) Move HOUSING ASSY FEED backwards and insert the boss of HOUSING ASSY FEED in the hole in 500 SHEET FEEDER ASSEMBLY and insert convex of 500 SHEET FEEDER ASSEMBLY to the front side hole of HOUSING ASSY FEED.
- 3) Fix HOUSING ASSY FEED on 500 SHEET FEEDER ASSEMBLY using a screw (silver, with a flange, 6mm).
- 4) Attach connector (P/J618) of HOUSING ASSY FEED.
- 5) Attach GEAR FEED (PL 14.3.4) to the shaft of HOUSING ASSY FEED and fix a hook of GEAR FEED in the groove of shaft of HOUSING ASSY FEED.
- 6) Attach DRIVE ASSY FEED. (RRP 14.9)
- 7) Attach CLUTCH ASSY PH. (RRP 14.11)
- 8) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 9) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.19 PHOTO SENSOR: NO PAPER (PL 14.4.4)

Procedure No. with [] included in Fig. shows the procedure at attachment.

NOTE



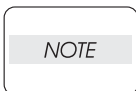
Leg_Sec03_033FB

RRP14.19 PHOTO SENSOR: NO PAPER (PL 14.4.4)

[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 3) Remove CLUTCH ASSY PH. (RRP 14.11)
- 4) Remove DRIVE ASSY FEED. (RRP 14.9)
- 5) Remove HOUSING ASSY FEED. (RRP 14.18)
- 6) Remove two screws (silver, tap, 8mm) that fix COVER FEED (PL 14.4.13) to HOUSING ASSY FEED.
- 7) Remove COVER FEED from HOUSING ASSY FEED.
- 8) Release the hooks at three locations that fix PHOTO SENSOR:NO PAPER (PL 14.4.4) to HOUSING ASSY FEED and remove PHOTO SENSOR:NO PAPER.
- 9) Remove connector (P/J119) of PHOTO SENSOR:NO PAPER.

[Replacement]



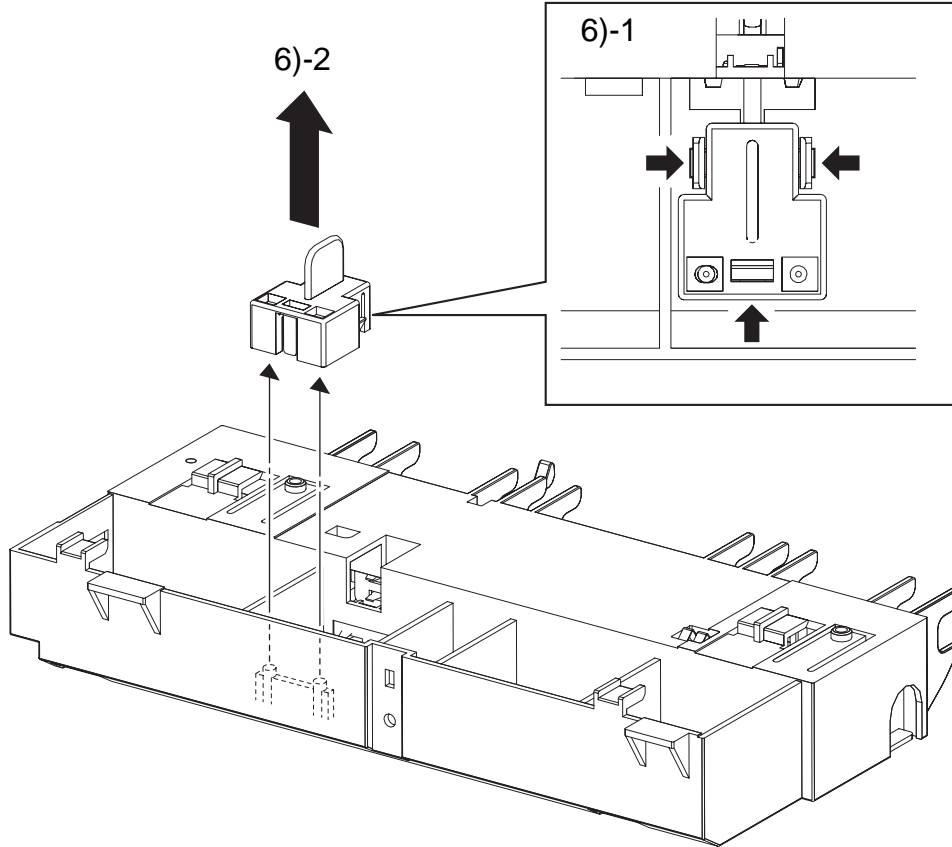
When carrying out the work shown below, carefully check the relation between PHOTO SENSOR: NO PAPER and ACTUATOR NO PAPER CST.

- 1) Attach connector (P/J119) of PHOTO SENSOR:NO PAPER.
- 2) Put ACTUATOR NO PAPER CST to the sensor part of PHOTO SENSOR: NO PAPER, match three hooks of PHOTO SENSOR:NO PAPER to the fitting position of HOUSING ASSY FEED and attach it.
- 3) Attach COVER FEED on HOUSING ASSY FEED.
- 4) Fix COVER FEED on HOUSING ASSY FEED using two screws (silver, tap, 8mm).
- 5) Attach HOUSING ASSY FEED. (RRP 14.18)
- 6) Attach DRIVE ASSY FEED. (RRP 14.9)
- 7) Attach CLUTCH ASSY PH. (RRP 14.11)
- 8) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 9) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.20 ACTUATOR NO PAPER CST (PL 14.4.5)

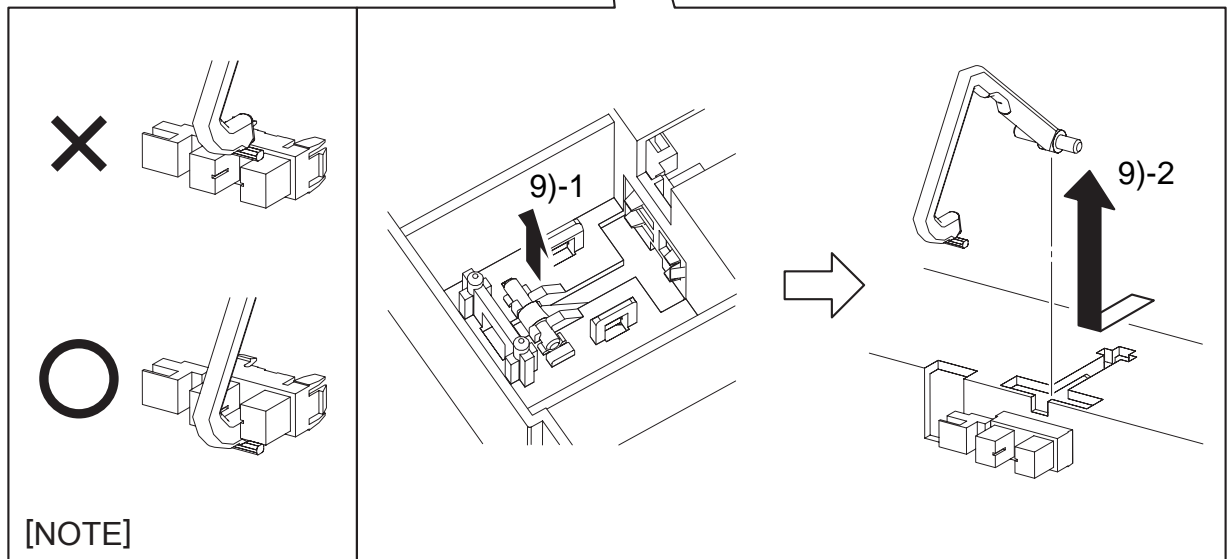
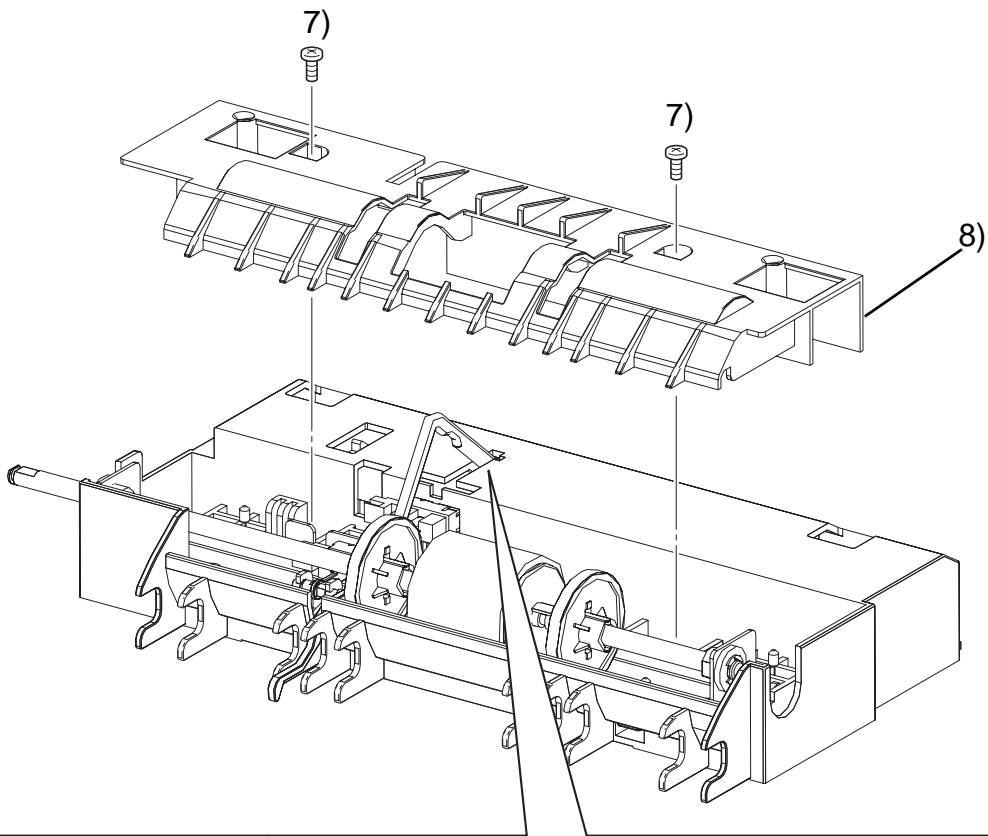
NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



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RRP14.20 ACTUATOR NO PAPER CST (PL 14.4.5)



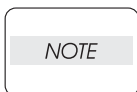
Leg_Sec03_034FB

RRP14.20 ACTUATOR NO PAPER CST (PL 14.4.5)

[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 3) Remove CLUTCH ASSY PH. (RRP 14.11)
- 4) Remove DRIVE ASSY FEED. (RRP 14.9)
- 5) Remove HOUSING ASSY FEED. (RRP 14.18)
- 6) Release three hooks that fix CAP ACTUATOR (PL 14.4.3) to HOUSING ASSY FEED (PL 14.4.1) and remove CAP ACTUATOR.
- 7) Remove two screws (silver, tap, 8mm) that fix COVER FEED (PL 14.4.13) to HOUSING ASSY FEED.
- 8) Remove COVER FEED from HOUSING ASSY FEED.
- 9) Pull out the shaft of ACTUATOR NO PAPER CST (PL 14.4.5) from a hook of HOUSING ASSY FEED, move it along with notched of HOUSING ASSY FEED and remove ACTUATOR NO PAPER CST.

[Replacement]



When carrying out the work shown below, carefully check the relation between PHOTO SENSOR: NO PAPER and ACTUATOR NO PAPER CST.

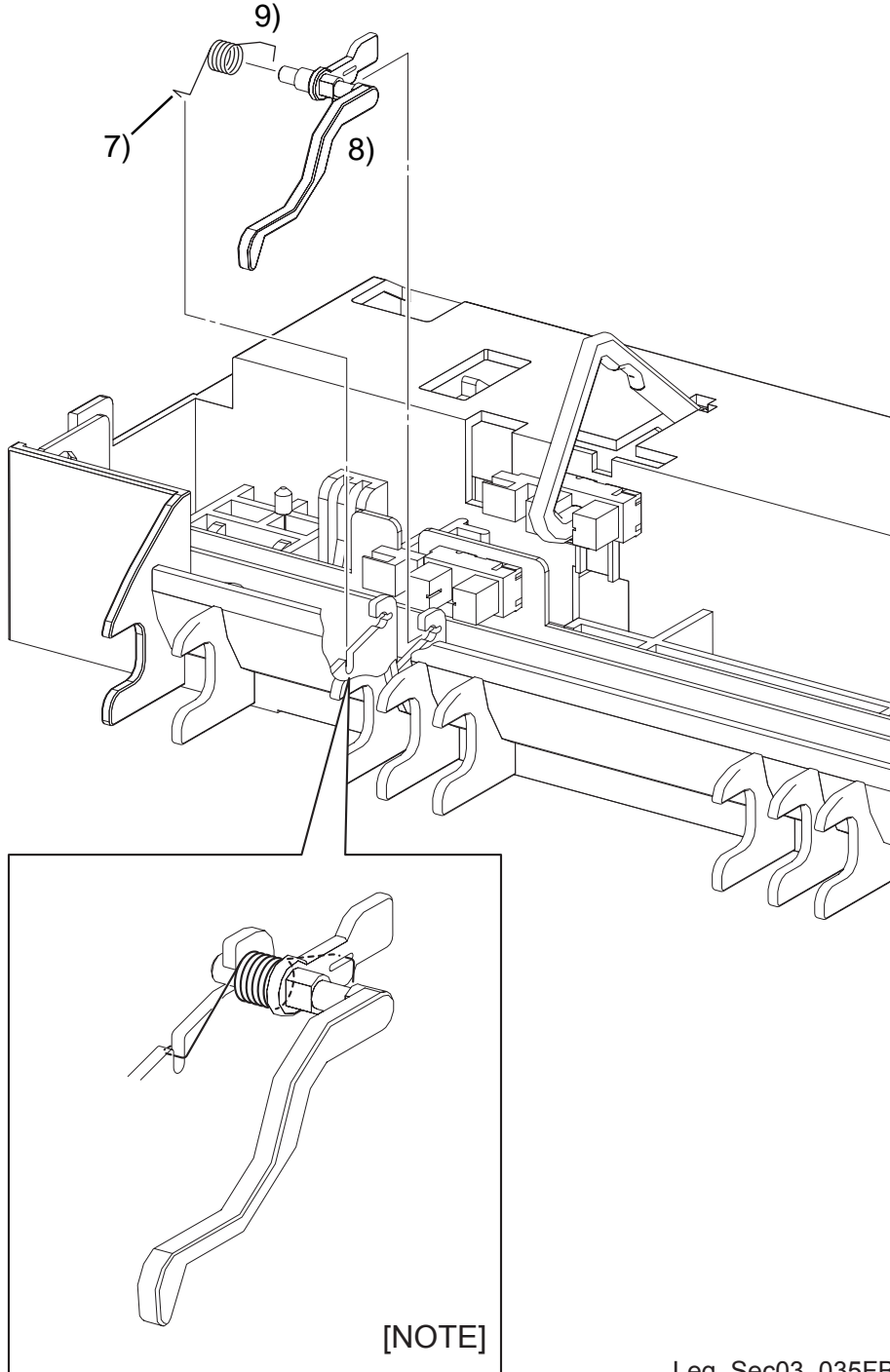
- 1) Insert the shaft of ACTUATOR NO PAPER CST (PL 14.4.5) from the notched of HOUSING ASSY FEED (PL 14.4.1).
- 2) Insert ACTUATOR NO PAPER CST to the sensor part of SENOR PHOTE: NO PAPER (PL 14.4.4), engage the shaft of ACTUATOR NO PAPER CST with a hook of HOUSING ASSY FEED and attach it.
- 3) Attach COVER FEED (PL 14.4.13) to HOUSING ASSY FEED.
- 4) Fix COVER FEED on HOUSING ASSY FEED using two screws (silver, tap, 8mm).
- 5) Match the hole of CAP ACTUATOR (PL 14.4.3) to the boss of HOUSING ASSY FEED and attach CAP ACTUATOR.
- 6) Attach HOUSING ASSY FEED. (RRP 14.18)
- 7) Attach DRIVE ASSY FEED. (RRP 14.9)
- 8) Attach CLUTCH ASSY PH. (RRP 14.11)
- 9) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 10) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

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RRP14.21 ACTUATOR (PL 14.4.7)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



Leg_Sec03_035FB

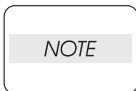
RRP14.21 ACTUATOR (PL 14.4.7)

[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 3) Remove CLUTCH ASSY PH. (RRP 14.11)
- 4) Remove DRIVE ASSY FEED. (RRP 14.9)
- 5) Remove HOUSING ASSY FEED. (RRP 14.18)
- 6) Remove ROLL ASSY FEED. (RRP 14.23)
- 7) Remove SPRING ACTUATOR (PL 14.4.6) from the notched of HOUSING ASSY FEED.
- 8) Pull out the shaft of ACTUATOR (PL 14.4.7) from the hook of HOUSING ASSY FEED, and remove ACTUATOR together with SPRING ACTUATOR.
- 9) Remove SPRING ACTUATOR from ACTUATOR.

[Replacement]

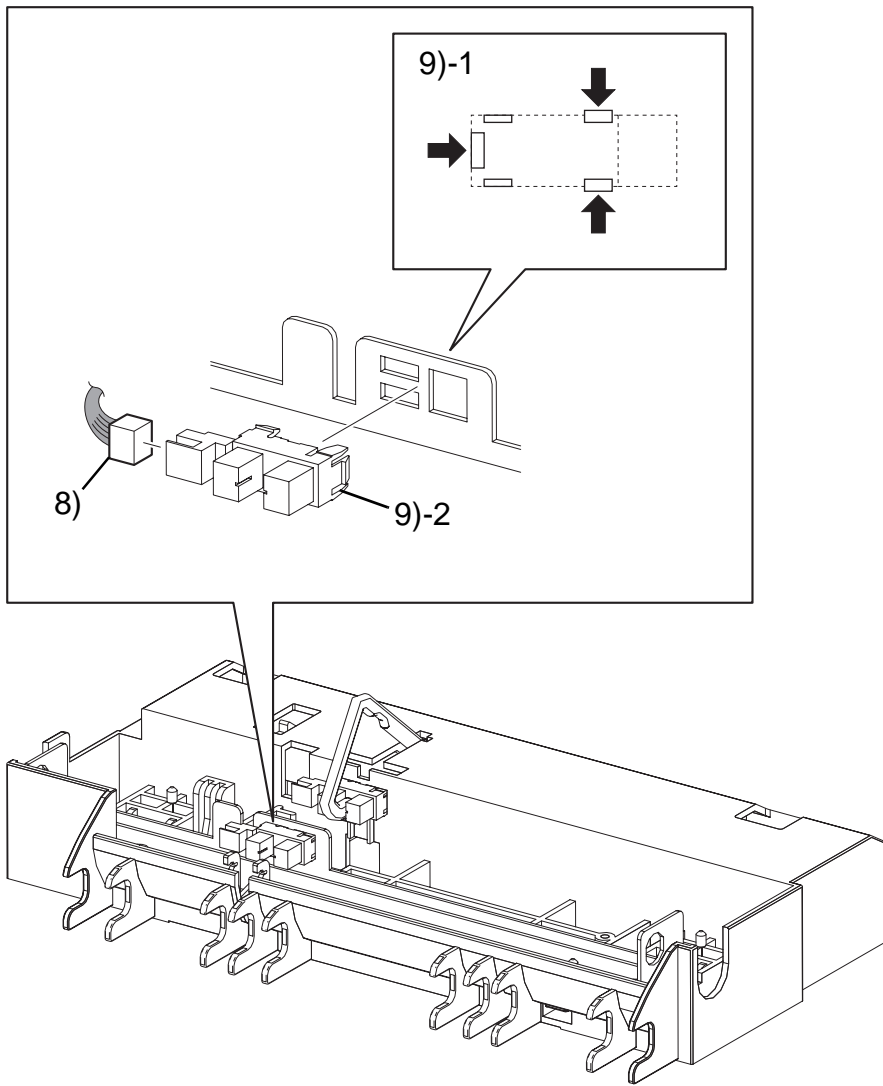
- 1) Attach SPRING ACTUATOR to ACTUATOR.
- 2) Engage the shaft of ACTUATOR to the hook of HOUSING ASSY FEED, and attach ACTUATOR together with SPRING ACTUATOR.
- 3) Hook SPRING ACTUATOR to the notched of HOUSING ASSY FEED.



Be sure to securely hook SPRING ACTUATOR to the notches of ACTUATOR and HOUSING ASSY FEED.

- 4) Attach ROLL ASSY FEED. (RRP 14.23)
- 5) Attach HOUSING ASSY FEED. (RRP 14.18)
- 6) Attach DRIVE ASSY FEED. (RRP 14.9)
- 7) Attach CLUTCH ASSY PH. (RRP 14.11)
- 8) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 9) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.22 PHOTO SENSOR: T/R (PL 14.4.4)



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RRP14.22 PHOTO SENSOR: T/R (PL 14.4.4)

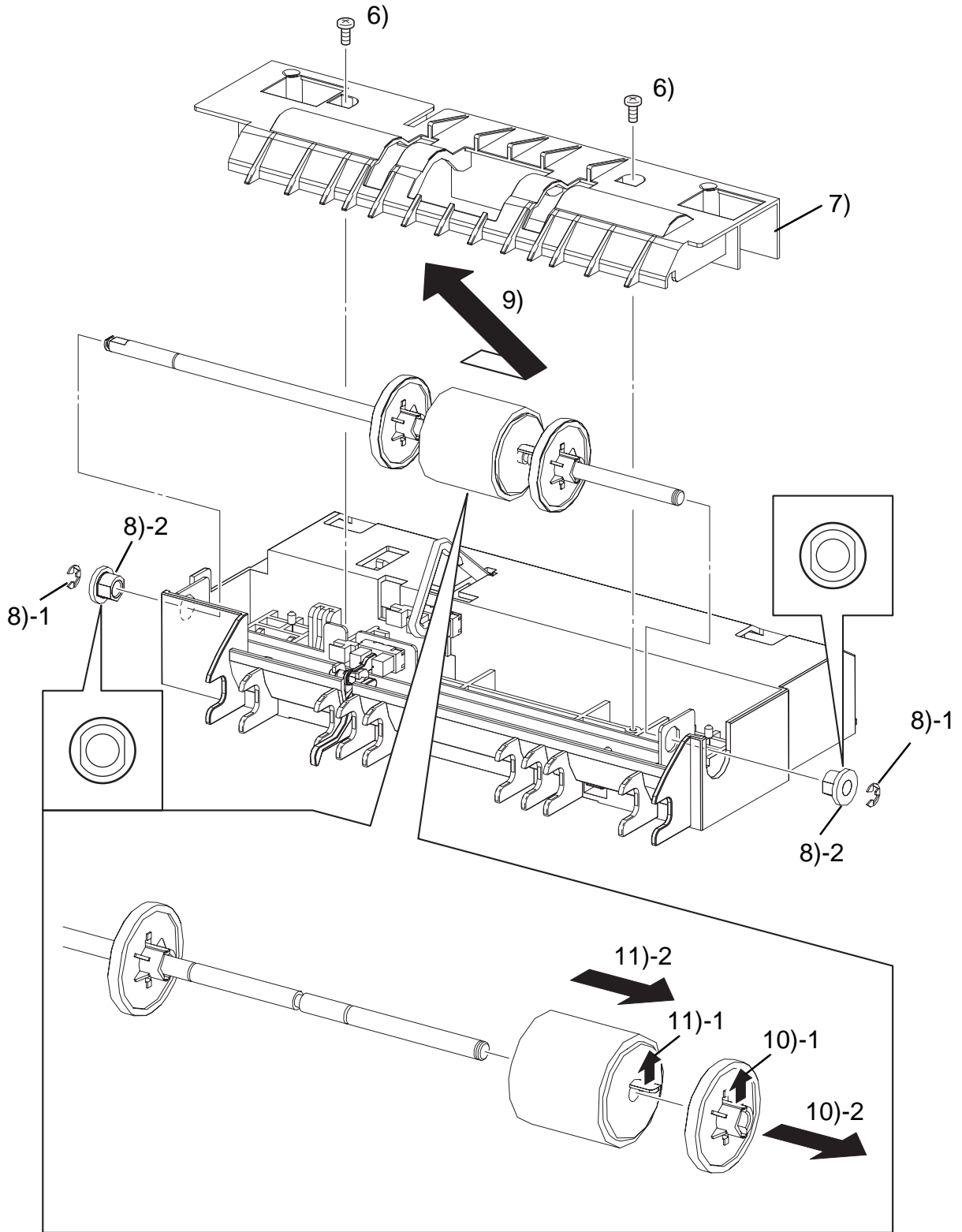
[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 3) Remove CLUTCH ASSY PH. (RRP 14.11)
- 4) Remove DRIVE ASSY FEED. (RRP 14.9)
- 5) Remove HOUSING ASSY FEED. (RRP 14.18)
- 6) Remove ROLL ASSY FEED. (RRP 14.23)
- 7) Remove ACTUATOR. (RRP 14.21)
- 8) Remove connector (P/J120) of PHOTO SENSOR: T/R (PL 14.4.4).
- 9) Release the hooks at three locations that fix PHOTO SENSOR: T/R to HOUSING ASSY FEED and remove PHOTO SENSOR: T/R.

[Replacement]

- 1) Match three hooks of PHOTO SENSOR: T/R to fitting position of HOUSING ASSY FEED and attach it.
- 2) Attach connector (P/J120) of PHOTO SENSOR: T/R.
- 3) Attach ACTUATOR. (RRP 14.21)
- 4) Attach ROLL ASSY FEED. (RRP 14.23)
- 5) Attach HOUSING ASSY FEED. (RRP 14.18)
- 6) Attach DRIVE ASSY FEED. (RRP 14.9)
- 7) Attach CLUTCH ASSY PH. (RRP 14.11)
- 8) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 9) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.23 ROLL ASSY FEED (PL 14.4.11)



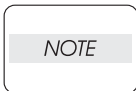
Leg_Sec03_037FB

RRP14.23 ROLL ASSY FEED (PL 14.4.11)

[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 3) Remove CLUTCH ASSY PH. (RRP 14.11)
- 4) Remove DRIVE ASSY FEED. (RRP 14.9)
- 5) Remove HOUSING ASSY FEED. (RRP 14.18)
- 6) Remove the two screws (silver, tap, 8mm) that fix COVER FEED (PL 14.4.13) to HOUSING ASSY FEED.
- 7) Remove COVER FEED from HOUSING ASSY FEED.
- 8) Remove the E rings that fix both sides of SHAFT FEED (PL 14.4.12) to HOUSING ASSY FEED, and remove the left and right BEARING EARTH (PL 14.4.9).
- 9) First slide SHAFT FEED to the right, pull out SHAFT FEED from the left side bearing of HOUSING FEED ASSY, and remove SHAFT FEED together with ROLL ASSY FEED (PL 14.4.11) and ROLL SUPPORT (PL 14.4.10).
- 10) Release the hook of the right side ROLL SUPPORT on SHAFT FEED, and remove ROLL SUPPORT.
- 11) Release the hook that fix ROLL ASSY FEED to SHAFT FEED and remove ROLL ASSY FEED.

[Replacement]



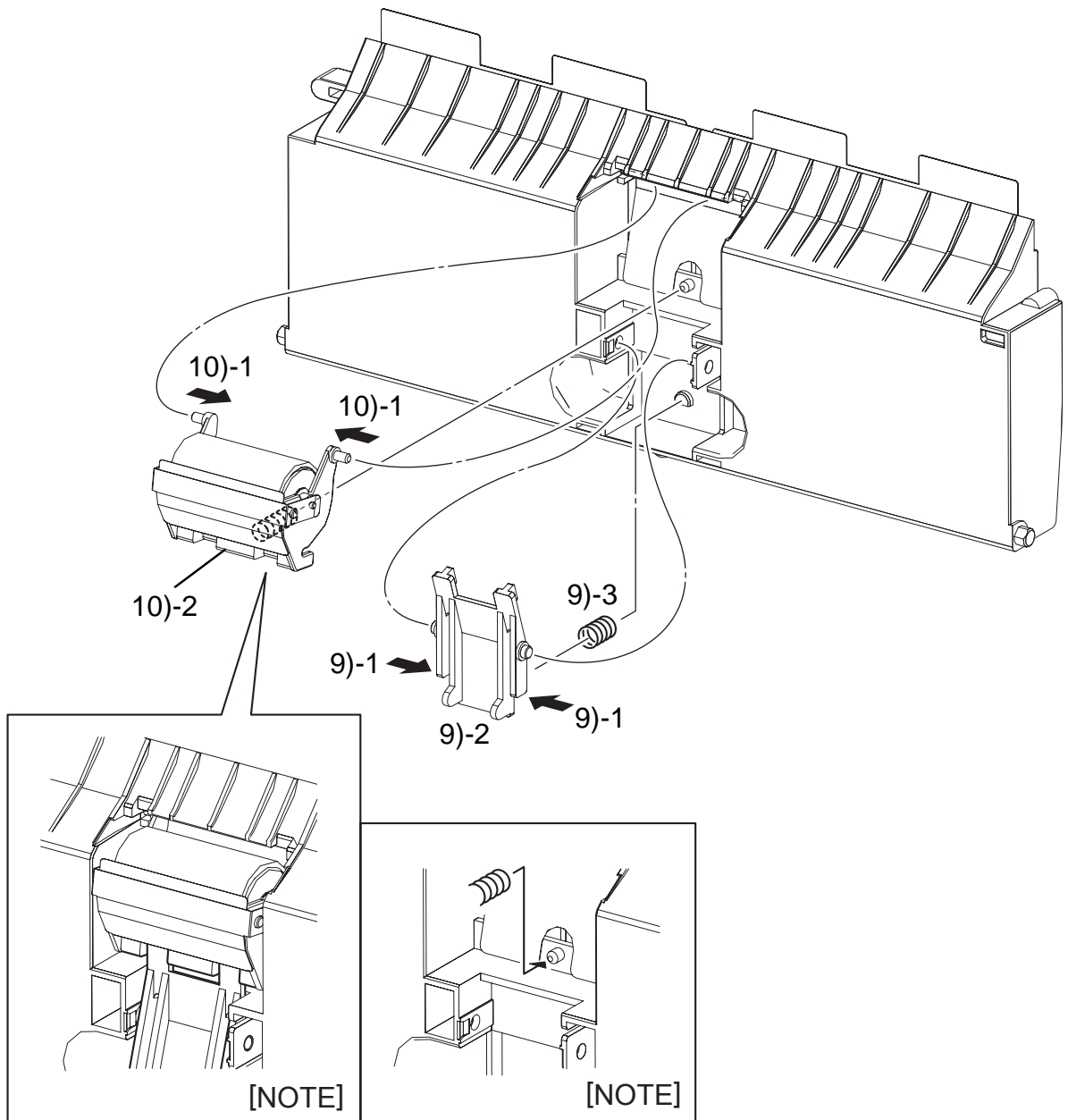
Pay attention to fitting direction of ROLL ASSY FEED when carrying out the work shown below.

- 1) Attach ROLL ASSY FEED to SHAFT FEED so that the hook is directed rightward, and fix the hook of ROLL ASSY FEED to the groove of SHAFT FEED.
- 2) Attach ROLL SUPPORT to SHAFT FEED, and fix the hook of ROLL SUPPORT to the groove of SHAFT FEED.
- 3) After placing the right side of SHAFT FEED in the right side bearing of HOUSING ASSY FEED, slide SHAFT FEED to the left, and attach SHAFT FEED together with ROLL ASSY FEED and ROLL SUPPORT.
- 4) Match the double D-cut section of BEARING EARTH to the both side bearing of HOUSING ASSY FEED, attach BEARING EARTH. Fix the both side of SHAFT FEED using the E rings.
- 5) Attach COVER FEED to HOUSING ASSY FEED.
- 6) Fix COVER FEED to HOUSING ASSY FEED using the two screws (silver, tap, 8mm).
- 7) Attach HOUSING ASSY FEED. (RRP 14.18)
- 8) Attach DRIVE ASSY FEED. (RRP 14.9)
- 9) Attach CLUTCH ASSY PH. (RRP 14.11)
- 10) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 11) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.24 SEPARATOR ASSEMBLY (PL 14.3.25)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.

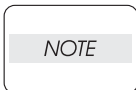


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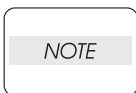
RRP14.24 SEPARATOR ASSEMBLY (PL 14.3.25)

[Removal]

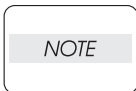
- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 3) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 4) Remove 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 5) Remove CLUTCH ASSY PH. (RRP 14.11)
- 6) Remove DRIVE ASSY FEED. (RRP 14.9)
- 7) Remove HOUSING ASSY FEED. (RRP 14.18)
- 8) Remove CHUTE ASSY RETARD. (RRP 14.29)



Try not to be break the boss of LEVER when carrying out the work shown below.

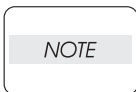


Be sure not to be loose SPRING LEVER when carrying out the work shown below.

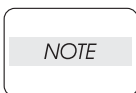


Pay attention to fitting direction of LEVER when carrying out the work shown below.

- 9) Depress the boss parts on both sides of LEVER (PL 14.3.28) and take out LEVER and SPRING LEVER (PL 14.3.27) from CHUTE ASSY 500 (PL 14.3.38).



Try not to be break the boss of SEPARATOR ASSEMBLY when carrying out the work shown below.

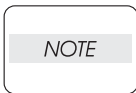


Be sure not to be loose SPRING RETARD when carrying out the work shown below.

- 10) Depress the boss parts on both side of SEPARATOR ASSEMBLY (PL 14.3.25), remove SEPARATOR ASSEMBLY from CHUTE ASSY 500.

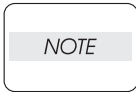
RRP14.24 SEPARATOR ASSEMBLY (PL 14.3.25)

[Replacement]

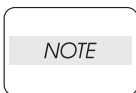


Try not to break the boss of SEPARATOR ASSEMBLY when carrying out the work shown below.

- 1) Match SPRING RETARD (PL 14.3.34) to boss of CHUTE ASSY 500 (PL 14.3.38), depress the boss parts on both sides of SEPARATOR ASSEMBLY (PL 14.3.25) and attach SEPARATOR ASSEMBLY to CHUTE ASSY 500.

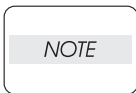


Check that SPRING RETARD is placed in the boss of SEPARATOR ASSEMBLY and the boss of CHUTE ASSY 500.

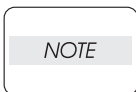


Try not to be break the boss of LEVER when carrying out the work shown below.

- 2) Attach SPRING LEVER (PL 14.3.27) to the boss of CHUTE ASSY 500, depress the boss parts on both sides of LEVER (PL 14.3.28) and attach LEVER to CHUTE ASSY 500.



Check that SPRING LEVER is placed in the boss of LEVER and boss of CHUTE ASSY 500 properly.

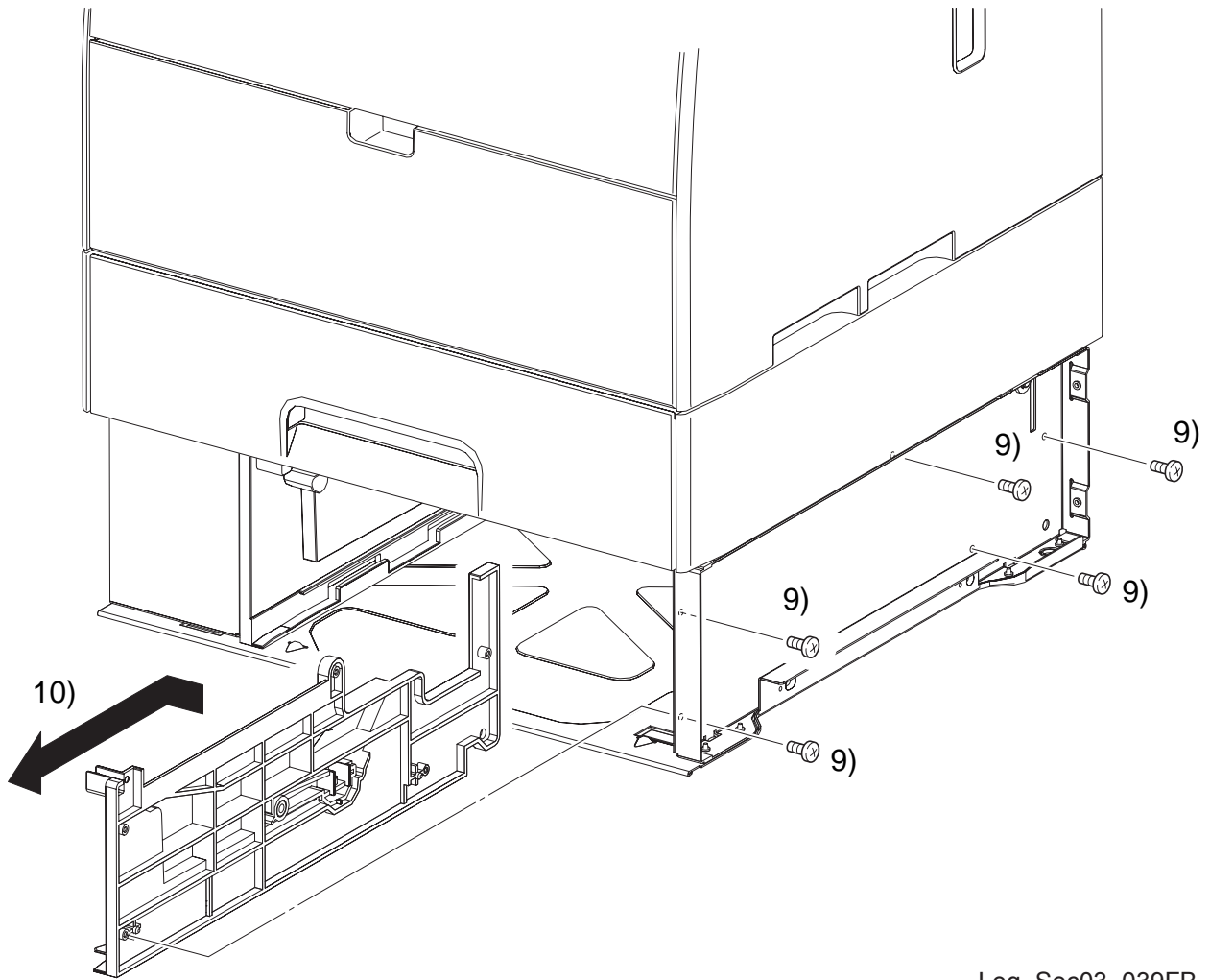


Be sure to engage the convex of LEVER with the concave of lower side on SEPARATOR ASSEMBLY properly.

- 3) Attach CHUTE ASSY RETARD. (RRP 14.29)
- 4) Attach HOUSING ASSY FEED. (RRP 14.18)
- 5) Attach DRIVE ASSY FEED. (RRP 14.9)
- 6) Attach CLUTCH ASSY PH. (RRP 14.11)
- 7) Attach 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 8) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 9) Attach 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 10) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

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RRP14.25 GUIDE CST R (PL 14.3.29)



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RRP14.25 GUIDE CST R (PL 14.3.29)

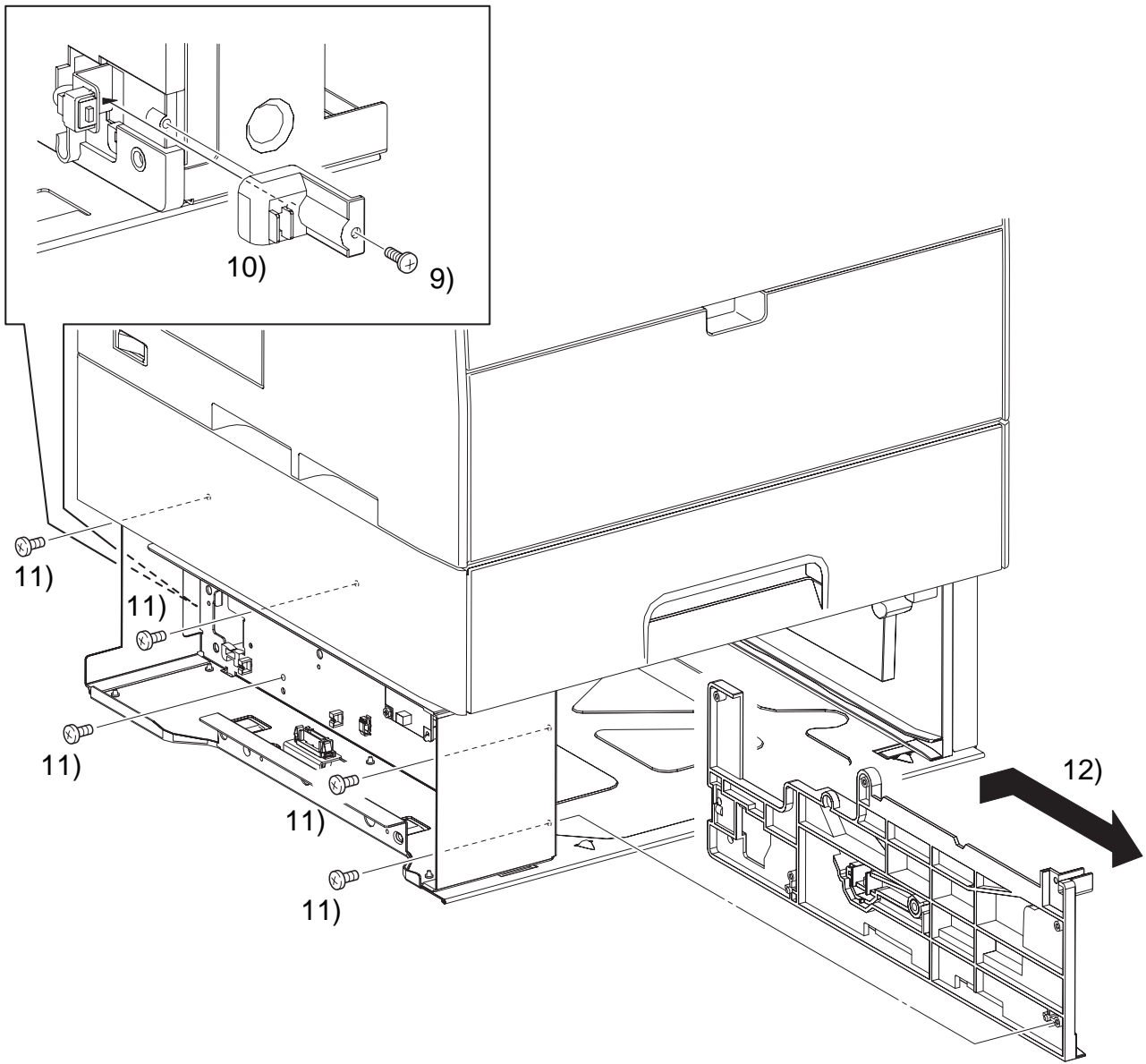
[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 3) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 4) Remove 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 5) Remove CLUTCH ASSY PH. (RRP 14.11)
- 6) Remove DRIVE ASSY FEED. (RRP 14.9)
- 7) Remove HOUSING ASSY FEED. (RRP 14.18)
- 8) Remove CHUTE ASSY RETARD. (RRP 14.29)
- 9) Remove five screws (silver, tap, 6mm) that fix GUIDE CST R (PL 14.3.29) to 500 SHEET FEEDER ASSEMBLY.
- 10) Remove GUIDE CST R together with SPG LOCK CST LL (PL 14.3.33) and STOPPER CST R (PL 14.3.31) from 500 SHEET FEEDER ASSEMBLY.
- 11) Remove STOPPER CST R. (RRP 14.27)

[Replacement]

- 1) Attach STOPPER CST R. (RRP 14.27)
- 2) Match the boss of GUIDE CST R to the hole of 500 SHEET FEEDER ASSEMBLY, attach GUIDE CST R.
- 3) Fix GUIDE CST R on 500 SHEET FEEDER ASSEMBLY using five screws (silver, tap, 6mm).
- 4) Attach CHUTE ASSY RETARD. (RRP 14.29)
- 5) Attach HOUSING ASSY FEED. (RRP 14.18)
- 6) Attach DRIVE ASSY FEED. (RRP 14.9)
- 7) Attach CLUTCH ASSY PH. (RRP 14.11)
- 8) Attach 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 9) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 10) Attach 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 11) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.26 GUIDE CST L (PL 14.3.30)



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RRP14.26 GUIDE CST L (PL 14.3.30)

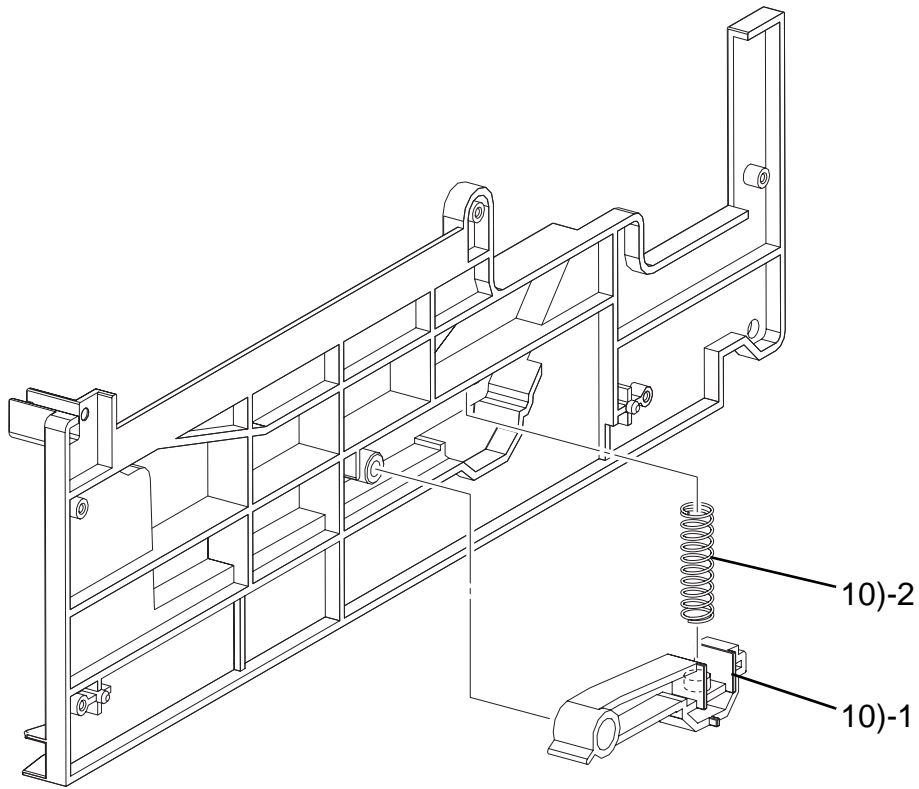
[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 3) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 4) Remove 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 5) Remove CLUTCH ASSY PH. (RRP 14.11)
- 6) Remove DRIVE ASSY FEED. (RRP 14.9)
- 7) Remove HOUSING ASSY FEED. (RRP 14.18)
- 8) Remove CHUTE ASSY RETARD. (RRP 14.29)
- 9) Remove a screw (silver, tap, 8mm) that fix CAP (PL 14.3.40) to 500 SHEET FEEDER ASSEMBLY.
- 10) Remove CAP from 500 SHEET FEEDER ASSEMBLY.
- 11) Remove five screws (silver, tap, 6mm) that fix GUIDE CST L (PL 14.3.30) to 500 SHEET FEEDER ASSEMBLY.
- 12) Move GUIDE CST L to right direction a little to remove from FUSER CHUTE INTERLOCK (PL 14.3.9), remove GUIDE CST L from 500 SHEET FEEDER ASSEMBLY together with SPG LOCK CST LL (PL 14.3.33) and STOPPER CST L (PL 14.3.32).
- 13) Remove STOPPER CST L. (RRP 14.28)

[Replacement]

- 1) Attach STOPPER CST L. (RRP 14.28)
- 2) Put FUSER CHUTE INTERLOCK in the rear side hole of GUIDE CST L, match the boss of GUIDE CST L to the hole of 500 SHEET FEEDER ASSEMBLY, attach GUIDE CST L.
- 3) Fix GUIDE CST L on 500 SHEET FEEDER ASSEMBLY using five screws (silver, tap, 6mm).
- 4) Match the boss of CAP to the hole of 500 SHEET FEEDER ASSEMBLY and attach it.
- 5) Fix CAP to 500 SHEET FEEDER ASSEMBLY using a screw (silver, tap, 8mm).
- 6) Attach CHUTE ASSY RETARD. (RRP 14.29)
- 7) Attach HOUSING ASSY FEED. (RRP 14.18)
- 8) Attach DRIVE ASSY FEED. (RRP 14.9)
- 9) Attach CLUTCH ASSY PH. (RRP 14.11)
- 10) Attach 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 11) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 12) Attach 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 13) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.27 STOPPER CST R (PL 14.3.31)

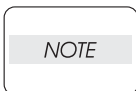


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RRP14.27 STOPPER CST R (PL 14.3.31)

[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 3) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 4) Remove 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 5) Remove CLUTCH ASSY PH. (RRP 14.11)
- 6) Remove DRIVE ASSY FEED. (RRP 14.9)
- 7) Remove HOUSING ASSY FEED. (RRP 14.18)
- 8) Remove CHUTE ASSY RETARD. (RRP 14.29)
- 9) Remove GUIDE CST R. (RRP 14.25)

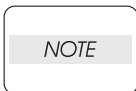


Be sure not to loose SPG LOCK CST LL when carrying out the work shown below.

- 10) Remove STOPPER CST R (PL 14.3.31) from GUIDE CST R (PL 14.3.29).

[Replacement]

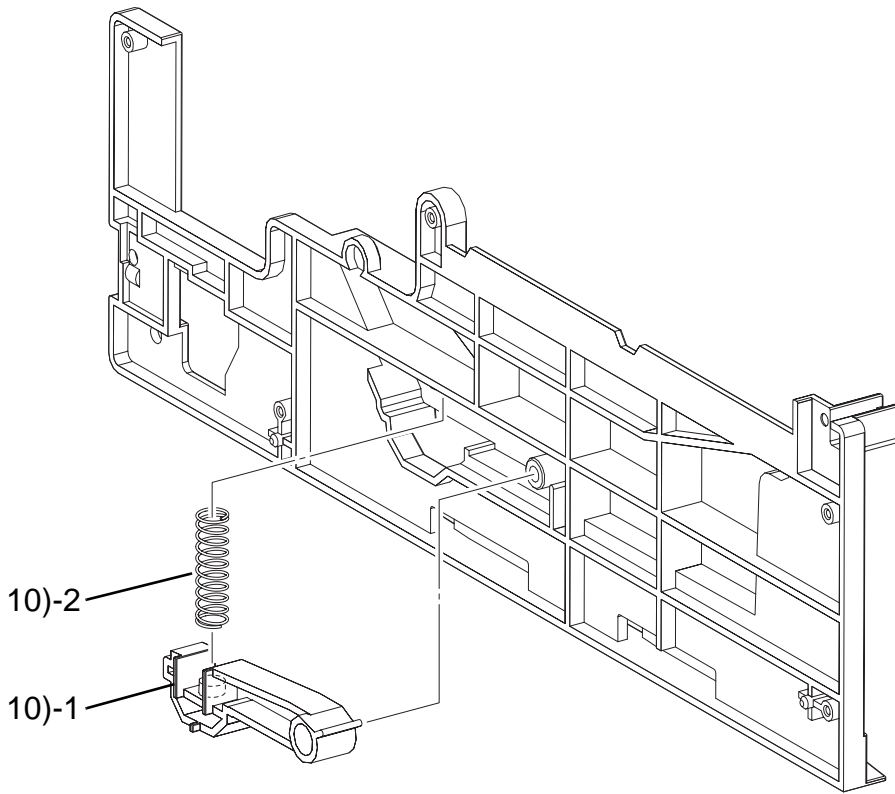
- 1) Attach SPG LOCK CST LL (PL 14.3.33) to the boss of STOPPER CST R and attach STOPPER CST R to GUIDE CST R.



Check that SPG LOCK CST LL is placed in the boss of STOPPER CST R and GUIDE CST R properly.

- 2) Attach GUIDE CST R. (RRP 14.25)
- 3) Attach CHUTE ASSY RETARD. (RRP 14.29)
- 4) Attach HOUSING ASSY FEED. (RRP 14.18)
- 5) Attach DRIVE ASSY FEED. (RRP 14.9)
- 6) Attach CLUTCH ASSY PH. (RRP 14.11)
- 7) Attach 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 8) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 9) Attach 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 10) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.28 STOPPER CST L (PL 14.3.32)

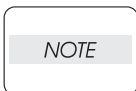


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RRP14.28 STOPPER CST L (PL 14.3.32)

[Removal]

- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 3) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 4) Remove 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 5) Remove CLUTCH ASSY PH. (RRP 14.11)
- 6) Remove DRIVE ASSY FEED. (RRP 14.9)
- 7) Remove HOUSING ASSY FEED. (RRP 14.18)
- 8) Remove CHUTE ASSY RETARD. (RRP 14.29)
- 9) Remove GUIDE CST L. (RRP 14.26)

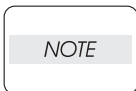


Be sure not to loose SPG LOCK CST LL when carrying out the work shown below.

- 10) Remove STOPPER CST L (PL 14.3.32) from GUIDE CST L (PL 14.3.30).

[Replacement]

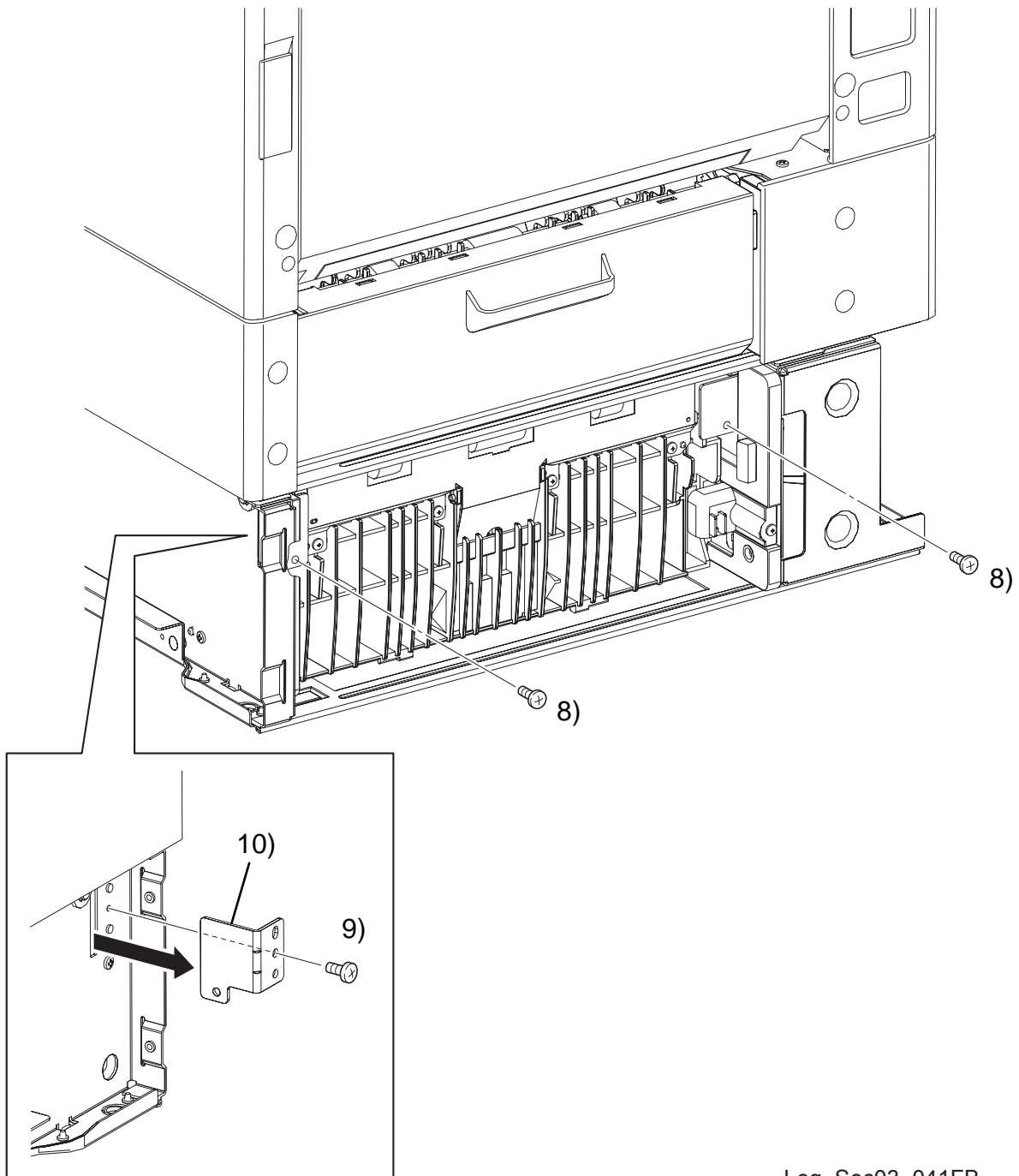
- 1) Attach SPG LOCK CST LL (PL 14.3.33) to the boss of STOPPER CST L and attach STOPPER CST L to GUIDE CST L.



Check that SPG LOCK CST LL is placed in the boss of STOPPER CST L and GUIDE CST L properly.

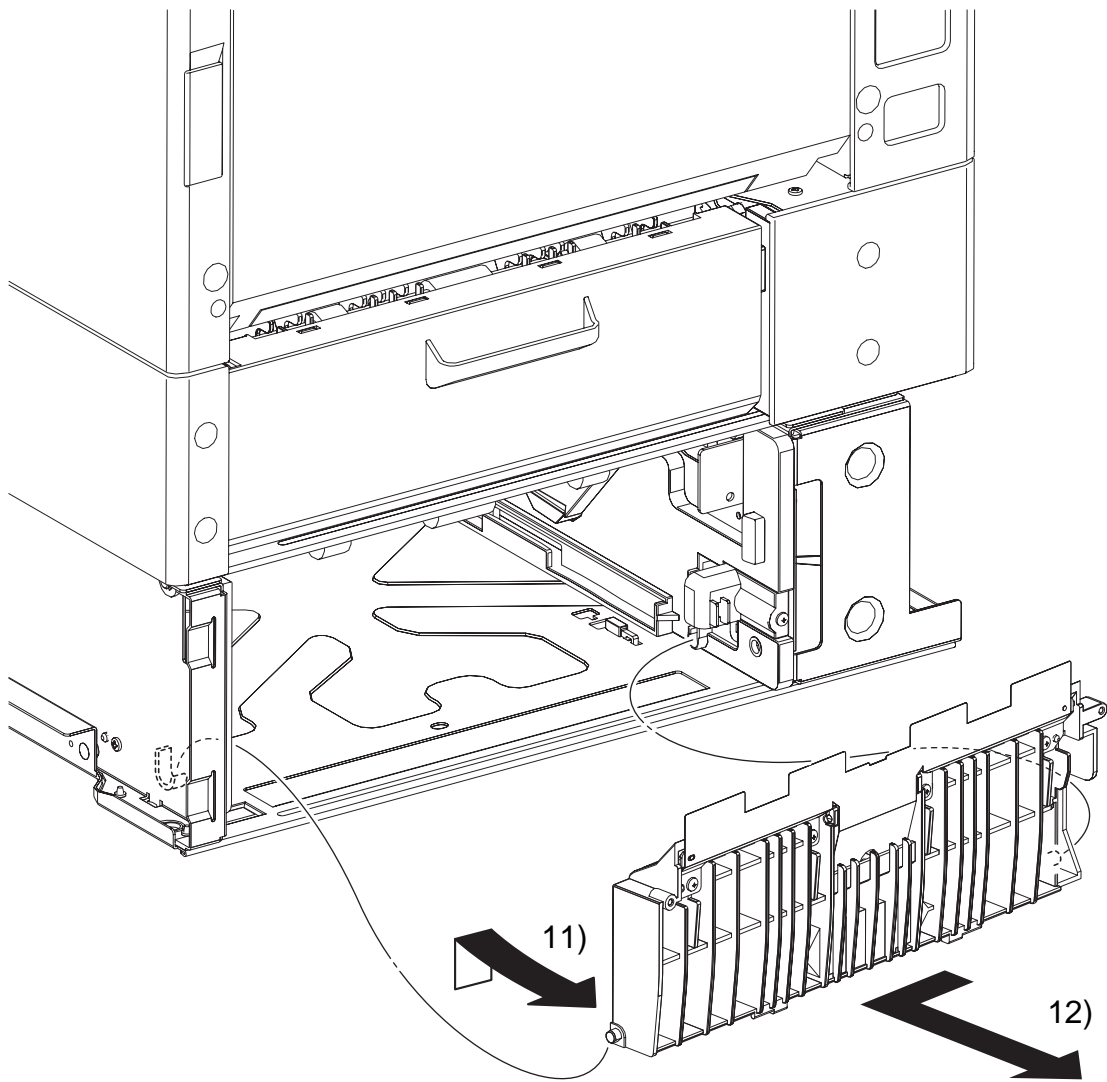
- 2) Attach GUIDE CST L. (RRP 14.26)
- 3) Attach CHUTE ASSY RETARD. (RRP 14.29)
- 4) Attach HOUSING ASSY FEED. (RRP 14.18)
- 5) Attach DRIVE ASSY FEED. (RRP 14.9)
- 6) Attach CLUTCH ASSY PH. (RRP 14.11)
- 7) Attach 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 8) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 9) Attach 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 10) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP14.29 CHUTE ASSY RETARD (REFERENCE ONLY)



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RRP14.29 CHUTE ASSY RETARD (REFERENCE ONLY)



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RRP14.29 CHUTE ASSY RETARD (REFERENCE ONLY)

[Removal]

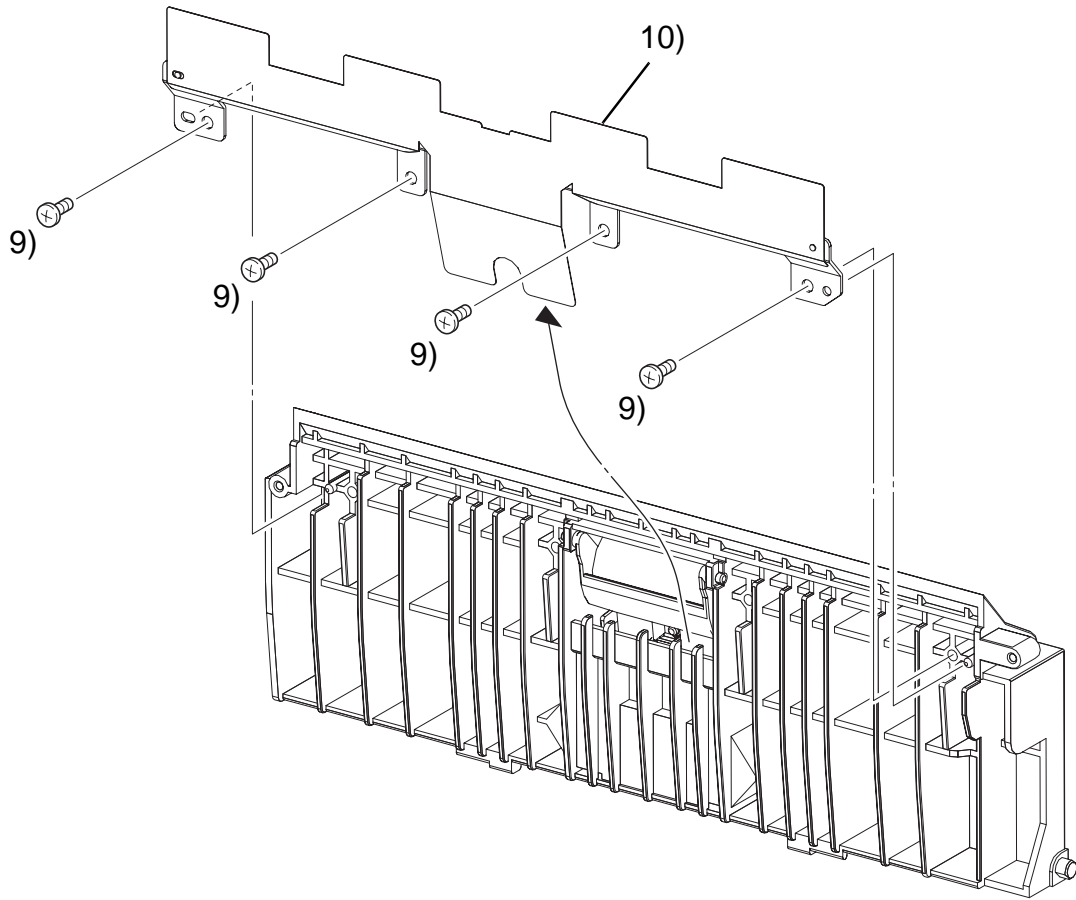
- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 3) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 4) Remove 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 5) Remove CLUTCH ASSY PH. (RRP 14.11)
- 6) Remove DRIVE ASSY FEED. (RRP 14.9)
- 7) Remove HOUSING ASSY FEED. (RRP 14.18)
- 8) Remove two screws (silver, tap, 8mm) that fix CHUTE ASSY RETARD to 500 SHEET FEEDER ASSEMBLY.
- 9) Remove s screw (silver, 6mm) that fix BRACKET MAG R (PL 14.3.43) to 500 SHEET FEEDER ASSEMBLY.
- 10) Remove BRACKET MAG R from 500 SHEET FEEDER ASSEMBLY.
- 11) Remove the right side shaft of CHUTE ASSY RETARD from the bearing of GUIDE CST R (PL 14.3.29).
- 12) Remove the left side shaft of CHUTE ASSY RETARD from the bearing of GUIDE CST L (PL 14.3.30), remove CHUTE ASSY RETARD from 500 SHEET FEEDER ASSEMBLY.

[Replacement]

- 1) Attach the left side shaft of CHUTE ASSY RETARD to the bearing of GUIDE CST L (PL 14.3.30).
- 2) Attach the right side shaft of CHUTE ASSY RETARD to the bearing of GUIDE CST R (PL 14.3.29), attach CHUTE ASSY RETARD to 500 SHEET FEEDER ASSEMBLY.
- 3) Put BRACKET MAG R (PL 14.3.43) in the notch of 500 SHEET FEEDER ASSEMBLY, match the hole of BRACKET MAG R to the boss of 500 SHEET FEEDER ASSEMBLY and attach BRACKET MAG R.
- 4) Fix BRACKET MAG R to 500 SHEET FEEDER ASSEMBLY using a screw (silver, 6mm).
- 5) Fix CHUTE ASSY RETARD to 500 SHEET FEEDER ASSEMBLY using two screws (silver, tap, 8mm).
- 6) Attach HOUSING ASSY FEED. (RRP 14.18)
- 7) Attach DRIVE ASSY FEED. (RRP 14.9)
- 8) Attach CLUTCH ASSY PH. (RRP 14.11)
- 9) Attach 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 10) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 11) Attach 500 SHEET FEEDER RIGHT COVER. (RRP 14.8).
- 12) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

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RRP14.30 FILM ASSY FDR (PL 14.3.39)



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RRP14.30 FILM ASSY FDR (PL 14.3.39)

[Removal]

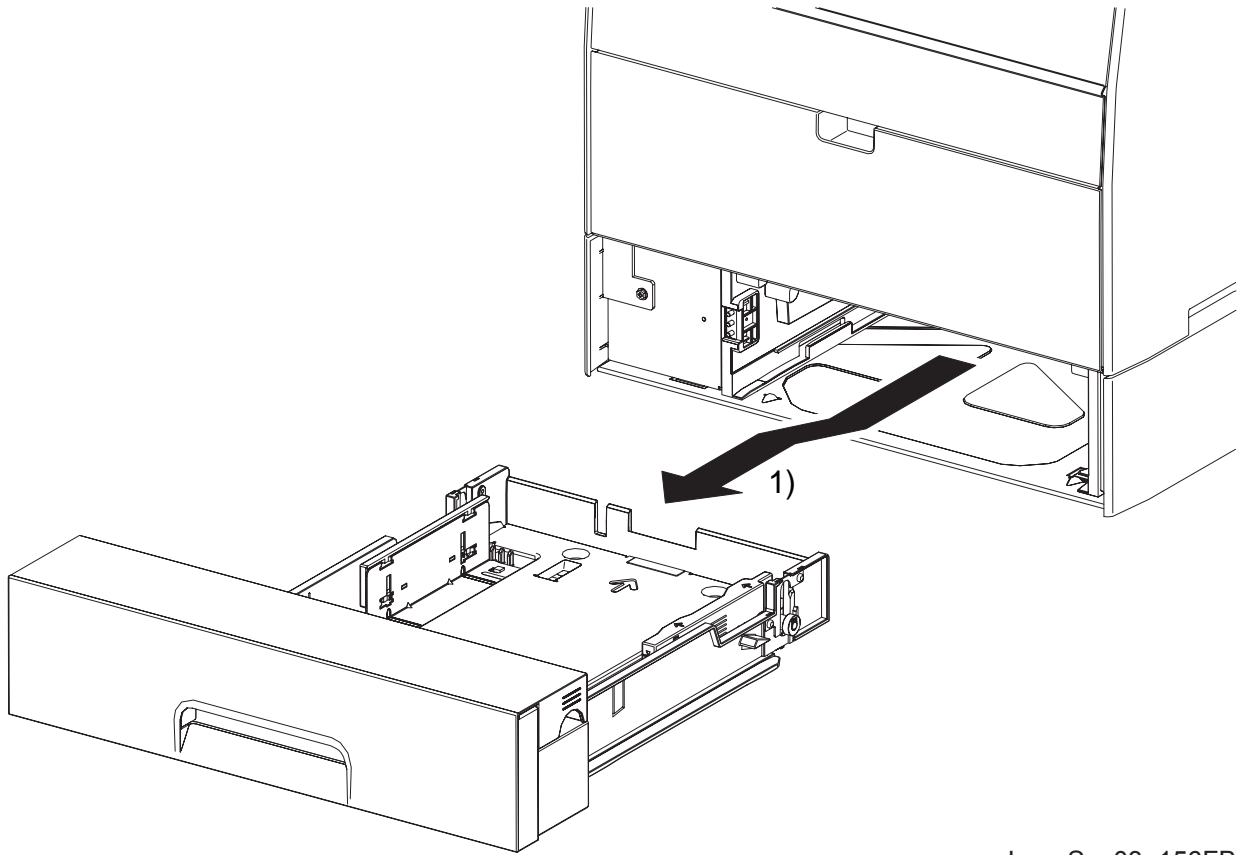
- 1) Remove 500 SHEET PAPER TRAY. (RRP 14.1)
- 2) Remove 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 3) Remove 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 4) Remove 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 5) Remove CLUTCH ASSY PH. (RRP 14.11)
- 6) Remove DRIVE ASSY FEED. (RRP 14.9)
- 7) Remove HOUSING ASSY FEED. (RRP 14.18)
- 8) Remove CHUTE ASSY RETARD. (RRP 14.29)
- 9) Remove the four screws (silver, tap, 8mm) that fix FILM ASSY FDR (PL 14.3.39) to CHUTE ASSY 500 (PL 14.3.38).
- 10) Remove FILM ASSY FDR from CHUTE ASSY 500.

[Replacement]

- 1) Match the hole of FILM ASSY FDR (PL 14.3.39) to the boss of CHUTE ASSY 500 (PL 14.3.38), put the under part of film on FILM ASSY FDR in the inside of CHUTE ASSY 500 and attach FILM ASSY FDR.
- 2) Fix FILM ASSY FDR to CHUTE ASSY 500 using the four screws (silver, tap, 8mm).
- 3) Attach CHUTE ASSY RETARD. (RRP 14.29)
- 4) Attach HOUSING ASSY FEED. (RRP 14.18)
- 5) Attach DRIVE ASSY FEED. (RRP 14.9)
- 6) Attach CLUTCH ASSY PH. (RRP 14.11)
- 7) Attach 500 SHEET FEEDER CHUTE ASSEMBLY. (RRP 14.7)
- 8) Attach 500 SHEET FEEDER LEFT COVER. (RRP 14.6)
- 9) Attach 500 SHEET FEEDER RIGHT COVER. (RRP 14.8)
- 10) Attach 500 SHEET PAPER TRAY. (RRP 14.1)

RRP15.LEGAL PAPER CASSETTE

RRP15.1 LEGAL PAPER CASSETTE ASSY (PL 15.1.1)



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RRP15.1 LEGAL PAPER CASSETTE ASSY (PL 15.1.1)

[Removal]

- 1) Pull out LEGAL PAPER CASSETTE ASSY (PL 15.1.1) till it stops, and then lift up its front a little and remove LEGAL PAPER CASSETTE ASSY from 250 PAPER FEEDER.

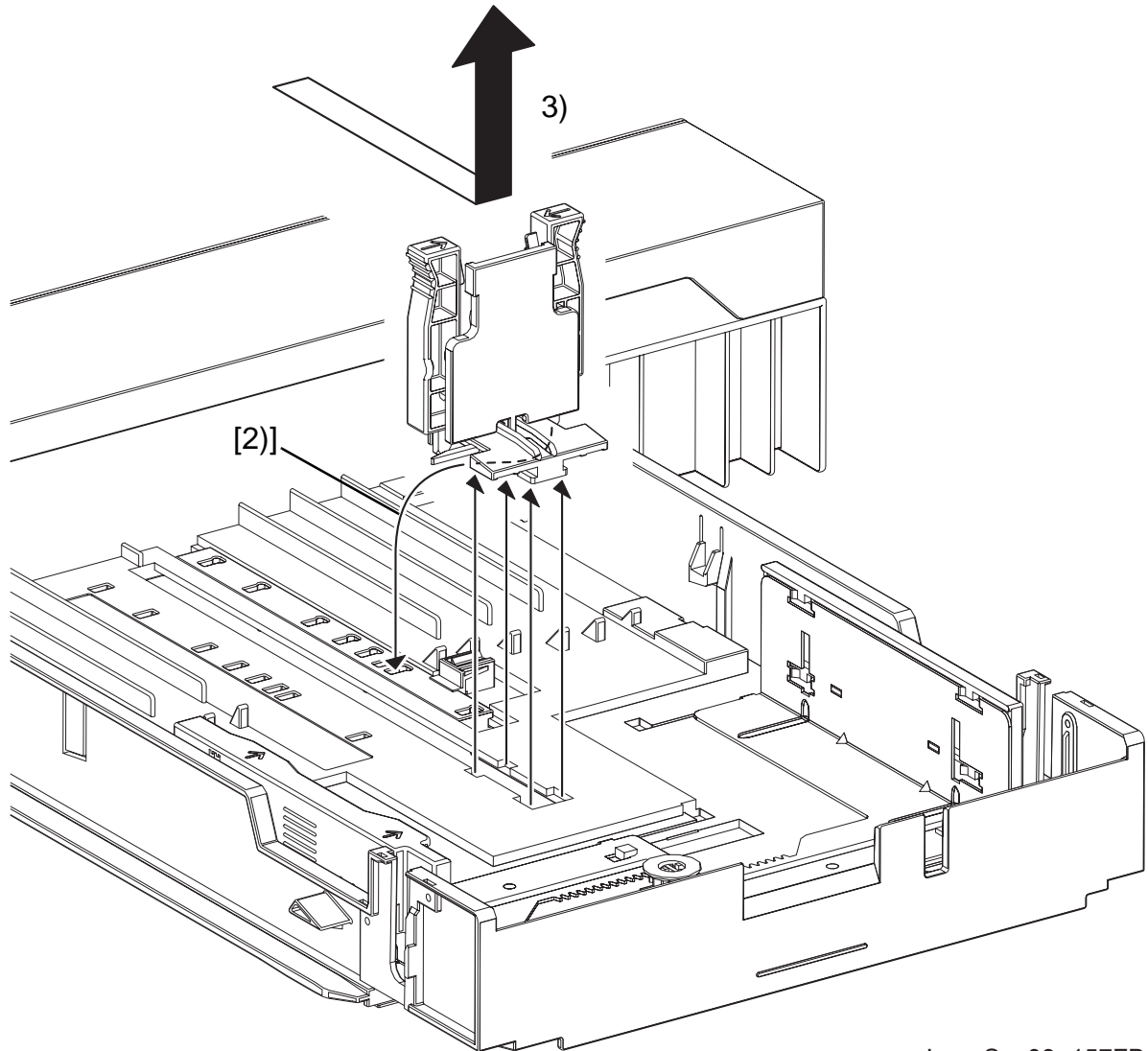
[Replacement]

- 1) While lifting up the front of LEGAL PAPER CASSETTE ASSY a little, insert it in 250 PAPER FEEDER, and then push in LEGAL PAPER CASSETTE ASSY to the end in horizontal state.

RRP15.2 GUIDE END ASSY 250 (PL 15.1.2)

NOTE

Procedure No. with [] included in Fig. shows the procedure at attachment.



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RRP15.2 GUIDE END ASSY 250 (PL 15.1.2)

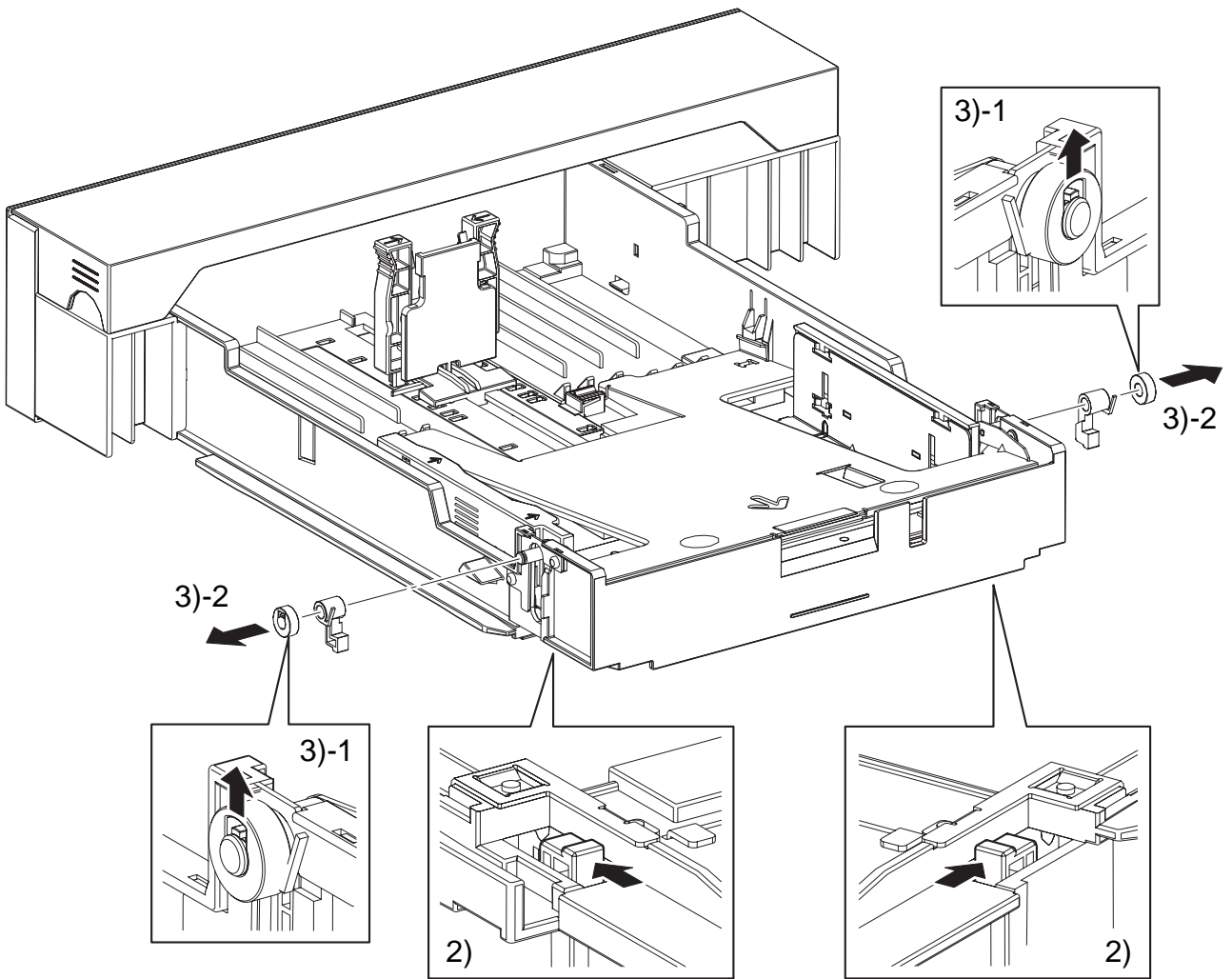
[Removal]

- 1) Remove LEGAL PAPER CASSETTE ASSY. (RRP 15.1)
- 2) Remove PLATE ASSY BOTTOM 250. (RRP 15.3)
- 3) Slide GUIDE END ASSY 250 (PL 15.1.2) to rear side, match the convex at four locations on GUIDE END ASSY 250 to the notched of CASSETTE 250 LG (PL 15.1.12) and remove it upwards.

[Replacement]

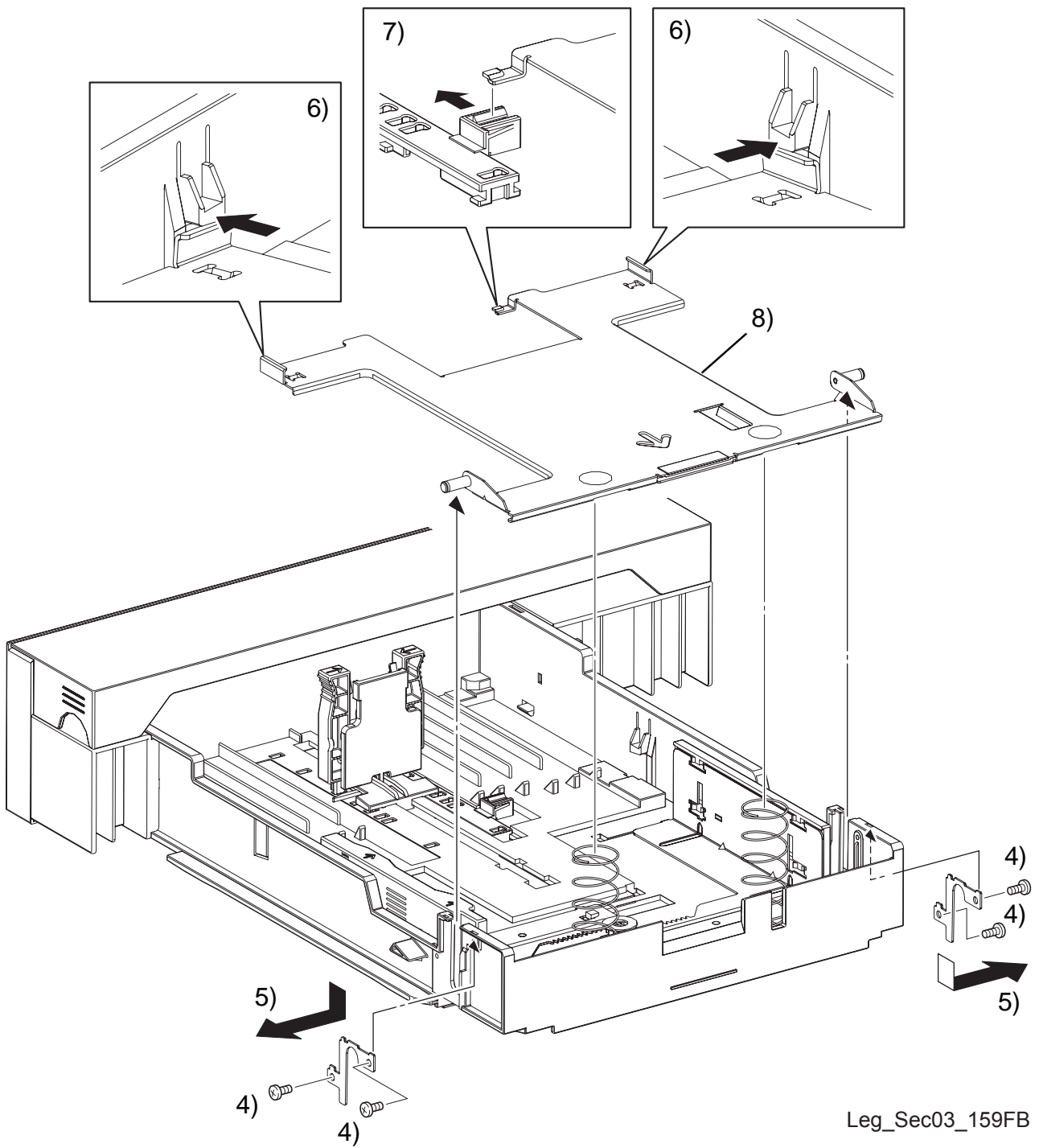
- 1) Match the four convex of GUIDE END ASSY 250 to the notched of CASSETTE 250 LG and attach it.
- 2) Slide GUIDE END ASSY 250 to front side, and insert the convex of GUIDE END ASSY 250 in the groove of PLATE SLIDE LG (PL 15.1.14).
- 3) Attach PLATE ASSY BOTTOM 250. (RRP 15.3)
- 4) Attach LEGAL PAPER CASSETTE ASSY. (RRP 15.1)

RRP15.3 PLATE ASSY BOTTOM 250 (PL 15.1.3)



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RRP15.3 PLATE ASSY BOTTOM 250 (PL 15.1.3)



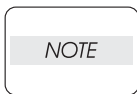
RRP15.3 PLATE ASSY BOTTOM 250 (PL 15.1.3)

[Removal]

- 1) Remove LEGAL PAPER CASSETTE ASSY. (RRP 15.1)
- 2) Slide LOCK LIFT R (PL 15.1.10) and LOCK LIFT L (PL 15.1.15) to release lock.
- 3) Release a hook of ROLL LINK (PL 15.1.11) fixed on the shaft of PLATE ASSY BOTTOM 250 (PL 15.1.3) on both right and left sides, and remove ROLL LINK, LOCK LIFT R and LOCK LIFT L.
- 4) Remove four screws (silver, tap, 6mm) that fix right and left side of PLATE ROLL STOPPER 250 (PL 15.1.9) on LEGAL PAPER CASSETTE ASSY (PL 15.1.1).
- 5) Remove the convex of PLATE ROLL STOPPER 250 from the hole of LEGAL PAPER CASSETTE ASSY, and remove the right and left side of PLATE ROLL STOPPER 250.
- 6) Push the hooks at two locations of CASSETTE 250 LG (PL 15.1.12), release the front side of PLATE ASSY BOTTOM 250.
- 7) Remove the convex of PLATE ASSY BOTTOM 250 from the concave of PLATE SLIDE LG (PL 15.1.14).
- 8) Pull out the shaft of PLATE ASSY BOTTOM 250 upward from the notched of CASSETTE 250 LG on both right and left sides, remove PLATE ASSY BOTTOM 250.

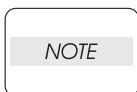
[Replacement]

- 1) Match the boss part on the rear side of PLATE ASSY BOTTOM 250 to SPRING NF 250 (PL 15.1.8).



Check that the boss part on the rear side of PLATE ASSY BOTTOM 250 is engaged in SPRING NF 250.

- 2) Put the shaft of PLATE ASSY BOTTOM 250 to the notched of CASSETTE 250 LG on both right and left sides and attach it.
- 3) Attach the convex of PLATE ASSY BOTTOM 250 to the concave of PLATE SLIDE LG and fix the front of PLATE ASSY BOTTOM 250 using the hooks at two locations of CASSETTE 250 LG.

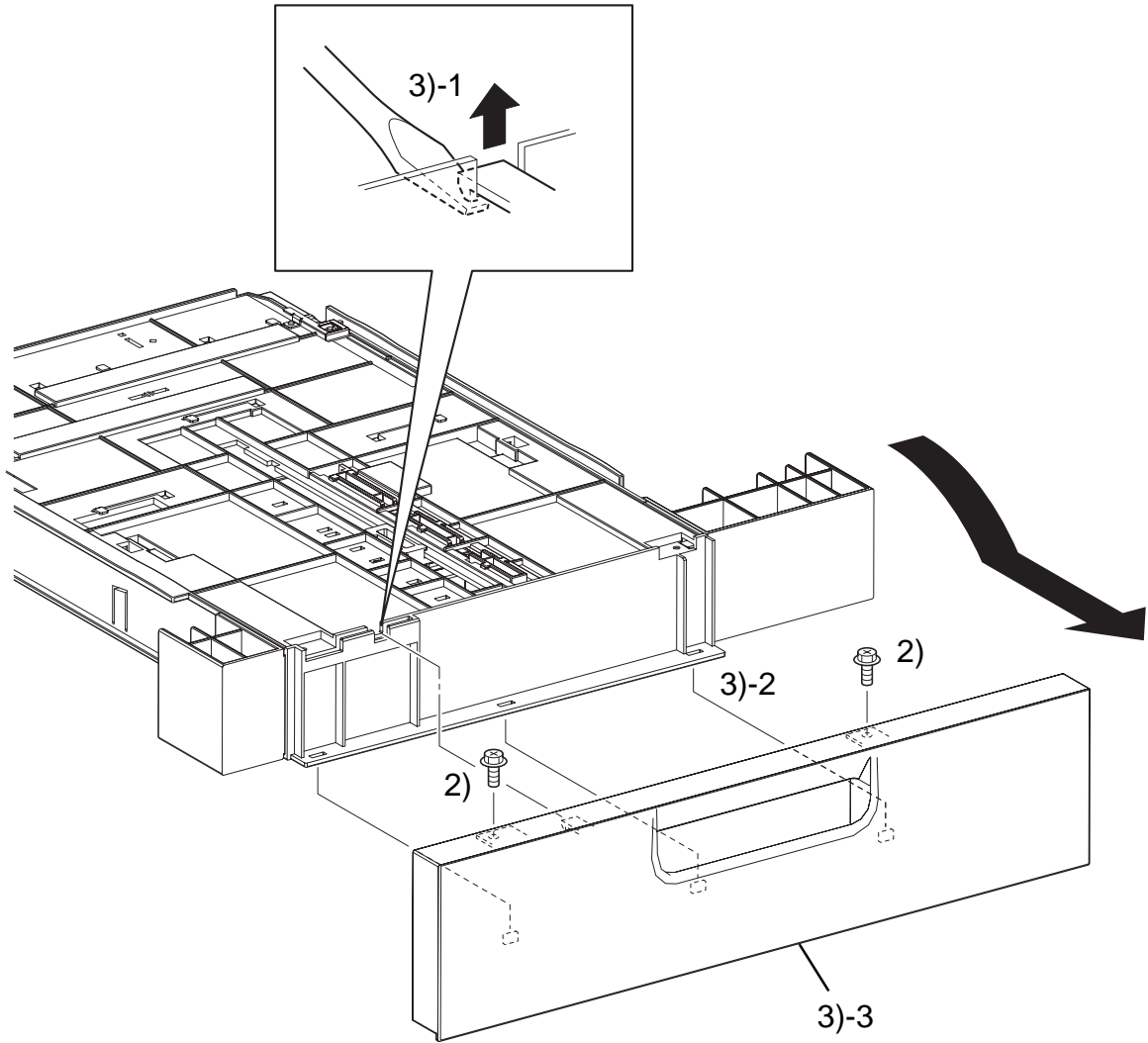


Convex of PLATE ASSY BOTTOM 250 should be engaged in the concave of PLATE SLIDE LG.

- 4) Match the convex of PLATE ROLL STOPPER 250 to the hole of LEGAL PAPER CASSETTE ASSY and attach the right and left side of PLATE ROLL STOPPER 250.
- 5) Fix the right and left of PLATE ROLL STOPPER 250 to LEGAL PAPER CASSETTE ASSY using the four screws (silver, tap, 6mm).
- 6) Attach LOCK LIFT R, LOCK LIFT L and ROLL LINK on the shaft of PLATE ASSY BOTTOM 250 on both right and left sides, and fix a hook of ROLL LINK in the groove of shaft of PLATE ASSY BOTTOM 250.
- 7) Push PLATE ASSY BOTTOM 250 to lock LOCK LIFT R and LOCK LIFT L.
- 8) Attach LEGAL PAPER CASSETTE ASSY. (RRP 15.1)

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RRP15.4 COVER FRONT CST 250 (P 15.1.13)



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RRP15.4 COVER FRONT CST 250 (P 15.1.13)

[Removal]

- 1) Remove LEGAL PAPER CASSETTE ASSY. (RRP 15.1)
- 2) Remove two screws (silver, with a flange, tap, 8mm) that fix COVER FRONT CST 250 (PL 15.1.13) to LEGAL PAPER CASSETTE ASSY (PL 15.1.1).
- 3) Release a hook at the bottom of COVER FRONT CST 250 using a small screwdriver, lay COVER FRONT CST 250 towards front, and then release the three convex of the rear side of COVER FRONT CST 250 from the hole of LEGAL PAPER CASSETTE ASSY. Remove COVER FRONT CST 250.

[Replacement]

- 1) Match the three convex of the rear side of COVER FRONT CST 250 to the hole of LEGAL PAPER CASSETTE ASSY, attach COVER FRONT CST 250. Fix a hook at the bottom of COVER FRONT CST 250.
- 2) Fix COVER FRONT CST 250 to LEGAL PAPER CASSETTE ASSY using two screws (silver, with a flange, tap, 8mm).
- 3) Attach LEGAL PAPER CASSETTE ASSY. (RRP 15.1)

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Chapter 4 Plug/Jack(P/J) Connector Locations CONTENTS

- 1. Connector [P (plug) / J (jack)].....4 - 1
 - 1.1 List of P/J 4 - 1
 - 1.2 P/J layout diagram 4 - 5

Chapter 4 Plug/Jack(P/J) Connector Locations CONTENTS

1. Connector [P (plug) / J (jack)]

1.1 List of P/J

IOT

P/J	Coordinates	Remarks
1	G-156	Connects PWBA Fuser CONT, Fuser Lock Switch, PWBA MCU and LV/HVPS
2	G-156	Connects PWBA Fuser CONT and LV/HVPS
3	G-157	Connects PWBA Fuser CONT and Fuser Assembly
29	G-154	Connects PWBA ESS and OP Panel
70	H-154	Connects PWBA ESS and PWBA MCU
71	H-154	Connects PWBA ESS and LV/HVPS
72	H-155	Connects PWBA ESS and ROS Assembly
100	F-121	Connects P/H Frame Assembly (P/H Door Switch) and P/H1 Harness Assembly
101	G-123	Connects P/H Frame Assembly (OHP Sensor) and P/H1 Harness Assembly
102	F-122	Connects P/H Frame Assembly (Regi Sensor) and P/H1 Harness Assembly
103	D-124	Connects MSI Assembly (Paper Empty Sensor) and PWBA MCU
104	H-109	Connects TEMP/HUMI Sensor and PWBA MCU
105	D-108	Connects Rotary Home Position Sensor and PWBA MCU
106	H-107	Connects CRUM CTRIG and PWBA MCU
107	D-106	Connects IBT Retract Sensor and PWBA MCU
108	D-106	Connects TR-0 Sensor and PWBA MCU
109	D-105	Connects CRU D Guide Assembly (CRUM XERO) and PWBA MCU
111	G-136	Connects FSR Chute Assembly (Fuser In Sensor) and ADC Harness Assembly
112	H-137	Connects 2BTR Retract Sensor and PWBA MCU
113	H-136	Connects RR 2ND Cover Assembly (2BTR Cover Switch) and ADC Harness Assembly
114	D-104	Connects Fuser Switch Assembly (Fuser Door Switch) and PWBA MCU
115	G-107	Connects Harness Assembly Interlock, Upper Interlock Switch and LV/HVPS
116	H-107	Connects Upper Interlock Switch, Harness Assembly Interlock and Fuser Interlock Switch
117	D-104	Connects Fuser Interlock Switch, Upper Interlock Switch and LV/HVPS
126	F-138	Connects BCR CLN XERO Assembly (Tner Full Sensor) and Main Harness Assembly
128	G-153	Connects Fuser Lock Switch, PWBA Fuser CONT and PWBA MCU
200	H-153	Connects P/R Motor Assembly and PWBA MCU
201	G-153	Connects P/R Motor Assembly and LV/HVPS
202	F-123	Connects P/H Frame Assembly (PRE Regi Clutch) and P/H1 Harness Assembly
203	F-122	Connects P/H Frame Assembly (Regi Clutch) and P/H1 Harness Assembly
204	C-108	Connects DEVE Rotary Motor Assembly and PWB DEVE Rotary CONT
220	C-107	Connects OP Panel and PWBA ESS
400	I-149	Connects PWBA MCU and PWBA ESS
401	I-149	Connects PWBA MCU and LV/HVPS
403	H-148	Connects PWBA MCU, Fuse Switch Assembly (Fuser Door Switch), P/R Motor Assembly and 2BTR Retract Motor Assembly
404	H-148	Connects PWBA MCU and Fuser Motor Assembly
405	H-148	Connects PWBA MCU and MAG Motor Assembly (MAG Motor)
406	H-149	Connects PWBA MCU and MAG Motor Assembly (Dispense Clutch)
407	H-149	Connects PWBA MCU and ROS Assembly

P/J	Coordinates	Remarks
408	H-148	Connects PWBA MCU, P/H Frame Assembly (P/H Door Switch, OHP Sensor, Regi Sensor, PRE Regi Clutch, Regi Clutch)
409	H-148	Connects PWBA MCU, P/H Frame Assembly (P/H Motor) and MSI Assembly (Pick Up Solenoid)
410	I-148	Connects PWBA MCU, Fuser Lock Switch, PWBA Fuser CONT and LV/HVPS
411	I-148	Connects PWBA MCU and PRO Drive Assembly (IBT Brush Motor)
412	I-148	Connects PWBA MCU and PWBA CRUM
413	I-148	Connects PWBA MCU, TEMP/HUMI Sensor, Rotary Home Position Sensor and BCR CLN XERO Assembly (TNR Full Harness Assembly)
414	I-147	Connects PWBA MCU and PRO Drive Assembly (IBT CLN Retract Motor)
415	J-147	Connects PWBA MCU, CRUM CTRIG, IBT Retract Sensor, Front Door Switch and PWB DEVE Rotary CONT
416	J-147	Connects PWBA MCU, TR-0 Sensor and CRU D Guide Assembly (CRUM XERO)
417	I-147	Connects PWBA MCU and Fuser Assembly
418	I-147	Connects PWBA MCU, 2BTR Retract Sensor, FSR Chute Assembly (2BTR SENS Harness Assembly) and RR 2ND Cover Assembly (2BTR SW Harness Assembly)
420	J-148	Connects PWBA MCU and Duplex Assembly
421	J-148	Connects PWBA MCU and Paper Feeder (Feeder1 Harness Assembly)
422	I-147	Connects PWBA MCU and ADC Sensor Assembly
429	D-108	Connects PWBA CRUM and PWBA MCU
430	E-109	Connects PWB DEVE Rotary CONT and PWBA MCU
431	F-137	Connects ADC Sensor Assembly and PWBA MCU
432	D-109	Connects PWB DEVE Rotary CONT and LV/HVPS
433	D-108	Connects PWB DEVE Rotary CONT and DEVE Rotary Motor Assembly
500	H-153	Connects LV/HVPS and PWBA MCU
501	I-152	Connects LV/HVPS and PWBA ESS
502	I-153	Connects LV/HVPS, Harness Assembly Interlock, Fuser Interlock Switch, P/R Motor Assembly, PWBA MCU and PWB DEVE Rotary CONT
503	I-155	Connects LV/HVPS and PWBA Fuser CONT
504	H-154	Connects LV/HVPS and CRU AD Guide Assembly (1BTR)
505	F-109	Connects PWBA HVPS and 2ND Bias Plate Assembly (2BTR)
506	E-108	Connects PWBA HVPS and CRU AD Guide Assembly (IBT CLN)
508	H-155	Connects LV/HVPS and CRU AD Guide Assembly (BCR)
509	H-159	Connects LV/HVPS and Bias Holder Assembly (DEVE)
510	I-108	Connects Bias Holder Assembly (DEVE) and LV/HVPS
512	I-107	Connects CRU AD Guide Assembly (1BTR) and LV/HVPS
513	H-107	Connects CRU AD Guide Assembly (IBT CLN) and PWBA HVPS
514	I-107	Connects CRU AD Guide Assembly (BCR) and LV/HVPS
515	H-153	Connects LV/HVPS and PWBA HVPS
516	F-109	Connects PWBA HVPS and LV/HVPS
600	F-153	Connects 2BTR Retract Motor Assembly and PWBA MCU
601	H-138	Connects ROS Assembly and PWBA MCU
602	H-138	Connects ROS Assembly and PWBA ESS
603	F-124	Connects P/H Frame Assembly (P/H2 Harness Assembly) and PWBA MCU
604	F-124	Connects P/H Frame Assembly (P/H Motor) and PWBA MCU
605	E-124	Connects MSI Assembly (Pick Up Solenoid) and PWBA MCU
608	G-157	Connects Paper Feeder (Feeder1 Harness Assembly) and PWBA MCU
614	E-104	Connects Fuser Assembly, PWBA Fuser CONT and PWBA MCU

P/J	Coordiates	Remarks
617	D-139	Connects BCR CLN XERO Assembly (TNR Full Harness Assembly) and PWBA MCU
620	H-137	Connects FSR Chute Assembly (2BTR SENS Harness Assembly) and PWBA MCU
621	I-136	Connects RR 2ND Cover Assembly (2BTR SW Harness Assembly) and PWBA MCU
T2	I-106	Connects 2ND Bias Plate Assembly (2BTR) and PWBA HVPS

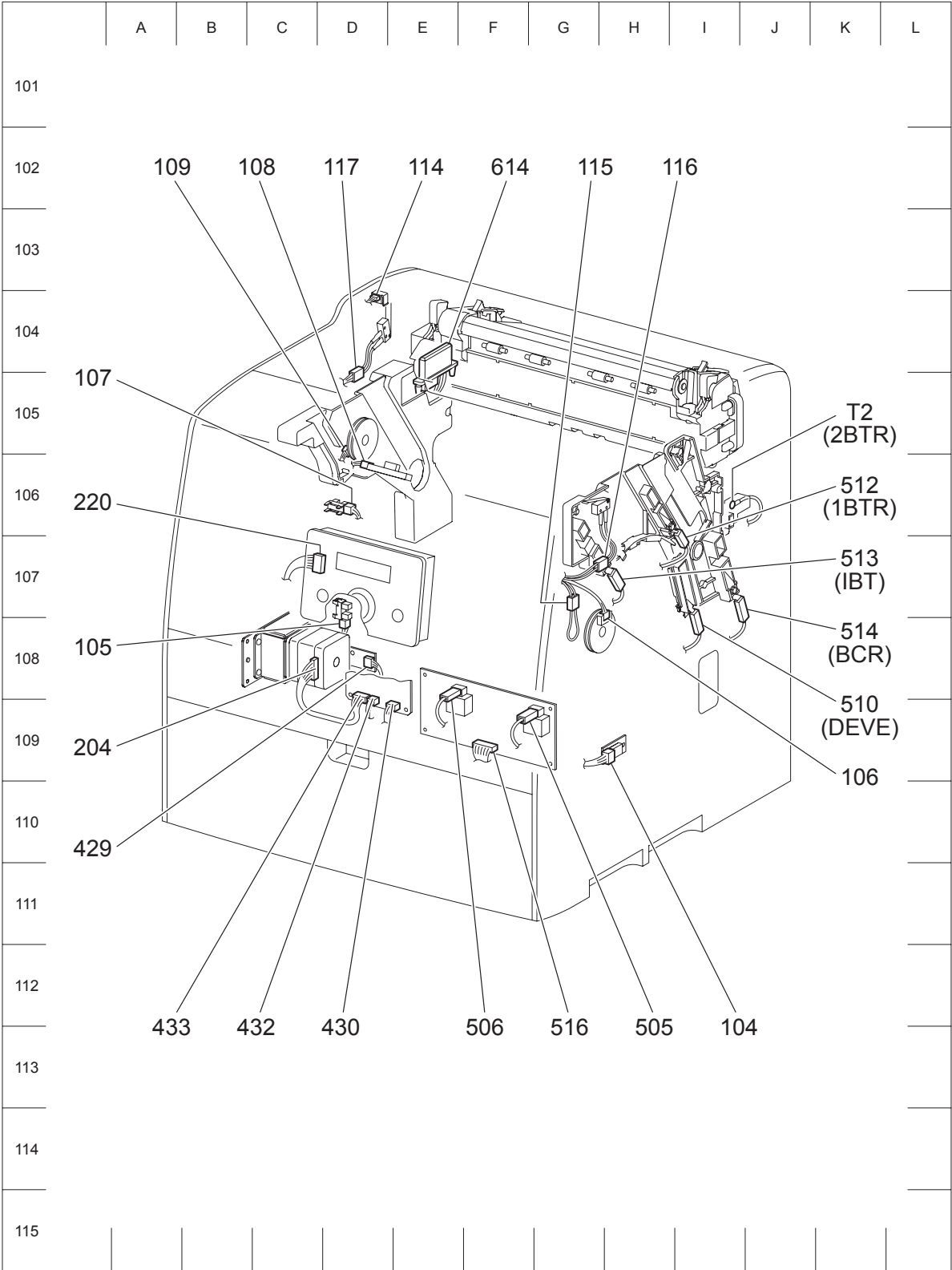
250 FEEDER

P/J	Coordiates	Remarks
119	E-167	Connects Housing Assembly Feed (No Paper Sensor) and Feeder Main Har- ness Assembly
120	D-167	Connects Housing Assembly Feed (T/R Sensor) and Feeder Main Harness Assembly
121	C-167	Connects Feeder Door Switch and PWBA Tray CONT
127	F-169	Connects CST Sensor and PWBA Tray CONT
435	E-169	Connects PWBA Tray CONT and IOT
436	E-169	Connects PWBA Tray CONT and Option Paper Feeder
437	E-169	Connects PWBA Tray CONT, PWBA MOT, Feeder T/R Clutch, Feeder Door Switch, Housing Assembly Feed (Feed3 Harness Assembly) and Solenoid
438	E-169	Connects PWBA Tray CONT and CST Sensor
440	E-168	Connects PWBA MOT and PWBA Tray CONT
446	D-168	Connects PWBA MOT and Feeder Motor
608	C-167	Connects IOT and PWBA Tray CONT
609	C-169	Connects Feeder T/R Clutch and PWBA Tray CONT
610	D-168	Connects Feeder Solenoid and PWBA Tray CONT
618	D-167	Connects Housing Assembly Feed (Feed3 Harness Assembly) and PWBA Tray CONT
4358	D-169	Connects Option Paper Feeder and PWBA Tray CONT

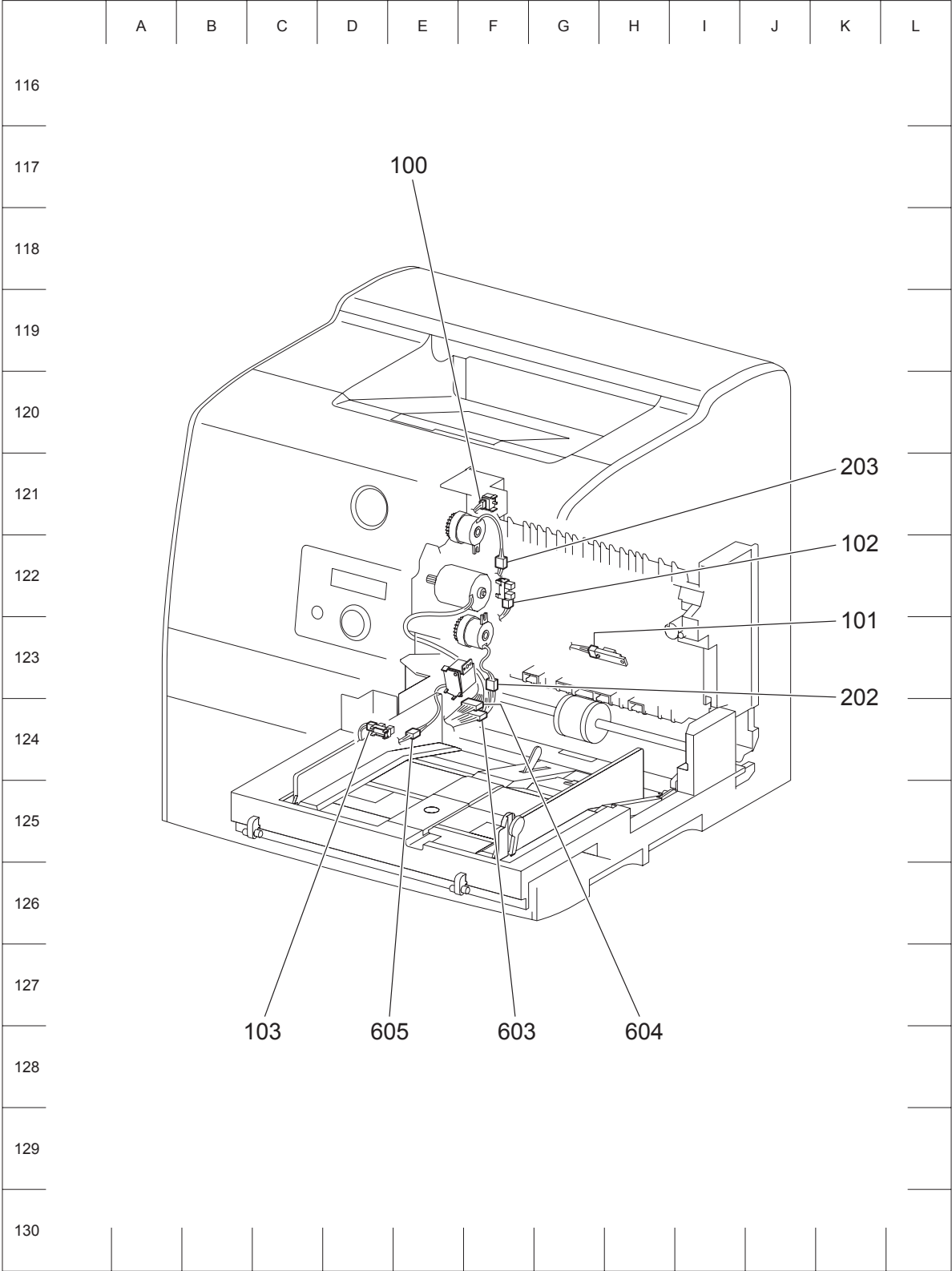
500 FEEDER

P/J	Coordinates	Remarks
119	E-307	Connects Housing Assembly Feed (No Paper Sensor) and Feeder Main Harness Assembly
120	D-307	Connects Housing Assembly Feed (T/R Sensor) and Feeder Main Harness Assembly
121	C-308	Connects Feeder Door Switch and PWBA Tray CONT
435	E-309	Connects PWBA Tray CONT and IOT
436	E-309	Connects PWBA Tray CONT and 2nd Option Paper Feeder
437	E-309	Connects PWBA Tray CONT, PWBA MOT, Feeder T/R Clutch, Feeder Door Switch, Housing Assembly Feed (Feed3 Harness Assembly) and Feeder Solenoid
440	E-308	Connects PWBA MOT and PWBA Tray CONT
446	D-308	Connects PWBA MOT and Feeder Motor (500 Paper Feeder)
608	D-307	Connects IOT and PWBA Tray CONT
609	C-309	Connects Feeder T/R Clutch and PWBA Tray CONT
610	C-308	Connects Feeder Solenoid and PWBA Tray CONT
618	D-307	Connects Housing Assembly Feed (Feed3 Harness Assembly) and PWBA Tray CONT
4358	D-309	Connects 2nd Option Paper Feeder and PWBA Tray CONT

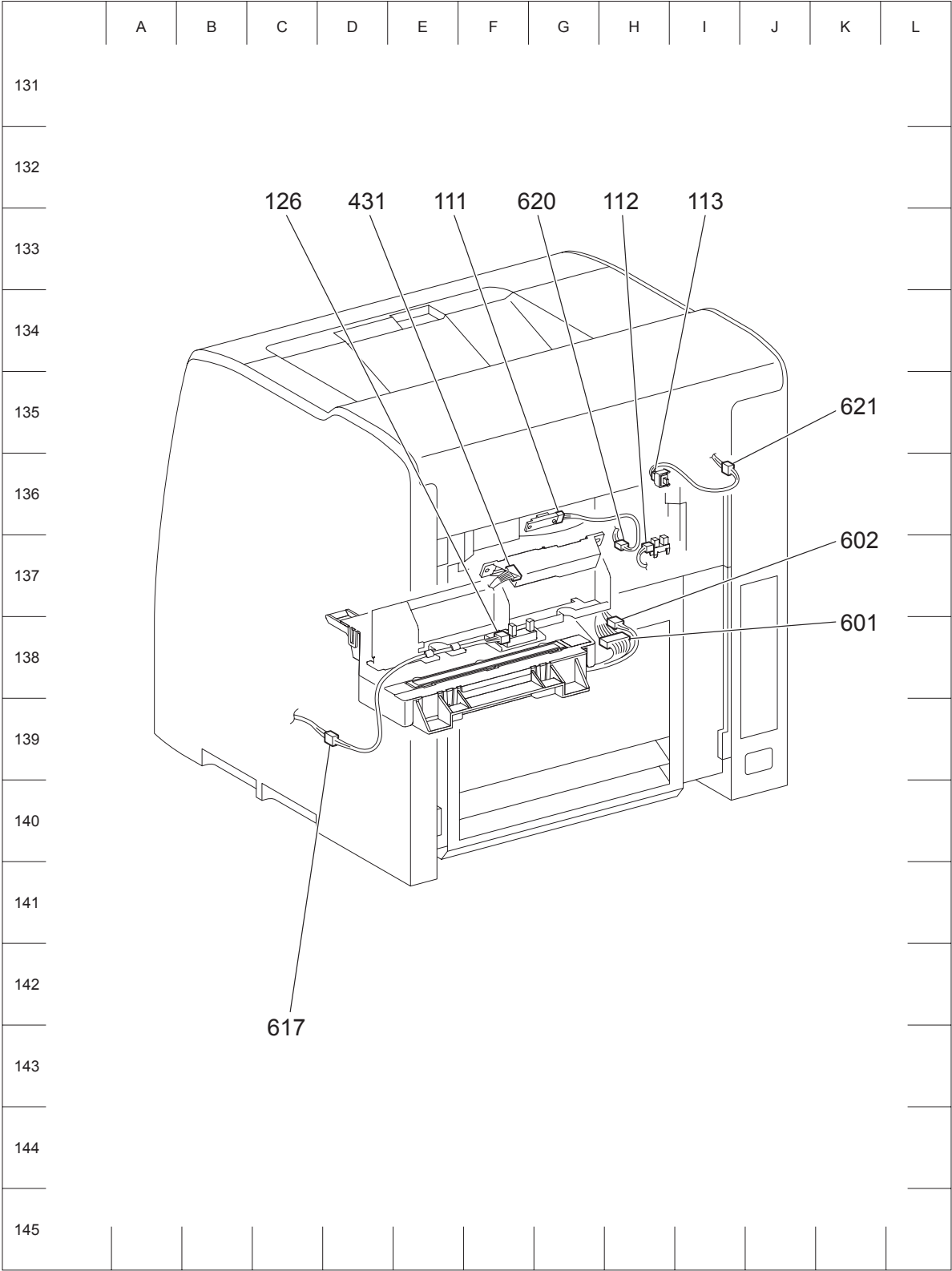
1.2 P/J layout diagram



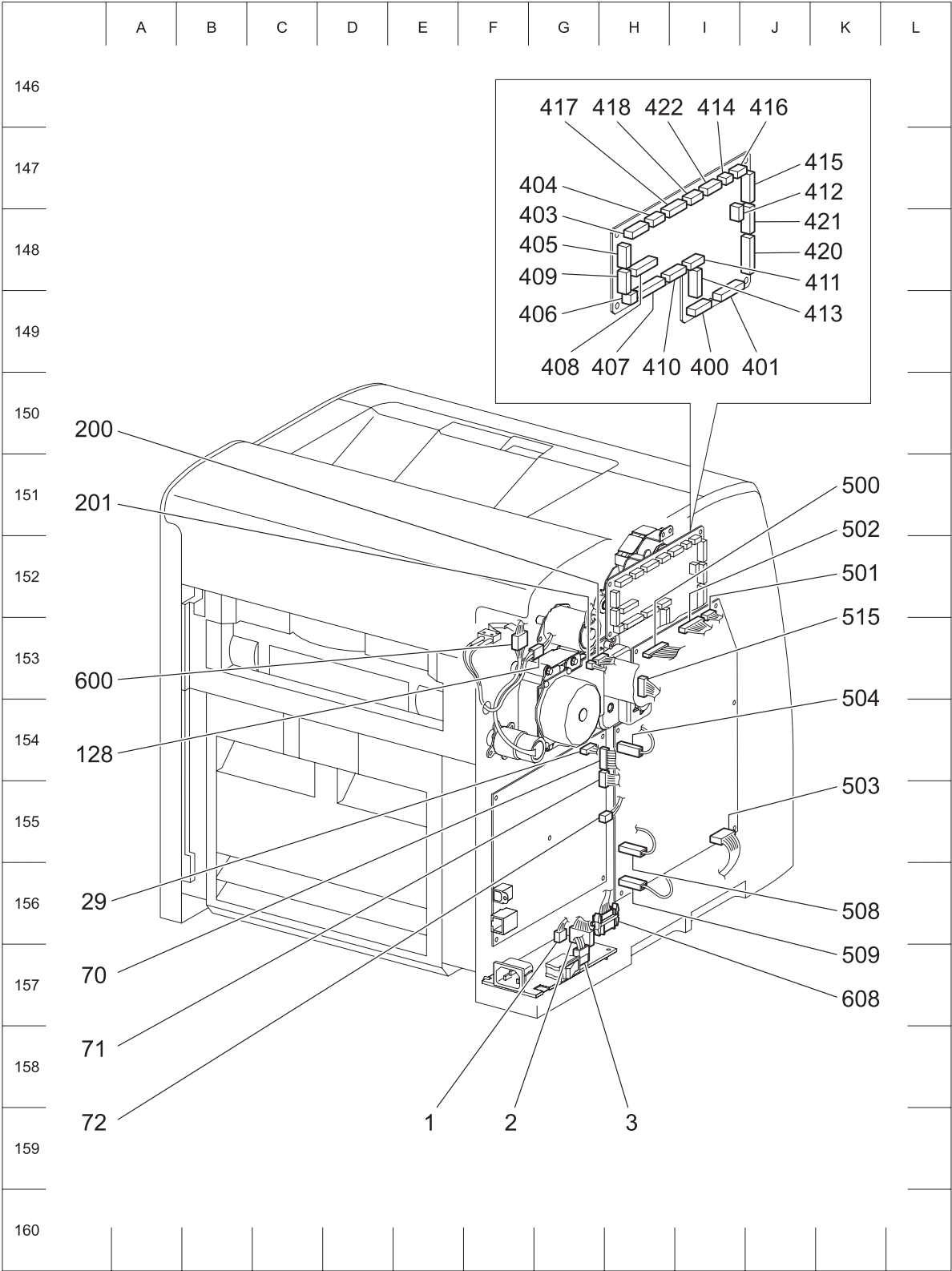
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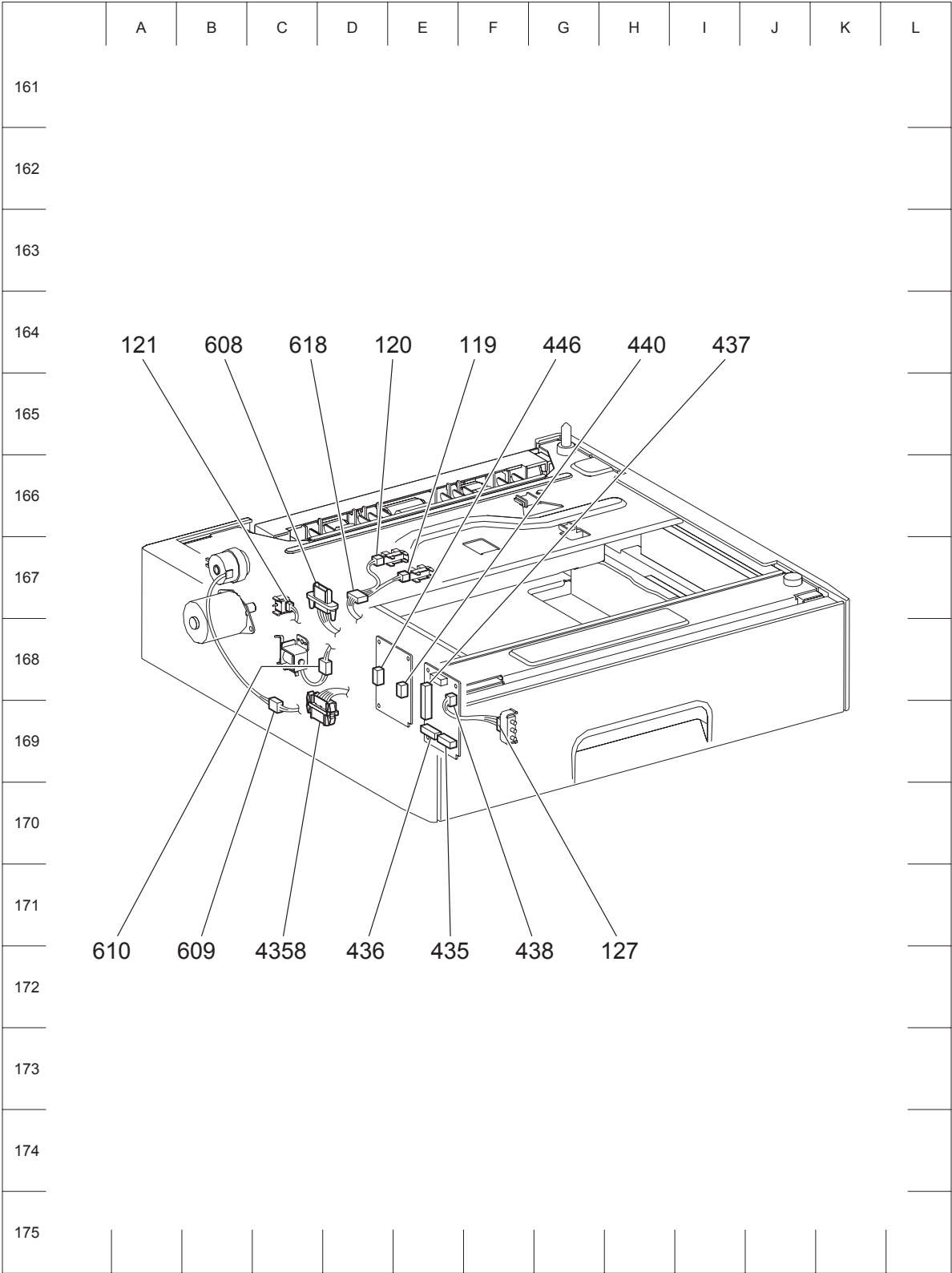
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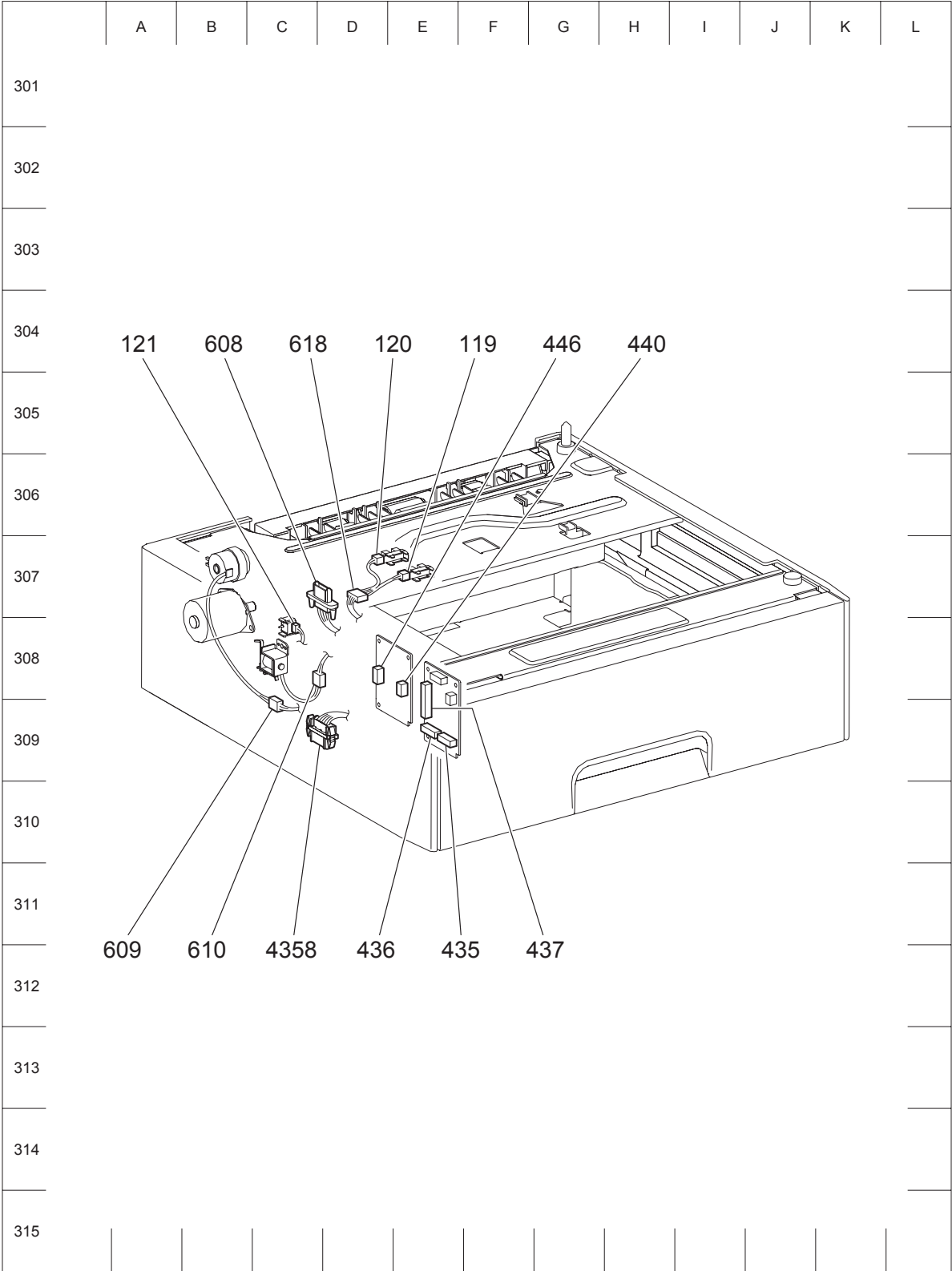
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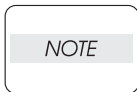
1. Parts List

1.1 Caution for use of spare parts illustration

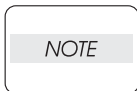
- ◆ Available spare parts are shown in the illustration by name.
- ◆ [Ref PL X.Y.Z] shown below the part name denotes the item is "Z" in the plate "PL X.Y" of the engineering part list.
- ◆ For the detailed composition of the KIT parts, check with the engineering part list.

1.2 Caution for use of engineering parts list

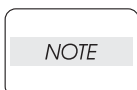
- ◆ The figures indicating the illustrations are the item No. in the list and present correspondence between the illustrations and parts.
- ◆ The notation of PL "X.Y.Z" is composed of the plate (PL), item "X.Y", and parts "Z".
- ◆ The alphabet characters in the illustrations represent screws and clips as follows:
"S": screw, "E": E-ring, "KL": KL clip, "C": C-ring, and "N": nut
- ◆ "q" mark in the illustrations are attached to items indicating assembly parts in the illustrations.
- ◆ Encircled alphabetical figures in the illustrations indicate interrupted leader lines. Same characters in the illustrations represent lines to be connected.
- ◆ The mark "(with 2-5)" attached to assembly parts on the illustrations and lists represents that the items "2, 3, 4, and 5" of that plate are contained and the mark "(with 2-5, PL6.1.1)" represent that the item "2, 3, 4, and 5" of that plate and the item "1" of the plate "6.1" are contained.
- ◆ The mark "[Ref PLX.Y.Z]" attached to parts in the illustrations and lists represents that the parts is the same as the parts of the item "Z" of the plate "X.Y".
- ◆ The mark "*" attached to parts in the list represents "Note" or "Reference" about that parts is contained in the same page.



For spare parts, refer to the "Spare parts list" which is issued separately.

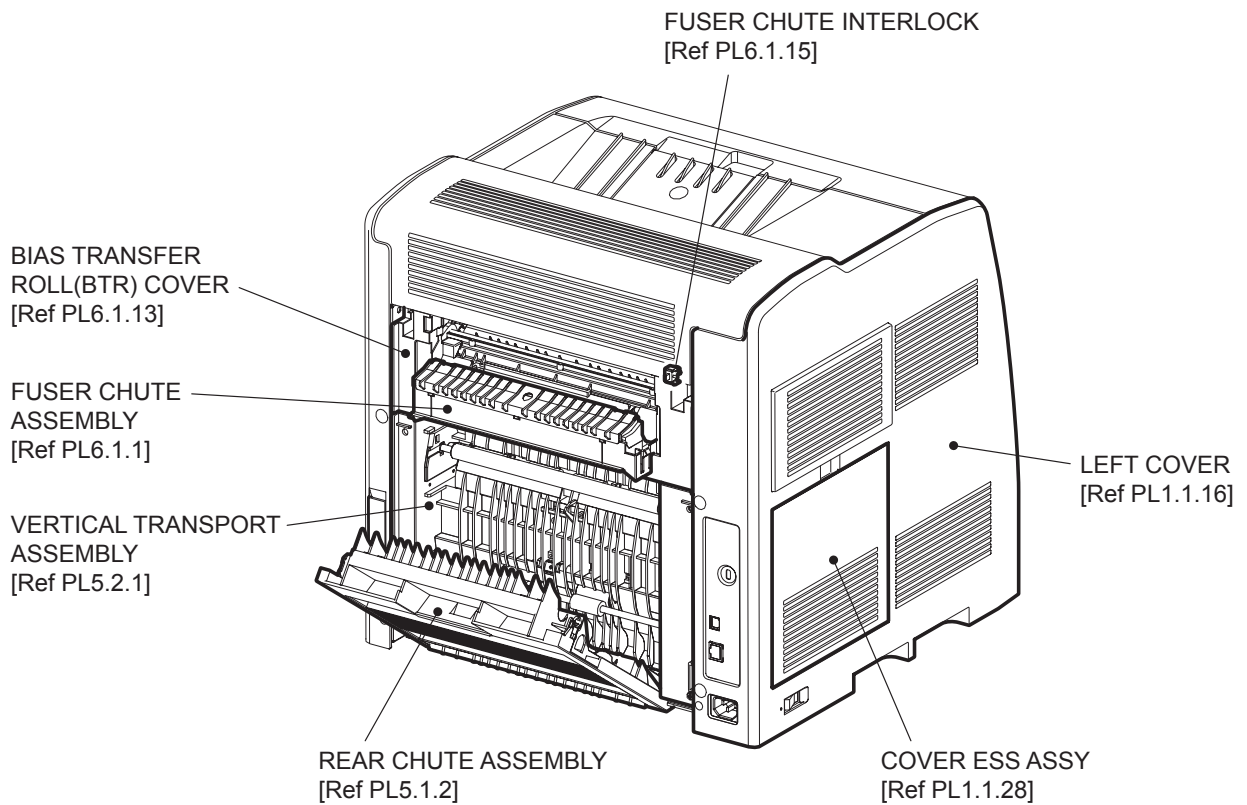
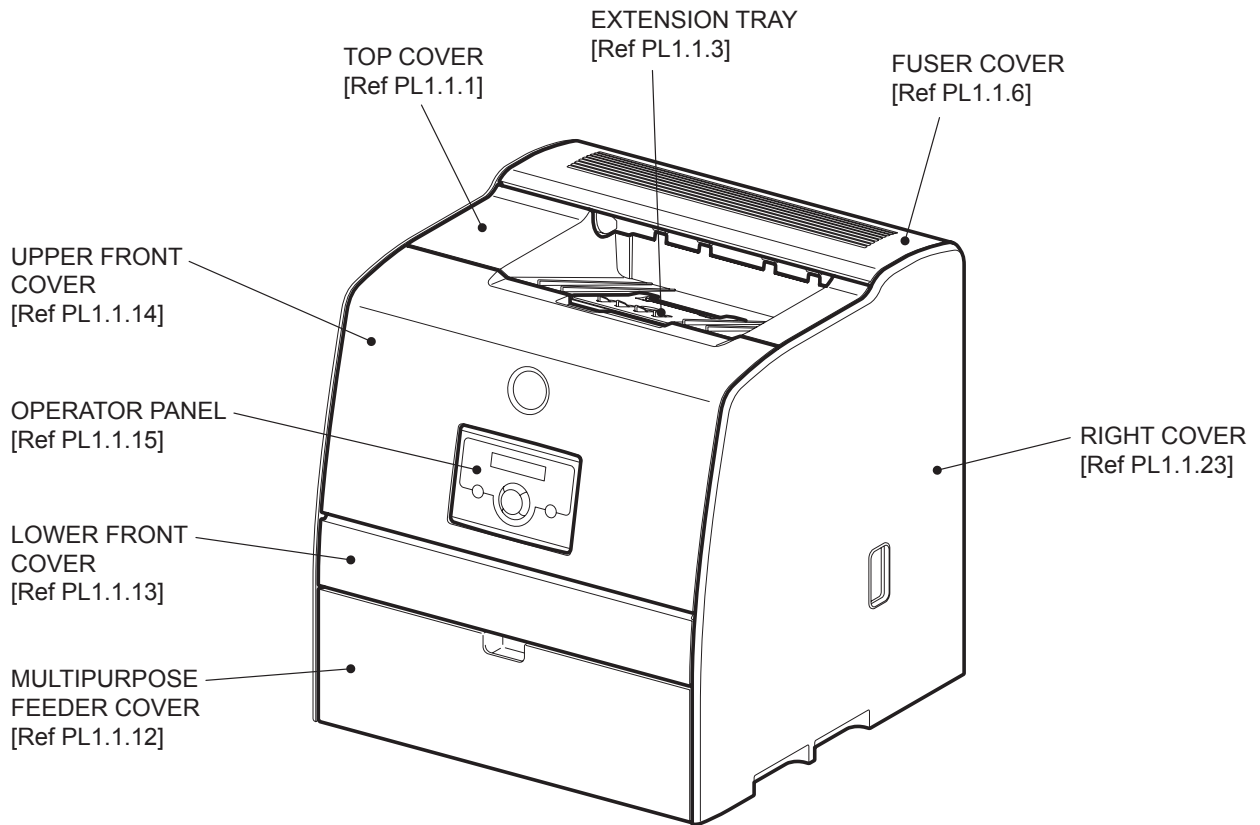


For the connector (P/J), parts such as harness, wire, etc. in the list, refer to "Chapter 7, Electric wiring"

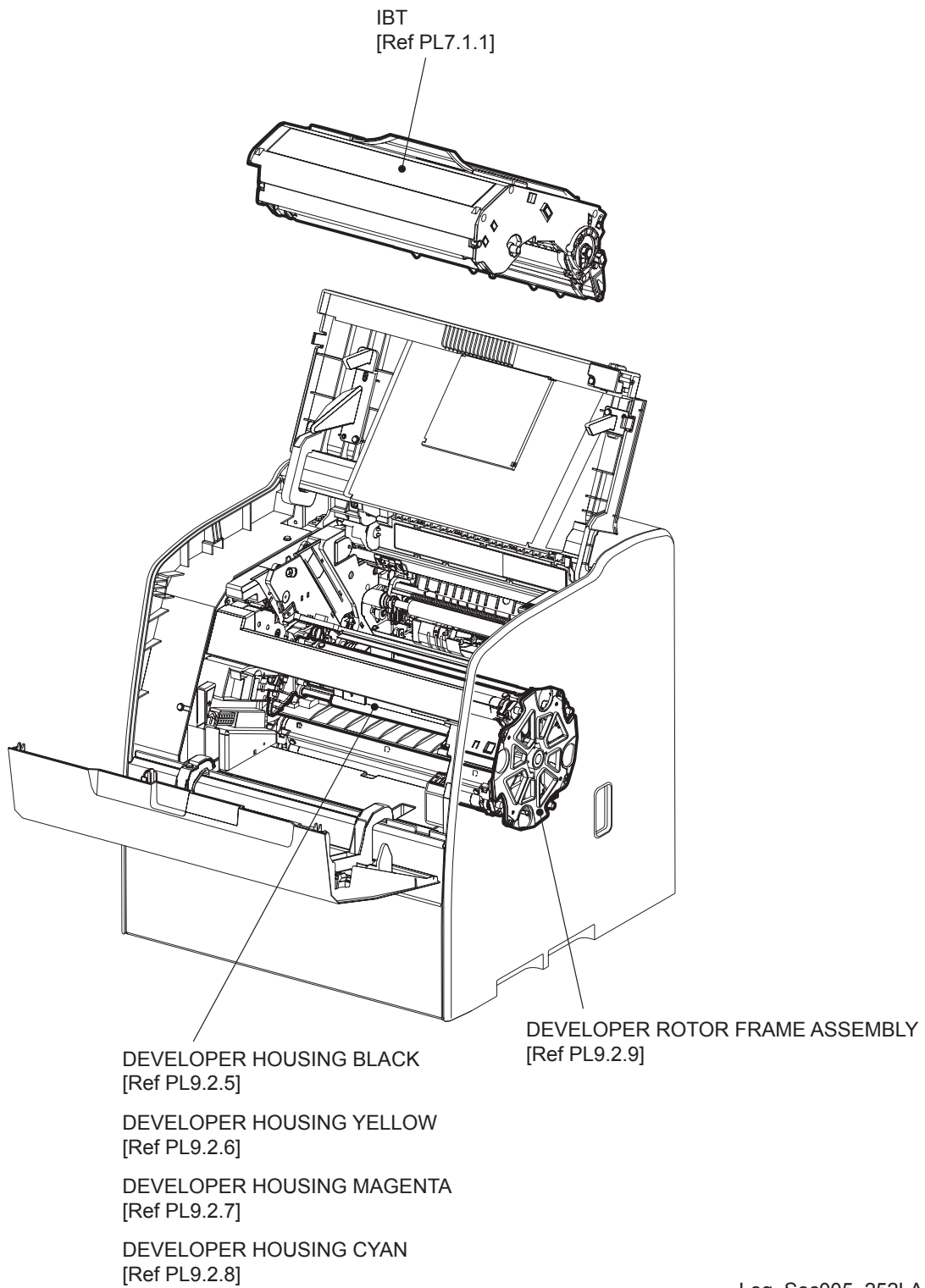


It should be noted that configuration of parts may be different or some parts are not used depending on specifications of OEM.

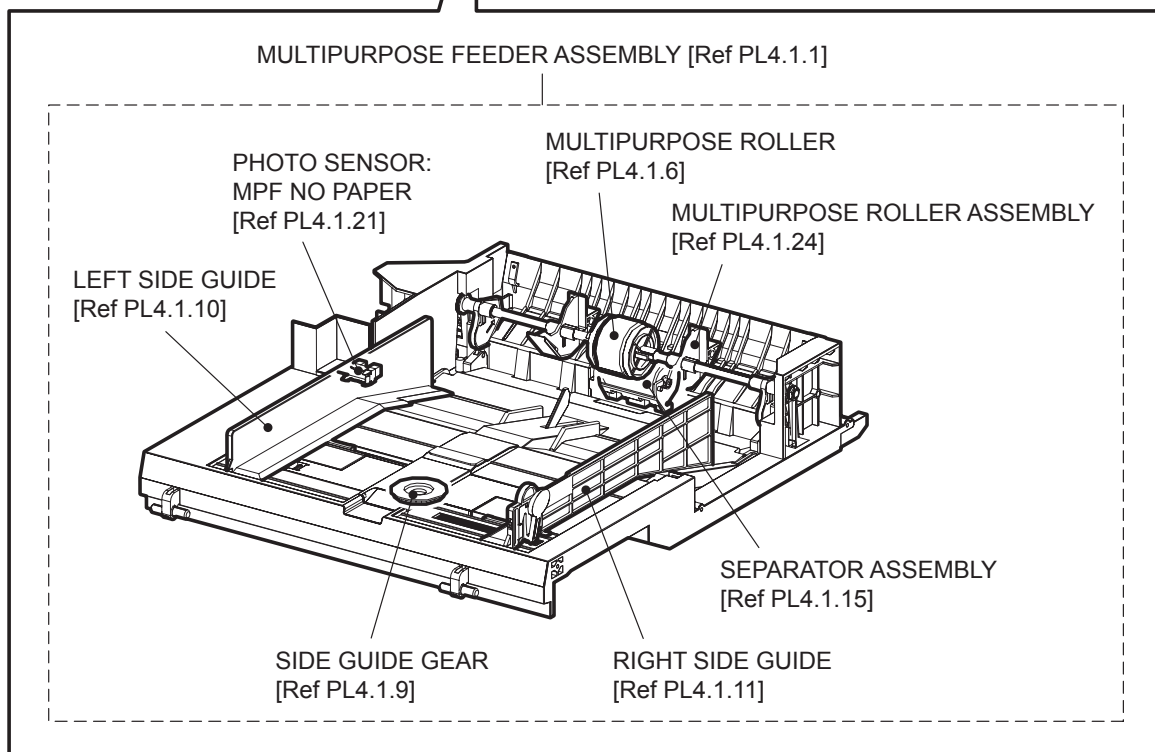
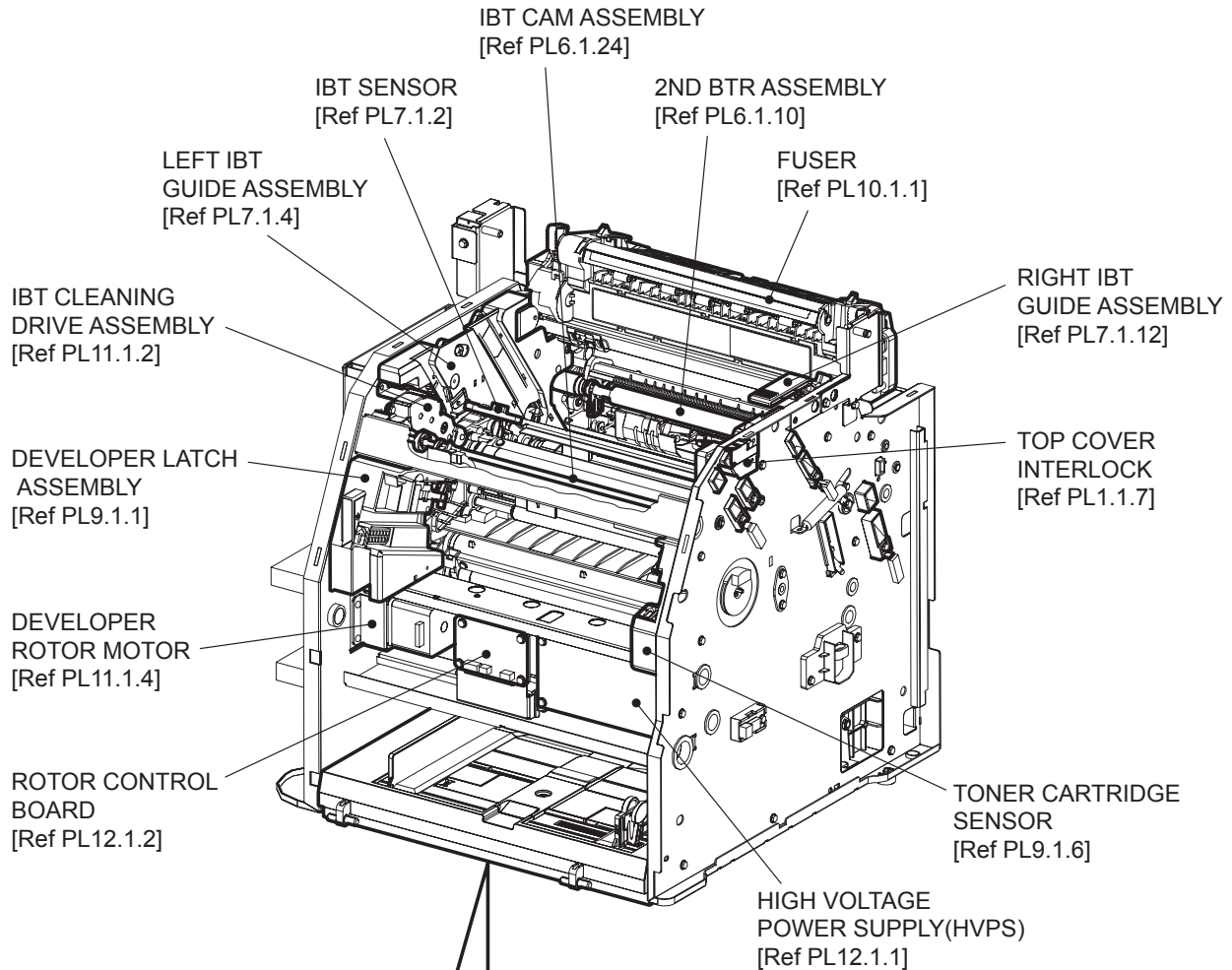
Spare parts illustration



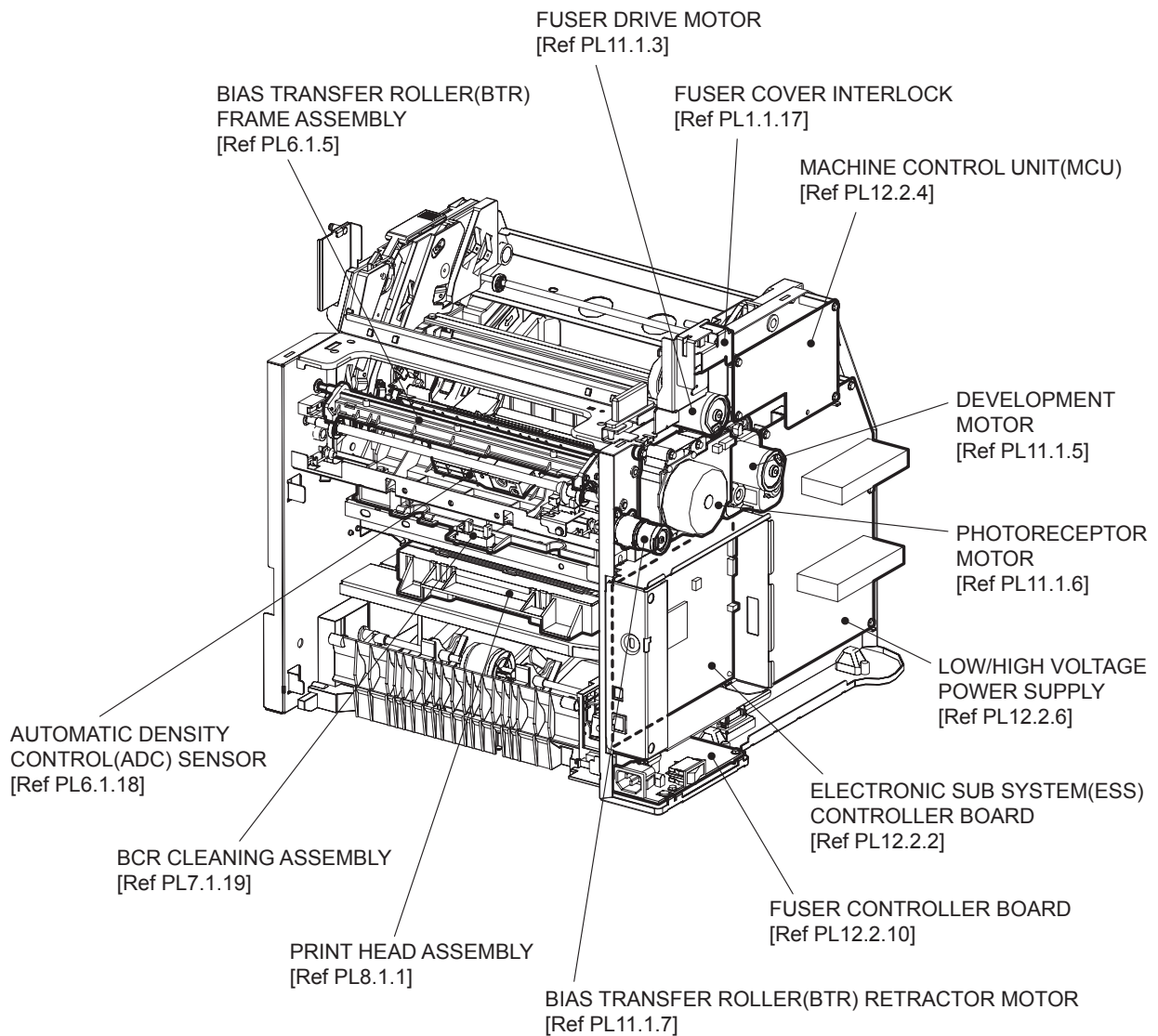
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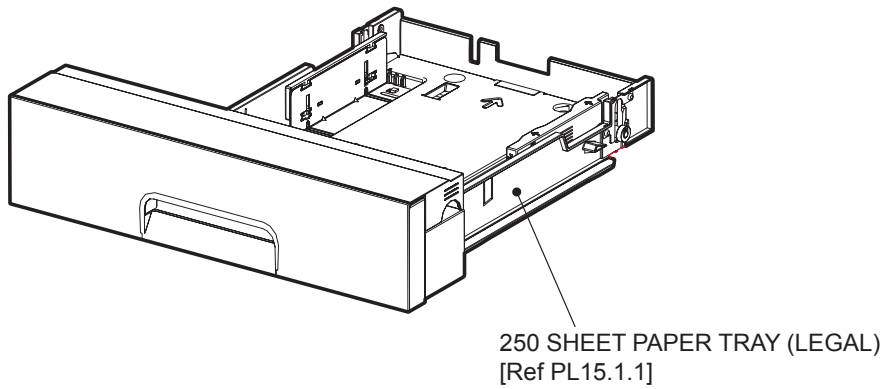
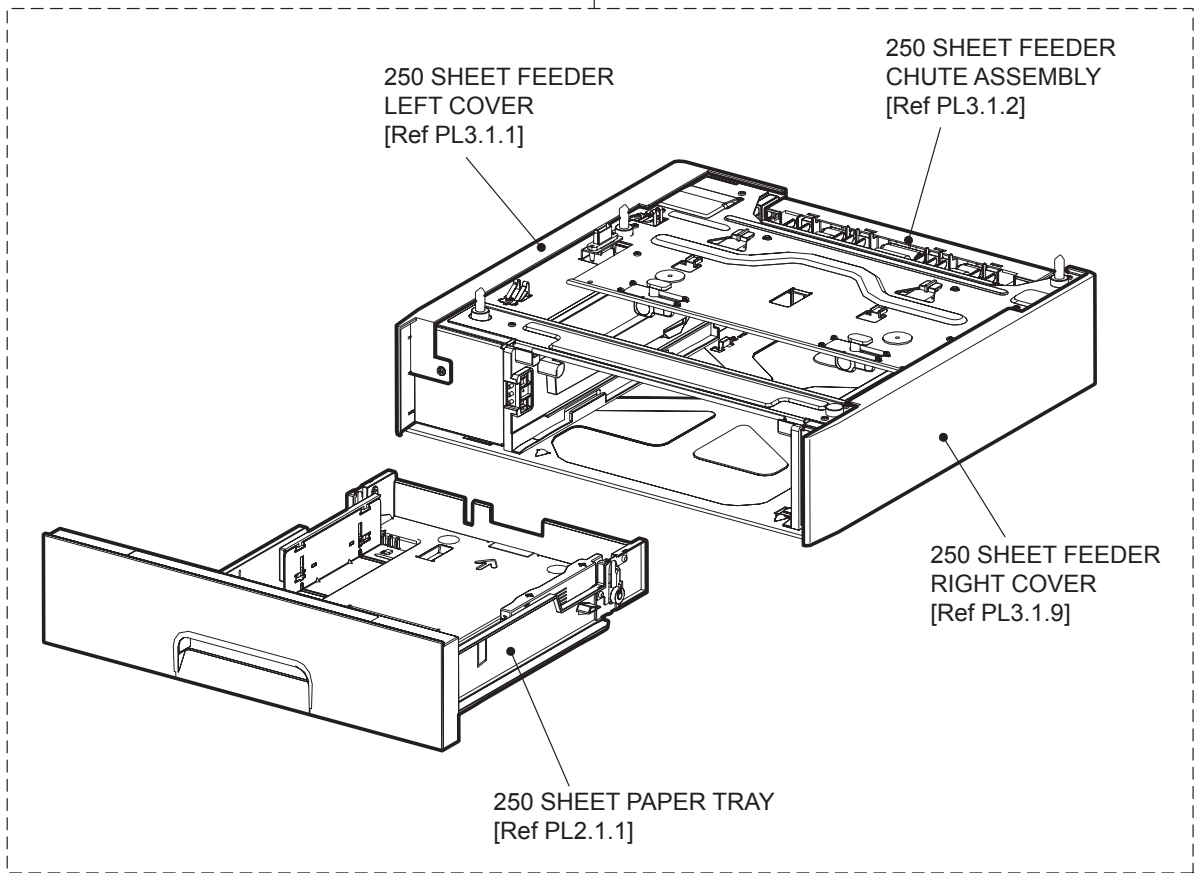


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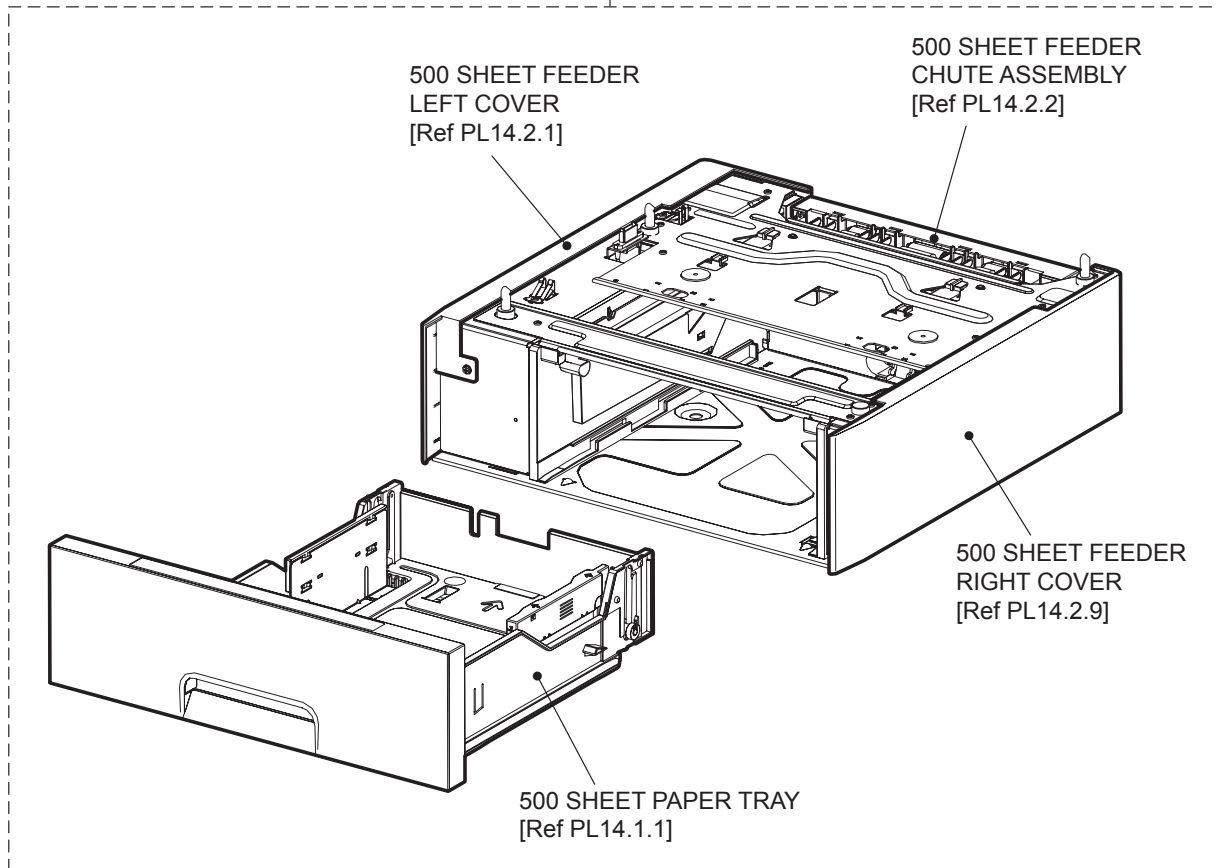
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250 SHEET FEEDER ASSEMBLY [Ref PL3.1.15]



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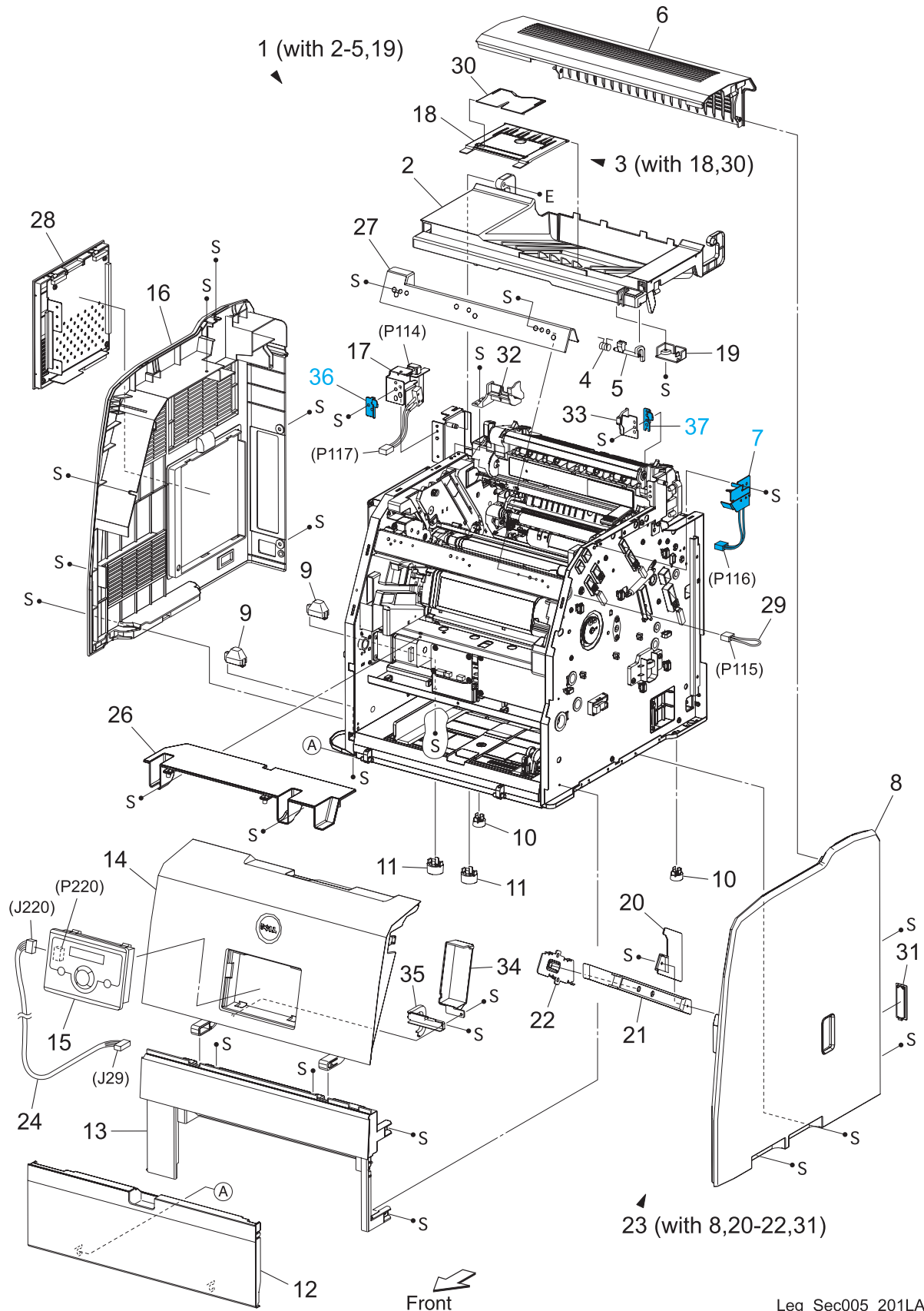
500 SHEET FEEDER ASSEMBLY [Ref PL14.2.15]



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Engineering parts list

PL 1.1 Cover [Illustration]



Leg_Sec005_201LA

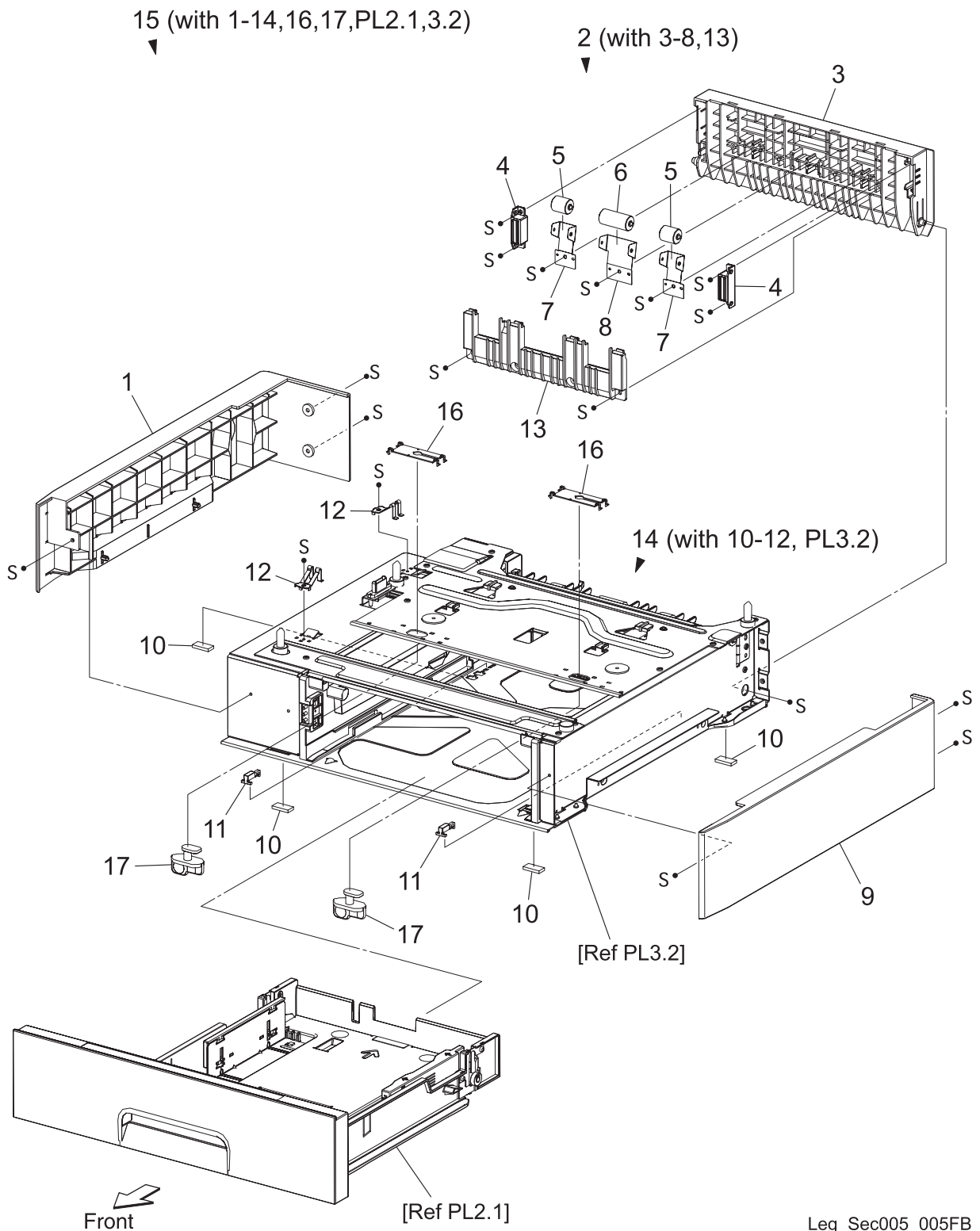
PL 1.1 Cover [List]

Item	Parts name
1	COVER ASSY TOP (with 2-5,19)
2	COVER TOP
3	KIT TRAY EXTENSION (with 18,30)
4	SPRING-SW
5	LEVER-SW
6	COVER FUSER
7	SWITCH ASSY FT (P116)
8	COVER RH
9	COVER-PIN
10	FOOT
11	FOOT
12	COVER MSI
13	COVER FRONT-L
14	COVER FRONT-U
15	OP PANEL (P220)
16	COVER LH
17	SWITCH ASSY FUSER (P114,P117)
18	COVER TRAY
19	COVER SPRING TOP
20	COVER ROS WINDOW
21	SLIDE BAR
22	GUIDE BAR
23	COVER ASSY RH (with 8,20-22,31)
24	HARNESS ASSY PANEL (J29-J220)
25	--
26	COVER INNER L
27	COVER INNER U
28	COVER ESS ASSY
29	HARNESS ASSY INTLK (P115)
30	TRAY EXTENSION
31	COVER DUP A
32	COVER TOP SIDE L
33	COVER TOP SIDE R
34	COVER CONPANE 1
35	COVER CONPANE 2
36	BRACKET COVER TOP A LH
37	BRACKET COVER TOP A RH

PL 2.1 250 Paper Cassette [List]

Item	Parts name
1	250 PAPER CASSETTE ASSY (with 2-17)
2	GUIDE END ASSY 250
3	PLATE ASSY BOTTOM 250 (with 4)
4	PAD BOTTOM
5	GUIDE PAPER L ASSY 250
6	PINION 12
7	GUIDE PAPER R ASSY 250
8	SPRING NF 250
9	PLATE ROLL STOPPER 250
10	LOCK LIFT R
11	ROLL LINK
12	CASSETTE 250
13	COVER FRONT CST 250
14	PLATE SLIDE 250
15	LOCK LIFT L
16	PLATE STOPPER R
17	PLATE STOPPER L

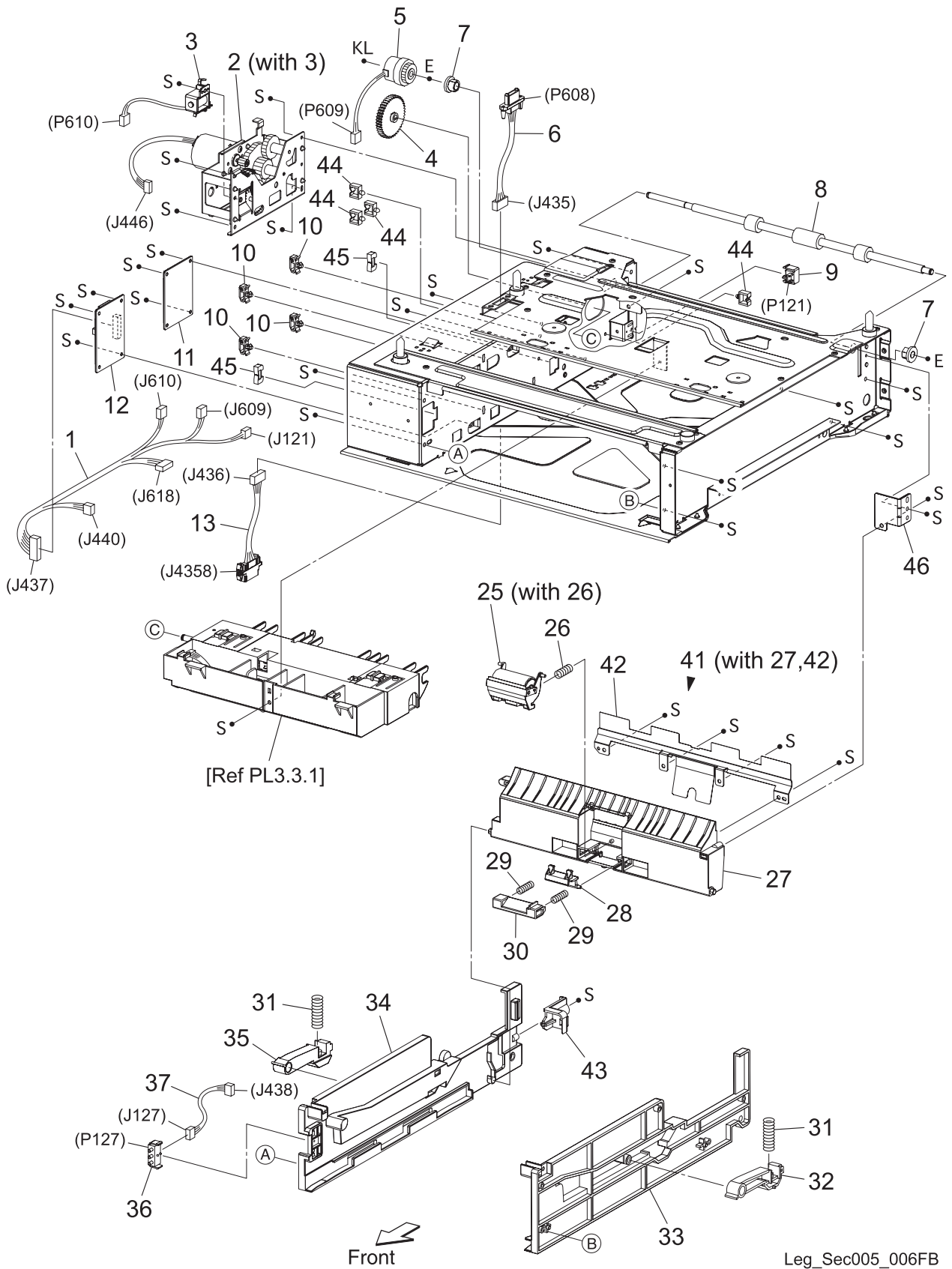
PL 3.1 250 Paper Feeder (1/3) [Illustration]



PL 3.1 250 Paper Feeder (1/3) [List]

Item	Parts name
1	COVER LEFT 250
2	CHUTE FDR ASSY 250 (with 3-8,13)
3	COVER-REAR 250
4	MAGNET-CATCH
5	ROLL PINCH A
6	ROLL PINCH B
7	SPRING-PINCH A
8	SPRING-PINCH B
9	COVER RIGHT 250
10	FOOT
11	BLOCK CST
12	SPRING EARTH FEEDER
13	GUIDE REAR
14	FEEDER ASSY 250 (with 10-12,PL3.2)
15	250 PAPER FEEDER ASSY (with 1-14,16,17,PL2.1,3.2)
16	COVER JOINT HOLE
17	LOCK MC TO FDR

PL 3.2 250 Paper Feeder (2/3) [Illustration]

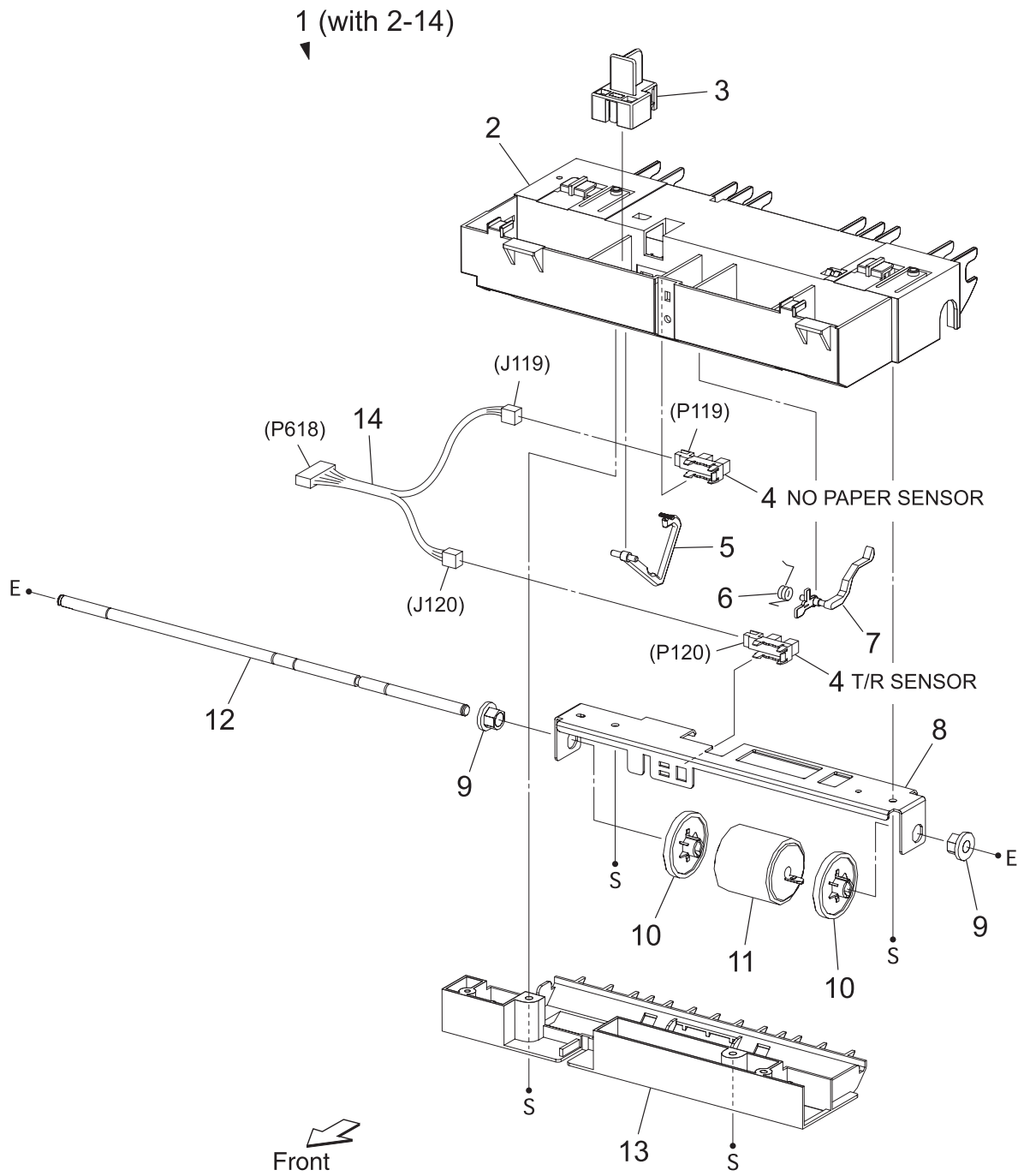


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PL 3.2 250 Paper Feeder (2/3) [List]

Item	Parts name
1	HARNESS-ASSY FEED MAIN (J437-J121,J440,J609,J610,J618)
2	DRIVE ASSY FEED 250 (with 3)
3	SOLENOID FEED (P610)
4	GEAR FEED
5	CLUTCH ASSY PH (P609)
6	HARNESS-ASSY FEED 1 (J435-P608)
7	BEARING EARTH
8	ROLL ASSY TURN
9	SWITCH-I/L CAB (P121)
10	CLAMP
11	PWBA MOT
12	PWBA TRAY CONT
13	HARNESS-ASSY FEED 2 (J436-J4358)
14-24	- -
25	HOLDER ASSY RETARD (with 26)
26	SPRING RETARD
27	CHUTE 250
28	LEVER 250
29	SPRING LEVER 250
30	BUTTON FDR 250
31	SPG LOCK CST LL
32	STOPPER CST R
33	GUIDE CST R 250
34	GUIDE CST L 250
35	STOPPER CST L
36	SNR CST (P127)
37	HARNESS-ASSY FEED SW (J127-J438)
38-40	- -
41	CHUTE ASSY 250 (with 27,42)
42	FILM ASSY FDR
43	CAP
44	CLAMP MSB-1207
45	BUSH SADDLE ES-0510-2
46	BRACKET MAG R

PL 3.3 250 Paper Feeder (3/3) [Illustration]

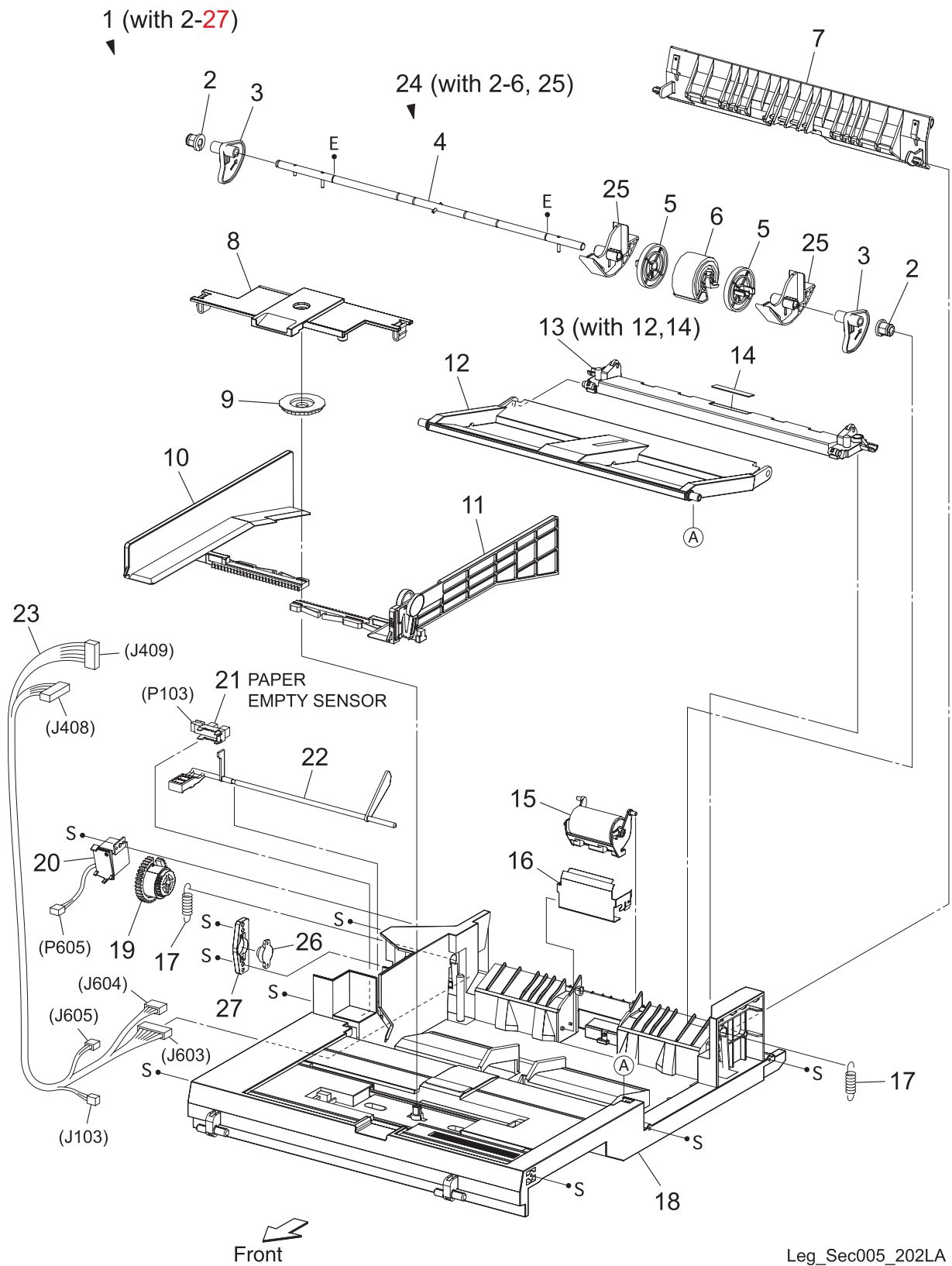


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PL 3.3 250 Paper Feeder (3/3) [List]

Item	Parts name
1	HOUSING ASSY FEED (with 2-14)
2	HOUSING FEED
3	CAP ACTUATOR
4	SENSOR PHOTO
5	ACTUATOR NO PAPER CST
6	SPRING ACTUATOR
7	ACTUATOR
8	BRACKET FEED
9	BEARING EARTH
10	ROLL SUPPORT
11	ROLL ASSY FEED
12	SHAFT FEED
13	COVER FEED
14	HARNES-ASSY FEED 3 (P618-J119,J120)

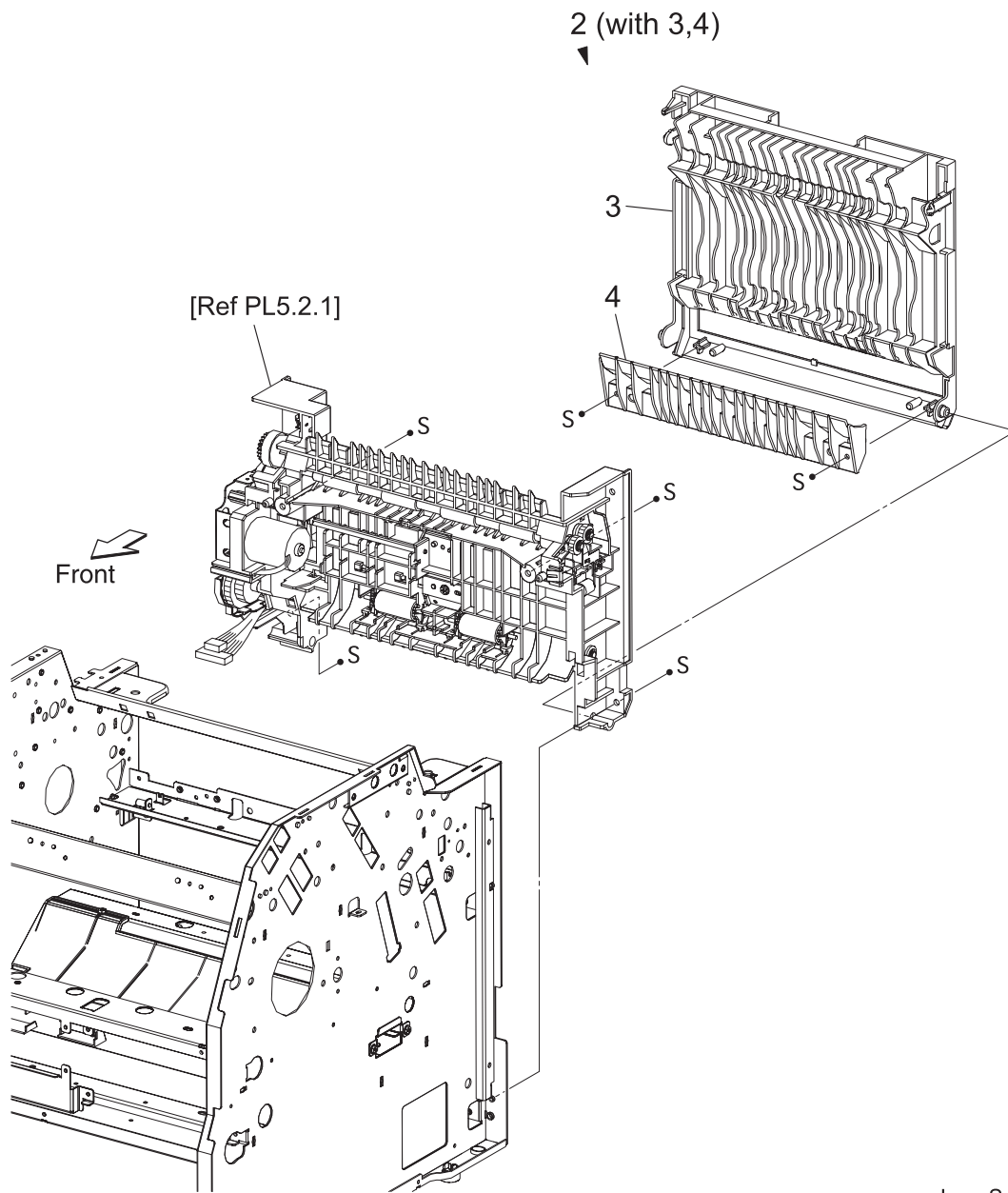
PL 4.1 MSI [Illustration]



PL 4.1 MSI [List]

Item	Parts name
1	MSI ASSY (with 2-27)
2	BEARING MSI
3	CAM PICK UP MSI
4	SHAFT ASSY MSI
5	CORE
6	ROLL ASSY
7	CHUTE MSI
8	GUIDE SIDE COVER
9	GEAR MANUAL
10	GUIDE ASSY SIDE L
11	GUIDE ASSY SIDE R
12	PLATE BOTTOM 2
13	PLATE BOTTOM ASSY MSI (with 12,14)
14	PAD MSI
15	HOLDER ASSY RETARD
16	PLATE ASSY RETARD
17	SPRING-N/F MSI
18	FRAME ASSY BOTTOM
19	GEAR PICK UP
20	SOLENOID PICK UP (P605)
21	SENSOR PHOTO (P103)
22	ACTUATOR
23	HARNESS-ASSY P/H 1 (J408,J409-J103,J603,J604,J605)
24	ROLL ASSY MSI (with 2-6,25)
25	PAPER GUIDE
26	OIL DAMPER
27	DAMPER BRACKET
28	--
29	--

PL 5.1 PH Assy (1/2) [Illustration]



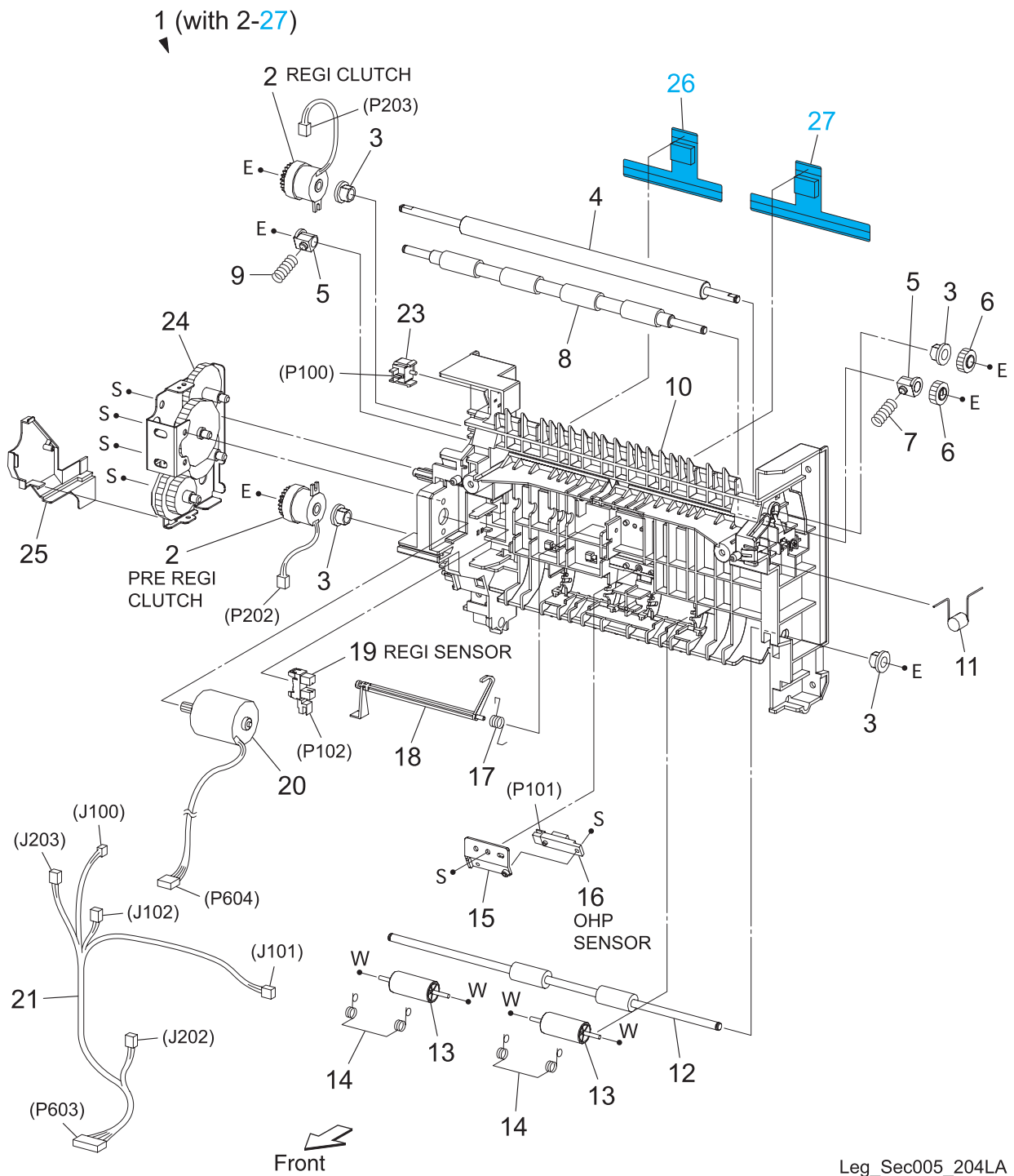
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PL 5.1 PH Assy (1/2) [List]

Item	Parts name
1	--
2	CHUTE ASSY-REAR (with 3,4)
3	CHUTE-REAR UP
4	CHUTE-REAR LOW
5	--

I

PL 5.2 PH Assy (2/2) [Illustration]



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PL 5.2 PH Assy (2/2) [List]

Item	Parts name
1	FRAME ASSY-PH (with 2-27)
2	CLUTCH ASSY PH
3	BEARING METAL
4	ROLL-REGI
5	BEARING RUBBER
6	GEAR-REGI
7	SPRING-REGI R (METAL)
8	ROLL ASSY-REGI
9	SPRING-REGI L (BLACK)
10	FRAME-PH
11	VARISTOR
12	ROLL ASSY-PRE REGI
13	ROLL-PINCH
14	SPRING-PRE REGI
15	BRACKET-SENSOR OHP
16	SENSOR (P101)
17	SPRING-ACTUATOR
18	ACTUATOR-REGI
19	SENSOR PHOTO (P102)
20	MOTOR-PH (P604)
21	HARNESS-ASSY P/H2 (P603-J100,J101,J102,J202,J203)
22	- -
23	SWITCH-I/L CAB (P100)
24	GEAR ASSY DRIVE
25	COVER-HARNESS
26	GUIDE ASSY REGI L
27	GUIDE ASSY REGI R

PL 6.1 Transfer [List]

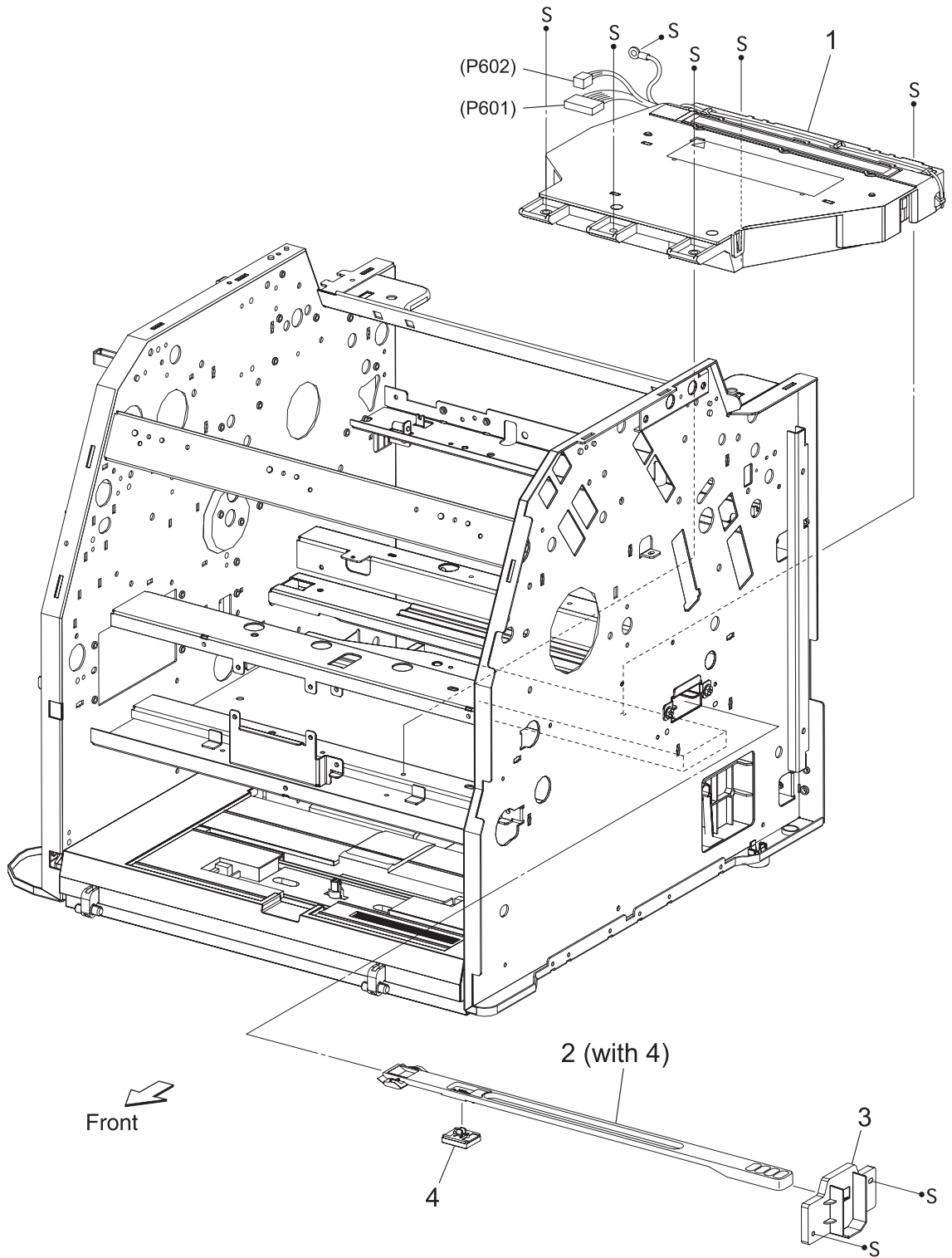
Item	Parts name
1	CHUTE ASSY-FSR (with 2-4,28,31,38)
2	HOUSING-CHUTE FSR
3	SENSOR JAM 2 (P111)
4	CHUTE-FSR
5	FRAME ASSY-2ND (with 6-8,10)
6	GEAR 27
7	SHAFT-CENT 2ND
8	FRAME ASSY
9	BEARING-BRUSH CAM
10	2ND BTR ASSY
11	CAM ASSY-2ND
12	BEARING
13	COVER ASSY-RR 2ND (with 14-16,32)
14	BRACKET-SWITCH 2ND
15	SWITCH-I/L CAB (with 14) (P113)
16	COVER-RR 2ND
17	--
18	SENSOR ASSY ADC (P431)
19	SENSOR PHOTO
20	SPRING-2ND
21	--
22	--
23	PLATE BIAS-2ND ASSY (with 30)
24	CAM ASSY-IBT CL
25	--
26	--
27	HARNESS ASSY ADC (J418,J422-J112,J431,J620,J621)
28	DIODE
29	--
30	WIRE ASSY 2BTR (J505-T2)
31	HARNESS ASSY 2BTR SENS (J111-P620)
32	HARNESS ASSY 2BTR SW (J113-P621)
33	HOLDER ASSY-ADC (with 18,34)
34	HOLDER-ADC 2ND
35	BRACKET-SENSOR PHOTO
36	BUSH SADDLE ES-0505-2
37	BRACKET-SENSOR CLN
38	PLATE DIS 2ND

PL 7.1 Xero [List]

Item	Parts name
1	IBT ASSY *1
2	SENSOR TR-0 (P108)
3	PLATE-TR-0
4	GUIDE CRU ASSY D (with 5-11,27)
5	SPRING-TORSION D
6	LATCH-IBT D
7	ARM-COUPLING
8	SPRING-TORSION ARM
9	LINK-COUPLING
10	ANTENNA ASSY (P109)
11	HOUSING-GUIDE D
12	GUIDE CRU ASSY AD (with 13,15-17,33,34)
13	HOUSING ASSY-GUIDE AD
14	--
15	LATCH-IBT AD
16	SPRING-TORSION AD
17	LATCH-PR AD
18	--
19	BCR CLN XERO ASSY (with 23,30,31)
20	--
21	--
22	--
23	PLATE SOLENOID
24	WIRE ASSY 1 BTR (J504-J512)
25	WIRE ASSY IBT (J506-J513)
26	WIRE ASSY BCR (J508-J514)
27	HARNESS-ASSY XERO (J416-J108,J109)
28	--
29	DIODE
30	SENSOR TONER FULL (P126)
31	HARNESS-ASSY TNER FULL (J126-P617)
32	--
33	LEVER-LATCH PR
34	CAP-PLATE PR
35	GUIDE CRU
36	SPRING-LATCH
37	PLATE-ASSY GND

*1:Consumables

PL 8.1 ROS [Illustration]

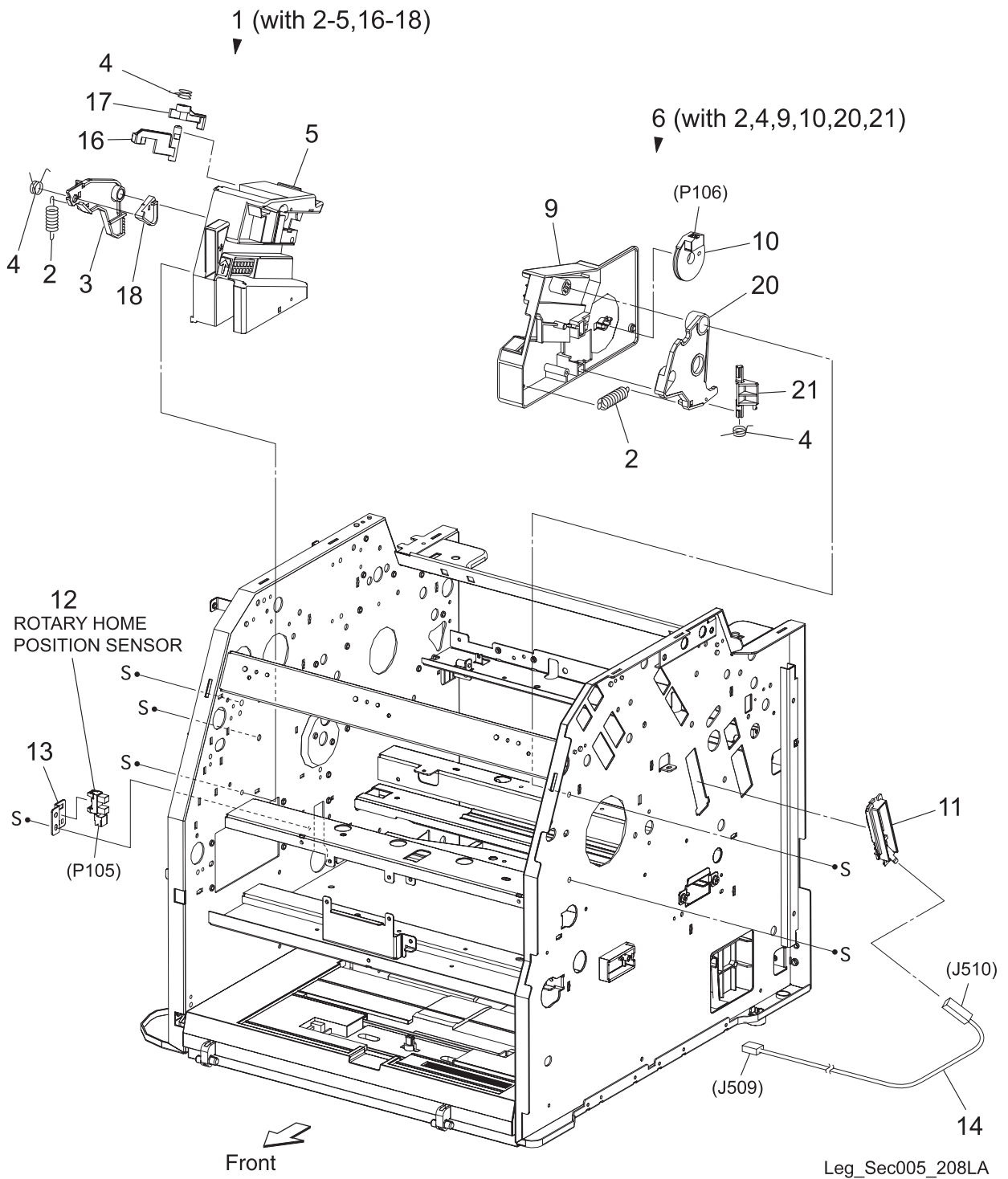


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PL 8.1 ROS [List]

Item	Parts name
1	ROS ASSY (P601,P602)
2	CLEANER (with 4)
3	GUIDE-ROS CLN
4	CLEANER ASSY-BASE

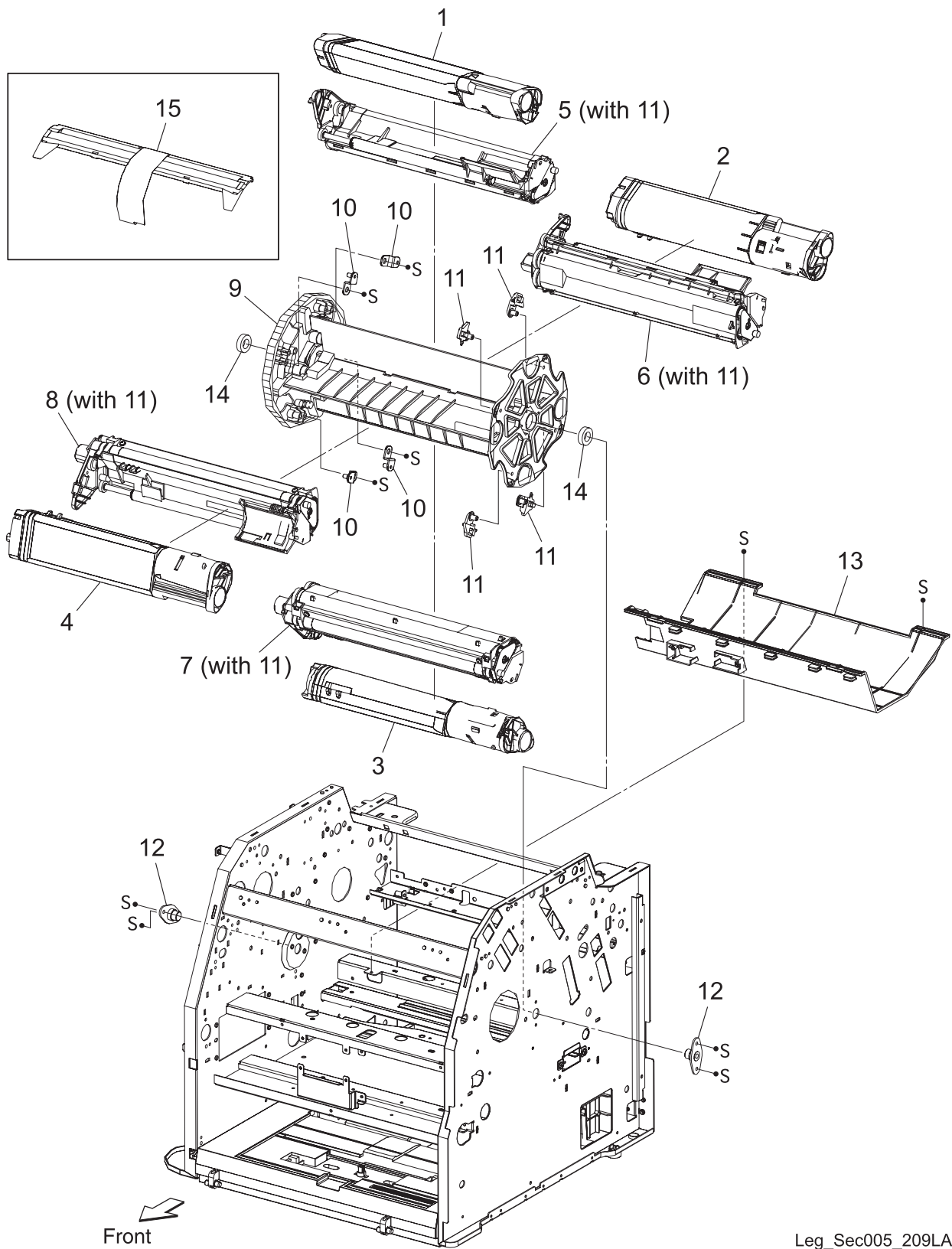
PL 9.1 DEVE (1/2) [Illustration]



PL 9.1 DEVE (1/2) [List]

Item	Parts name
1	LATCH ASSY-ROTARY (with 2-5,16-18)
2	SPRING LATCH
3	LATCH ROTARY
4	SPRING TRACK D
5	HOLDER LATCH ROTARY
6	ANTENNA ASSY-CTRG (with 2,4,9,10,20,21)
7	--
8	--
9	HOLDER ANTENNA CTRG
10	ANTENNA CTRG (P106)
11	HOLDER ASSY-BIAS
12	SENSOR PHOTO (P105)
13	BRACKET SENSOR
14	WIRE ASSY DEVE (J509-J510)
15	--
16	LINK LATCH
17	LEVER LATCH
18	STOPPER LATCH
19	--
20	LINK LEVER
21	LEVER CTRG SET
22	--

PL 9.2 DEVE (2/2) [Illustration]



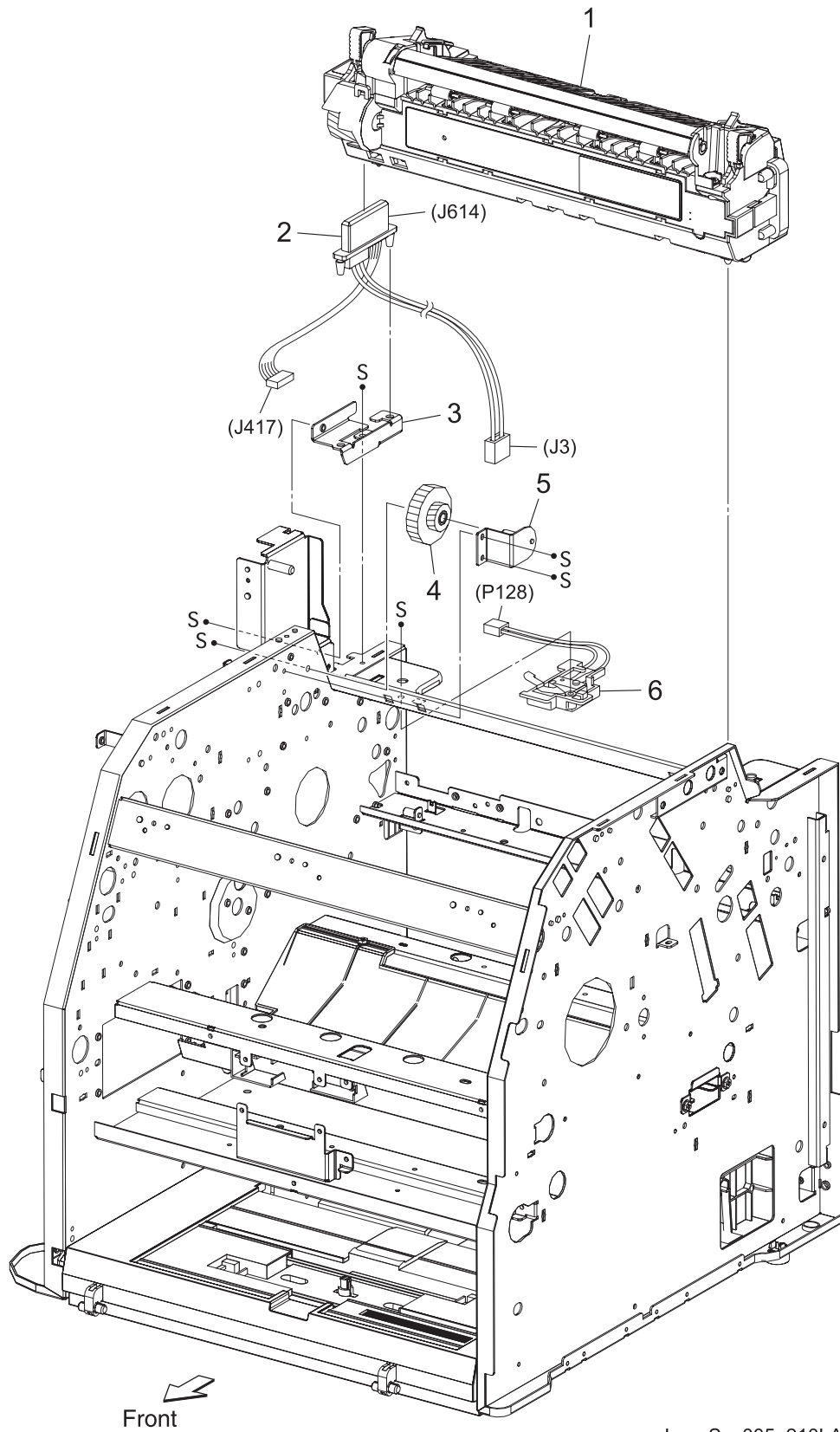
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PL 9.2 DEVE (2/2) [List]

Item	Parts name
1	TNR CRU K *1
2	TNR CRU Y *1
3	TNR CRU M *1
4	TNR CRU C *1
5	HOUSING ASSY-DEVE K (with 11)
6	HOUSING ASSY-DEVE Y (with 11)
7	HOUSING ASSY-DEVE M (with 11)
8	HOUSING ASSY-DEVE C (with 11)
9	FRAME ASSY-ROTARY
10	PIVOT ASSY
11	PIVOT AD
12	SHAFT ASSY-ROTARY
13	COVER ROTARY BOTTOM
14	BEARING BALL
15	COVER ASSY-MAG

*1:Consumables

PL 10.1 Fuser [Illustration]

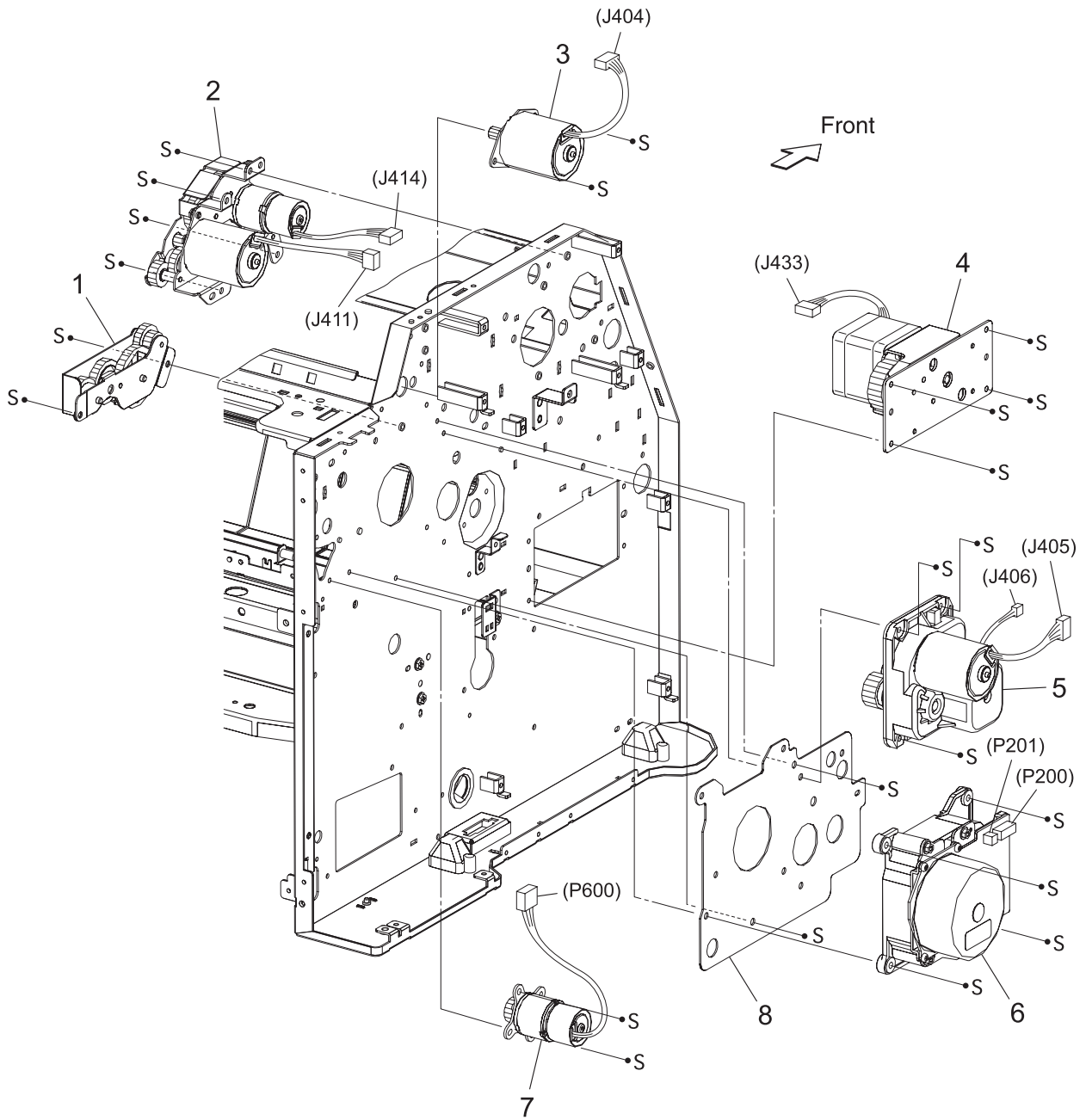


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PL 10.1 Fuser [List]

Item	Parts name
1	FUSER ASSY
2	HARNESS ASSY MCU C/L (J614-J3,J417)
3	BRACKET-RIZ
4	GEAR 2ND
5	BRACKET ASSY 2ND GEAR
6	FUSER LOCK SWITCH (P128)

PL 11.1 Drive [Illustration]

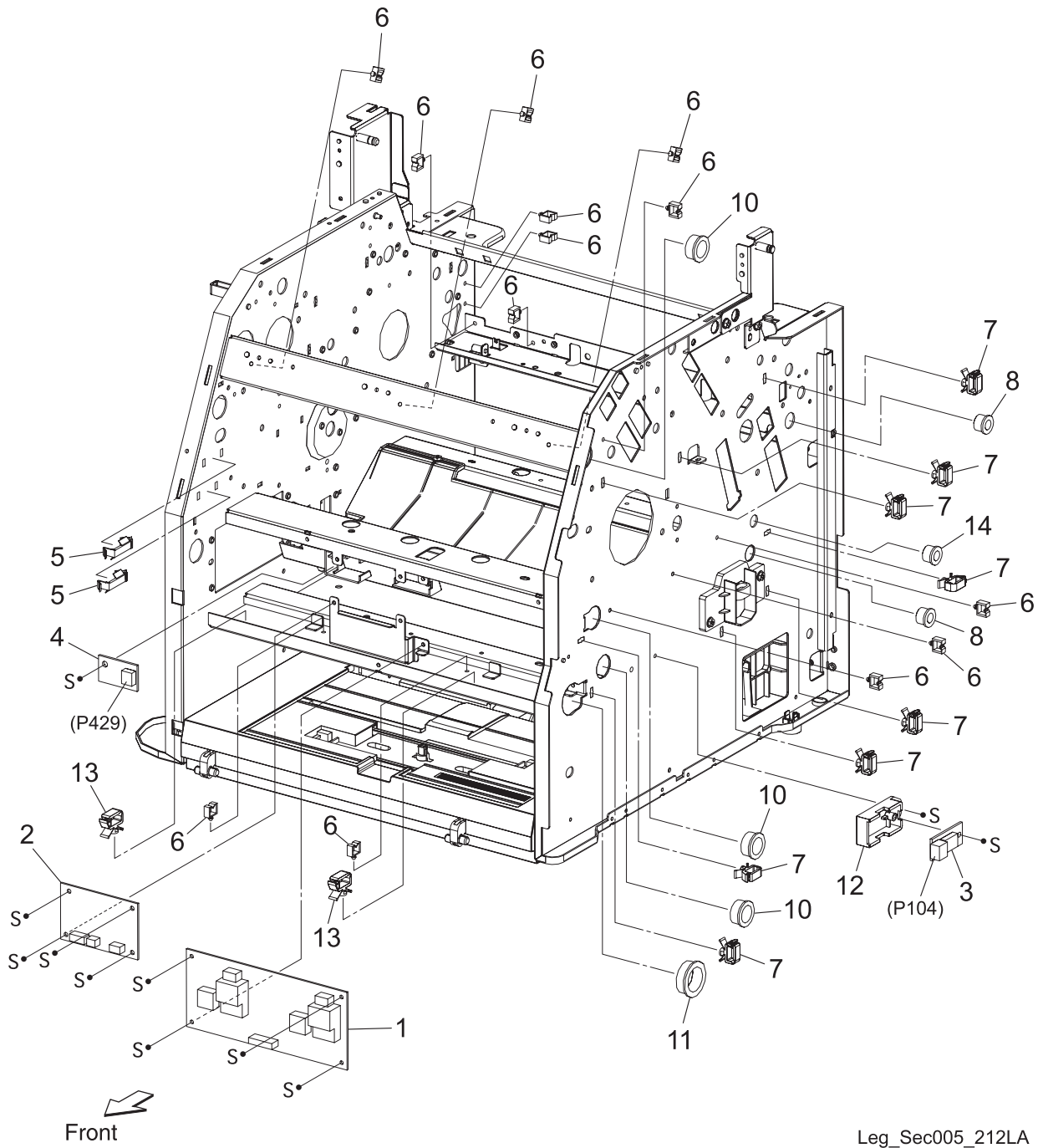


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PL 11.1 Drive [List]

Item	Parts name
1	DRIVE ASSY BTR
2	DRIVE ASSY PRO (J411,J414)
3	MOT ASSY FUSER (J404)
4	MOT ASSY ROT (J433)
5	MOT ASSY MAG (J405,J406)
6	MOT ASSY P/R (P200,P201)
7	MOT ASSY MICRO (P600)
8	PLATE LEFT

PL 12.1 ELEC (1/2) [Illustration]

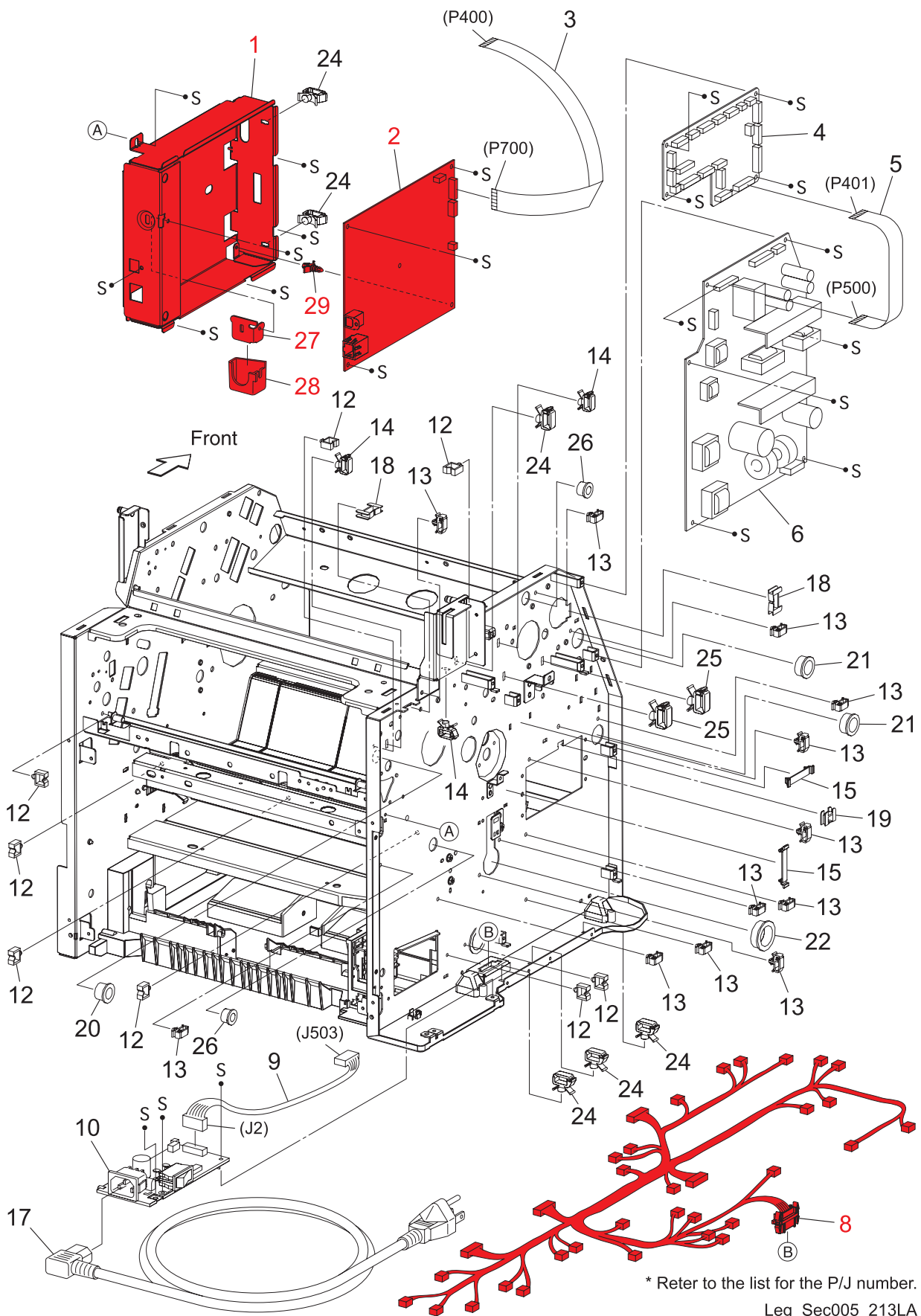


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PL 12.1 ELEC (1/2) [List]

Item	Parts name
1	PWBA HVPS
2	PWB ASSY ROT
3	SENSOR ASSY (P104)
4	PWBA CRUM
5	CLAMP PRESS 21
6	CLAMP MSB-1207
7	CLAMP RLWT-1V0
8	BUSH-OPEN OLBT-13
9	--
10	BUSH STB-19
11	BUSH STB-26
12	HOLDER SENSOR
13	CLAMP RLWT-3V0
14	BUSH STB-13

PL 12.2 ELEC (2/2) [Illustration]



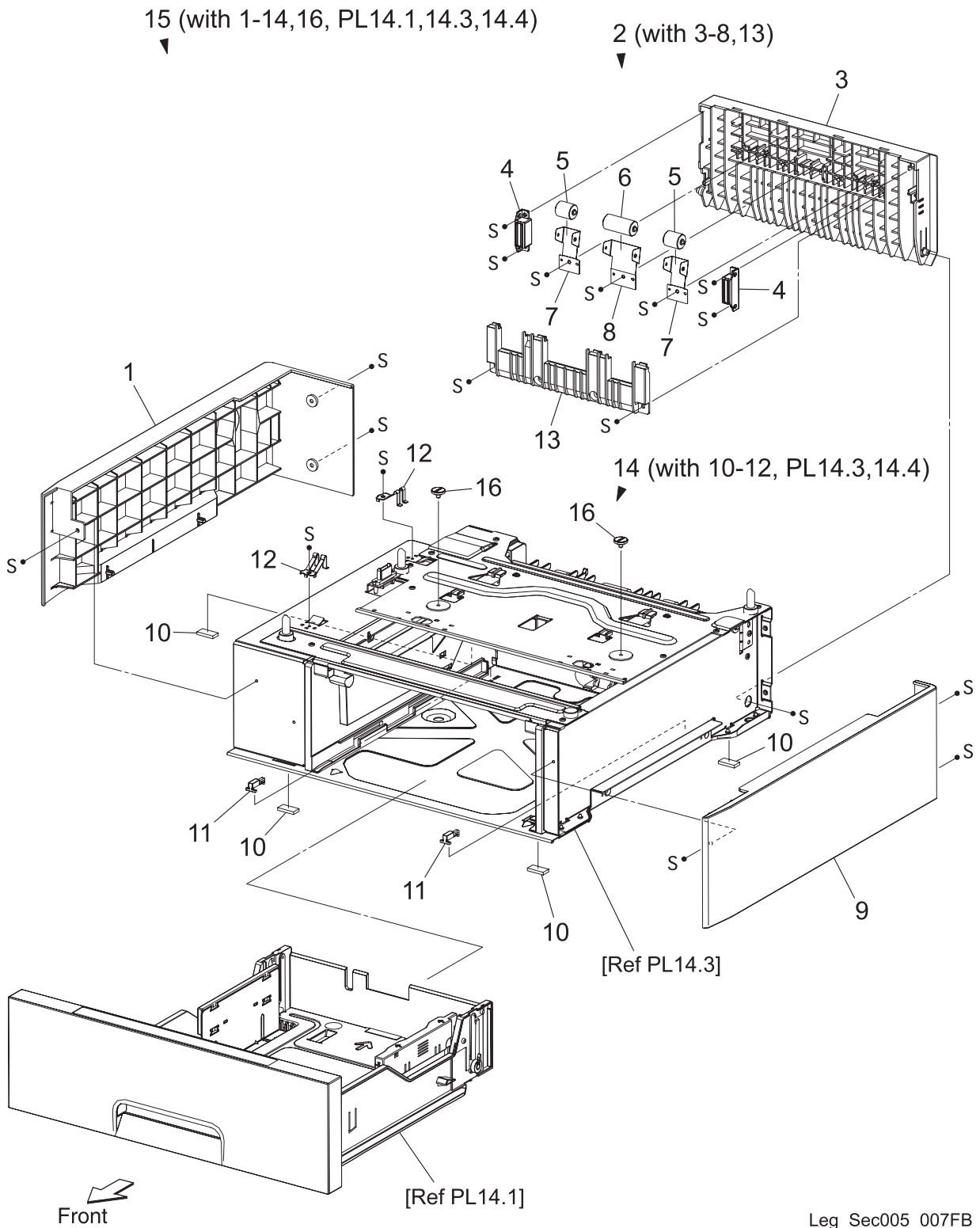
PL 12.2 ELEC (2/2) [List]

Item	Parts name
1	CHASSIS A
2	PWBA ESS
3	FFC-ASSY ESS (P400-P70)
4	PWBA MCU
5	FFC-ASSY LV/MCU (P401-P500)
6	LV/HVPS
7	--
8	HARNESS ASSY MAIN (J403-J114,J200,J600/J407-J601/J410-J1,J115,J116,J117, J201,J432,J502/J412-J429/J413-J104,J105,J606,J617/J415-J106,J107,J125,J430/ J420/J421-J608/J501-J71/J515-J516/J602-J72)
9	HARNESS ASSY AC (J2-J503)
10	PWBA FUSER CONT
11	--
12	CLAMP MSB-1207
13	CLAMP LWS-03S
14	CLAMP RLWT-1V0
15	FLAT CLAMP FCR-30
16	--
17	POWER CORD
18	BUSH SADDLE ES-0510-2
19	BUSH SADDLE ES-0505-2
20	BUSH-OPEN OLBT-13
21	BUSH STB-19
22	BUSH STB-26
23	--
24	CLAMP RLWT-3V0
25	CLAMP RLWT-4V0
26	BUSH STB-13
27	BRACKET KS LOCK
28	COVER KS LOCK
29	SUPPORT LOCKING 4.8

PL 14.1 500 Paper Cassette [List]

Item	Parts name
1	500 PAPER CASSETTE ASSY (with 2-19)
2	GUIDE END ASSY
3	PLATE ASSY BOTTOM (with 4)
4	PAD BOTTOM
5	GUIDE PAPER L ASSY
6	PINION 12
7	GUIDE PAPER R ASSY
8	SPRING NF
9	PLATE ROLL STOPPER 500
10	LOCK LIFT R
11	ROLL LINK
12	--
13	--
14	COVER FRONT CST 500
15	CASSETTE 500
16	PLATE SLIDE 500
17	LOCK LIFT L
18	PLATE STOPPER R
19	PLATE STOPPER L

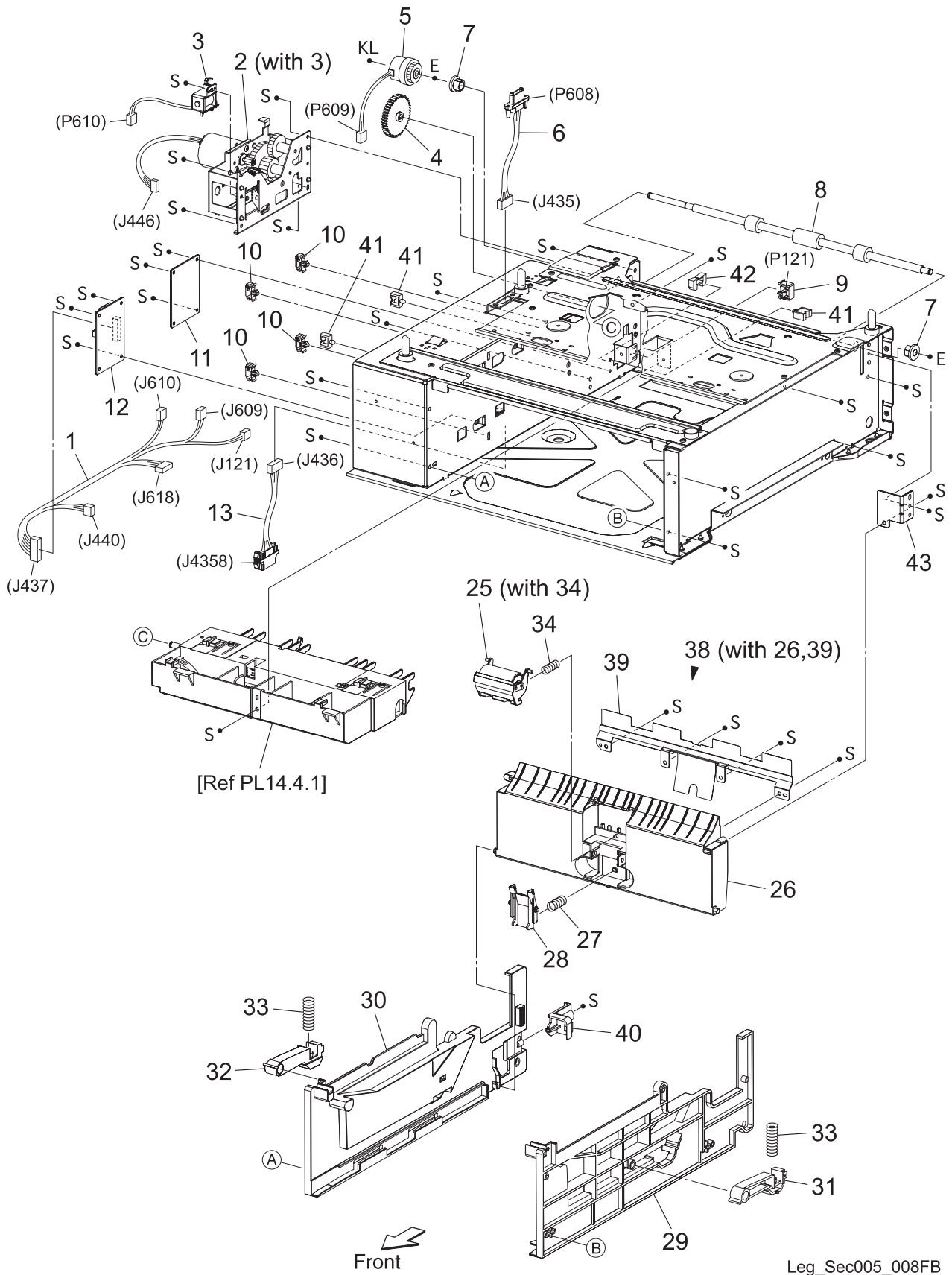
PL 14.2 500 Paper Feeder (1/3) [Illustration]



PL 14.2 500 Paper Feeder (1/3) [List]

Item	Parts name
1	COVER LEFT
2	CHUTE FDR ASSY (with 3-8,13)
3	COVER-REAR
4	MAGNET-CATCH
5	ROLL PINCH A
6	ROLL PINCH B
7	SPRING-PINCH A
8	SPRING-PINCH B
9	COVER RIGHT
10	FOOT
11	BLOCK CST
12	SPRING EARTH FEEDER
13	GUIDE REAR
14	FEEDER ASSY 500 (with 10-12,PL14.3,14.4)
15	500 PAPER FEEDER ASSY (with 1-14,16,PL14.1,14.3,14.4)
16	SCREW JOINT FDR

PL 14.3 500 Paper Feeder (2/3) [Illustration]

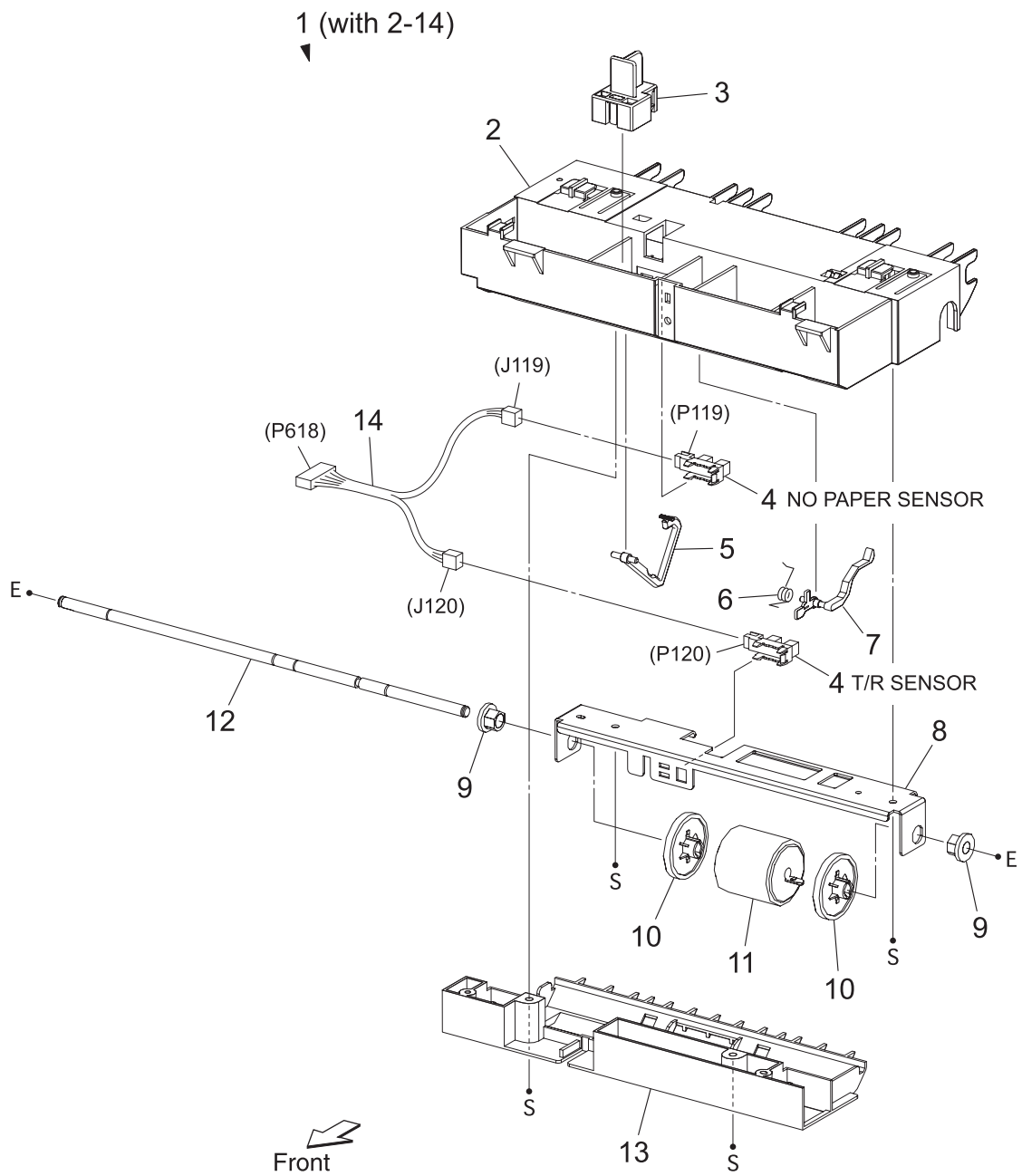


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PL 14.3 500 Paper Feeder (2/3) [List]

Item	Parts name
1	HARNESS-ASSY FEED MAIN (J437-J121,J440,J609,J610,J618)
2	DRIVE ASSY FEED (with 3)
3	SOLENOID FEED (P610)
4	GEAR FEED
5	CLUTCH ASSY PH (P609)
6	HARNESS-ASSY FEED 1 (J435-P608)
7	BEARING EARTH
8	ROLL ASSY TURN
9	SWITCH-I/L CAB (P121)
10	CLAMP
11	PWBA MOT
12	PWBA TRAY CONT
13	HARNESS-ASSY FEED 2 (J436-J4358)
14-24	- -
25	HOLDER ASSY RETARD (with 34)
26	CHUTE
27	SPRING LEVER
28	LEVER
29	GUIDE CST R
30	GUIDE CST L
31	STOPPER CST R
32	STOPPER CST L
33	SPG LOCK CST LL
34	SPRING RETARD
35-37	- -
38	CHUTE ASSY 500 (with 26,39)
39	FILM ASSY FDR
40	CAP
41	CLAMP MSB-1207
42	BUSH SADDLE ES-0510-2
43	BRACKET MAG R

PL 14.4 500 Paper Feeder (3/3) [Illustration]



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PL 14.4 500 Paper Feeder (3/3) [List]

Item	Parts name
1	HOUSING ASSY FEED (with 2-14)
2	HOUSING FEED
3	CAP ACTUATOR
4	SENSOR PHOTO
5	ACTUATOR NO PAPER CST
6	SPRING ACTUATOR
7	ACTUATOR
8	BRACKET FEED
9	BEARING EARTH
10	ROLL SUPPORT
11	ROLL ASSY FEED
12	SHAFT FEED
13	COVER FEED
14	HARNES-ASSY FEED 3 (P618-J119,J120)

PL 15.1 Legal Paper Cassette [List]

Item	Parts name
1	LEGAL PAPER CASSETTE ASSY (with 2-20)
2	GUIDE END ASSY 250
3	PLATE ASSY BOTTOM 250 (with 4)
4	PAD BOTTOM
5	GUIDE PAPER L ASSY 250
6	PINION 12
7	GUIDE PAPER R ASSY 250
8	SPRING NF 250
9	PLATE ROLL STOPPER 250
10	LOCK LIFT R
11	ROLL LINK
12	CASSETTE 250 LG
13	COVER FRONT CST 250
14	PLATE SLIDE LG
15	LOCK LIFT L
16	COVER TOP CST LG
17	COVER BLOCK R LG
18	COVER BLOCK L LG
19	PLATE STOPPER R
20	PLATE STOPPER L

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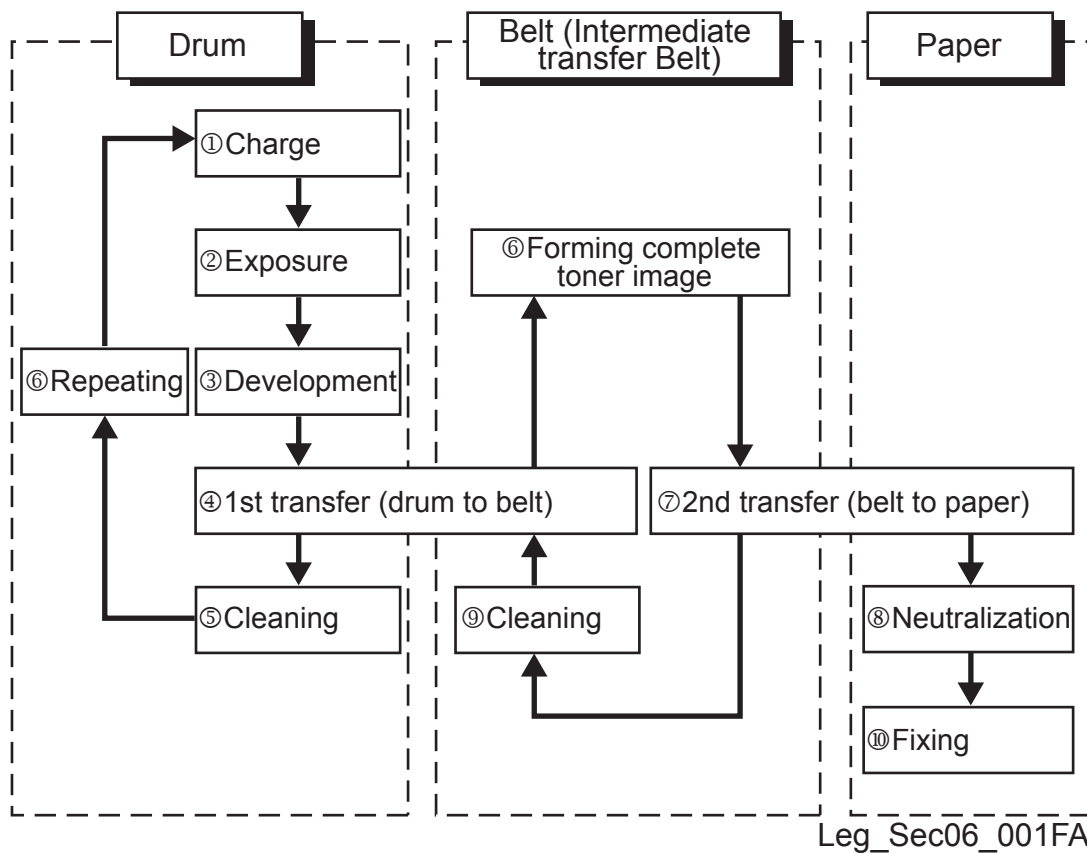
1. Printing process

1.1 Outline of printing process

This device is a "Full color laser printer" that uses the principle of the electro photographic recording system. There are 4 color toners "Yellow, magenta, Cyan, Black (hereinafter Y, M, C, K)" and a drum that forms a toner image inside the device. It forms a toner image on the drum for each color and transfers the formed toner image on the drum to the Belt (intermediate transfer Belt). It can produce a full color print by overlapping the colors on the Belt.

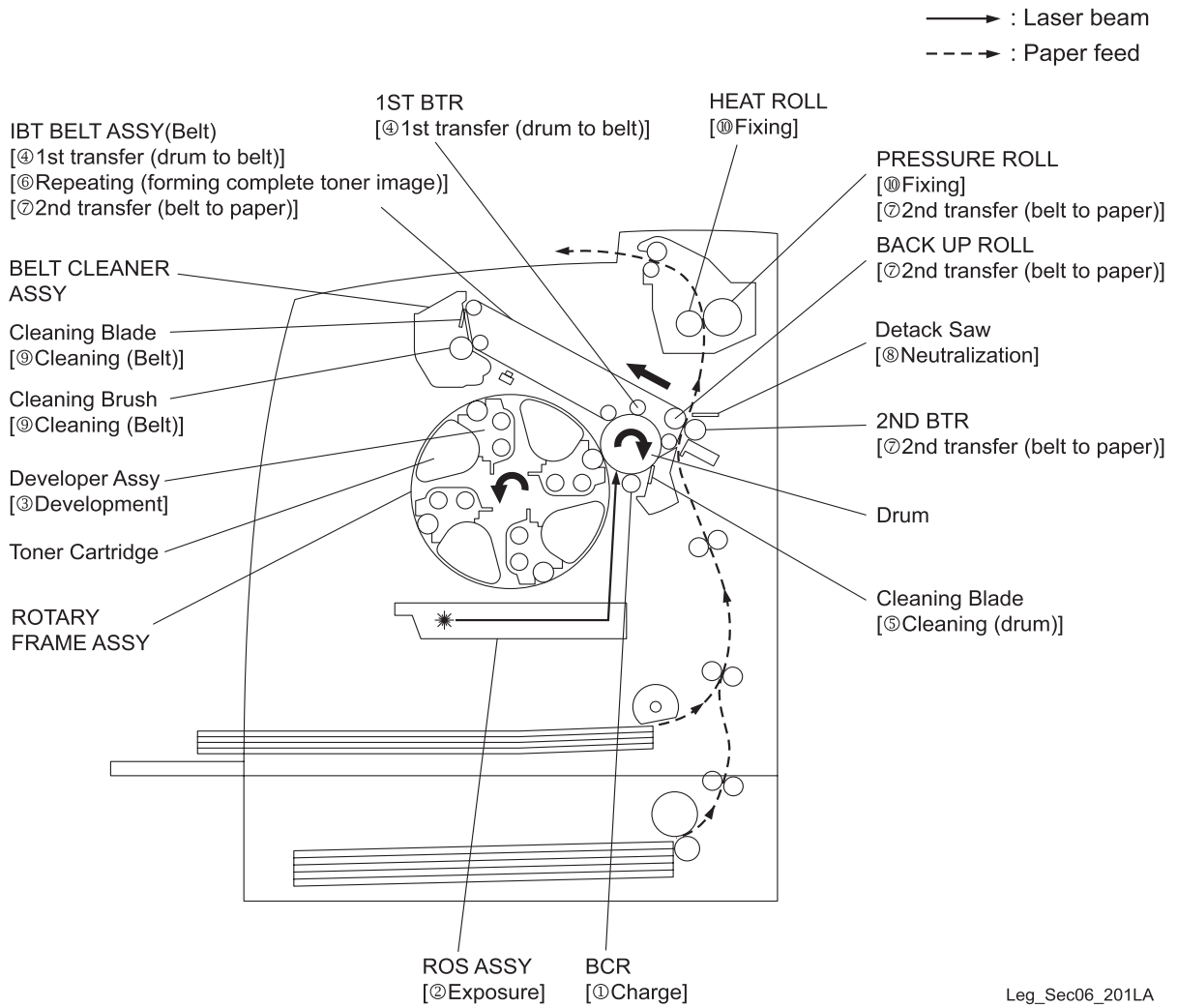
The printing process of this device is composed of the basic steps shown below.

- ① Charge: Charges the surface of drum.
- ② Exposure: Exposes the image part with a laser beam.
- ③ Development: Develops image part using toner.
- ④ 1st transfer: Transfers the toner image on the drum to the belt.
- ⑤ Cleaning: Cleans the drum.
- ⑥ Repeating: Repeats the procedure of ① to ⑤ for each toner in full color mode.
- ⑦ 2nd transfer: Transfers the toner image on the belt to paper.
- ⑧ Neutralization: Removes charge from paper.
- ⑨ Cleaning: Cleans the belt.
- ⑩ Fixing: Fixes toner on the paper using heat and pressure.



1.2 Summarized diagram of overall printing processes

Summarized diagram of overall printing processes is shown below.



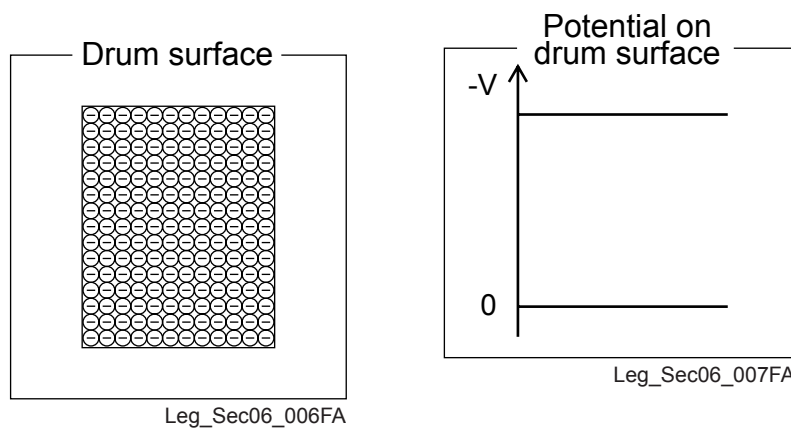
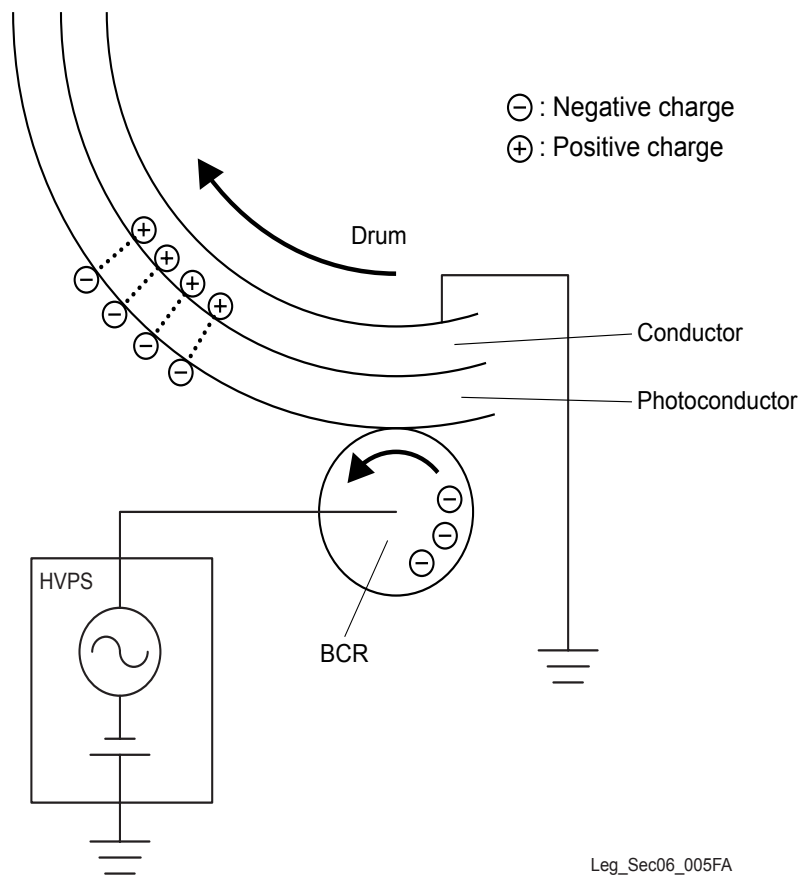
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1.3 Technical explanation of printing processes

1.3.1 Charge

In "Charge" process, the surface of drum that rotates at regulated speed is negatively charged evenly by discharging of BCR (Bias Charge Roll).

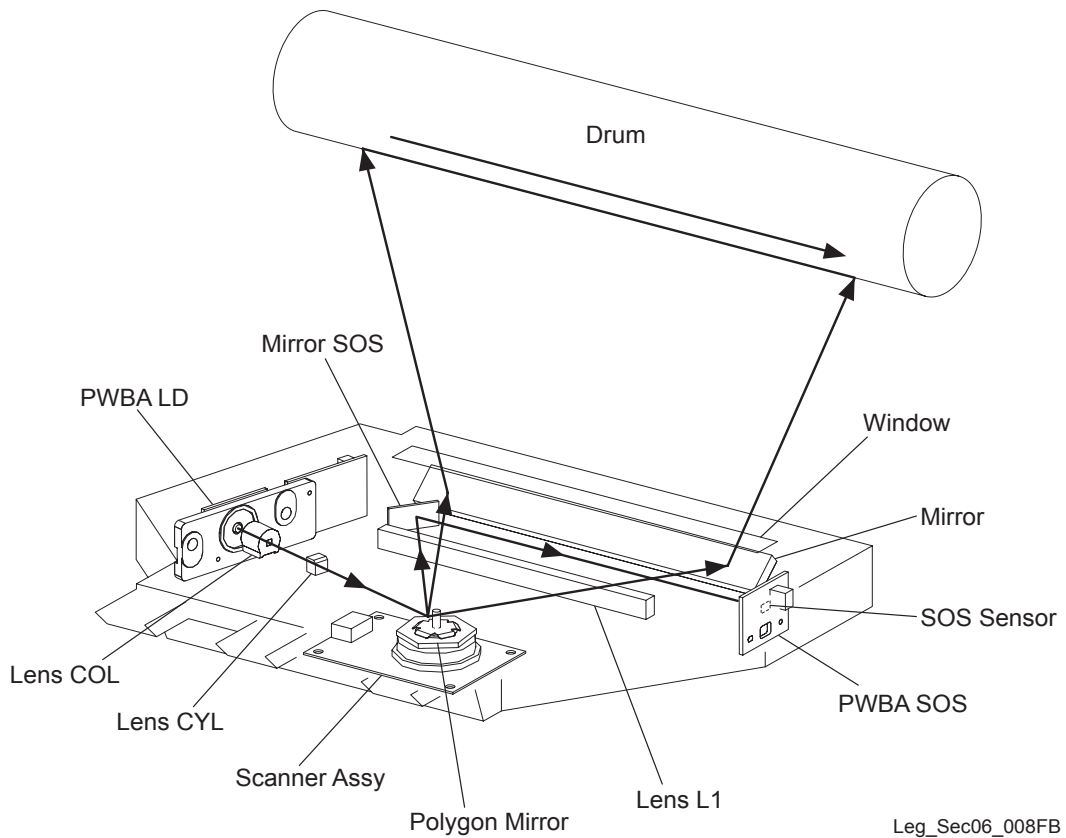
- ◆ BCR contacts the drum at all times, and follows the rotation of the drum.
BCR is a conductive roll, to which negative voltage of overlapped AC voltage is applied from HVPS and it discharges to the surface of the drum.
Surface of drum is negative charged evenly by DC bias voltage.
- ◆ The surface of the drum is made of a photoconductor (insulator where not exposed to light, conductor where exposed) and the inside of it is made of a conductor (aluminum cylinder).



1.3.2 Exposure

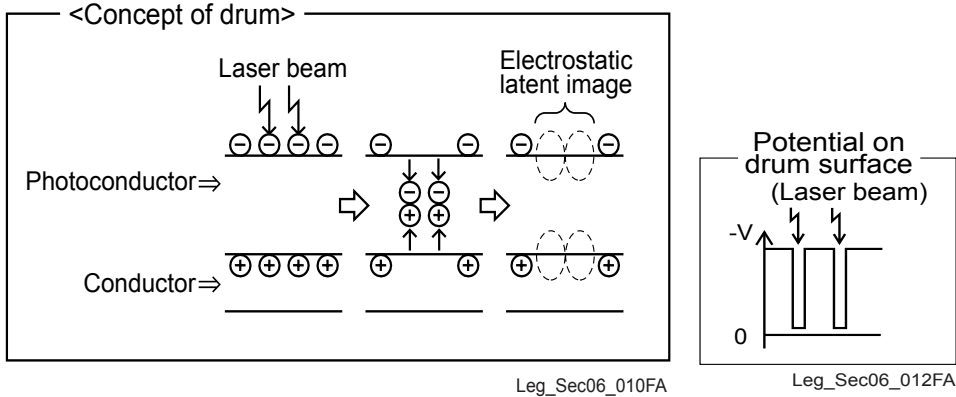
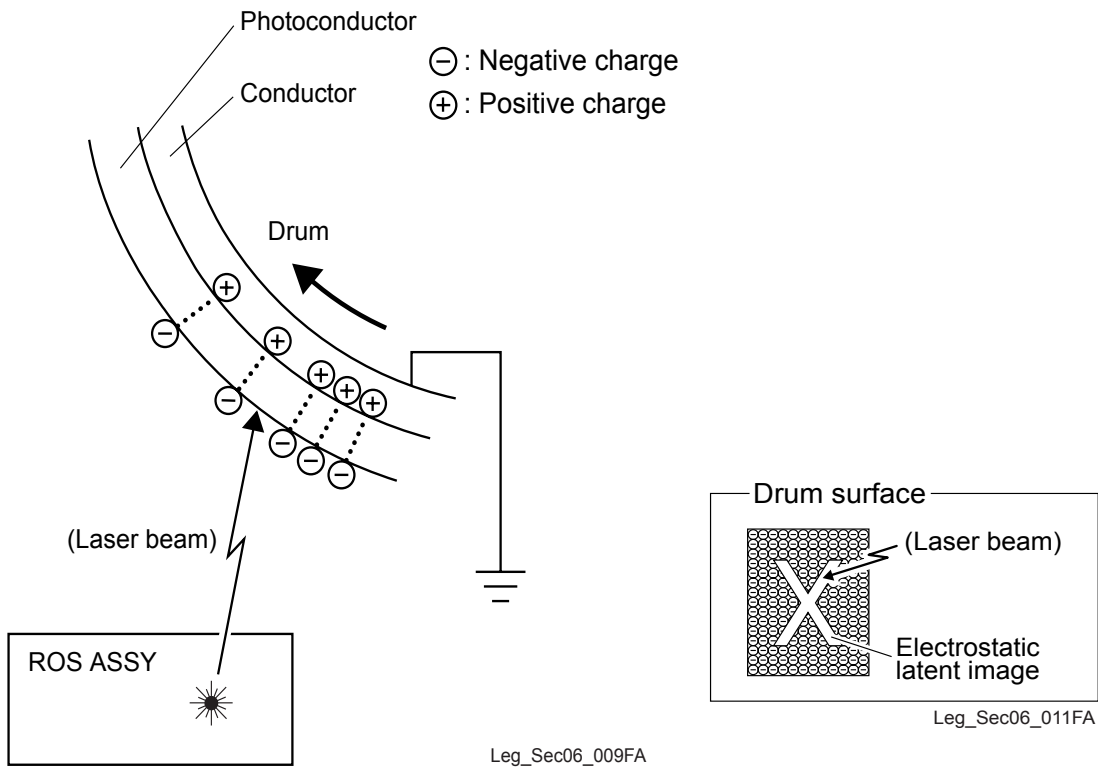
In the "Exposure" process, the negatively charged drum surface is scanned by a laser beam and an invisible electrostatic latent image is formed on the drum surface.

- ◆ The laser beam is radiated from a laser diode inside the ROS ASSY and scans the drum surface from end to end in the shaft direction via a polygon mirror, fixed mirror and the Scanner Assy lens inside ROS ASSY. One laser beam is output from the laser diode.



- ◆ The laser beam is radiated according to the printing data (image data) output from the printer controller. The laser beam is output only when printing data is pixels (micro points composing characters or pictures). (The laser diode lights up for parts to be developed by toner, and not for parts that are not to be developed.)

The drum surface radiated by the laser beam becomes a conductor, and the negative charge on the drum surface flows to the positive side and the charges negate each other so that the potential on the drum surface drops. The part on the surface where potential drops becomes the electrostatic latent image.



1.3.3 Development

In the "Development" process, toner is electrically attached to invisible electrostatic latent image on the drum surface to form a visible image on the drum surface.

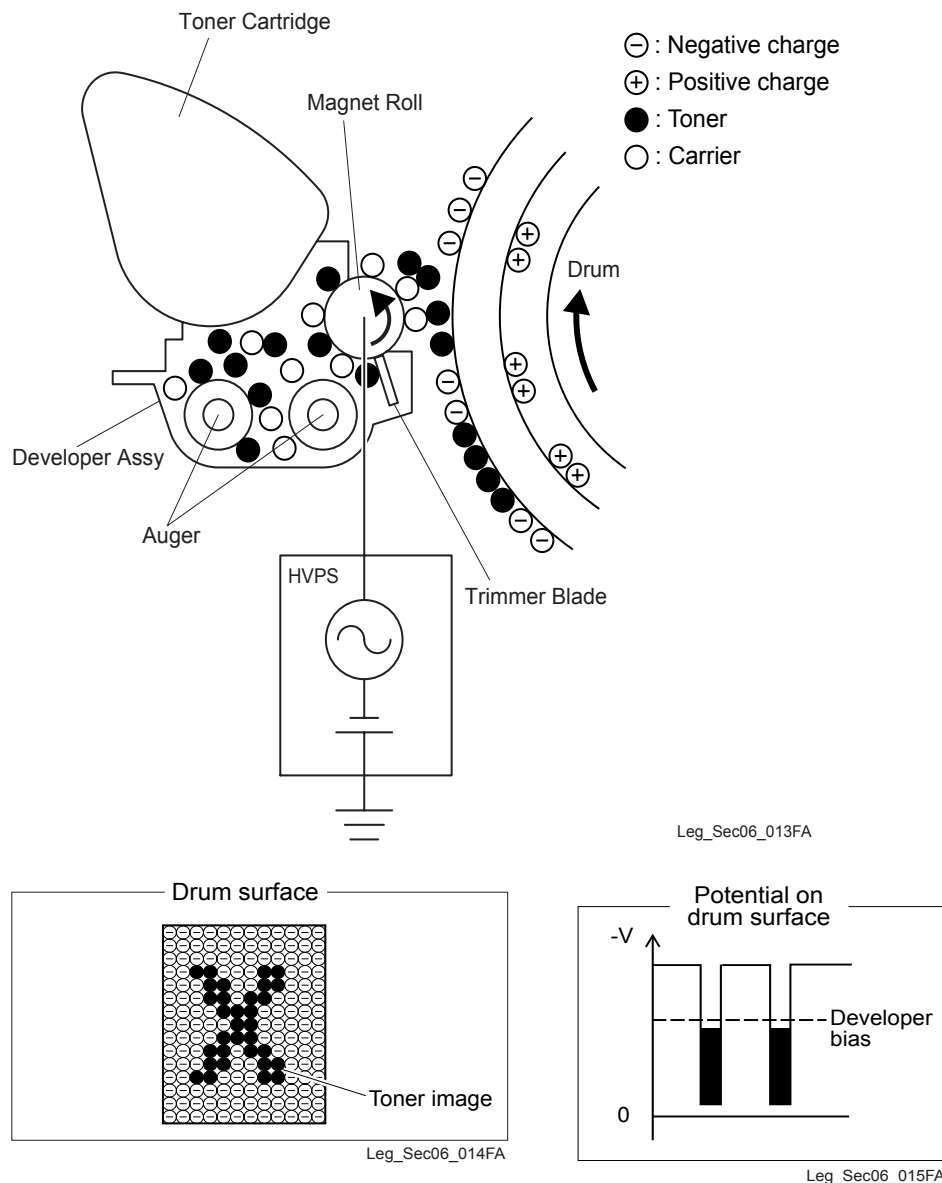
- ◆ This device uses a "Rotary developing method" that rotates and moves 4 Developer Assy sequentially and a "Trickle developing method" consisting of a binary developer of carrier and toner.

The developer in the Developer Assy is agitated by a spiral type agitator called an Auger and supplied to the Magnet Roll set close to the surface of the drum. A friction charge occurs due to agitation (toner becomes negative, carrier becomes positive), and they are attracted to each other and bond electrically.

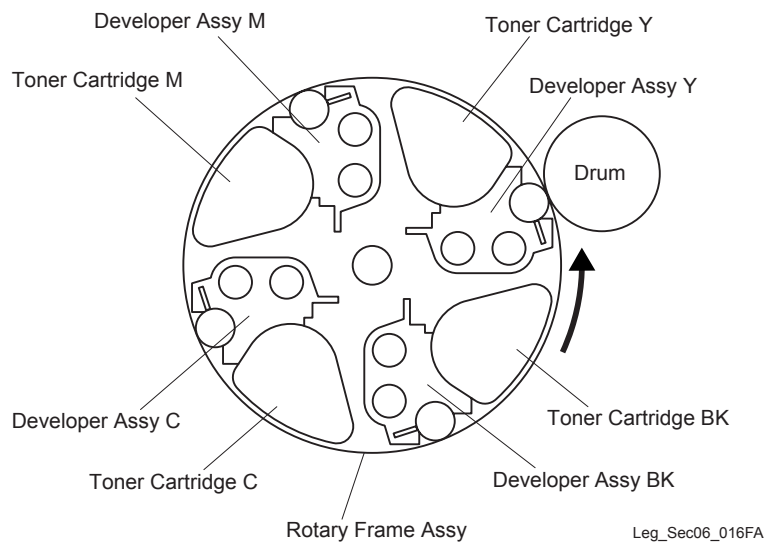
The carrier is a magnetic body, therefore it is pulled to the Magnet Roll, and it is formed into an even layer as it passes through the Trimmer Blade.

Negative voltage is applied to Magnet Roll with overlapped AC voltage from HVPS.

The electrostatic latent image formed by exposure on the drum is on the positive side compared with the surrounding potential, therefore the negative charged toner on the Magnet Roll is attracted and a toner image is formed.



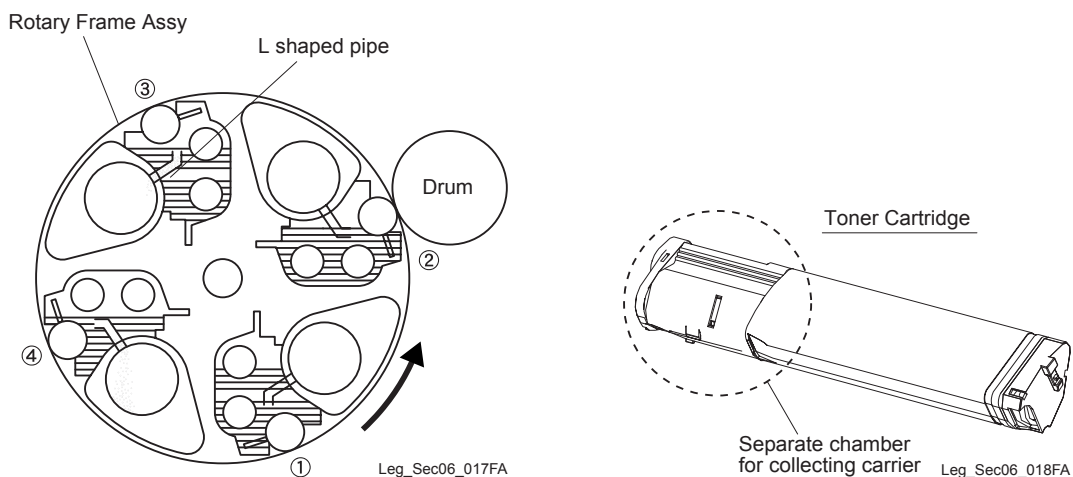
- ◆ When the number of prints increases, the consumption of toner in the Developer Assy also increases. In order to maintain an appropriate developer concentration, it is necessary to refill with an amount of toner equivalent to that consumed from Toner Cartridge to Developer Assy. This refilling process is called "Toner dispense".
Toner dispense is performed using a combination of 2 kinds of control ("PCDC" and "ADC").
- ◆ In order to obtain a full color image using 4 toner colors, it is necessary to form a toner image for each Y, M, C and K on the drum sequentially.
In the case of this device, 4 Developer Assy are set around the circumference at 90 degree intervals, so that when Rotary Frame Assy is rotated, Developer Assy for each of the colors face each other and the toner image of each color is formed. This method is called "Rotary developing method".



- ◆ The carrier loses its charge characteristics by contamination on the surface due to toner or scratches made by agitation. In order to maintain the charge characteristics, a small amount of carrier is mixed with toner inside the Toner Cartridge and toner and carrier are supplied to toner dispense, while deteriorated carrier in Developer Assy is collected in a separate chamber in Toner Cartridge. This is called "Trickle development method". Trickle development is performed using rotation of Rotary Frame Assy at rotary developing.

Mechanism of Trickle developing is shown below.

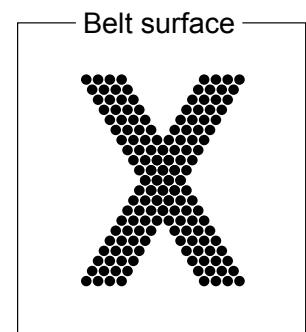
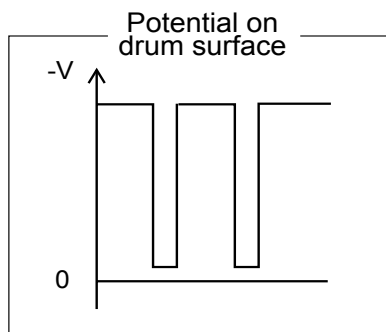
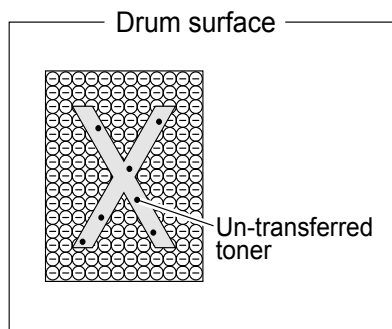
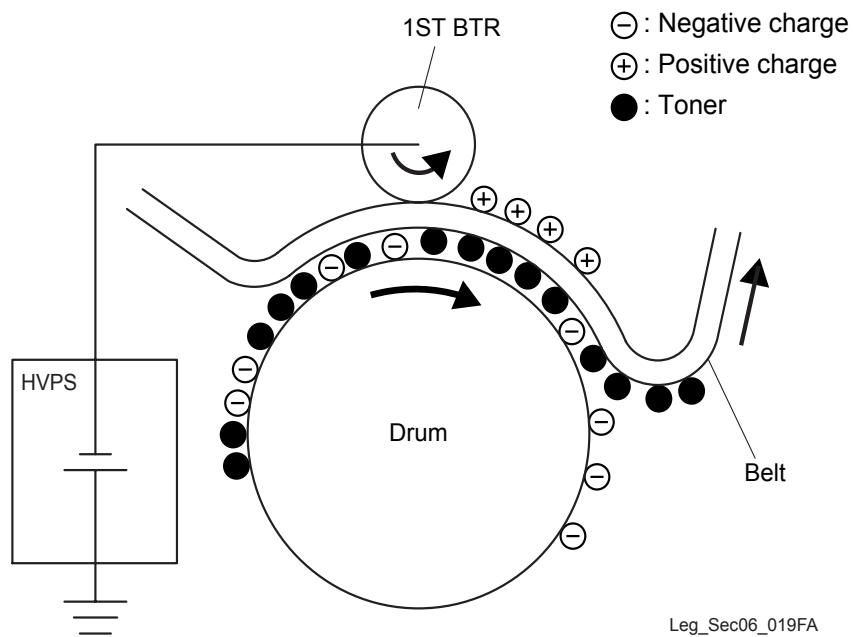
- ① Pipe is inserted in the Developer Assy.
- ② Small amount of carrier enters the pipe.
- ③ Carrier is scooped up and moved to the back of the pipe.
- ④ Carrier is collected inside Toner Cartridge.



1.3.4 1st transfer (drum to belt)

In the "1st transfer" process, the toner image formed on the drum surface is transferred to the surface of the belt inside XERO CRU by the 1st BTR (First Bias Transfer Roll).

- ◆ 1st BTR is a conductive roll, to which a positive voltage is applied from HVPS. The 1st BTR contacts the rear side of the belt and applies a positive charge to the rear side of belt. After the negative charged toner image on the drum surface is drawn by the positive charge on the rear side of the belt, it is transferred from drum to belt.

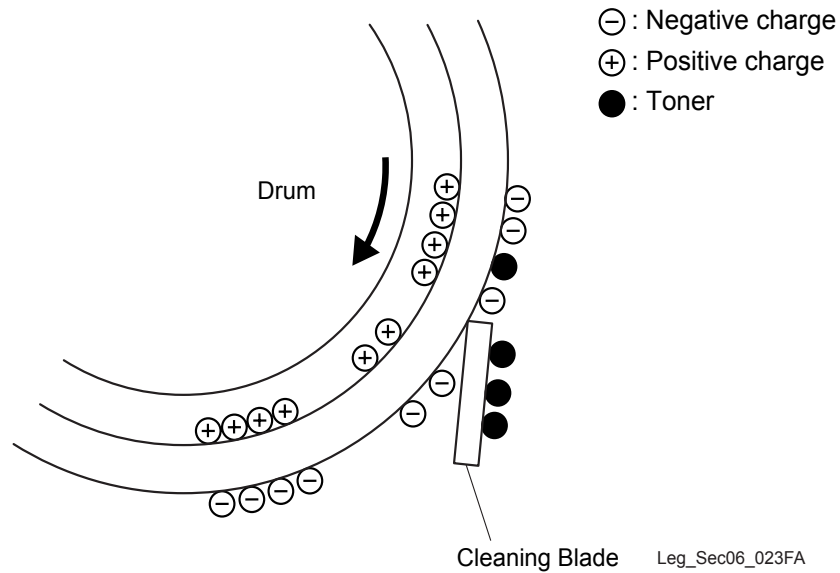


1.3.5 Clean (drum)

In the "Clean (drum)" process, excess toner is removed from the surface of drum.

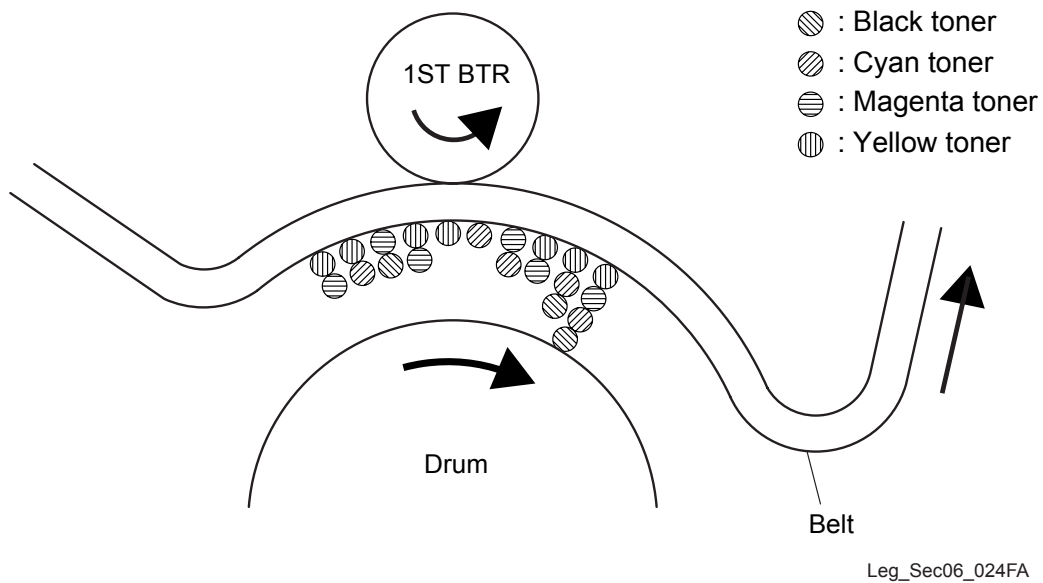
◆ Cleaning of drum

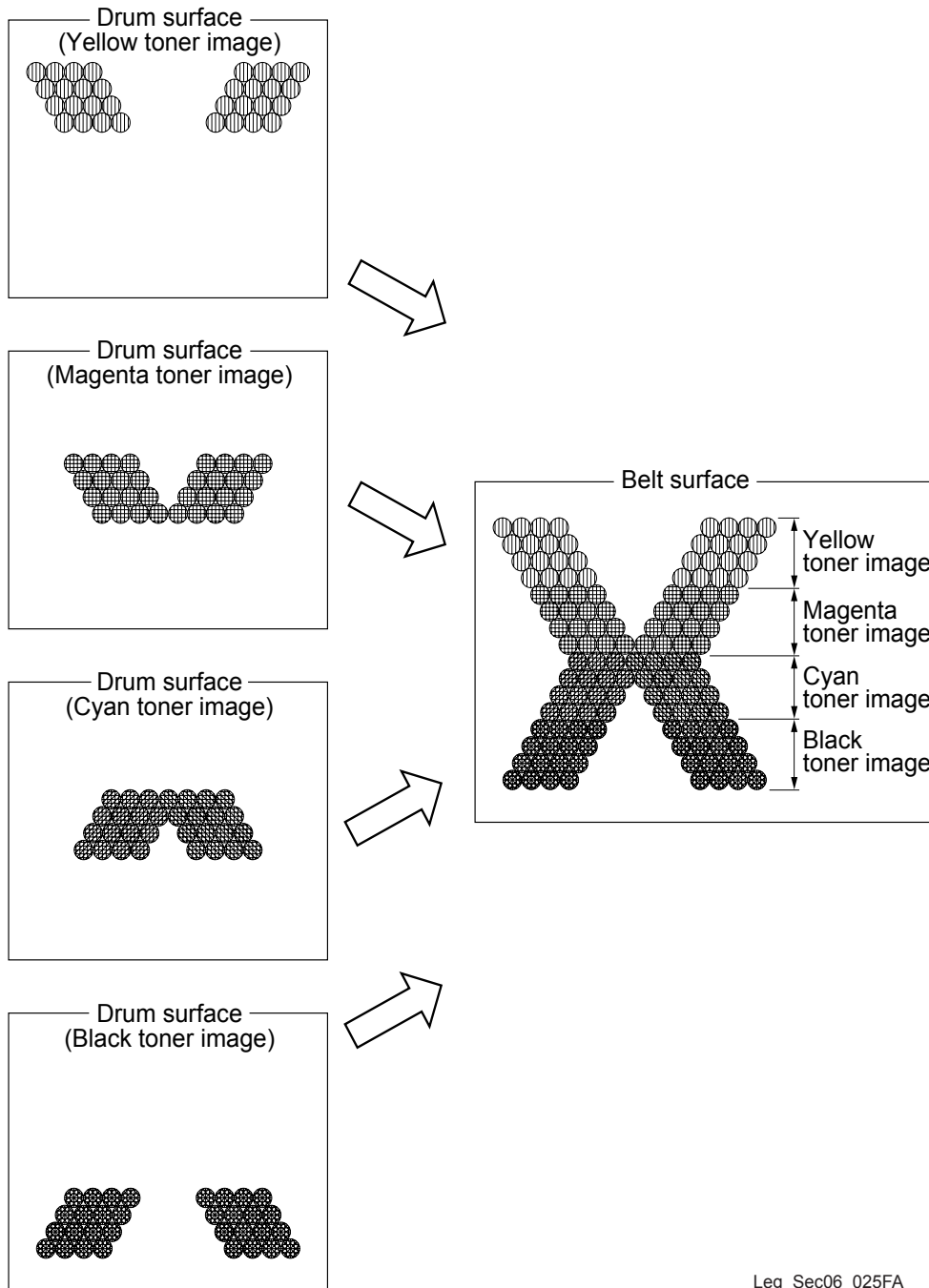
Toner that could not be transferred to belt at "1st transfer" process remains on the surface of drum. If it remains there, trouble is caused in the following processes, therefore a Cleaning Blade touches the drum scraping off the residual toner and collects it in the Cleaner Box.



1.3.6 Repeating (Forming complete toner image)

In "Repeating (forming complete toner image)" process, toner images in each color formed on the drum surface are transferred to the belt one by one and a complete toner image of 4 colors is formed on the surface of the belt.



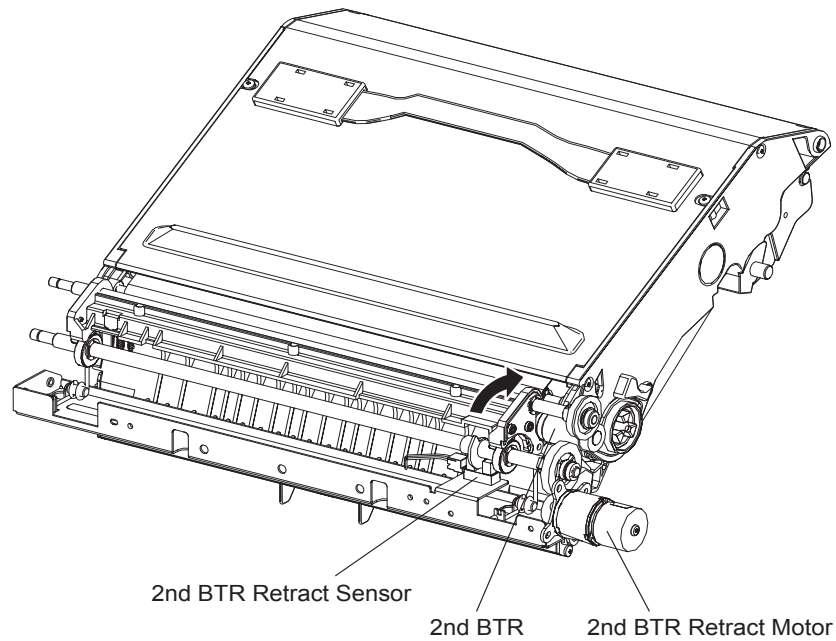


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1.3.7 2nd transfer (belt to paper)

In the "2nd transfer" process, completed toner image formed on the belt surface is transferred to paper by the 2nd BTR (Second bias Transfer Roll).

- ◆ 2nd BTR contacts only at transferring to paper so that the toner image being formed on belt surface is not damaged. It is normally at home position of 2nd BTR, and home position is detected by 2nd BTR Retract Sensor. The contact point with paper is moved by drive from the 2nd BTR Retract Motor.

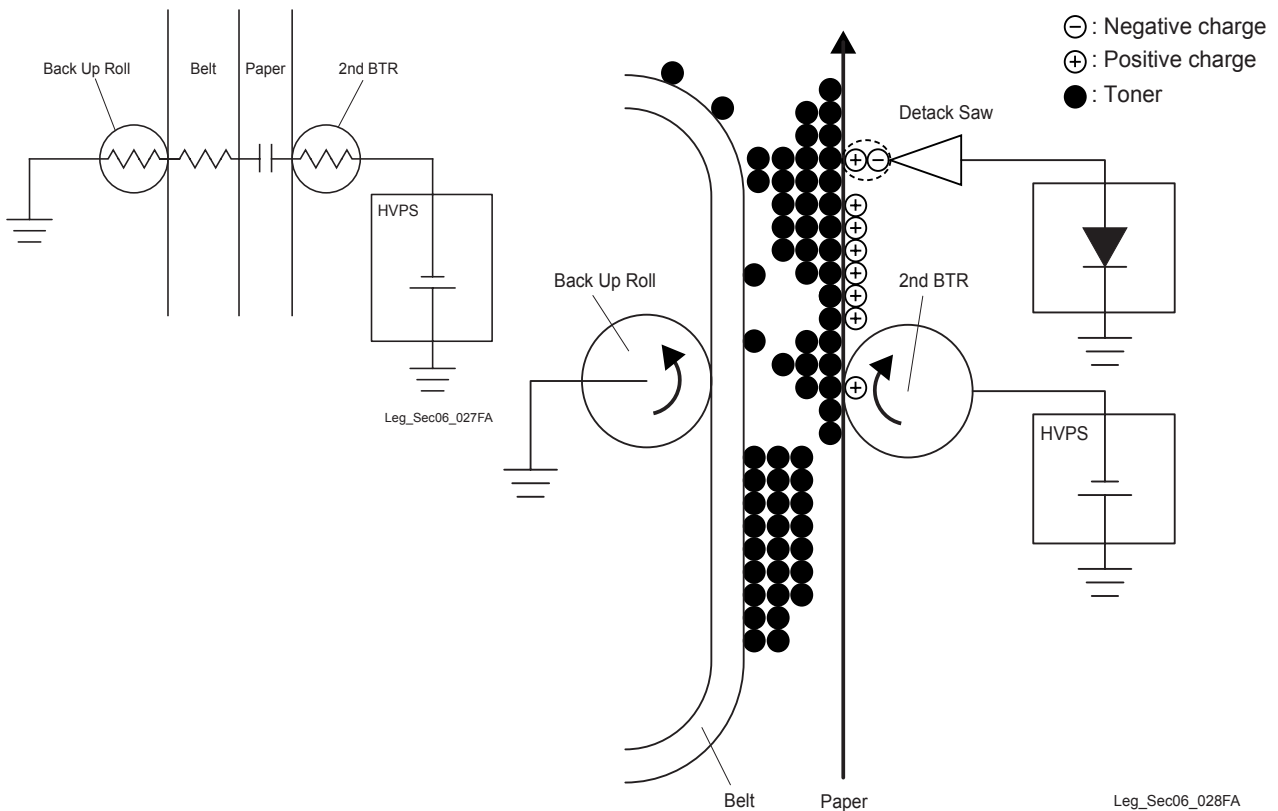


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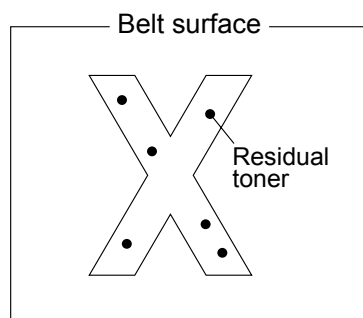
- ◆ 2nd BTR is a conductive roll, which contacts the rear side of toner transferred side of paper and to which positive voltage is applied from HVPS.

Back Up Roll that faces the 2nd BTR across the belt is earthed to frame ground using a conductive roll.

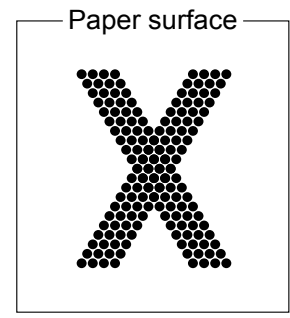
When voltage is applied from the 2nd BTR at the rear side of paper, a negative charge is induced on toner transferred side of paper, and the positive charged toner image on the belt surface is transferred to the paper from the belt.



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Leg_Sec06_030FA

1.3.8 Neutralization

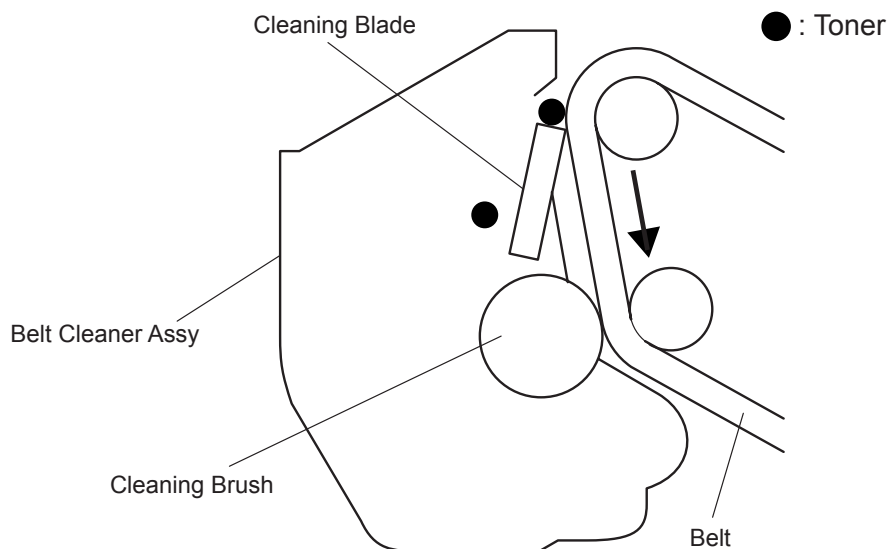
In the "Neutralization" process, the charge on the paper is neutralized or removed by Detack Saw (neutralizing plate).

- ◆ Detack Saw is a metal sheet that contacts the rear side of the paper, and a negative voltage is applied to it from HVPS. Due to the charge induced by the "2nd transfer", toner scatters onto surrounding metal, therefore the charge is neutralized or removed.

1.3.9 Cleaning

In the "Cleaning (Belt)" process, after the toner image is transferred to paper, the toner remaining on the belt surface is removed.

- ◆ Belt Cleaner contacts the belt only at cleaning so that the toner image being formed on the belt surface is not damaged. Contact is made by drive from IBT Retract Motor.
- ◆ Toner remaining on the belt surface is scraped off by the Cleaning Blade inside the Belt Cleaner, and toner remaining on the belt is negatively charged and then absorbed by the positive charged brush, and collected in the Cleaner Box.
- ◆ Residual toner that is not absorbed by the brush is transferred to the drum and scraped off by the Cleaning Blade contacting the drum.

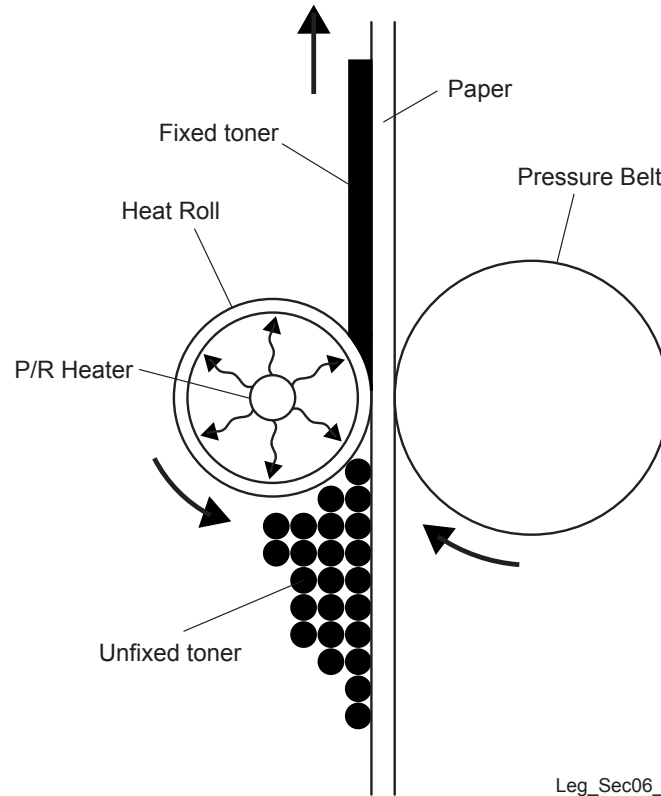


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1.3.10 Fixing

In the "Fixing" process, toner is fixed on the paper by heat and pressure.

- ◆ Toner is melted by a Heat Roll that uses a Heater Lamp as a heat source inside the Fuser Assy, and toner is fixed on the paper by the holding force of Heat Roll and Pressure Belt.



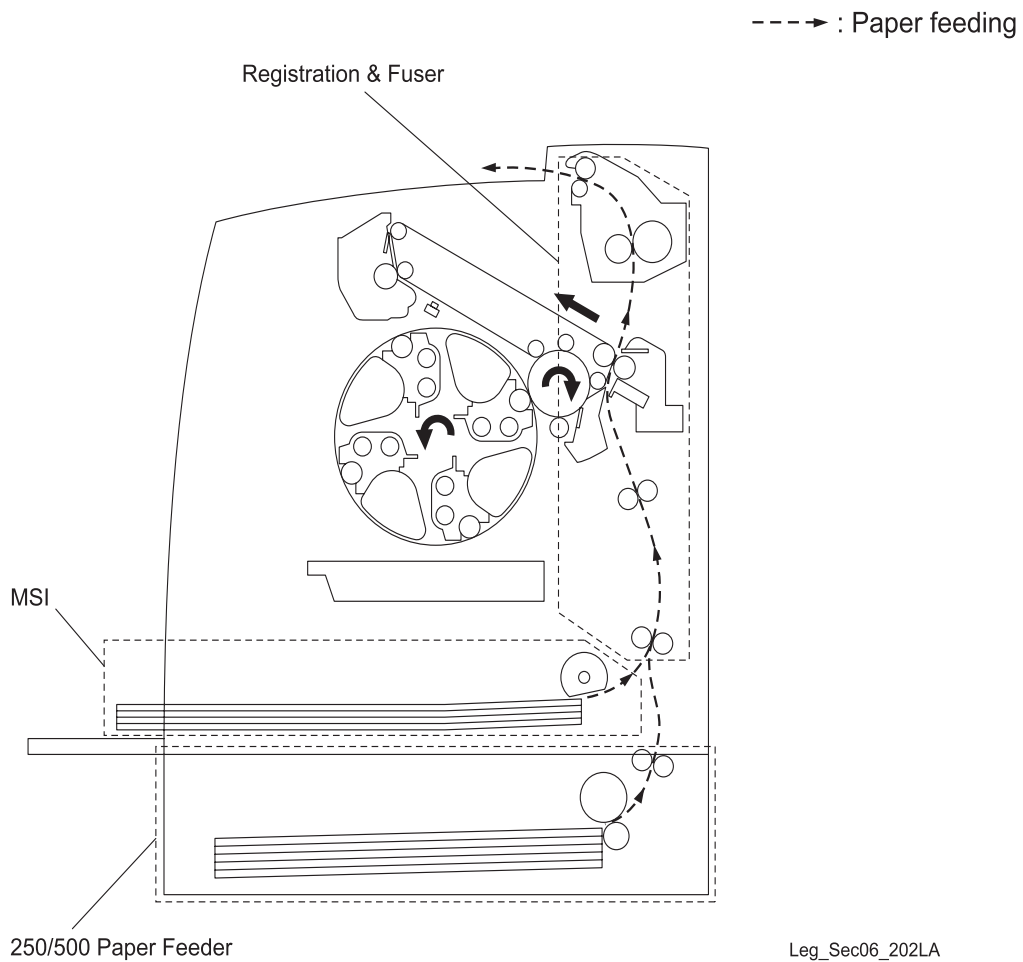
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2. Paper feeding

In the following, the main functional parts used for feeding paper are explained corresponding to illustration.

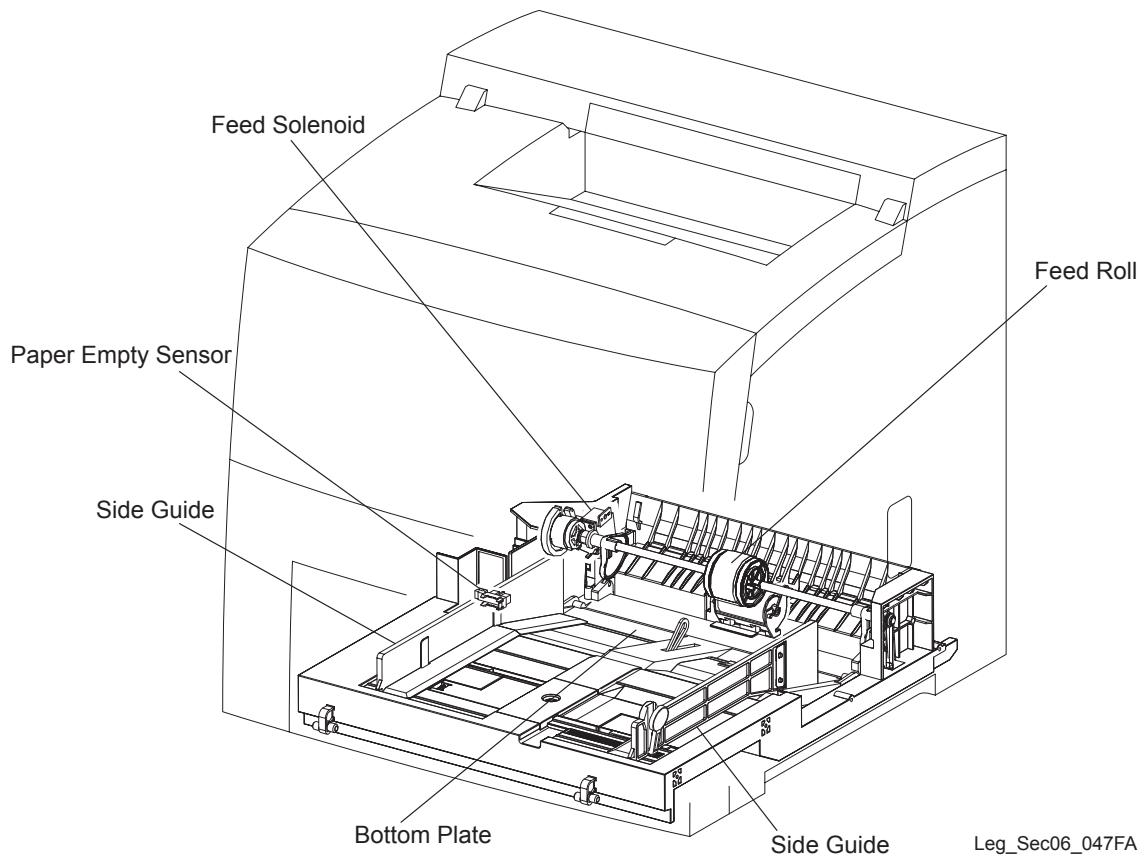
Parts are classified into the following blocks according to the basic composition.

- MSI(Multi Sheet Inserter)
- Registration & FUSER
- 250/500 Paper Feeder



2.1 MSI (Multi Sheet Inserter)

2.1.1 Main function

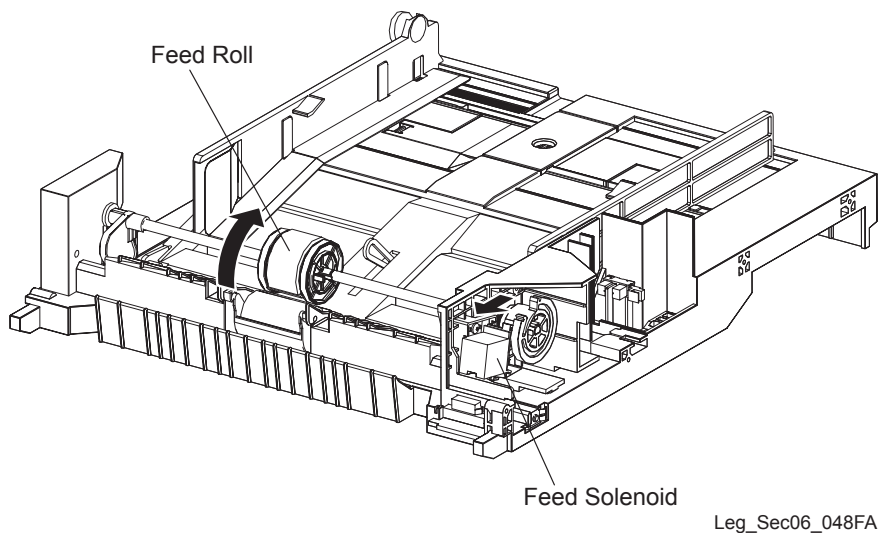


▼ Side Guide

Side Guide moves vertically against paper feeding direction and aligns the paper width.

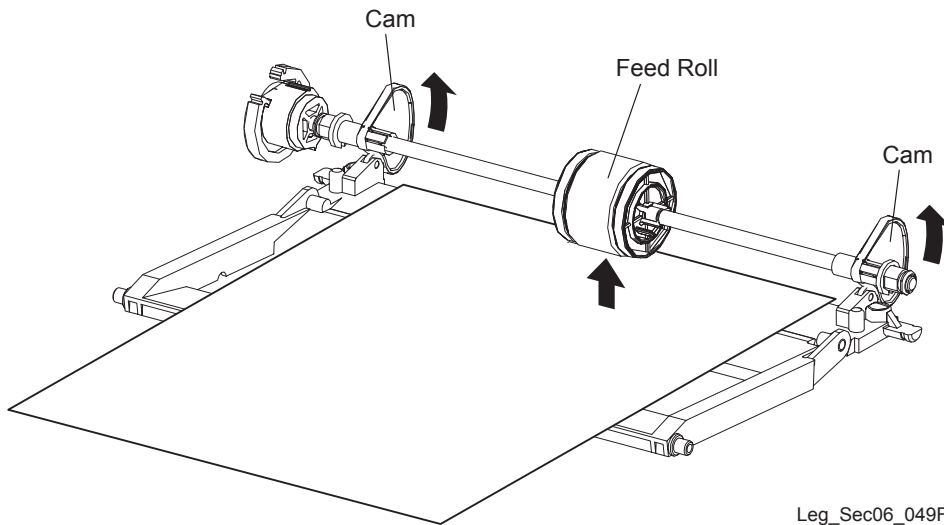
▼ Feed Solenoid

Feed Solenoid controls rotation of Feed Gear. When Solenoid is excited, Feed Gear locked is disengaged and Feed Roll rotates driven by P/H Motor.



▼ Bottom Plate

Bottom Plate is normally pushed down by cam attached to shaft. When paper is fed, shaft rotates and pressure of cam is released, then paper is pushed towards Feed Roll by spring pressure.



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▼ Feed Roll

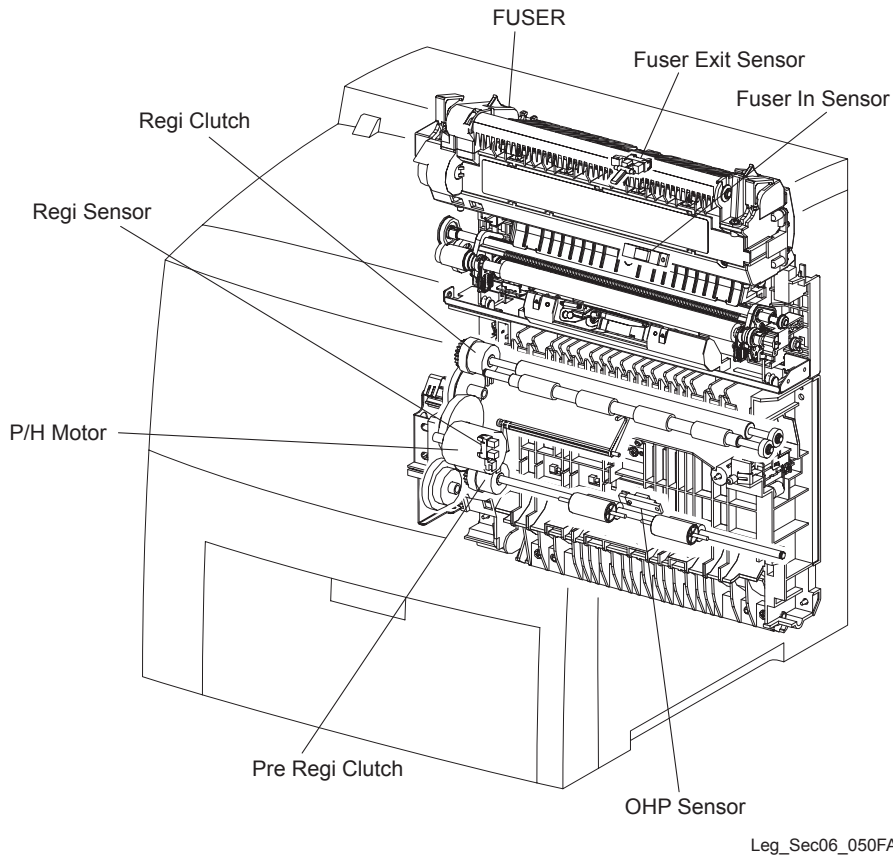
Paper pushed by Bottom Plate is fed by friction force of Feed Roll.

▼ Paper Empty Sensor

Paper Empty Sensor detects presence of paper. When paper runs out, sensor light is shielded by the actuator moving under its own weight. At this time, [No paper] is detected.
(No paper: sensor light shielding)

2.2 Registration & FUSER

2.2.1 Main function

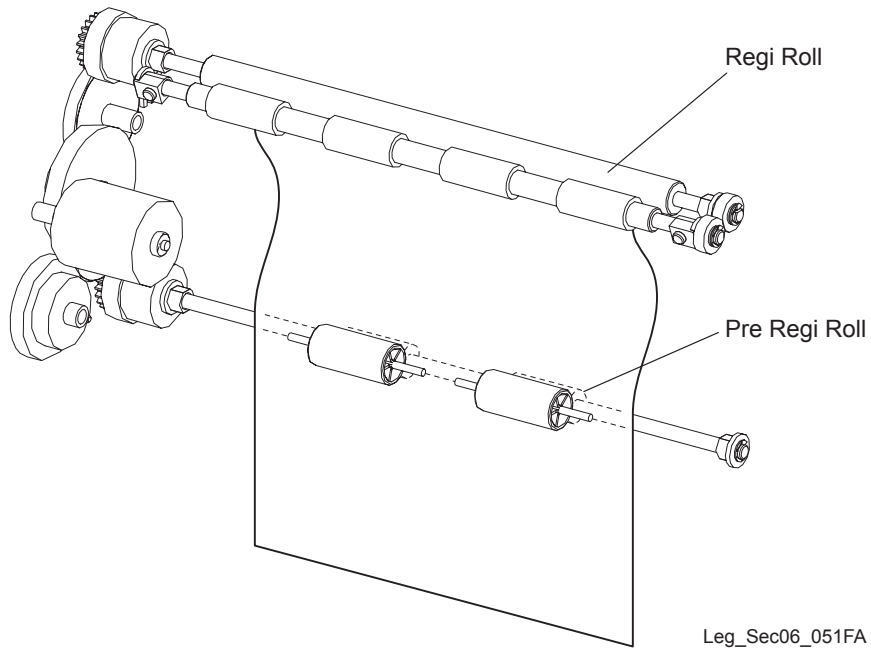


- ▼ Pre-Regi Clutch
This transmits drive from P/H Motor to Pre-Regi Roll and feeds paper to Regi part.
- ▼ OHP Sensor
Reflection type sensor that detects whether it is plain paper or transparency sheet. When light irradiated from emission part of sensor is reflected from paper and detected at light receiving part of sensor, it becomes plain paper.
- ▼ Regi Sensor
This sensor detects that the end of paper reaches Regi Assy. (No paper: light entering sensor)
- ▼ Regi Clutch
This transmits drive from P/H Motor to Regi Roll and feeds paper to transfer part.
- ▼ P/H MOTOR
Stepping motor that drives Roll of MSI and REGI part.
- ▼ Fuser In Sensor
This is a reflection type sensor, which detects that paper is fed just before Fuser after transferring toner image.
- ▼ Fuser
This fixes completed toner image transferred by the 2nd BTR onto paper and feeds paper before and after fixing.
- ▼ Fuser Exit Sensor
This detects that paper is discharged from Fuser. (No paper: Sensor light shielding)

2.2.2 Adjustment of edge of paper

When paper is set in a tray or cassette and carried to the toner transfer part as it is, transfer cannot be made at appropriate position in some cases. REGI part aligns the edge of paper using "Roll Loop" method.

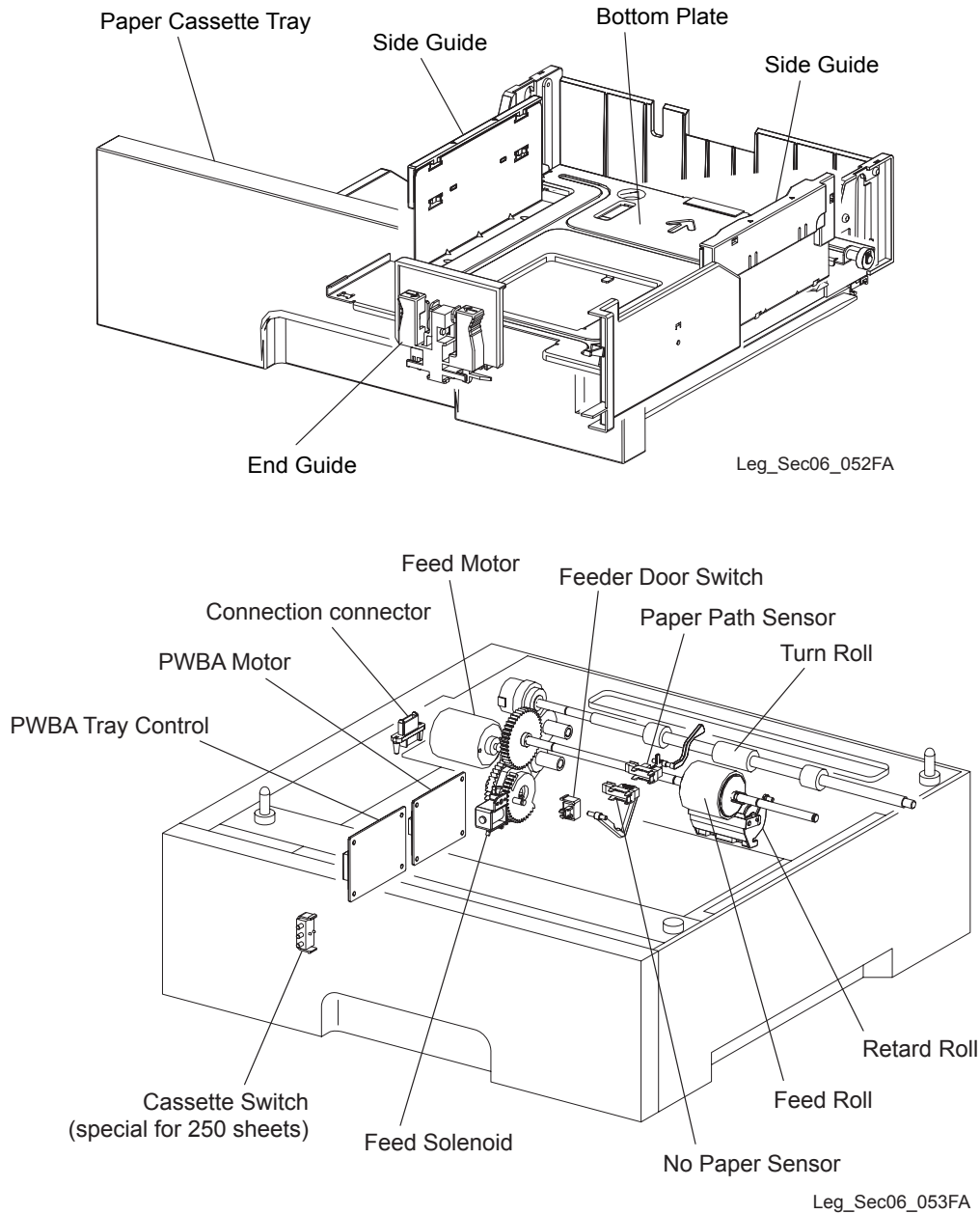
When "Roll Loop" method is used, paper that passes through Pre Regi roll is applied to the stopped Regi Roll and looped. When Regi Roll rotates while paper is looped, paper is fed from Regi Roll in the state that the edge of paper are aligned.



2.3 250/500 Paper Feeder

Basic construction of 250 sheet tray and 500 sheet tray is almost the same and the only difference is the paper feeding capacity, so explanation is given below using 250 sheet tray.

2.3.1 Main function



▼ Connection connector

This is used to communicate with the main unit of the device and supply electricity.

▼ PWBA Tray Control

This is used to control motor or sensor inside Paper Feeder.

▼ Paper Cassette Tray

There are 3 kinds of Paper Cassette Tray capacity; the 250 sheet tray is the standard, the 500 sheet tray is optional and the 3rd one is a 250 sheet tray coping with legal size.

▼ Side Guide

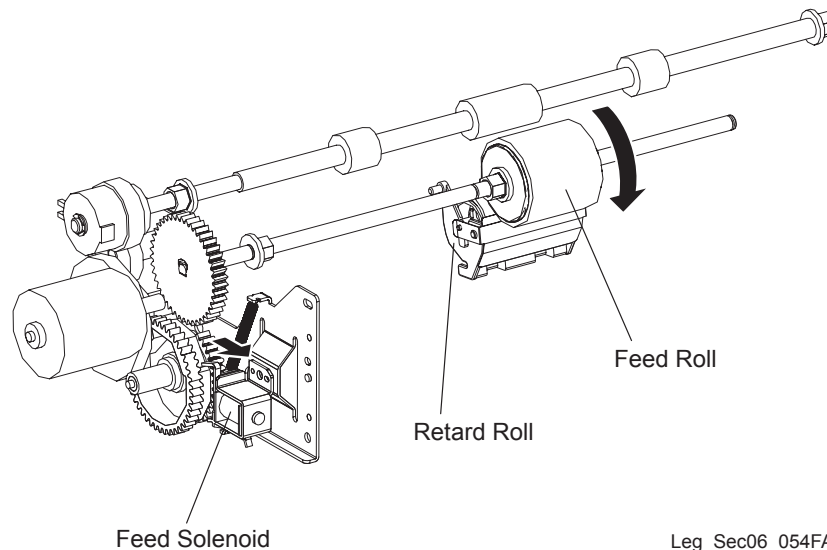
The Side Guide moves vertically towards paper feeding direction and aligns the width of paper.

▼ End Guide

The End Guide moves in parallel with paper feeding direction and aligns the width of paper.

▼ Feed Solenoid

Feed Solenoid controls rotation of Feed Gear. When Solenoid is turned ON, Feed Gear lock is disengaged and Feed Roll starts rotation. Paper feeding timing is controlled by Feed Solenoid, so Solenoid is turned on and off repeatedly for each paper.



▼ Bottom Plate

Bottom Plate is locked to bottom side when Paper Cassette Tray is pulled out from Paper Feeder and unlocked when Paper Cassette Tray is inserted to Paper Feeder, and pushes paper against Feed Roll using spring pressure.

▼ Feed Motor

Feed Motor drives Feed Roll and Turn Roll.

▼ Feed Roll

Paper pushed by the Bottom Plate is fed by friction force of Feed Roll.

When Paper Cassette Tray is pulled out, nip with Retard Roll is released.

▼ Turn Roll

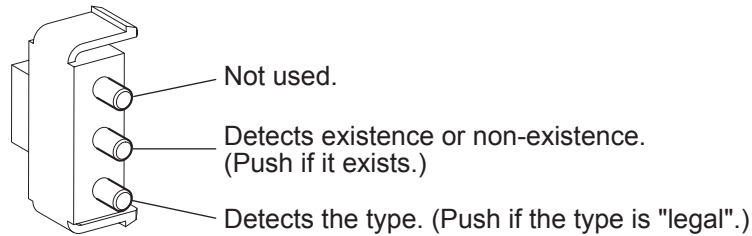
Paper fed by Feed Roll is carried to Regi part.

▼ Paper Path Sensor

This sensor detects that paper is fed from Paper Cassette Tray. (No paper:Sensor light shielding)

▼ **Cassette Switch (special for 250 sheets)**

There are two types of 250 sheets cassette, standard cassette and legal cassette, and the device needs to recognize which cassette is being installed. The device recognizes the cassette type by the Cassette Switch position. The Cassette Switch detects the cassette type and detects existence or non-existence of the cassette.



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▼ **No Paper Sensor**

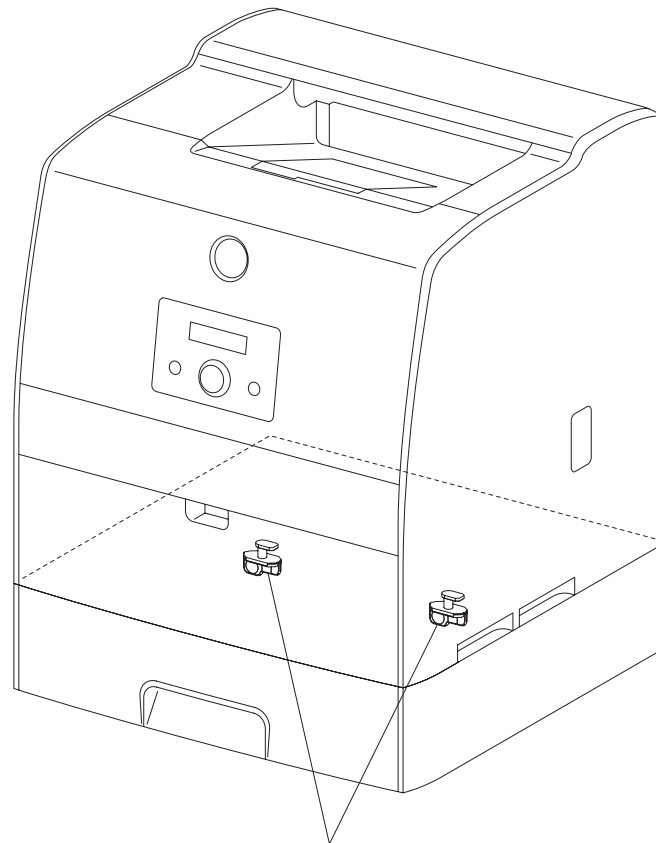
No Paper Sensor detects existence or non-existence of the paper. When there is no more paper, the actuator blocks the sensor by lowering by its own weight. At such time, no paper state is detected. (No paper: Sensor light shielding.)

▼ **Feeder Door Switch**

Feeder Door Switch detects open or close of the Tray door.

▼ **Tray Lock**

Securely fix the Paper Feeder to the main body by rotating the two lock MC to FDRs on the right and left side.



Lock MC To FDR

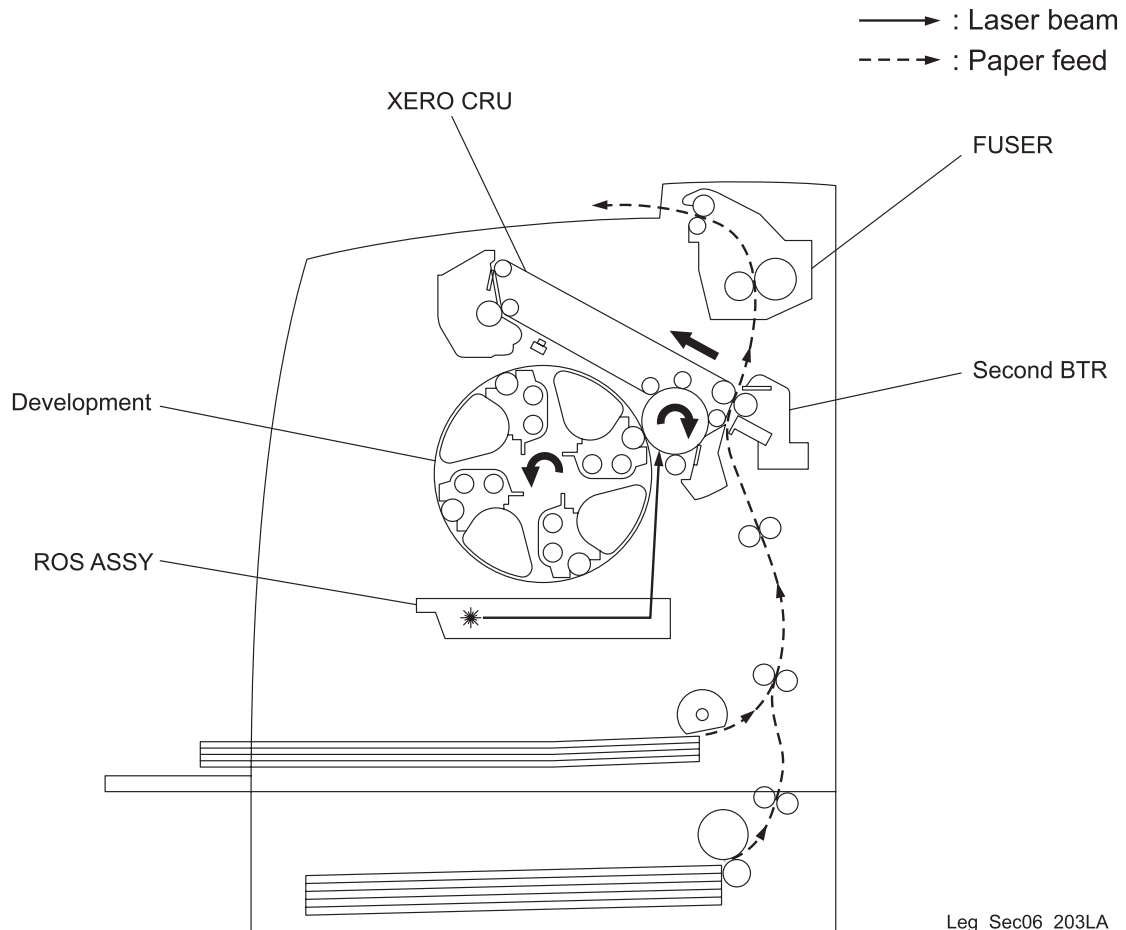
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3. Xerographic

In the following, the main functional parts composing Xerographic are explained corresponding to illustration.

Parts are classified into the following blocks according to the basic composition.

- ROS ASSY
- XERO CRU
- Development
- Second BTR & FUSER



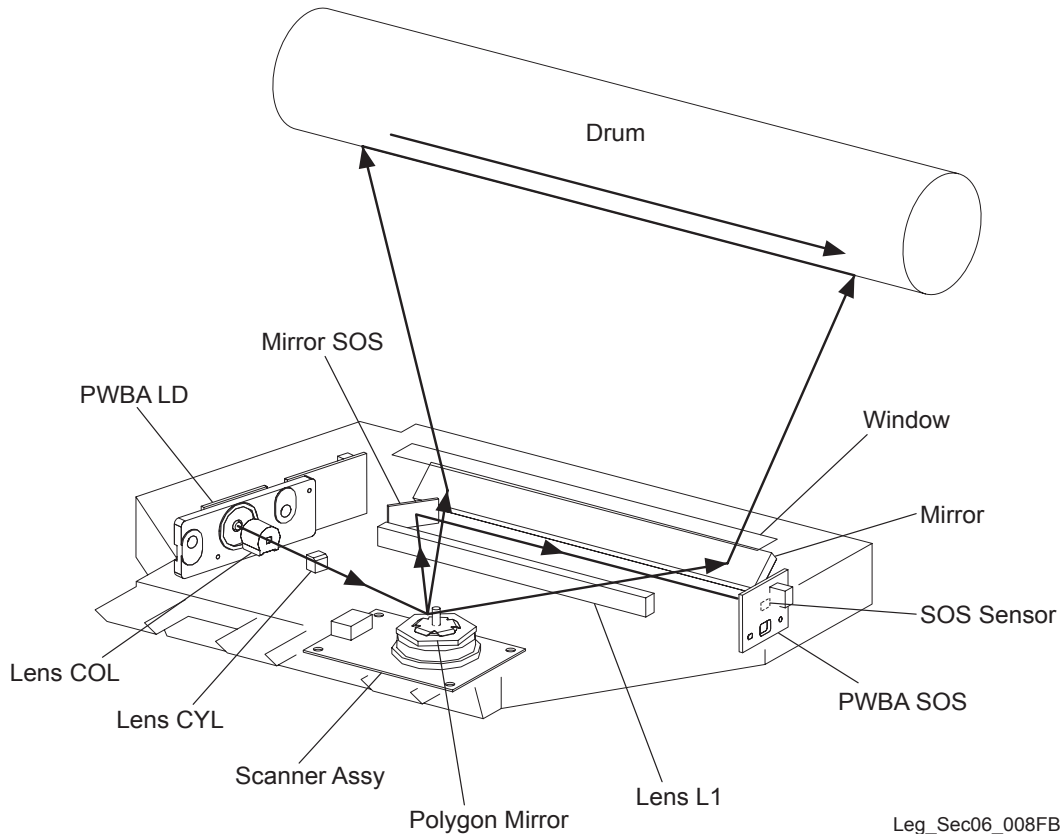
3.1 ROS

3.1.1 Main function

▼ ROS ASSY

ROS ASSY (Raster Output Scanner Assemble) is the exposure device that outputs laser beam to form electrostatic latent image on the surface of drum. (hereinafter ROS ASSY is described as ROS.)

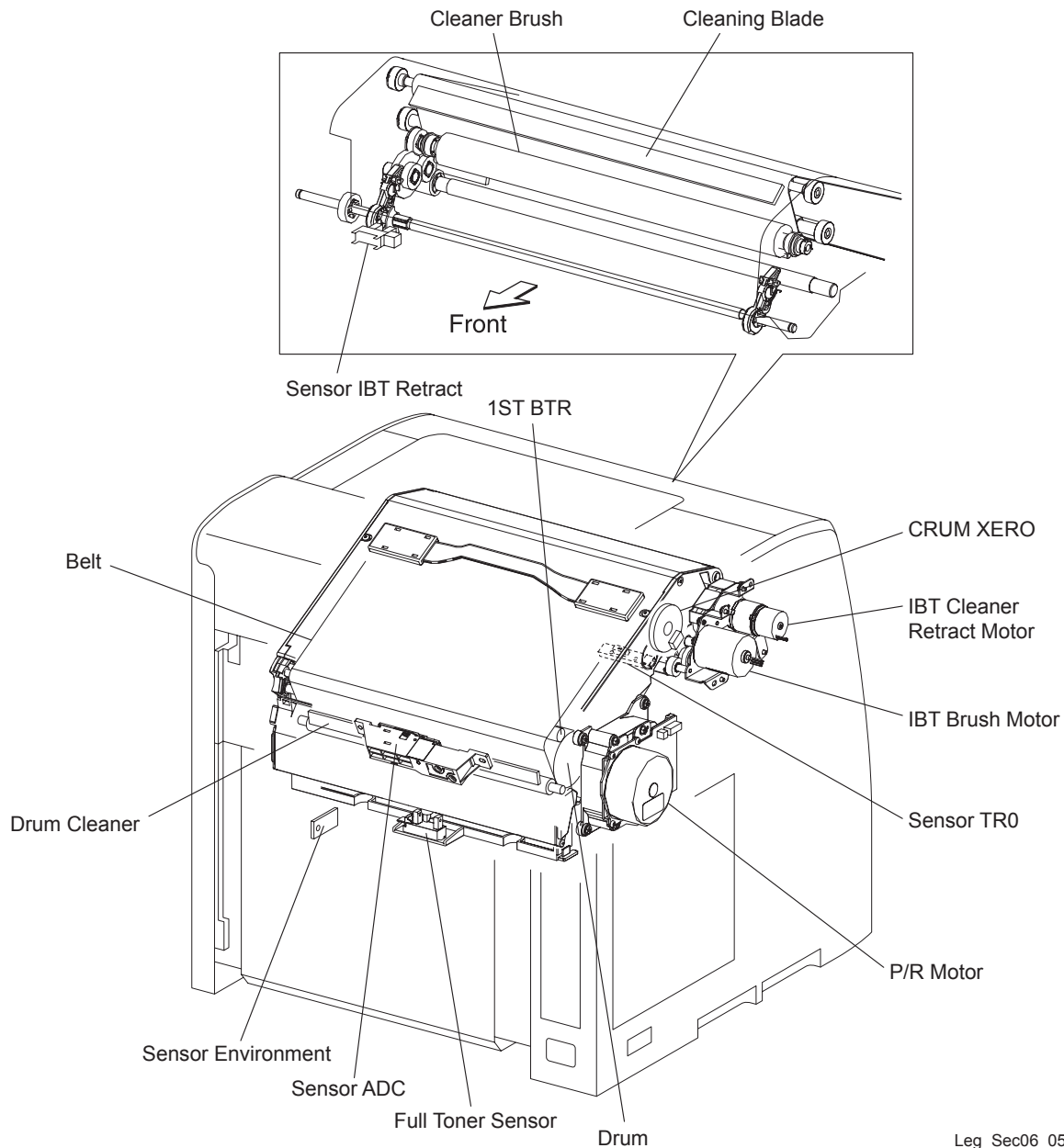
ROS consists of the main parts shown below.



- PWBA LD (Laser Diode) converts image data of electric signal inputted into flashing of laser beam. PWBA LD always monitors the power of laser beam and controls it at an appropriate level so that the laser beam remains stable at forming electrostatic latent image. This is called "APC (Auto Power Control)".
- Scanner Assy consists of Scanner Motor that rotates at regular speed and polygon mirror that is attached to motor rotation shaft.
Laser beam output from PWBA LD irradiates polygon mirror.
Polygon mirror has 6 sides of reflecting mirrors, and reflecting angle of laser beam is changed by rotation of Scanner Motor. According to the change in this reflecting angle, laser beam can scan to drum shaft direction. 1 line is scanned on one reflecting mirror side.
- Laser beam reflected from polygon mirror reaches the surface of drum through the lens, mirror and window. The lens corrects aberration, the mirror secures the light path and the window prevents entry of foreign substances inside the ROS.
- SOS Sensor on PWBA SOS (Start of scan) converts the electric signal as a scanning start standard when laser beam enters and sends the signal to PWBA MCU.
Signal of SOS Sensor is used to match timing to start scanning by laser beam and timing of writing image.

3.2 XERO CRU

3.2.1 Main function



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XERO CRU consists of Belt, Belt Cleaner, Drum, Drum Cleaner, 1st BTR and toner collection box of each cleaner, and Crum, Sensor TR0, Sensor ADC, Sensor IBT Retract, Sensor Environment, P/R Motor, IBT Brush Motor, IBT Cleaner Retract Motor and BCR Retract Solenoid are attached inside this device.

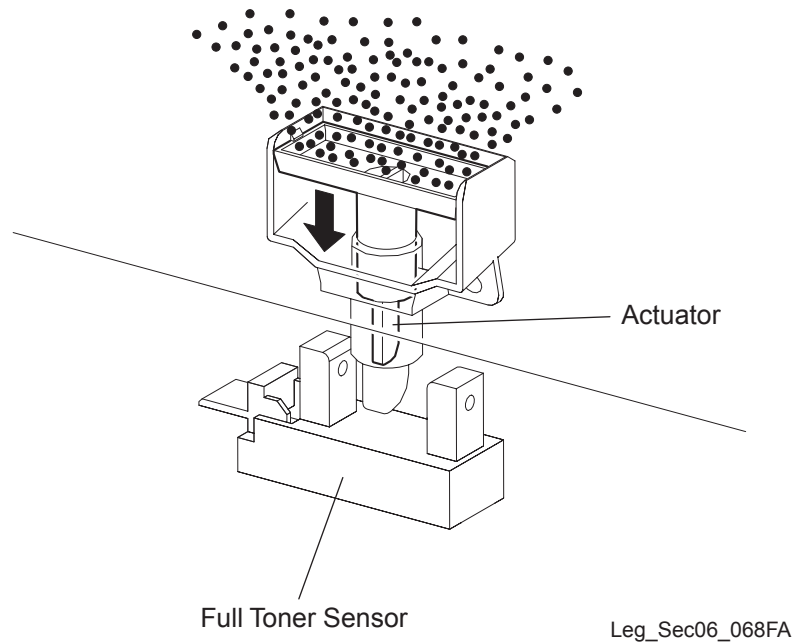
▼ XERO CRU

- Belt is used to transfer toner image of each color developed on drum surface to IBT Belt by 1st BTR for each color, and to form completed toner image made by overlapping 4 colors. After the completed toner image of 4 colors is created, the completed toner image is transferred onto paper (2nd transfer) by negative charge induced by 2nd BTR.
- After toner remaining on the surface of belt is scraped off by Cleaning Blade in Belt Cleaner, it is absorbed by positive voltage charged brush and collected in the disposal toner box.

- Surface of Drum is made of a photoconductor (insulator where not exposed to light, conductor where exposed) and inside it is made of a conductor (aluminum cylinder).
 - Drum Cleaner consists of Cleaning Blade and toner collection box, and scrapes off toner remaining on the surface of drum using Cleaning Blade touching the drum. Toner collection box has an actuator of Full Toner Sensor, and along with increase in amount of collected toner, toner enters in the actuator, light is shielded for Sensor and full toner is detected.
 - 1st BTR is a conductive roll, and positive voltage is applied to it from HVPS. 1st BTR contacts the surface of belt, and positive voltage is applied to the rear side of belt.
 - Crum XERO keeps unique data related to XERO CRU.
- ▼ IBT Brush Motor
IBT Brush Motor drives the Belt Cleaner brush.
 - ▼ IBT Cleaner Retract Motor
IBT Cleaner Retract Motor drives the cam used to advance (to contact Belt) Belt Cleaner to IBT Belt. When the cam rotates, Belt Cleaner contacts Belt.
 - ▼ Sensor IBT Retract
Sensor IBT Retract detects the position of cam for retraction of Belt Cleaner.
 - ▼ P/R Motor
P/R Motor drives the drum, and Motor and drum are connected by a coupling.
 - ▼ Sensor TR0
Sensor TR0 reads the silver seal attached on the belt surface outside of the toner image forming zone and detects the position of Belt.
 - ▼ Sensor ADC
Sensor ADC reads the toner patch on the belt just before the 2nd transfer, and converts it to voltage value. Voltage value is used to control concentration of toner.
 - ▼ Sensor Environment
Sensor Environment reads temperature/humidity inside the device, and converts the value to voltage value. Voltage value is used to control concentration of toner.

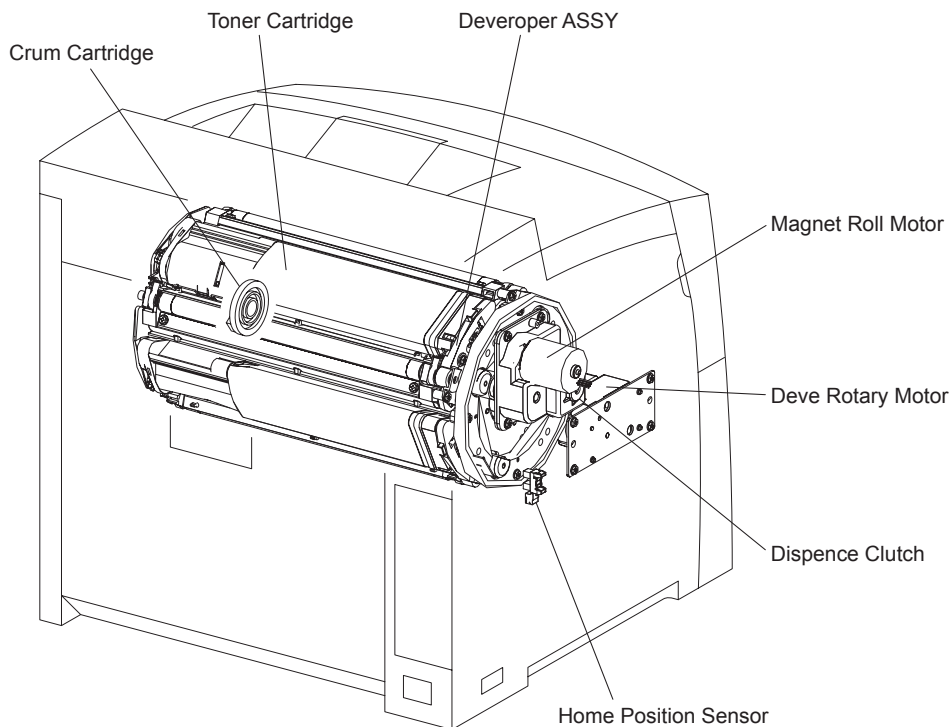
▼ Full Toner Sensor

Full Toner Sensor detects Full Toner state of the remains toner cleaner box. Remains toner scraped off by the cleaning blade of the drum is collected in the cleaner box. The cleaner box is provided with an actuator which shields the detector of the Full Toner Sensor. The actuator is held by a spring, and it gradually comes down by the weight of the recovered toner, and when the sensor detector is shielded, Full Toner state is detected.



3.3 Development

3.3.1 Main function



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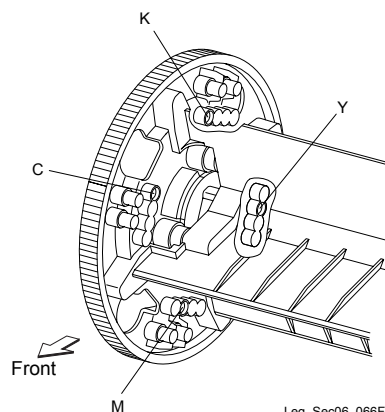
Rotary Developer consists of Toner Cartridge and Crum Cartridge of 4 colors, Developer Assy and Rotary Frame Assy, and Dispence Clutch, Magnet Roll Motor, Deve Rotary Motor, Home Position Sensor, are attached inside the device.

▼ Toner Cartridge

- Toner Cartridge supplies toner and carrier, and it also has a separate chamber used to collect deteriorated carrier. This is called the "Trickle developing method".
- Crum Cartridge retains unique data related to Toner Cartridge. Writing in Crum Cartridge is carried out by wireless.

▼ Developer Assy

Developer Assy are furnished for each of the 4 colors; Y, M, C and K, and common parts are used for each color. Developer Assy consists of exclusive Augers for agitating and supplying toner, Magnet Roll that draws magnetic carrier and forms developing layer and supplies toner to drum and Trimmer Blade that is used to unify developing layer on Magnet Roll. A hole is made in the projection of Rotary Frame Assy to prevent incorrect insertion of Developer Assy.



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▼ Dispense Clutch

Dispense Clutch links with Magnet Roll Motor drive in order to rotate Auger for supplying toner.

▼ Magnet Roll Motor

Magnet Roll Motor rotates Magnet Roll inside Developer Assy.

▼ Deve Rotary Motor

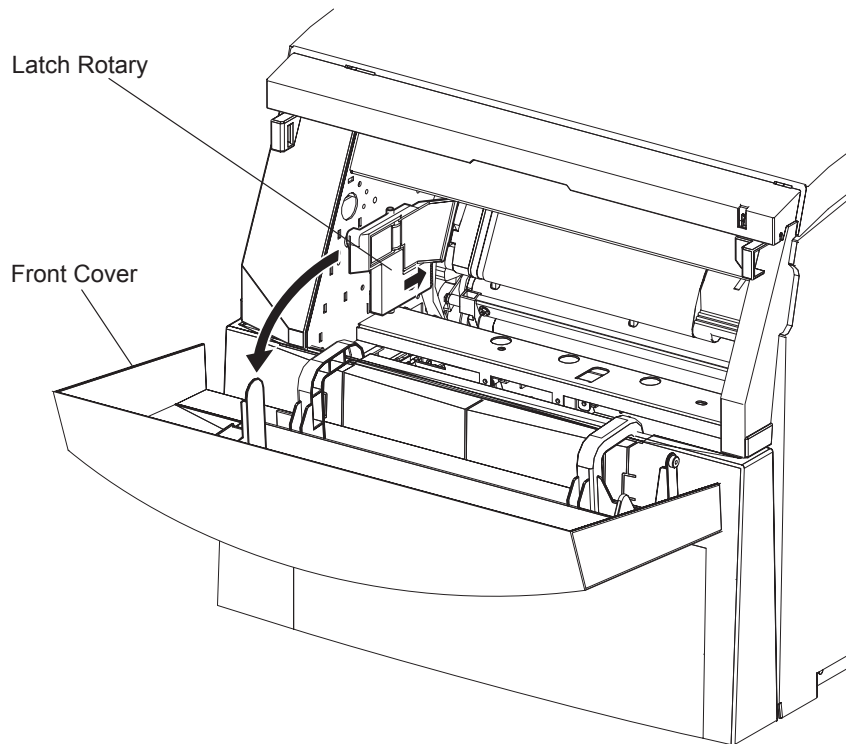
Deve Rotary Motor rotates Rotary Frame Assy that retains Developer Assy.

▼ Home Position Sensor

Home Position Sensor detects the position of Rotary Developer so that Rotary Developer can be put at appropriate position. Positioning is carried out by rotating Rotary Developer for regulated duration, reducing speed and stopping it after Sensor detects home position actuator. The position approx. 10 degrees rotated clockwise from transfer position of black toner Developer becomes the home position.

▼ Latch Rotary

Rotary Developer is locked with a Latch Rotary so that it doesn't move when Front Cover is opened.

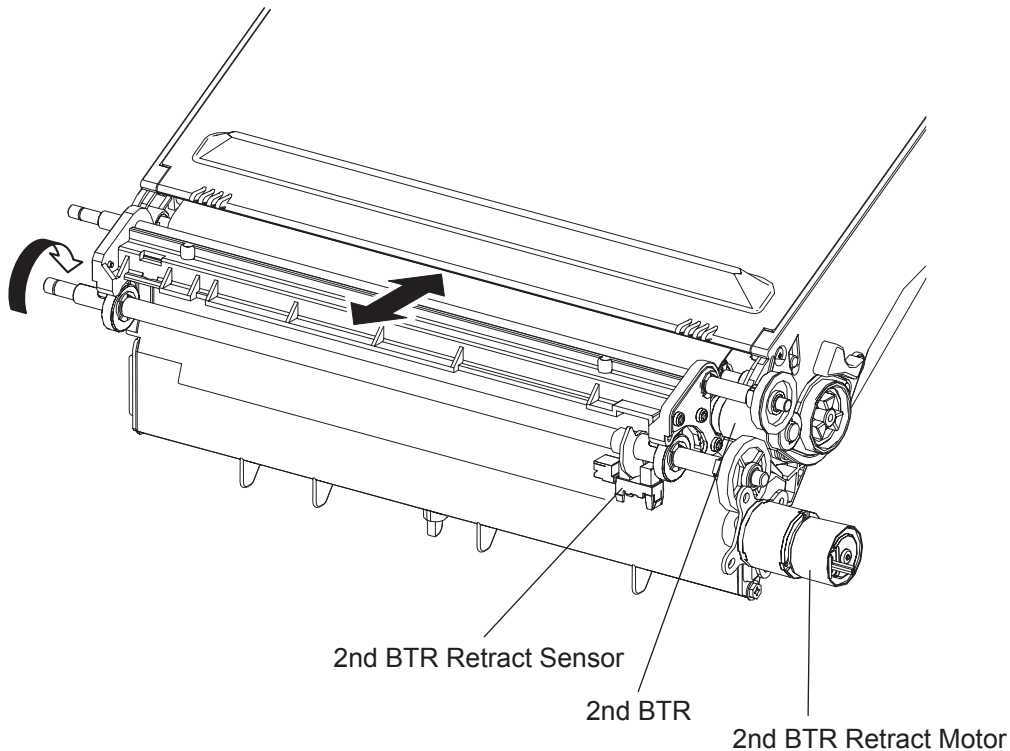


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3.4 Second BTR & FUSER

3.4.1 Main function

- ▼ Second BTR is a conductive roll, which contacts rear side from toner transferred side of paper and to which negative voltage is applied from HVPS.
- ▼ 2nd BTR Retract Motor actuates when the toner image on the belt is transferred on the paper. The motor drives the shaft rotation, and the cam attached to the shaft rotates accordingly. The cam advances the BTR (makes the BTR touch the paper), and the toner image is transferred. When the image transfer is completed, the motor rotates, and the BTR returns to the retract position by the spring.



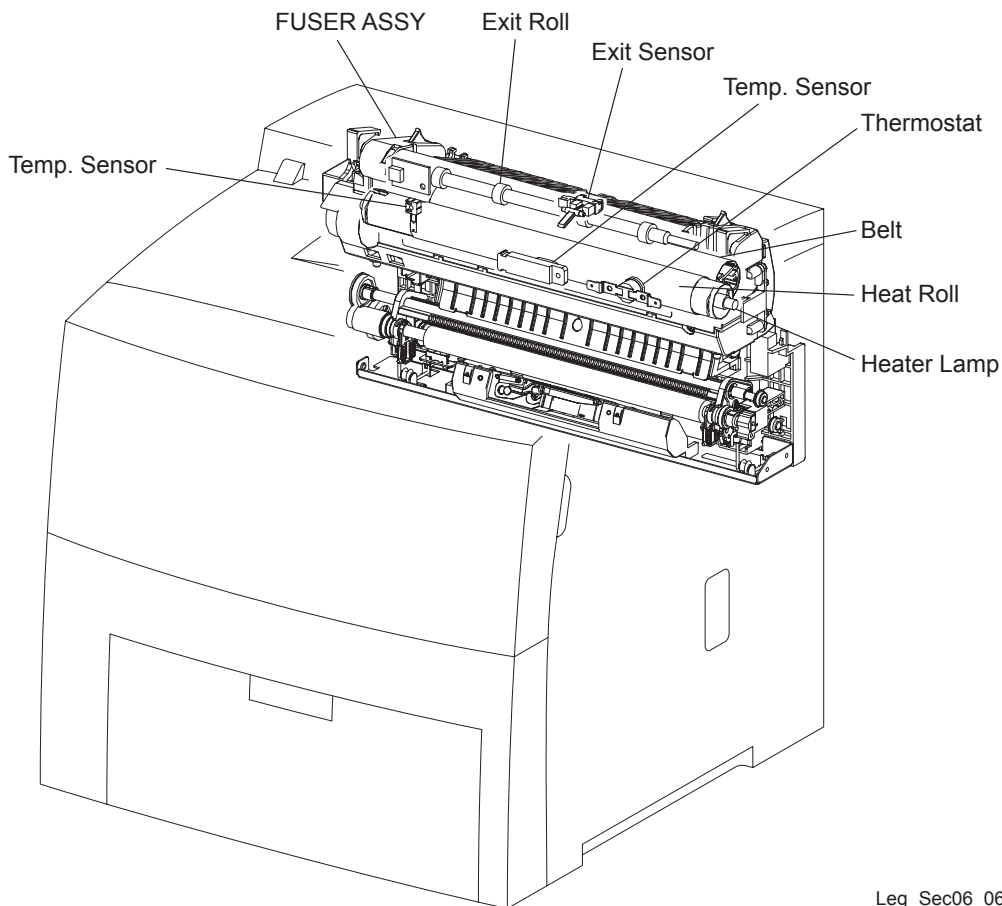
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- ▼ 2nd BTR Retract Sensor detects the BTR position. The shaft with cam which retracts the BTR is provided with a sensor actuator, and when the sensor is shielded, the BTR is retracted, and when the light is received, the BTR is advanced.

- ▼ FUSER ASSY fixes completed toner image transferred onto paper by heat and pressure, and feeds paper before and after fixing and also feeds paper to discharge tray or Duplex by switching gate in Fuser.

Fuser consists of the parts shown below.

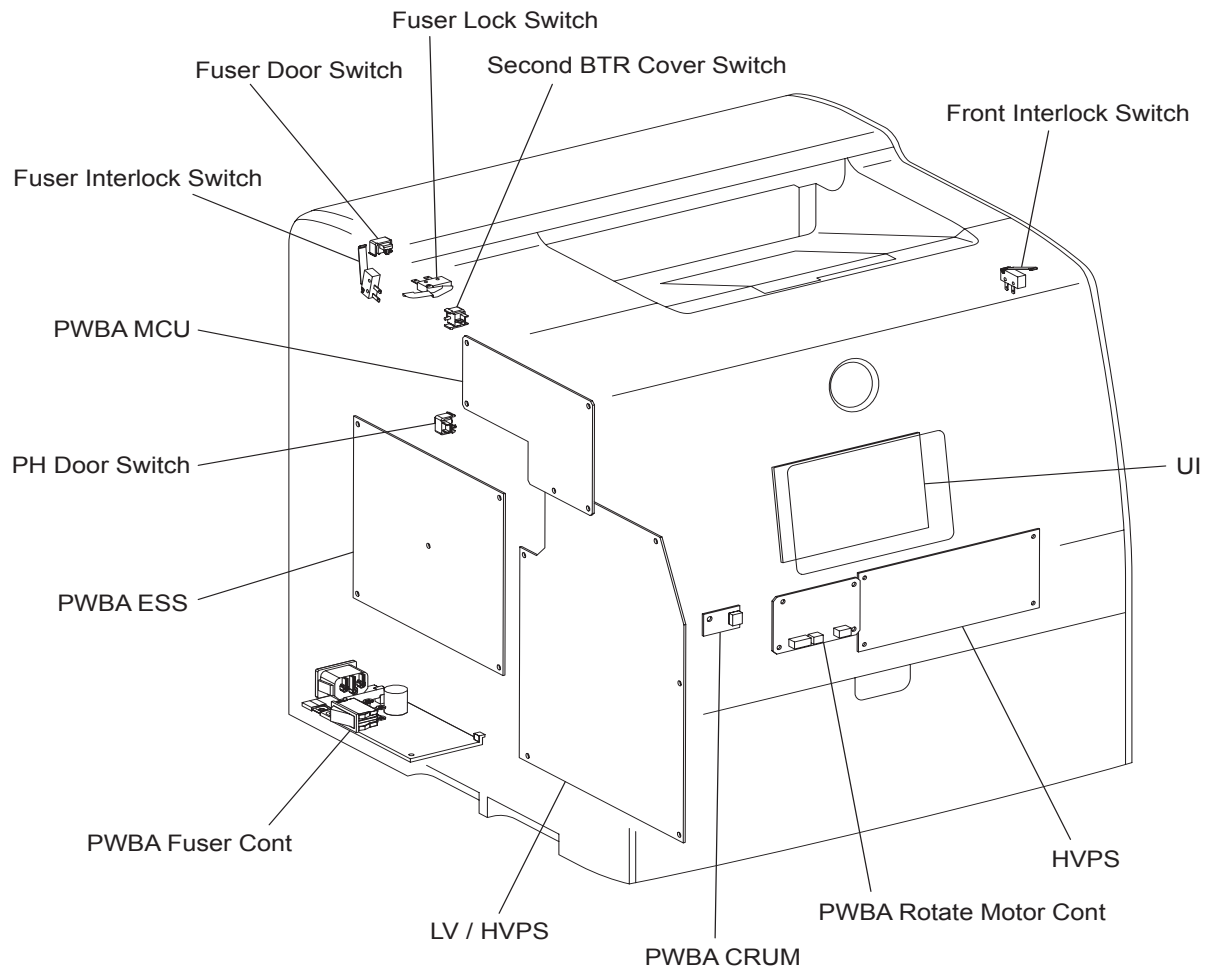
- Heat Roll
- Belt
- Heater Lamp
- Exit Roll
- Thermostat
- Temp. Sensor
- Exit Sensor



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4. Electrical

In the following, the main functional composition parts are explained corresponding to illustration.



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4.1 Main function

- ▼ PWBA MCU
PWBA MCU controls communication with printer controller and each part in printing movement.
- ▼ LV/HVPS
LV/HVPS supplies power of +24VDC, +5VDC or +3.3VDC from AC power supply to each part, and supplies high voltage to each part for transfer or neutralization.
- ▼ HVPS
HVPS supplies high voltage to IBT Cleaner and Detack Saw.
- ▼ PWBA Fuser Cont
PWBA Fuser Cont controls ON/OFF of Fuser Lamp, and turns ON/OFF AC power supply for the device using Switch on PWBA.
- ▼ PWBA Rotate Motor
PWBA Rotate Motor Cont creates pulse for Motor from input signal of PWBA MCU and supplies it to Motor.

▼ PWBA ESS

PWBA ESS converts printing data input from network, USB or parallel port and communicates with PC. Optional extension memory is max. 512MB.

▼ UI

UI displays the state of the device using LCD or LED using Switch on UI.

▼ Fuser Door Switch

Fuser Door Switch is used to detect open and close of Fuser Cover.

▼ P/H Door Switch

P/H Door Switch is used to detect open and close of Shute Assy Rear Cover.

▼ PWBA CRUM

This is nonvolatile memory used to save information of the device.

▼ Second BTR Cover Switch

Second BTR Cover Switch is used to detect open and close of Shute Assy FSR.

▼ Front Interlock Switch

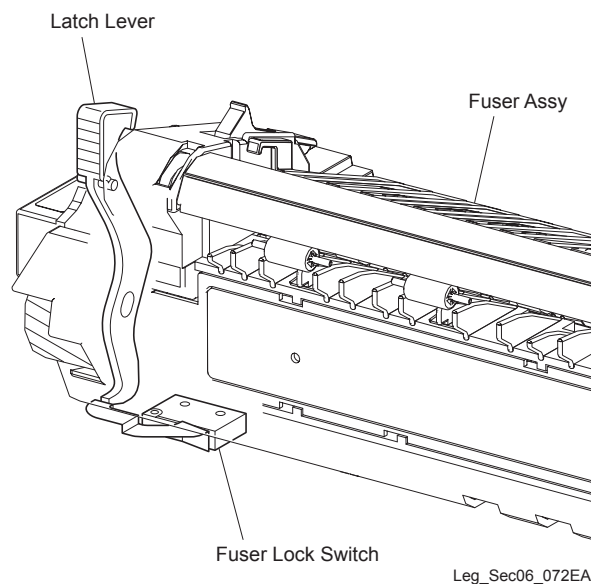
Front Interlock Switch is used to shut down +24VDC, the power for drive Motor, etc., when Front Cover is opened, and open/shut is detected by change in voltage after power is converted to +3.3VDC by voltage division circuit of +24VDC within MCU.

▼ Fuser Door Switch

Fuser Door Switch is used to shut down +24VDC, the power for drive Motor, etc., when Fuser Cover is opened.

▼ Fuser Lock Switch

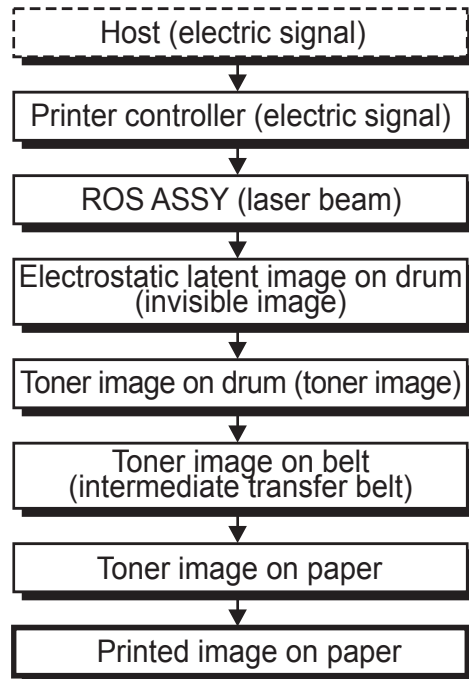
Fuser Lock Switch cuts off the power supply to the coil in the power supply relay for Fuser Lamp in PWBA Fuser Cont when Fuser Latch Lever is released.



5. Flow of printing data

5.1 Data flow

Printing data (electric signal) output from printer controller becomes the printed image following the flow shown below.



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Reference *Forming 2 dimensional printed image*

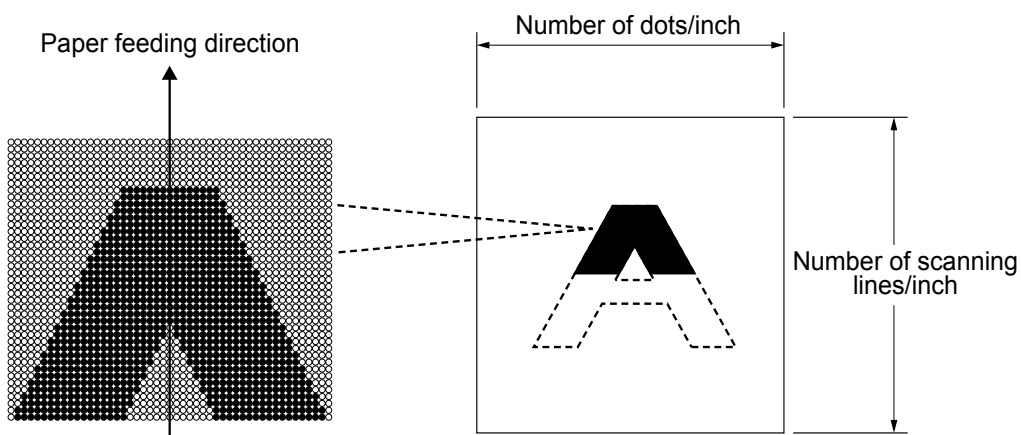
When the image is scanned by turning ON/OFF the laser beam according to electric signal output from printer controller (VIDEO signal: expresses image data by rise or fall of voltage), a dot image for a line is formed.

When the above mentioned scanning is carried out for 1 screen of an image, a single color image (2 dimensional dot image) is formed. To obtain a full color image, a 2 dimensional dot image must be formed for each of the 4 colors.

Resolution is determined by the following points.

Main scanning direction: Number of dots/inch

Sub scanning direction: Number of scanning lines/inch



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6. Operation mode

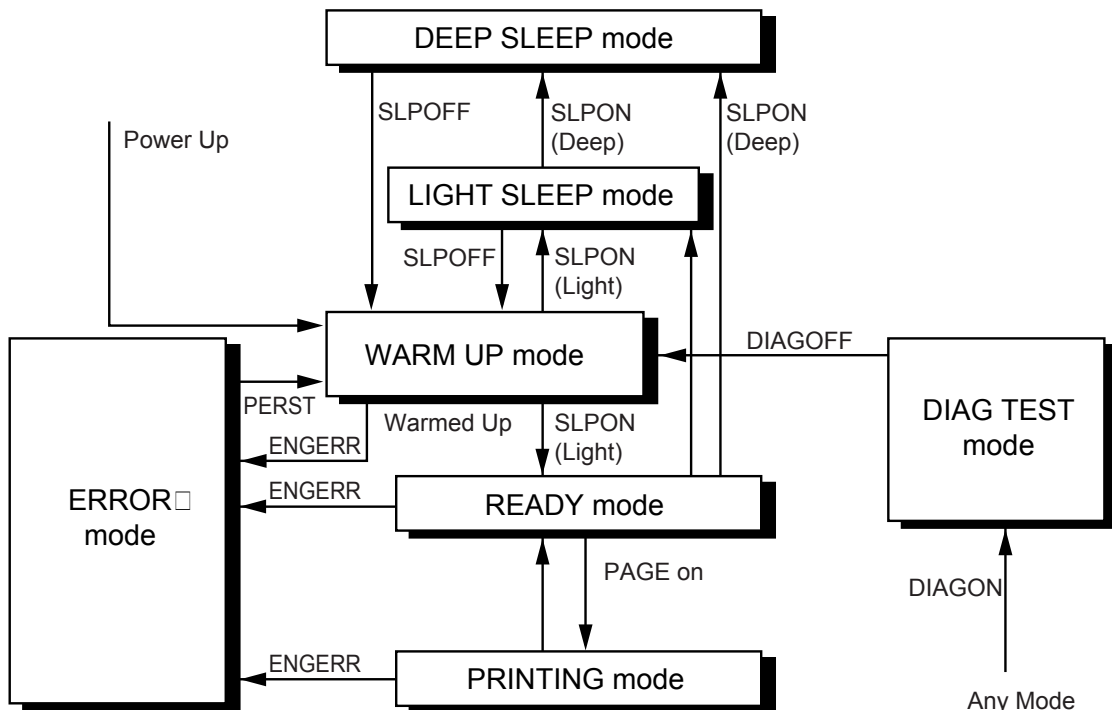
There are 7 operation modes as shown below.

- ▼ WARM UP mode The device is in warming up state (till printing is ready).
- ▼ READY mode The device stands by for printing after WARM UP mode.
- ▼ PRINTING mode The device carries out printing.
- ▼ LIGHT SLEEP mode Power supply to FUSER is discontinued in order to save energy.
- ▼ DEEP SLEEP mode The Fuser is powered off for power saving, and +24VDC is cut off from LIGHT SLEEP MODE.
- ▼ DIAG TEST mode The device is ready to accept diag command or it carries out diag presently.
- ▼ ERROR mode The device detects some kind of error.
(Except errors regarding "No paper tray", "No paper" and "Life alarm".)

Transition of state between each mode is shown below.

NOTE

Refer to interface specification for information between each mode.

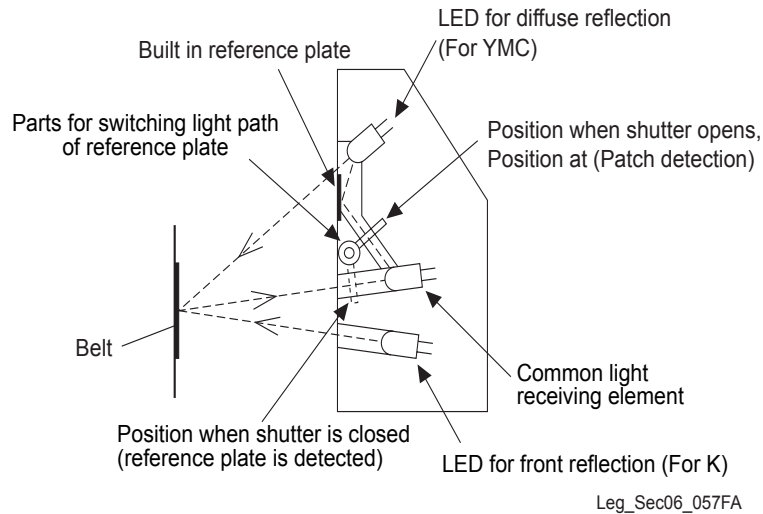


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TC control procedure is shown below.

(1) Adjustment of Sensor ADC

Composition of Sensor ADC is as shown in the Fig. There are 2 LEDs for black and color, and each patch concentration is read according to 2 reflecting routes with different optical angles. LED for black is for specular reflection light path and LED for color is for diffuse reflection light path.



(2) Adjustment due to environmental facts and part deterioration

Every change in temperature/humidity and deterioration of parts such as IBT Belt or Drum due to printing job affects image quality. Temperature/humidity data sent from Sensor Environment and usage information of device sent from Crum are checked, and this information is incorporated and used for correction at correcting parameters.

(3) Creation of toner patch

Output value of HVPS, laser intensity value and toner supply quantity are determined according to parameter calculated using various information, and 4 patches of each color are created on the belt surface.

(4) Reading of toner patch

Sensor ADC reads the concentration of created toner patch, and if read value is different from ideal value when they are compared, parameter is calculated again and step (3) is returned to. If read value is extremely thin or thick, carry out the following control procedures.

▼ Admix control

If patch concentration read by Sensor ADC is extremely thin, carry out toner increase in order to supply toner to Developer Assy. This procedure is called "Admix control".

▼ Sweep control

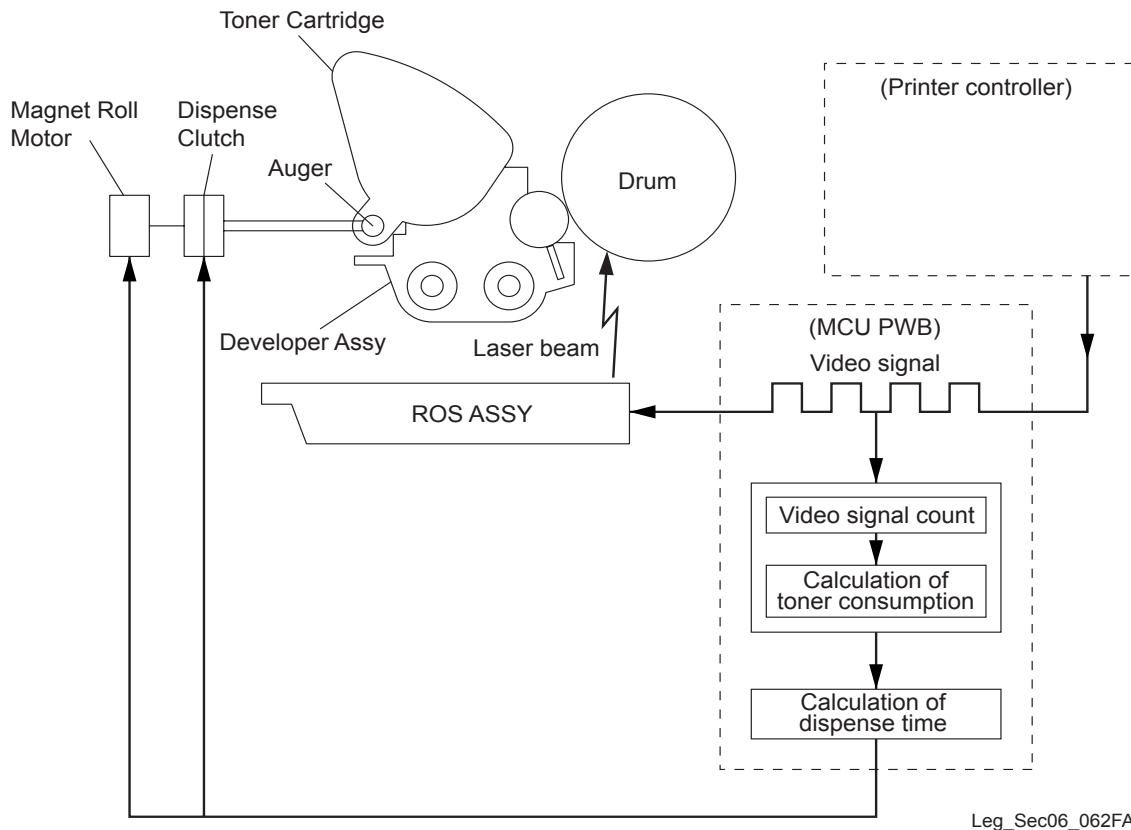
If patch concentration read by Sensor ADC is extremely thick, transfer toner to drum and scrape toner from inside Drum Cleaner in order to discharge toner forcibly from Developer Assy. This procedure is called "Sweep control".

(5) Adjustment during printing job

When printing job is performed, toner in Developer Assy is consumed. Toner shall be supplied to Developer Assy even during printing in order to obtain stable image quality. The following procedure shall be taken to supply an adequate amount of toner.

▼ PCDC (Pixel Count Dispense Control)

Estimate toner amount to be consumed according to count value of image data input by controller, and control the amount of toner to be supplied to Developer Assy. Supply amount is controlled according to Toner Dispense time.



(6) Adjustment after printing finishes

In the case that printing of a total of more than 20 sheets is carried out, after printing is complete, adjustment from (1) to (4) shall be performed for image quality.

7.4 Belt position control

In full color printing, toners of 4 colors are overlapped, therefore it is necessary to control belt position so that toners of the 4 colors can be transferred at the correct position. Sensor TR0 is an optic reflecting type sensor. There is a silver seal on the Belt used to detect position. Whenever the Belt goes one cycle, output level of Sensor changes at the silver seal position. Belt position is controlled using this change.

7.5 Adjustment of FUSER fixing temperature

Temperature of Heat Roll is controlled so that toner image formed on paper can be fixed properly. Surface temperature of Heat Roll is detected by non-contact type. The main unit adjusts to maintain temperature on the surface of Heat Roll by turning ON/OFF the Fuser Lamp.

7.6 FUSER safety circuit

Apart from non-contact type Temp. Sensor for controlling temperature, Fuser Assy has contact type Temp. Sensor for detecting high temperature. This Temp. Sensor is situated at a position on the surface of Heat Roll where paper doesn't pass through. When the surface of Heat Roll becomes abnormally high temperature, so Heater Relay in PWBA Fuser Cont is turned off and power supply to Lamp is shut down.

7.7 Detection of life of consumable items and parts to be changed on regular basis

▼ Detection of life of consumable items

Toner cartridge

Operation time of Dispense Clutch that is operated to supply toner from cartridge is counted, and when it exceeds the regulated time, "Near Empty" occurs. When process is controlled in the state of "Near Empty" and if toner patch concentration read by Sensor ADC doesn't reach the target concentration, a change message is displayed.

XERO CRU

When Sensor TR0 in CRU used to detect Belt position detects silver seal more than the regulated number of times or Full Toner Sensor detects full toner state , a change message is displayed.

▼ Detection of life of parts to be changed on regular basis

Developer Assy

When rotation time of Magnet Roll in Developer Assy exceeds the regulated value, a change message is displayed.

Second BTR

When number of prints exceeds the regulated value, a change message is displayed.

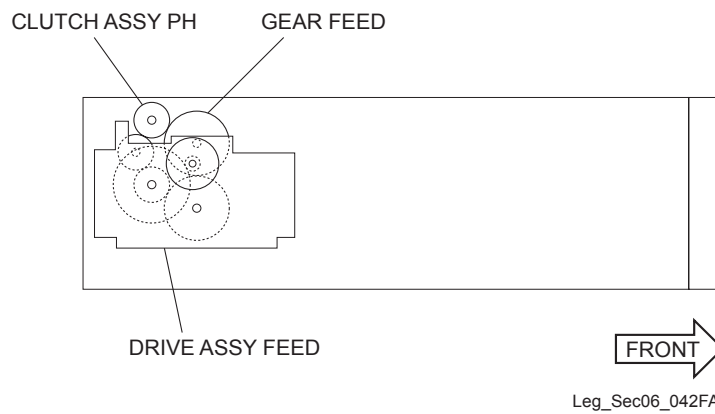
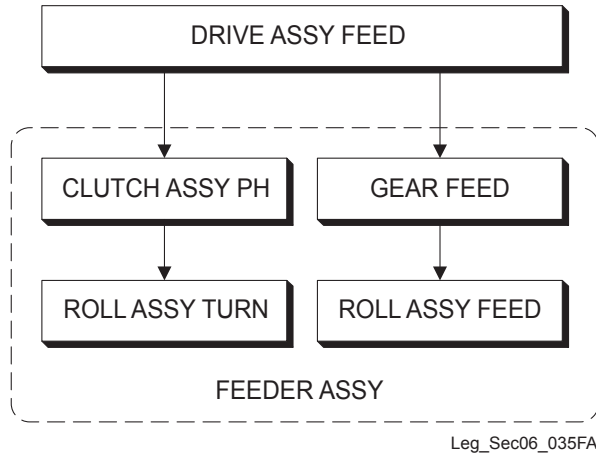
FUSER

When number of prints exceeds the regulated value, a change message is displayed.

8. Drive transmission route

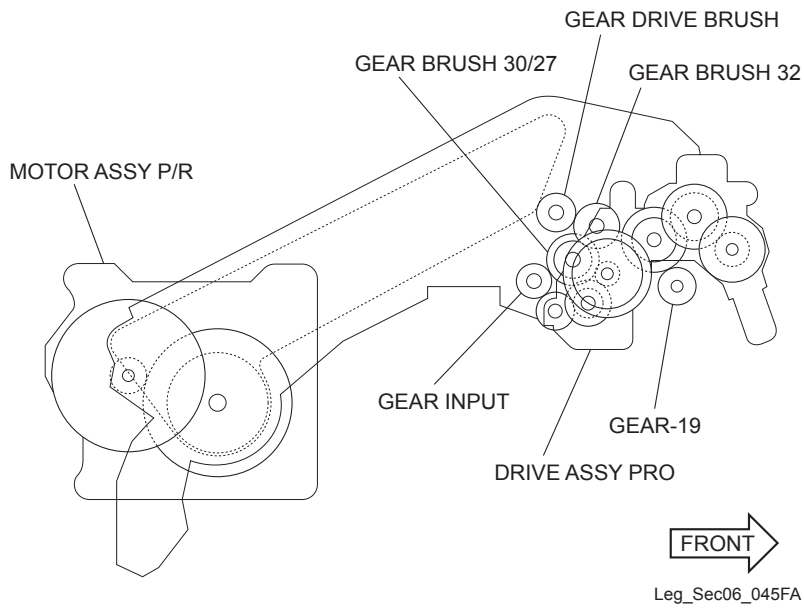
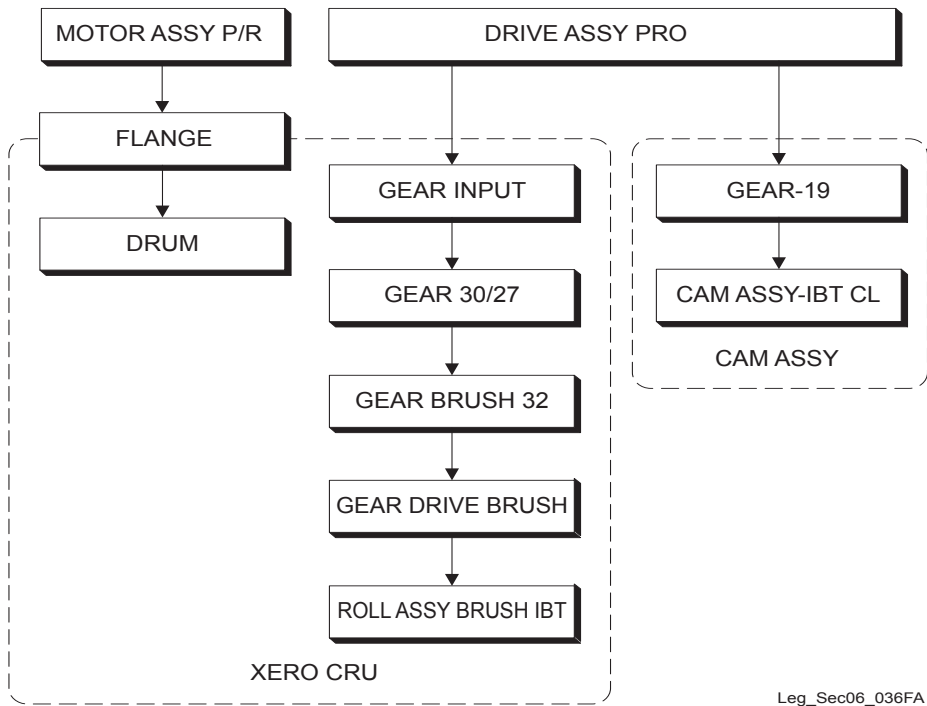
8.1 DRIVE ASSY FEED

Rotation of DRIVE ASSY FEED is transmitted following the flow shown below.



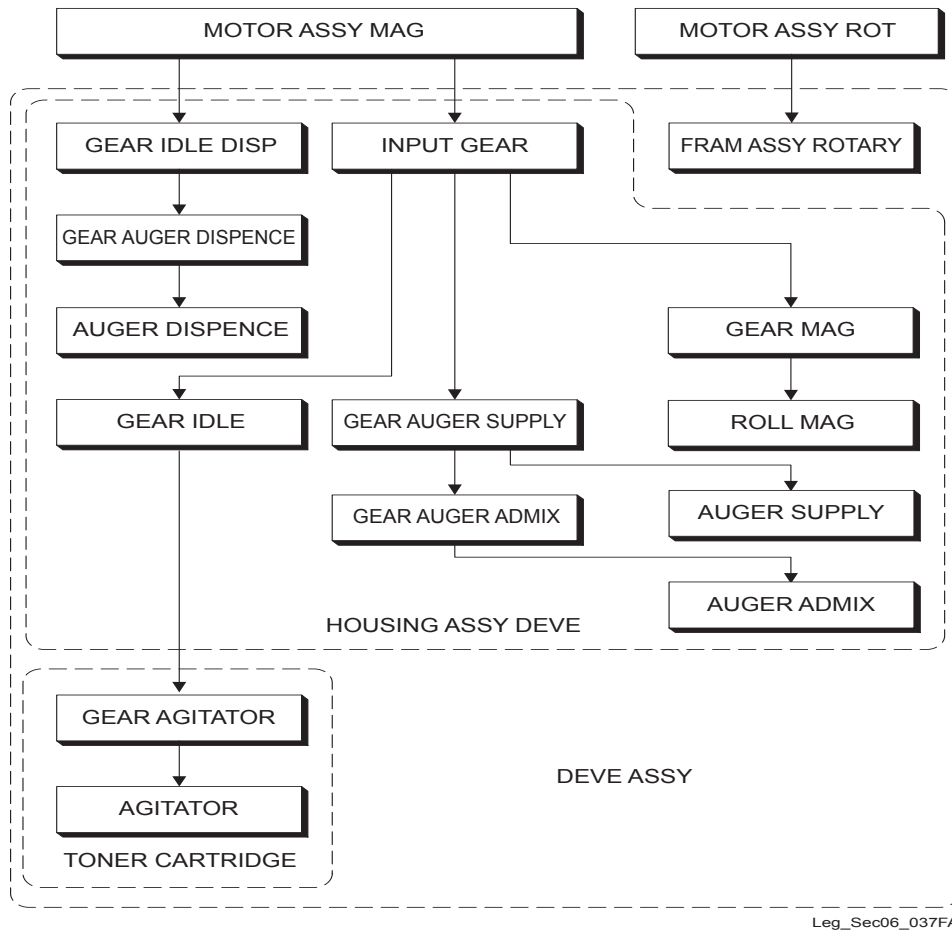
8.2 MOTOR ASSY P/R, DRIVE ASSY PRO

Rotation of MOTOR ASSY P/R and DRIVE ASSY PRO is transmitted following the flow shown below.

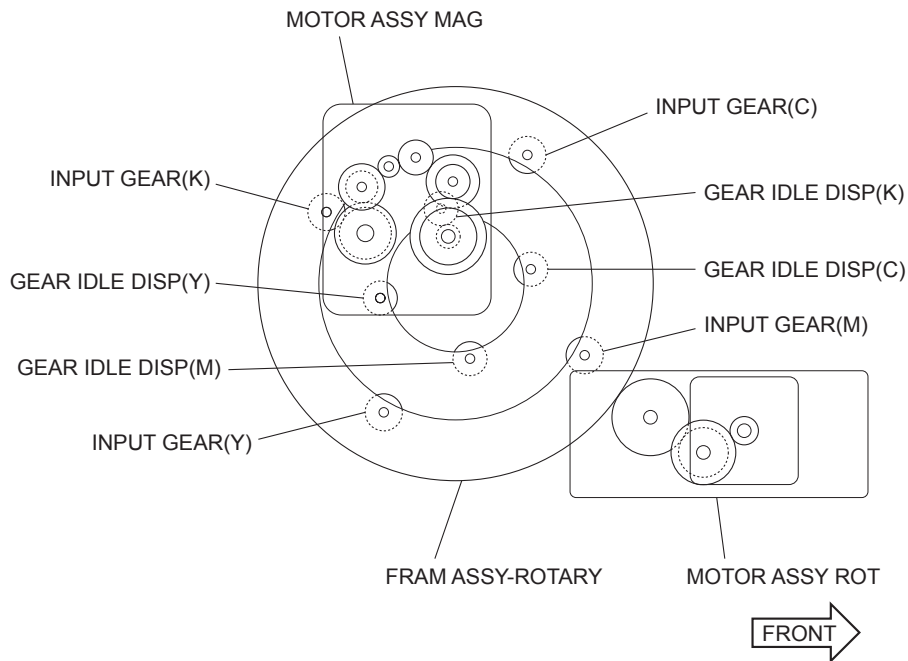


8.3 MOTOR ASSY MAG, MOTOR ASSY ROT

Rotation of MOTOR ASSY MAG and MOTOR ASSY ROT is transmitted following the flow shown below.



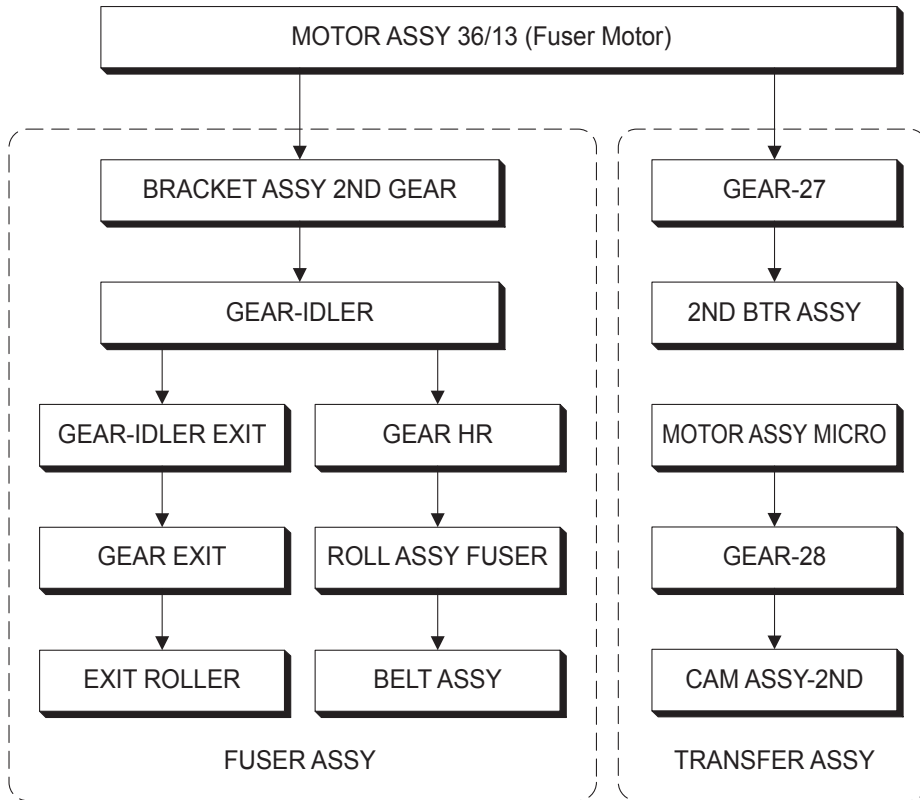
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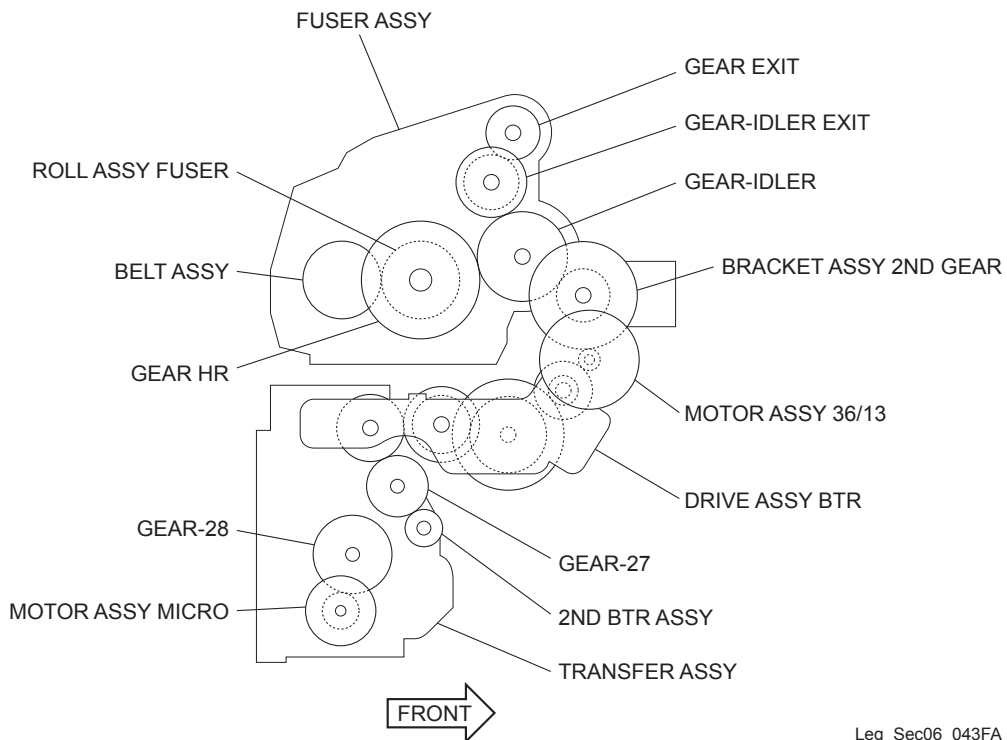
Leg_Sec06_044FA

8.4 MOTOR ASSY 36/12

Rotation of MOTOR ASSY 36/12 is transmitted following the flow shown below.



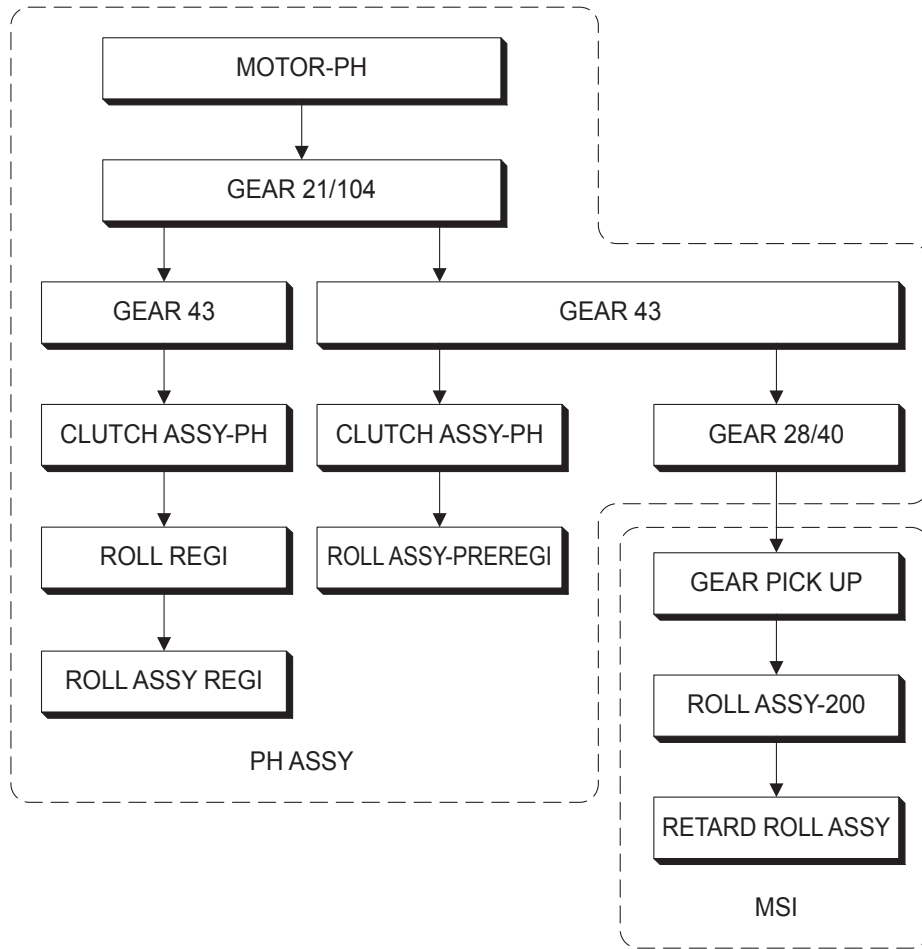
Leg_Sec06_039FA



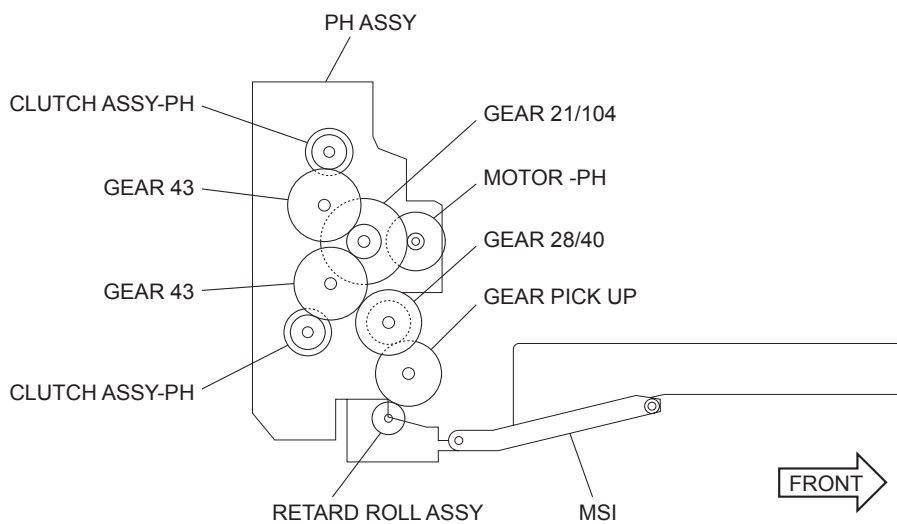
Leg_Sec06_043FA

8.5 MOTOR ASSY PH

Rotation of MOTOR ASSY PH is transmitted following the flow shown below.



Leg_Sec06_040FA



Leg_Sec06_046FA

Chapter 7 Wiring Diagrams and Signal Information CONTENTS

1. Connection Wiring Diagram..... 7 - 1

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
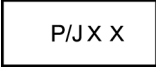
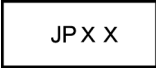
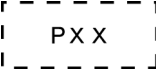
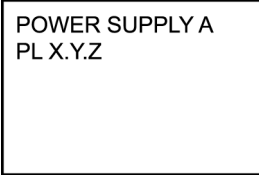
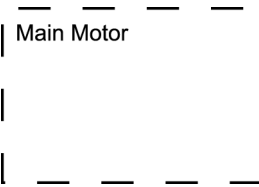



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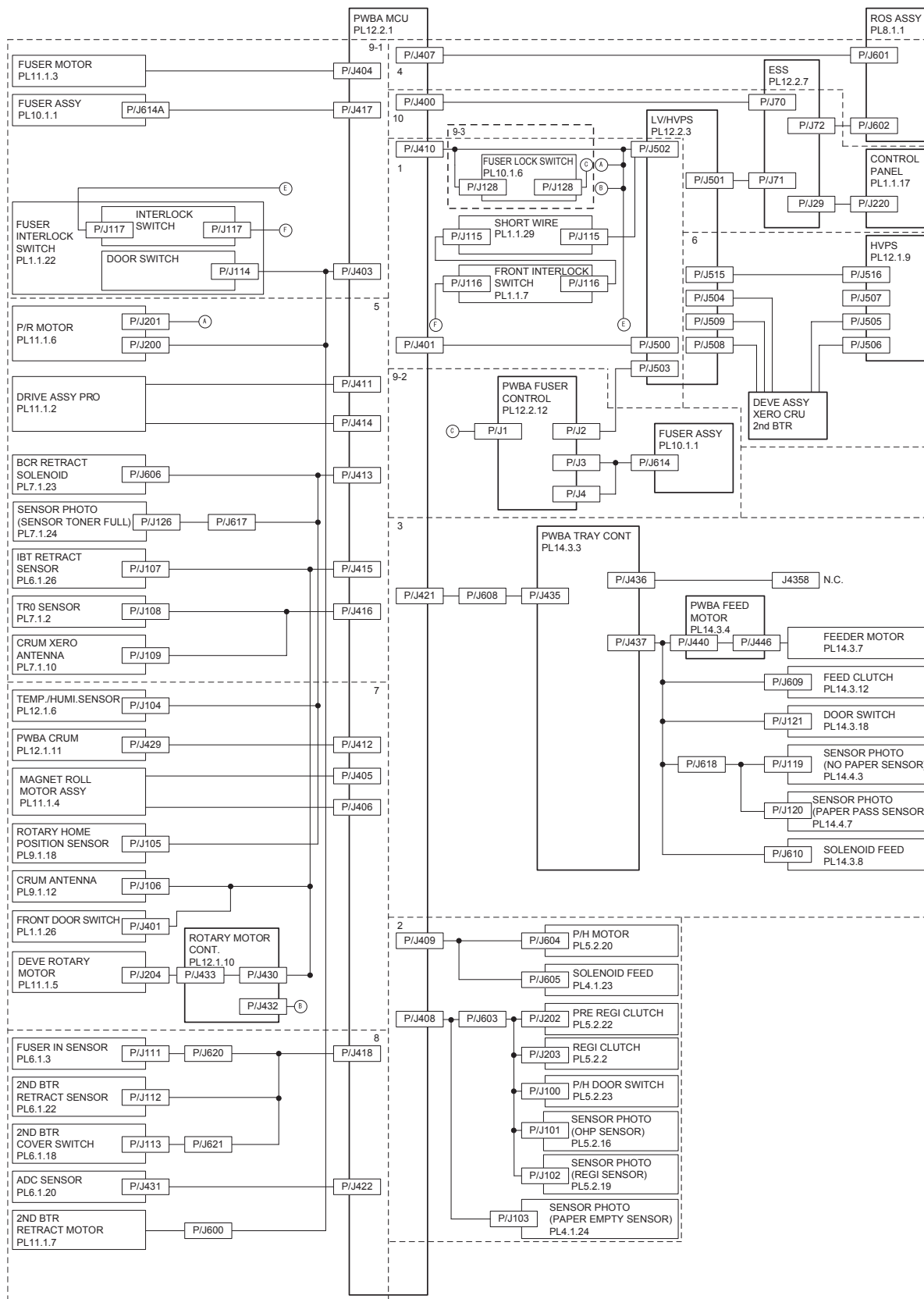
1. Connection Wiring Diagram

1.1 Symbols in the General Connection Wiring Diagram

The symbols in the general connection wiring diagram are described below.

Symbol	Description
	Represents an interconnection between parts using wiring harness or wire.
	Represents an interconnection which differs according to the specifications.
	Represents an interconnection between parts using a conductive member such as a plate spring.
	Represents a connection between parts by tightening of a screw.
	Indicates a frame ground.
	Represents a connector. The connector No. is indicated inside the box.
	Represents a connection terminal with a plate spring on the printed circuit board. The connector (terminal) No. is indicated inside the box.
	Represents a connector directly connected to the printed circuit board. The connector No. is indicated inside the box.
	The box containing a part name represents a part. "PL X.Y.Z" indicates the item "Z" of the plate (PL) "X.Y" described in Chapter 5 "Parts List."
	Represents a functional part within a part, and indicates the name of the functional part.
	Represents a section in "2. Interconnection Wiring Diagram of Parts," and indicates its section No.
	Represents a screw for fixing wiring harness and a conductive member such as a plate spring.
	Represents a conductive member such as a plate spring.

1.2 General Wiring Diagram

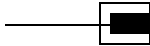
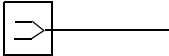
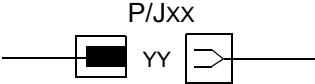
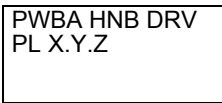
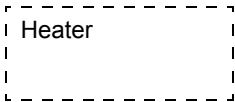

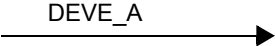
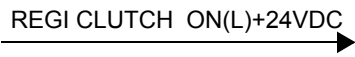
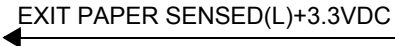


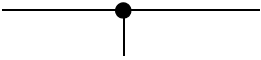
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2. Interconnection Wiring Diagram of Parts

2.1 Notes on Using the Wiring Diagram between Parts

The following describes the legend of the wiring diagrams between parts shown on the following pages.

Symbols	Description
	Denotes a plug.
	Denotes a jack.
	Denotes Pin yy and Jack yy of the connector Pxx and Jxx.
	Denotes the parts. PL X.Y.Z implies the item "Z" of plate (PL) "X.Y" in Chapter 5. Parts List.
	Denotes functional parts attached with functional parts name.
	Denotes the control and its outline in PWB.
	Denotes a connection between parts with harnesses or wires, attached with signal name/contents.
	Denotes the function, and logic value of the signal to operate the function (Low: L, High: H). The given voltage is for signal in high status. The arrow indicates the direction of signal.
	Denotes the function, and logic value of the signal when the function operated (Low: L, High: H). The given voltage is for signal in high status. The arrow indicates the direction of signal.

Symbols	Description
	Denotes a connection between wires.
I/L +24VDC	Denotes DC voltage when the interlock switch in HNB MCU WITH CPU turns on.
+5VDC +3.3VDC	Denotes DC voltage.
SG	Denotes signal ground.
AG	Denotes analog ground.
RTN	Denotes the return.

2.2 Configuration of the Interconnection Wiring Diagram of Parts

The interconnection wiring diagram is divided into 11 sections. § 1 to § 11 indicate details of the interconnections of parts.

§ 1 DC POWER SUPPLY

Connections of LV/HVPS with PWBA MCU.

Connections of PWBA FUSER CONTROL with LV/HVPS.

Connections of P/R MOTOR with LV/HVPS.

Connections of ROTARY MOTOR with LV/HVPS.

Connections of SHORT WIRE with LV/HVPS.

Connections of FRONT INTERLOCK SWITCH with SHORT WIRE.

§ 2 MSI REGI

Connections of P/H MOTOR with PWBA MCU.

Connections of SOLENOID FEED with PWBA MCU.

Connections of PRE REGI CLUCH with PWBA MCU.

Connections of REGI CLUCH with PWBA MCU.

Connections of P/H DOOR SWICH with PWBA MCU.

Connections of OHP SENSOR with PWBA MCU.

Connections of REGI SENSOR with PWBA MCU.

Connections of PAPER EMPTY SENSOR with PWBA MCU.

§ 3 FEEDER (250&500)

Connections of PWBA TRAY CONT with PWBA MCU.

Connections of FEED CLUCH with PWBA TRAY CONT.

Connections of DOOR SWITCH with PWBA TRAY CONT.

Connections of NO PAPER SENSOR with PWBA TRAY CONT.

Connections of PAPER PASS SENSOR with PWBA TRAY CONT.

Connections of SOLENOID FEED with PWBA TRAY CONT.

Connections of CASSETTE SWITCH with PWBA TRAY CONT.

Connections of FEEDER MOTOR with PWBA TRAY CONT.

Connections of OTHER TRAY with PWBA TRAY CONT.

§ 4 ROS

Connections of ROS ASSY with PWBA MCU.

Connections of PWBA ESS with ROS ASSY.

§ 5 XEROGRAPHIC

Connections of DRIVE ASSY PRO with PWBA MCU.

Connections of BCR RETRACT SOLENOID with PWBA MCU.

Connections of SENSOR TONER FULL with PWBA MCU.

Connections of IBT RETRACT SENSOR with PWBA MCU.

Connections of TR0 SENSOR with PWBA MCU.

Connections of CRUM XERO ANTENNA with PWBA MCU.

Connections of P/R MOTOR with PWBA MCU.

Connections of P/R MOTOR with LV/HVPS.

§ 6 HIGH VOLTAGE

Connections of HVPS with LV/HVPS.

Connections of DEVE ASSY, XERO CRU, 2nd BTR with LV/HVPS.

Connections of PWBA MCU with LV/HVPS.

§ 7 DEVELOPER

Connections of TEMP./HUMI. SENSOR with PWBA MCU.
Connections of PWBA CRUM with PWBA MCU.
Connections of MAGNET ROLL MOTOR ASSY with PWBA MCU.
Connections of ROTARY HOME POSITION SENSOR with PWBA MCU.
Connections of CRUM ANTENNA with PWBA MCU.
Connections of ROTARY MOTOR CONT. with PWBA MCU.
Connections of DEVE ROTARY MOTOR with ROTARY MOTOR CONT.
Connections of LV/HVPS with ROTARY MOTOR CONT.

§ 8 2nd BTR

Connections of FUSER IN SENSOR with PWBA MCU.
Connections of 2ND BTR RETRACT SENSOR with PWBA MCU.
Connections of 2ND BTR COVER SWITCH with PWBA MCU.
Connections of ADC SENSOR with PWBA MCU.
Connections of 2ND BTR RETRACT MOTOR with PWBA MCU.

§ 9 FUSER

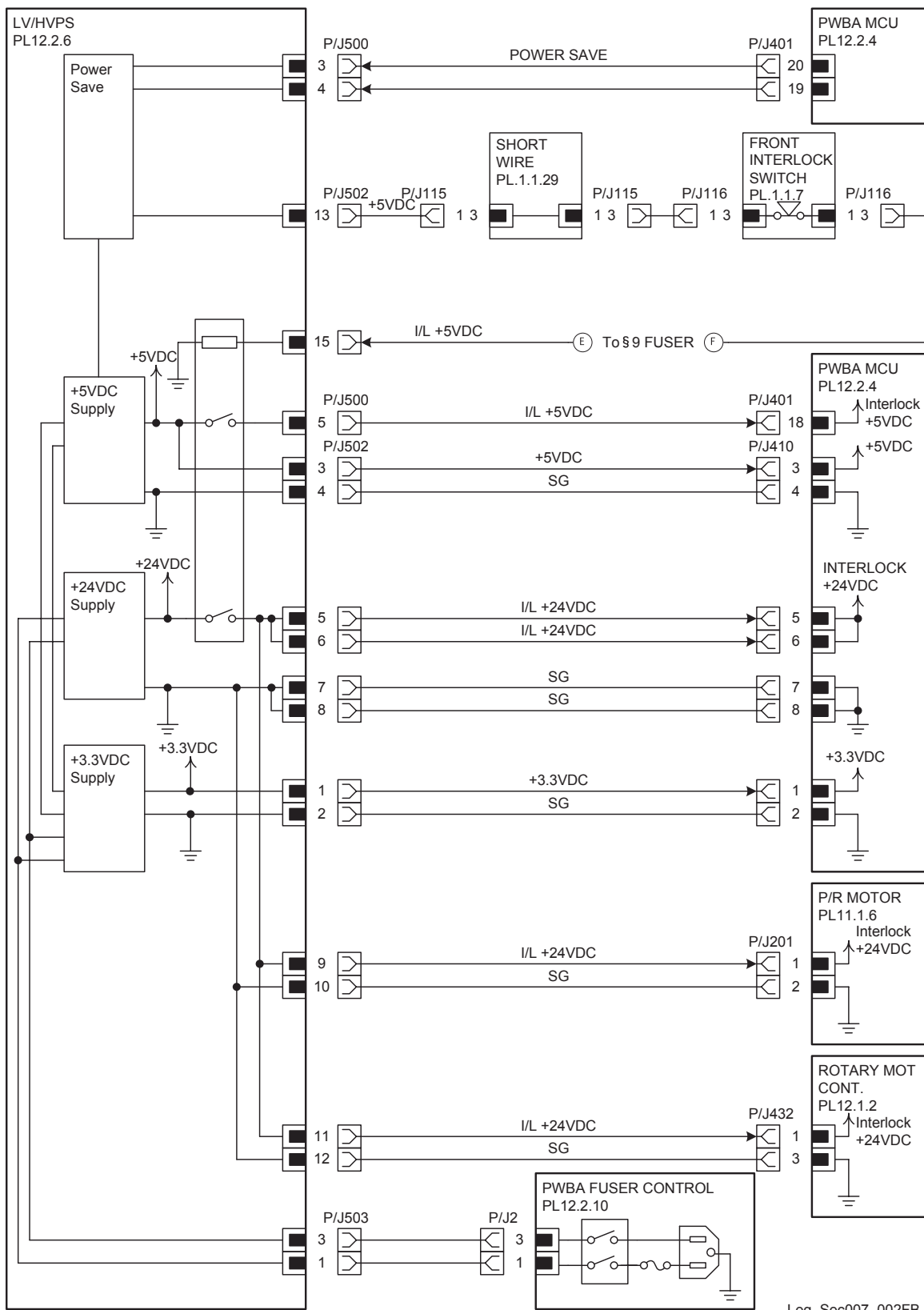
Connections of FUSER MOTOR with PWBA MCU.
Connections of FUSER ASSY with PWBA MCU.
Connections of FUSER INTERLOCK SWITCH with PWBA MCU.
Connections of FUSER LOCK SWITCH with PWBA MCU.
Connections of PWBA FUSER CONTROL with LV/HVPS.
Connections of FUSER ASSY with PWBA FUSER CONTROL.
Connections of PWBA MCU with PWBA FUSER CONTROL.
Connections of FUSER LOCK SWITCH with PWBA FUSER CONTROL.
Connections of PWBA MCU with LV/HVPS.

§ 10 CONTROLLER

Connections of PWBA ESS with PWBA MCU.
Connections of CONTROL PANEL with PWBA ESS.
Connections of LV/HVPS with PWBA ESS.

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§ 1 DC POWER SUPPLY



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§ Over current protection

All outputs (+24VDC, +5VDC, +3.3VDC) of LV/HVPS stop outputting when short circuit occurs with earth or ground.

When the power of the printer is turned off after releasing short-circuit and the power is turned on after a certain duration passes, each output recovers.

When current exceeding 16A flows, over current protection reacts for each output.

§ Over voltage protection

All outputs of LV/HVPS stop outputting when over voltage occurs.

Operating voltage of over voltage protection for each output is as shown below.

+24VDC: 36VDC

+5VDC: 7VDC

+3.3VDC: 5VDC

§ Power save mode and deep sleep mode

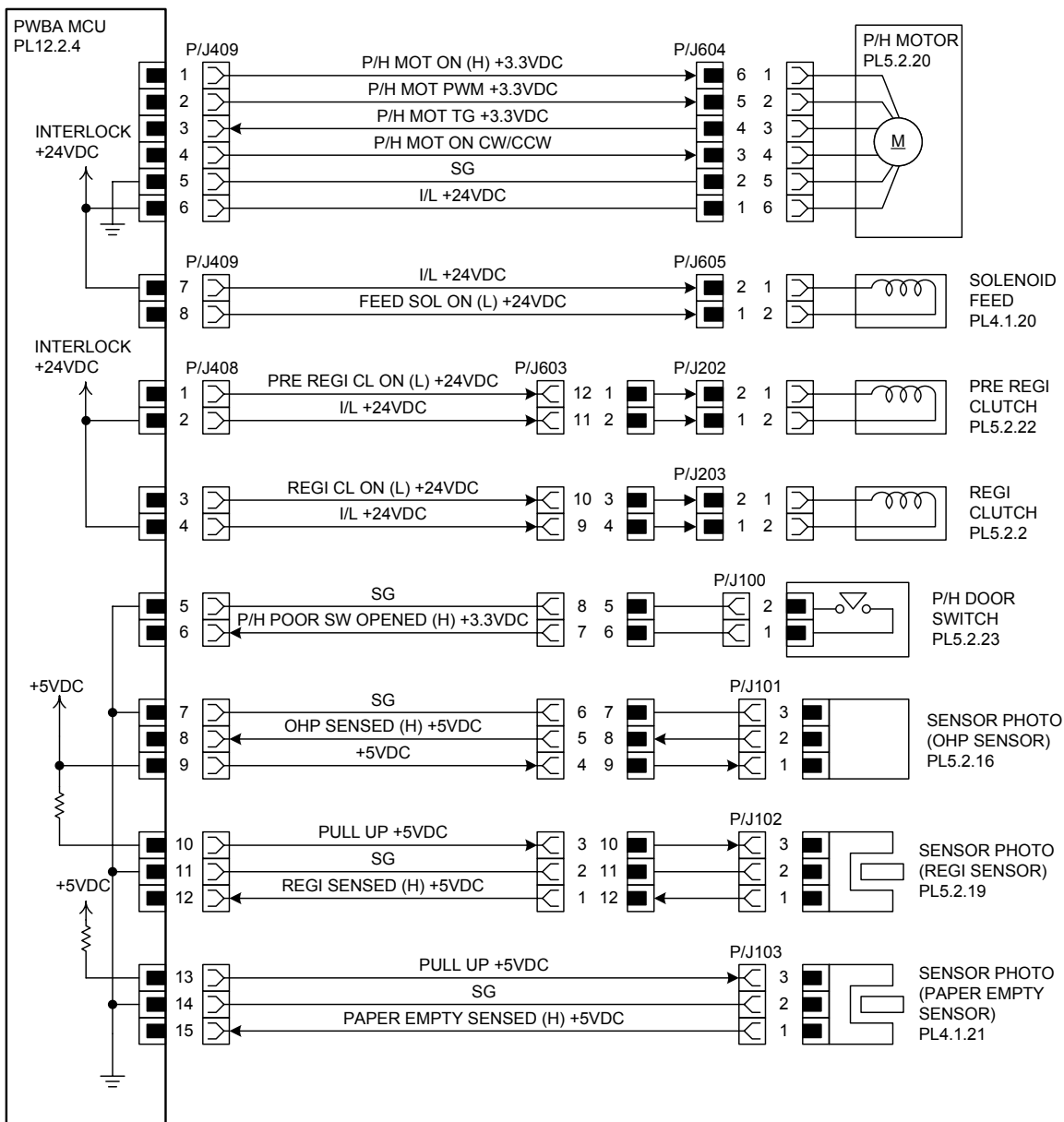
Signal line name	Description
POWER SAVE	shutdown signal of +24VDC

§ Output stop using Interlock Switch

Signal line name	Description
I/L +5VDC	

I/L + 5VDC signal that goes through Front Interlock Switch and Fuser Interlock Switch becomes power supply of Relay coil in LV/HVPS. INTERLOCK + 24VDC and INTERLOCK +5VDC are controlled by this signal.

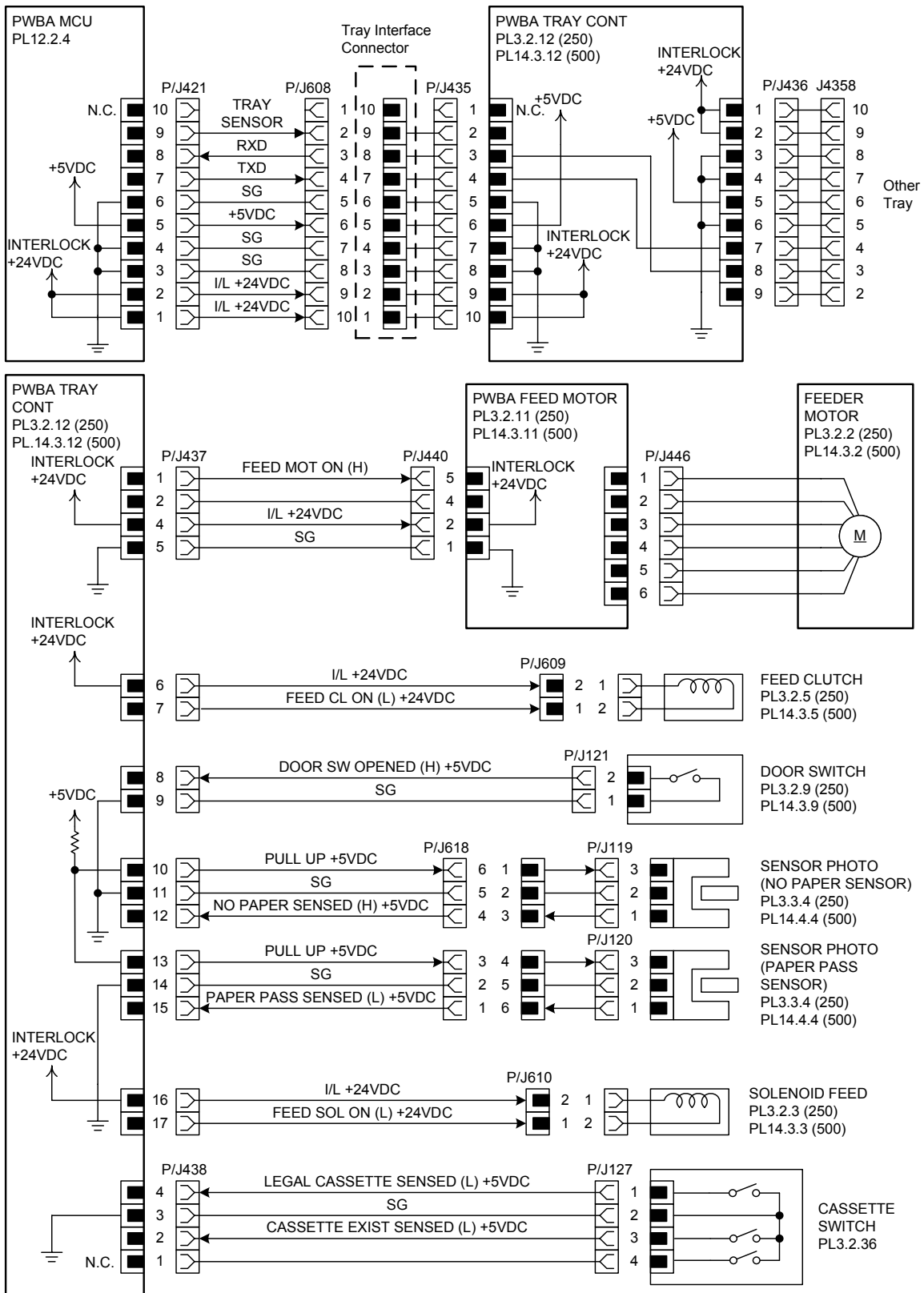
§ 2 MSI®I



Leg_Sec007_003FA

Signal line name	Description
PAPER EMPTY SENSED (H)+5VDC	Paper detect signal of MSI by Sensor Photo (No Paper Sensor)
P/H MOTER ON (H) +3.3VDC P/H MOTER PWM P/H MOTER FG P/H MOTER CW/CCW	Drive control signal of P/H MOTOR
FEED SOL ON (L) +24VDC	ON/OFF signal of Solenoid Feed
PREREGI CL ON (L) +24VDC	ON/OFF signal of Pre-Regi Clutch
REGI CL ON (L)+24VDC	ON/OFF signal of Regi Clutch
P/H DOOR SW OPEND (H)+3.3VDC	Open/close detect signal of CHTE ASSY REATR by P/H Door Switch
OHP SENSED (H)+5VDC	Detect signal of OHP sheet by Sensor Photo (OHP Sensor)
REGI SENSED (H) +5VDC	Paper detect signal of Regi part by Sensor Photo (REGI Sensor)

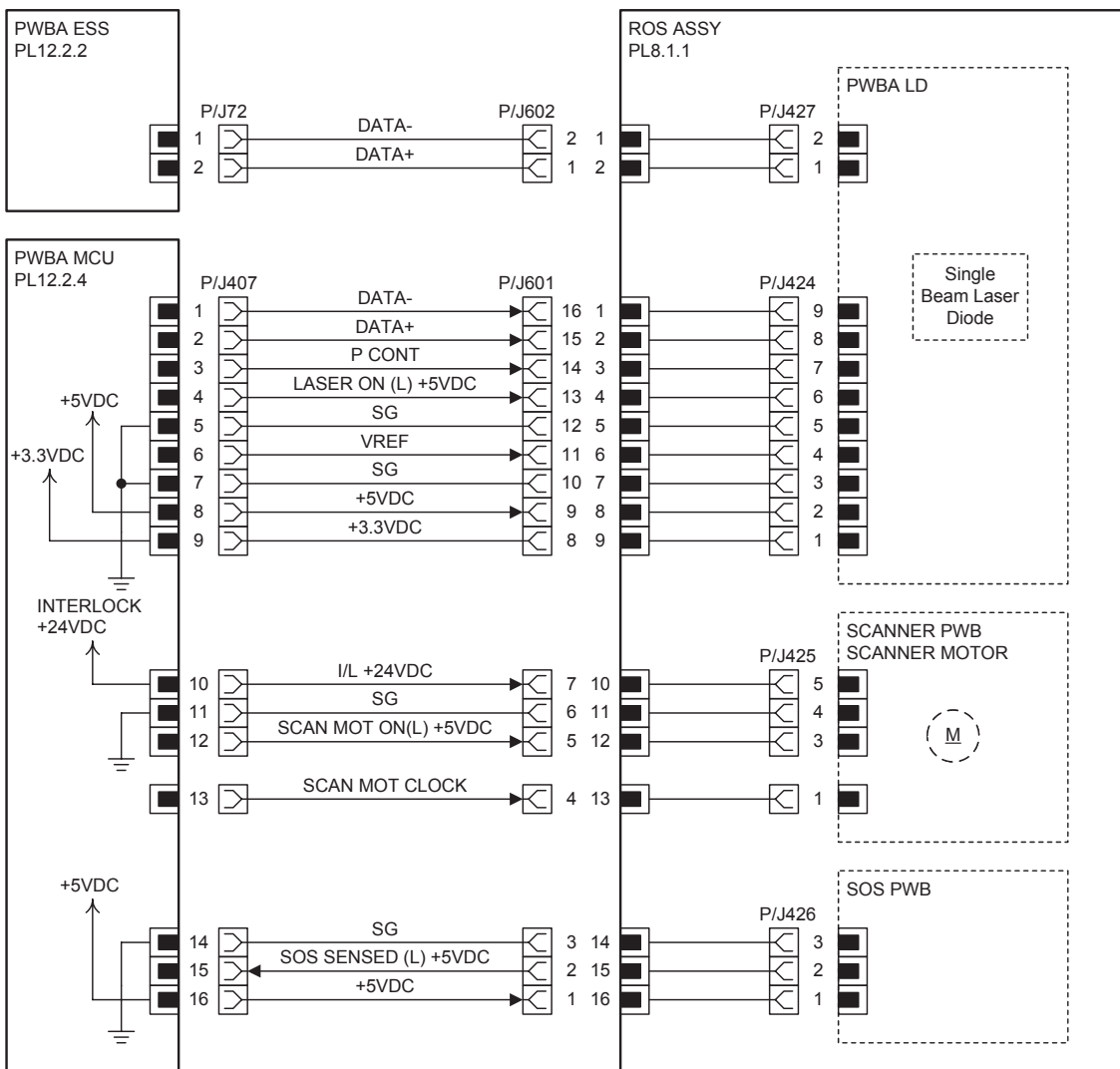
§ 3 FEEDER(250&500)



Leg_Sec007_004FA

Signal line name	Description
TRAY SENSOR RXD TXD	Control signal of PWBA Tray Cont.
FEED MOTOR ON (H)+	Control signal of Feeder Motor
FEED CL ON (L)+24VDC	ON/OFF signal of Feed Clutch
DOOR SW OPEND (H)+5VDC	Open/close detect signal of Rear Cover by Door Rear Cover Switch
NO PAPER SENSED (H)+5VDC	Paper detect signal of Paper Tray by Sensor Photo (No Paper Sensor)
PAPER PASS SENSED (L) +5VDC	Detect signal of starting paper feed by Sensor Photo (Paper Pass Sensor)
FEED SOL ON (L)+24VDC	ON/OFF signal of Solenoid Feed
LEGAL CASSETTE SENSED (L) +5VDC	Select signal of legal Cassette and standard 250 Cassette
TRAY EXISTED SENSED (L) +5VDC	Present/absent signal of Paper Cassette

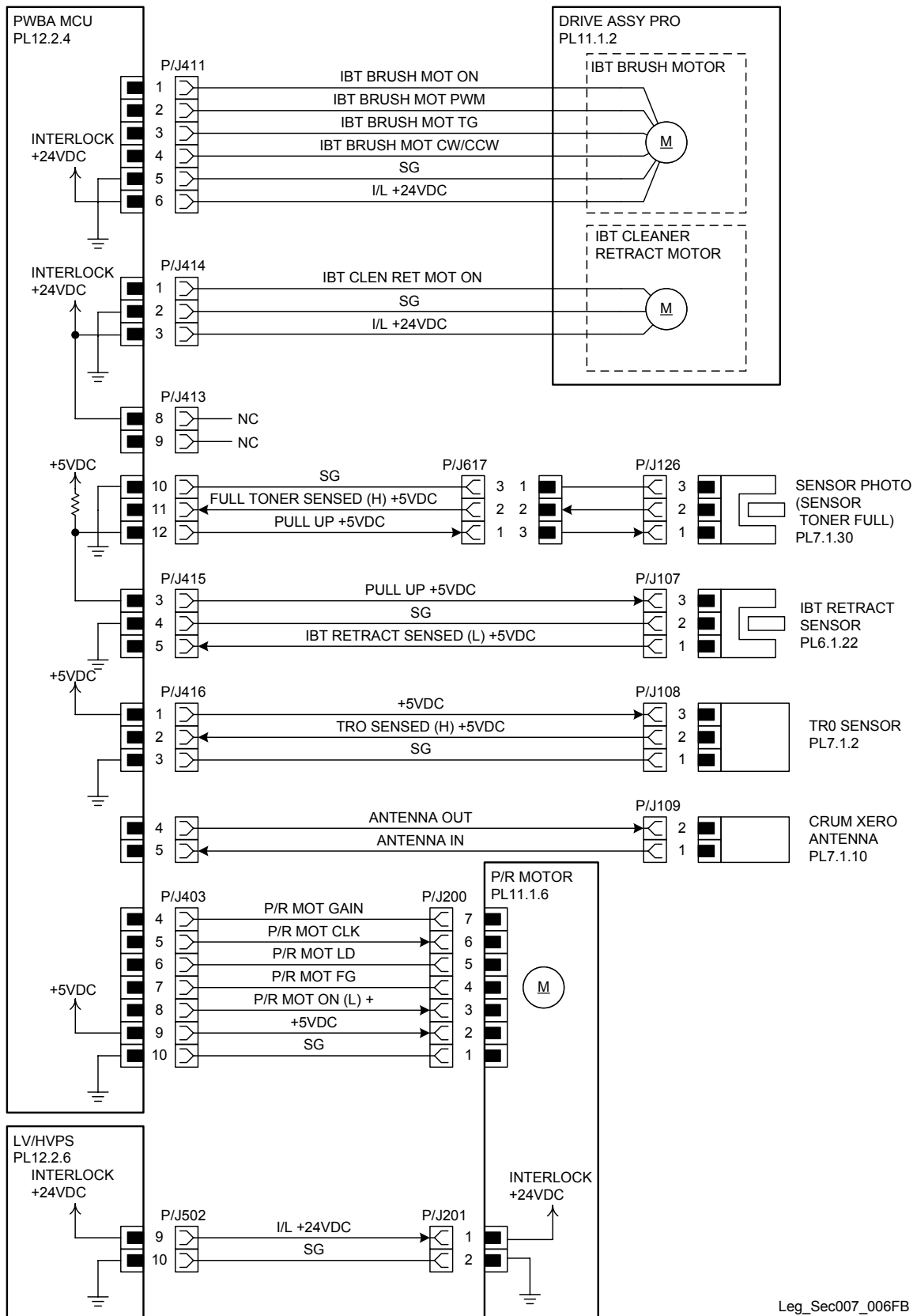
§ 4 ROS



Leg_Sec007_005FB

Signal line name	Description
ESS DATA- ESS DATA+	Image signal from ESS
MCU DATA- MCU DATA+	Image signal from MCU
PCONT LASER ON (L) +5VDC VREF	Control signal of PWBA LD in ROS ASSY
SCANNER MOTOR ON (L)+5VDC SCANNER MOTOR CLOCK	Control signal of PWBA Scanner in ROS ASSY
SOS SENSED (L) +5VDC	Reference signal for scan start of LASER

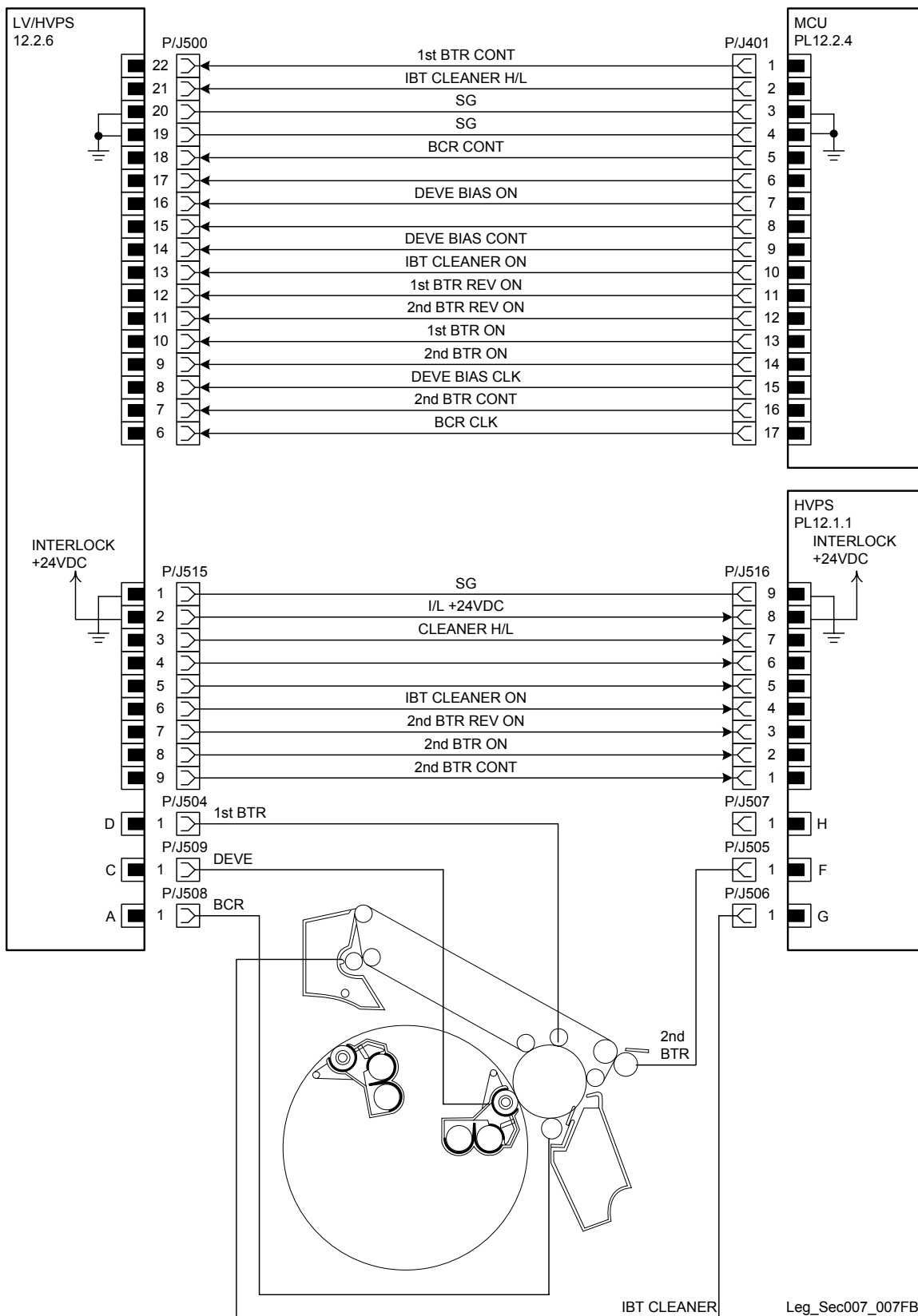
§ 5 XEROGRAPHIC



Leg_Sec007_006FB

Signal line name	Description
IBT BRUSH MOT ON IBT BRUSH MOT PWM IBT BRUSH MOT TG IBT BRUSH MOT CW/CCW	Drive control signal of IBT Brush Motor
IBT CLEN RET MOT ON	Drive control signal of IBT Cleaner Retract Motor
FULL TONER SENSED (H) +5VDC	Full toner detect signal by Sensor Photo (Sensor Toner Full)
IBT RETRACT SENSED (L) +5VDC	Retract detect signal of IBT Cleaner by Sensor Photo (IBT Retract Sensor)
TR0 SENSED (H)+5VDC	Belt position detect signal by Sensor Photo (TR0 Sensor)
ANTENNA OUT ANTENNA IN	Control signal of CRUM XERO Antenna
P/R MOT GAIN P/R MOT CLK P/R MOT LD P/R MOT FG P/R MOT ON (L)+	Drive control signal of P/R Motor

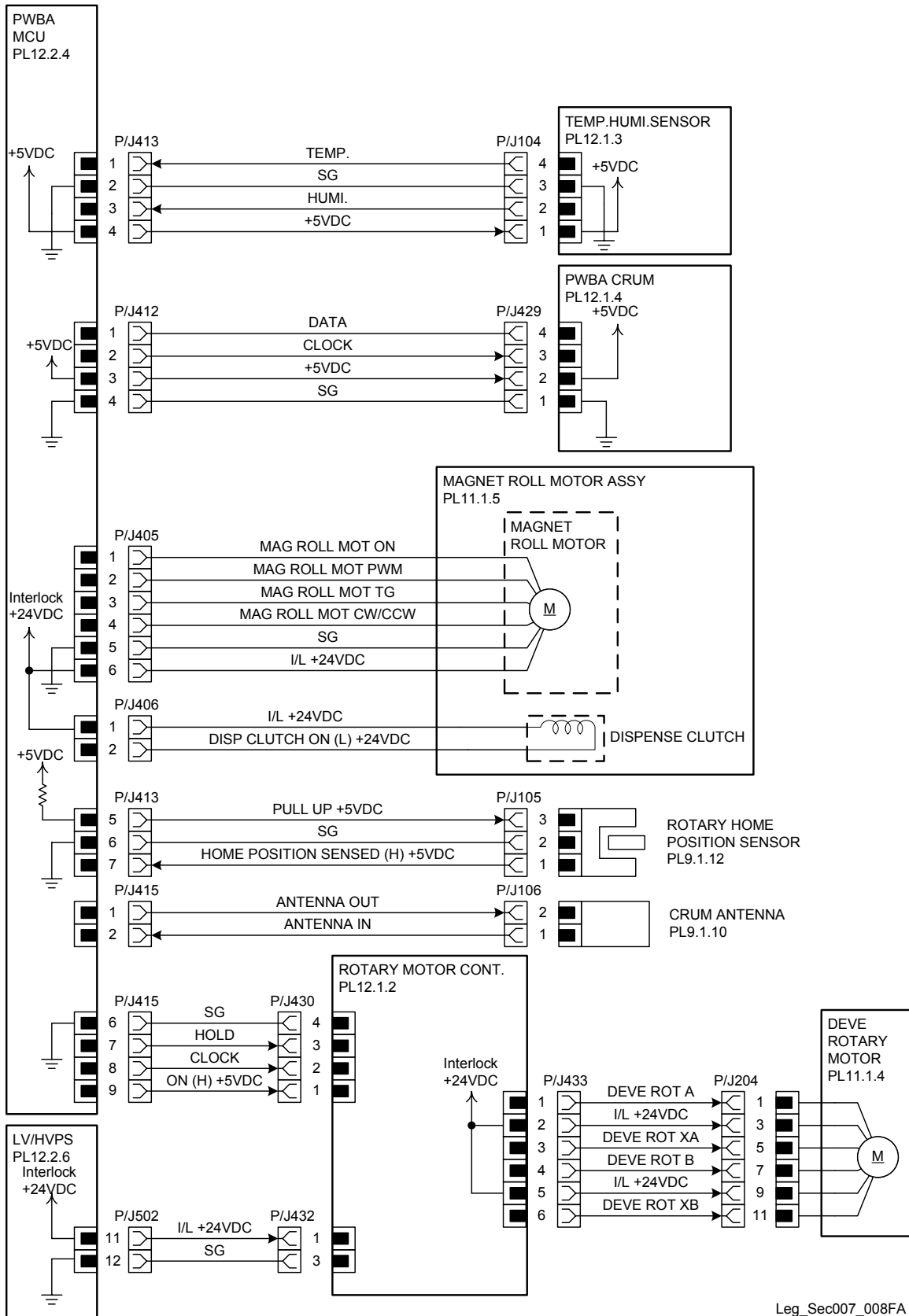
§ 6 HIGH VOLTAGE



Leg_Sec007_007FB

Signal line name	Description
1st BTR CONT	Voltage control signal of 1st BTR Bias
IBT CLEANER H/L	Voltage control signal of IBT CLEANER Bias
BCR CONT	Voltage control signal of BCR Bias
DEVE BIAS ON	ON/OFF signal of DEVE Bias
DEVE BIAS CONT	Voltage control signal of DEVE BIAS
IBT CLEANER ON	ON/OFF signal of Belt Cleaning Brush Bias
1st BTR REV ON	Control signal of 1st BTR DC Bias
2nd BTR REV ON	Control signal of 2nd BTR DC Bias
1st BTR ON	ON/OFF signal of 1st BTR Bias
2nd BTR ON	ON/OFF signal of 2nd BTR Bias
DEVE BIAS CLK	Cycle control signal of DEVE AC Bias
2nd BTR CONT	Voltage control signal of 2nd BTR Bias
BCR CLK	Cycle control signal of BCR Bias

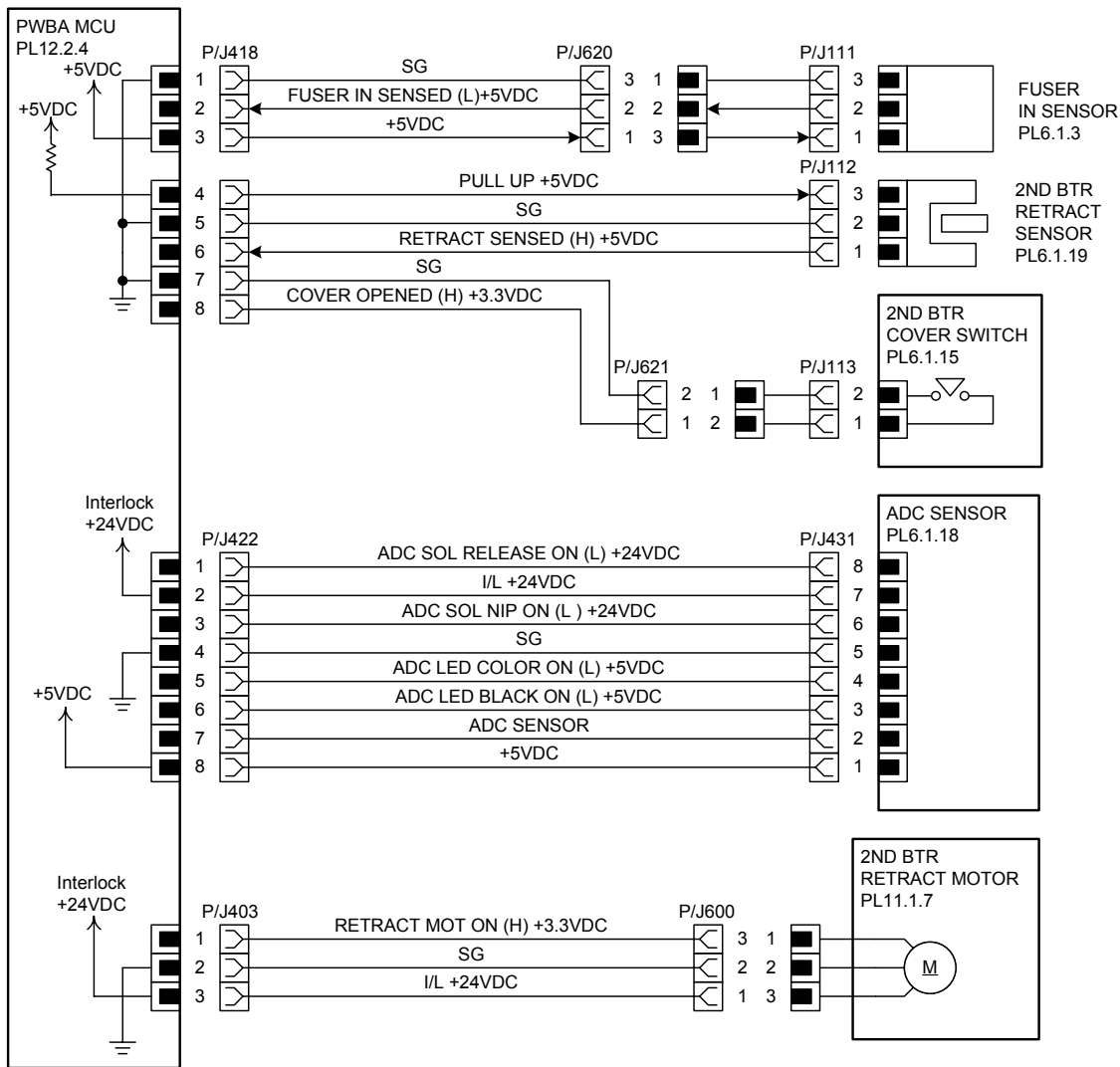
§ 7 DEVELOPER



Leg_Sec007_008FA

Signal line name	Description
MAG ROLL MOT ON MAG ROLL MOT PWM MAG ROLL MOT TG MAG ROLL MOT CW/CCW	Drive control signal of Magnet Roll Motor
TEMP.	Temperature data in the printer measured by Sensor (Analog value)
HUMI.	Humidity data in the printer measured by Sensor (Analog value)
HOME POSITION SENSED (H) +5VDC	Home position detect signal of Deve Rotary by Sensor Photo (Rotary Home Position Sensor)
ANTENNA OUT ANTENNA IN	Control signal of CRUM Cartridge Antenna
SG HOLD CLOCK ON (H) +5VDC	Control signal of PWBA Rotate Motor Control
DEVE ROT A,XA,B,XB	Excitation signal of Deve Rotate Motor
DATA CLOCK	Control signal of PWBA CRUM

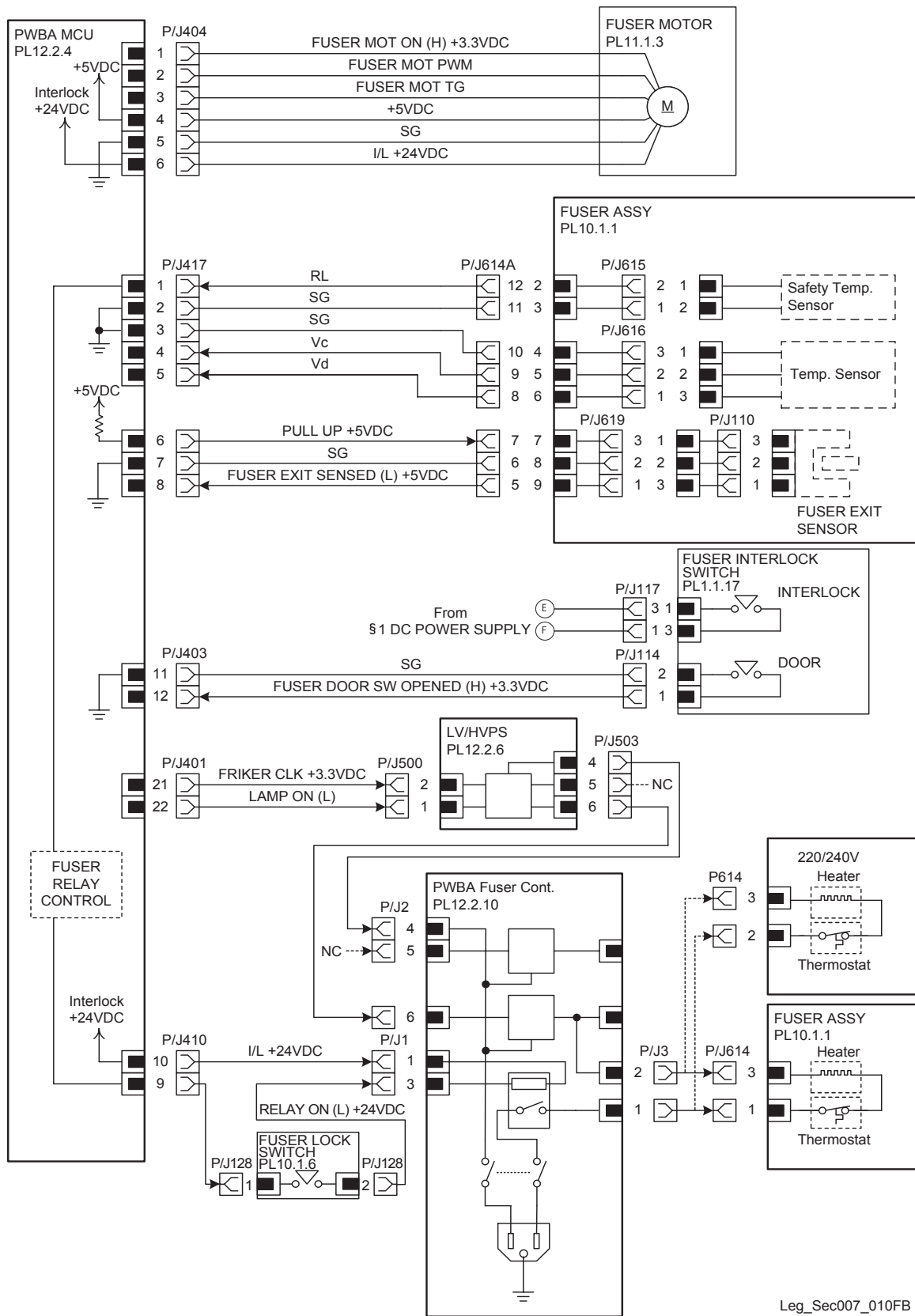
§ 8 2nd BTR



Leg_Sec007_009FA

Signal line name	Description
FUSER IN SENSED (L)+5VDC	Paper detect signal of 2nd BTR part by Sensor Photo (Fuser In Sensor)
RETRACT SENSED (H)+5VDC	Retract detect signal of 2nd BTR part by Sensor Photo (2nd BTR Retract Sensor)
ADC SOL RELEASE ON (L) +24VDC	ON/OFF signal of Solenoid in Sensor ADC (shutter is at measurement position of reflected light on reference board)
ADC SOL NIP ON (L)+24VDC	ON/OFF signal of Solenoid in Sensor ADC (shutter is at measurement position of diffused light)
ADC LED COLOR ON (L)+5VDC	Lighting signal of LED for detecting color toner patch in Sensor ADC
ADC LED BLACK ON (L)+5VDC	Lighting signal of LED for detecting black toner patch in Sensor ADC
ADC SENSOR	Toner patch concentration data measured by Sensor (analog value)
RETRACT MOT ON (H)+3.3VDC RETRACT MOT PWM	Control signal of 2nd BTR Retract Motor

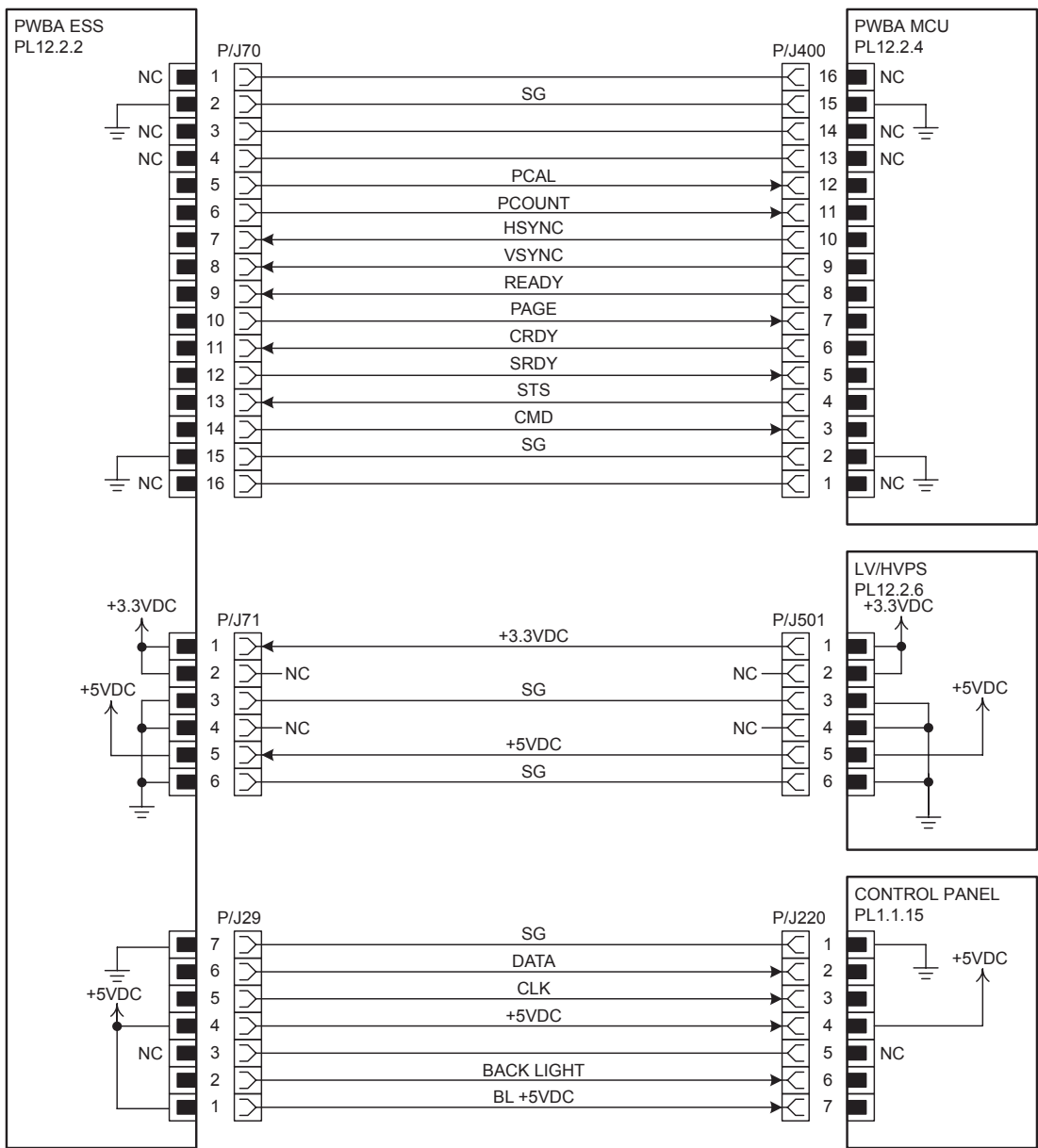
§ 9 FUSER



Leg_Sec007_010FB

Signal line name	Description
FUSER MOT ON (H)+3.3VDC FUSER MOT PWM FUSER MOT TG FUSER MOT CW/CCW	Drive control signal of Fuser Motor
RL	Heat Roll surface temperature data measured by Temp. Sensor for detecting high temperature (analog value)
VC	Temperature data measured by Temp. Sensor for controlling temperature (analog value)
VD	Temperature data measured by Temp. Sensor for controlling temperature (analog value)
FUSER EXIT SENSED (L)+5VDC	Paper discharge detect signal by Sensor Photo (Fuser Exit Sensor)
DATA CLOCK	Control signal of CRUM
FLICKER CLK +3.3VDC	Control signal for handling flicker (exclusive to AC220V/AC240V)
LAMP ON (L)+	Lighting signal of Fuser Lamp
RELAY ON (L)+24VDC	ON/OFF signal of Fuser Lamp Relay in PWBA Fuser Cont
FUSER DOOR SW OPEND (H) +3.3VDC	Open/close detect signal of Cover Fuser

§ 10 CONTROLLER



Leg_Sec007_011FC

Signal line name	Description
PCAL	Signal for changing over the pixel counter mode
PCOUNT	Pixel count signal
HSYNC	Signal for determining image data range in main scanning direction
VSYNC	Signal for indicating registration position of each of images Y, M, C and K
READY	Signal which shows whether or not the printer is in standby state
PAGE	Signal for determining one-page image data range
CRDY	Signal for indicating whether or not the printer is ready for receiving command signal
SRDY	Signal for indicating whether or not the printer is ready for status signal
STS	Status signal transmitted from PWBA ESS to PWBA MACU
CMD	Command signal transmitted from PWBA MCU to PWBA ESS
DATA	Data signal
CLK	Signal for allowing control panel to capture transmitted data
BACK LITE	LCD backlight power save signal
BL +5VDC	Power source for backlight

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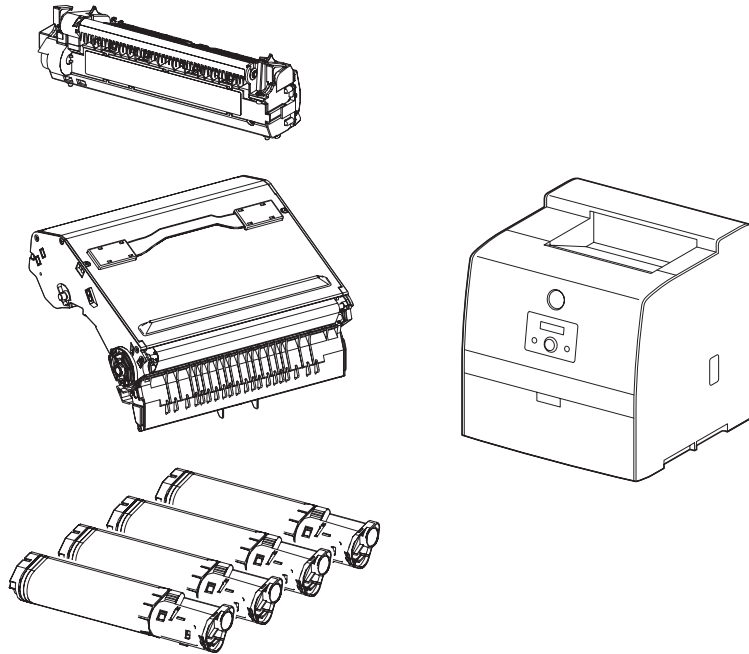
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1. Configuration of Printer

1.1 Basic Configuration

The printer has the following basic configurations depending on the destination.

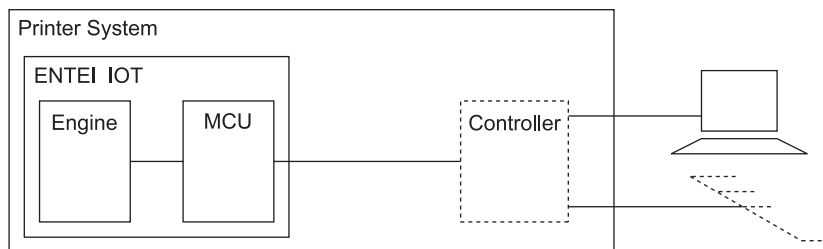
- print engine main unit (MSI and 250 feeder unit as the standard paper feeding)
- consumables (CRU)



Leg_Sec008_201LA

1.2 Functional Configuration

Functional configuration of this printer is shown below.



Leg_Sec008_002FA

2. Electrical Properties

2.1 Power Source

Two types of power source as follows are available for this printer, which are selected according to the specifications.

- ◆ 100V/115V/120V printer: . voltage: 100-127VAC $\pm 10\%$ (90 ~ 135V), frequency: 50/60Hz ± 3 Hz
- ◆ 220/240V printer:..... voltage: 220-240VAC $\pm 10\%$ (198 ~ 264V), frequency: 50/60Hz ± 3 Hz

2.2 Power Consumption

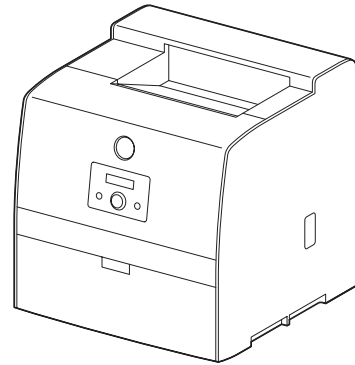
Power consumption in each operation mode at rated voltage input

Operation mode	Average (Wh/h)
Running mode (F/C)	≤ 240
Running mode (B/W)	≤ 340
Ready mode	≤ 82
Low power mode	≤ 30

3. Mechanical Properties

3.1 Dimensions/Mass of Printer

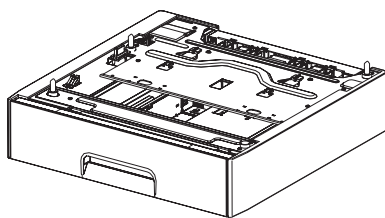
Width(mm)	Depth(mm)	Height(mm)	Mass(kg)
420	424	432	25 or under



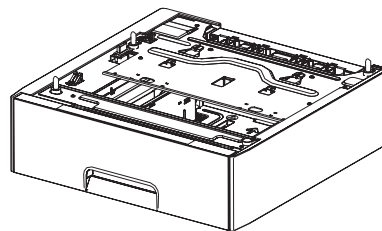
Leg_Sec008_003FA

3.2 Dimensions/Mass of Paper Tray

Tray	Width(mm)	Depth(mm)	Height(mm)	Mass(kg)
For 250 sheet A4/LT size	420	424	104	7 or under
For 250 sheet Legal size	420	480	104	7.5 or under
For 500 sheet A4/LT size	420	424	128	8.2 or under



Leg_Sec008_004FA



Leg_Sec008_005FA

3.3 Dimensions/Mass of Consumables (CRU)

3.3.1 IBT ASSY (with a toner recovery cartridge)

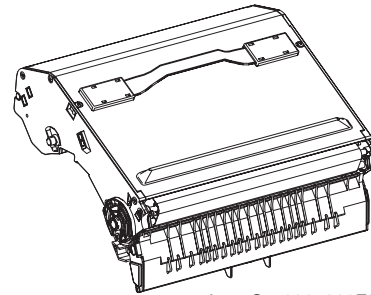
Width: 287mm \pm 1%

Depth: 310mm \pm 1%

Height: 109mm \pm 1%

Mass: 2.4kg \pm 1%

Reference: *The IBT ASSY has CRUM (CRU memory) to record information.*



Leg_Sec008_006FA

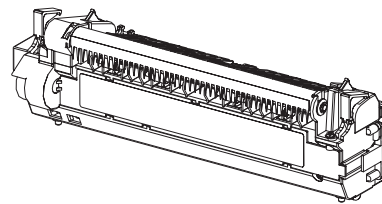
3.3.2 FUSER CRU

Width: 108mm \pm 1%

Depth: 333mm \pm 1%

Height: 100mm \pm 1%

Mass: 1.2kg \pm 1%



Leg_Sec008_007FA

3.3.3 Black toner cartridge

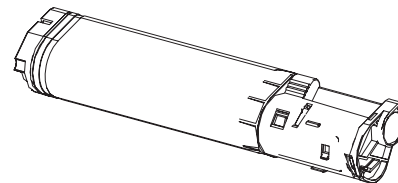
Width: 52.7mm \pm 1%

Depth: 285.6mm \pm 1%

Height: 58.4mm \pm 1%

Mass: 0.220kg \pm 1%

Reference: *The Black toner cartridge has CRUM (CRU memory) to record information.*



Leg_Sec008_008FA

3.3.4 Yellow toner cartridge

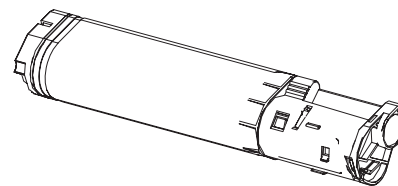
Width: 52.7mm \pm 1%

Depth: 285.6mm \pm 1%

Height: 58.4mm \pm 1%

Mass: 0.196 (1k)/0.220 (2k)kg \pm 1%

Reference: *The Yellow toner cartridge has CRUM (CRU memory) to record information.*



Leg_Sec008_008FA

3.3.5 Magenta toner cartridge

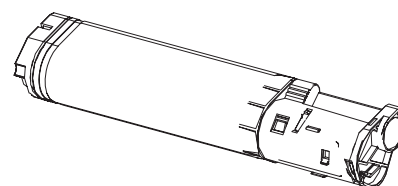
Width: 52.7mm \pm 1%

Depth: 285.6mm \pm 1%

Height: 58.4mm \pm 1%

Mass: 0.196 (1k)/0.220 (2k)kg \pm 1%

Reference: *The Magenta toner cartridge has CRUM (CRU memory) to record information.*



Leg_Sec008_008FA

3.3.6 Cyan toner cartridge

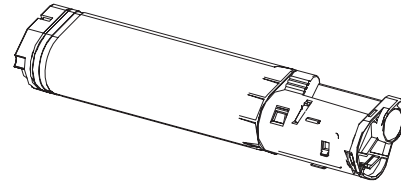
Width: 52.7mm ± 1%

Depth: 285.6mm ± 1%

Height: 58.4mm ± 1%

Mass: 0.196 (1k)/0.220 (2k)kg ± 1%

Reference: The Cyan toner cartridge has CRUM (CRU memory) to record information.

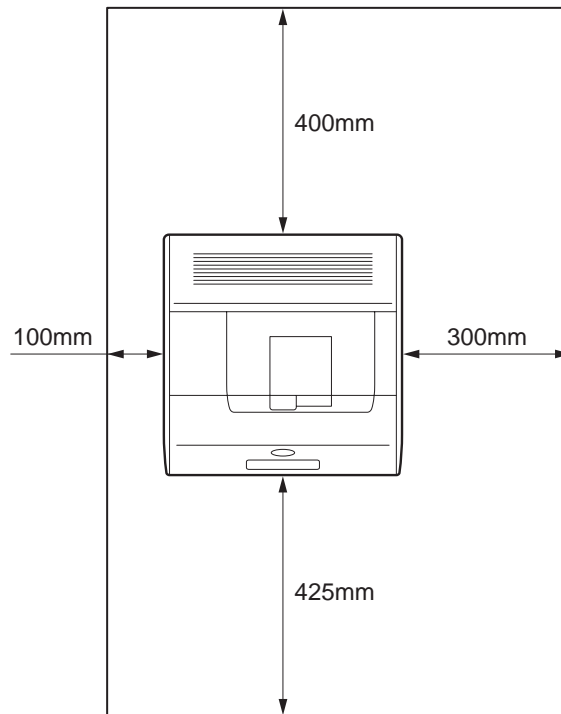


Leg_Sec008_008FA

3.4 Installation Space (min. installation space)

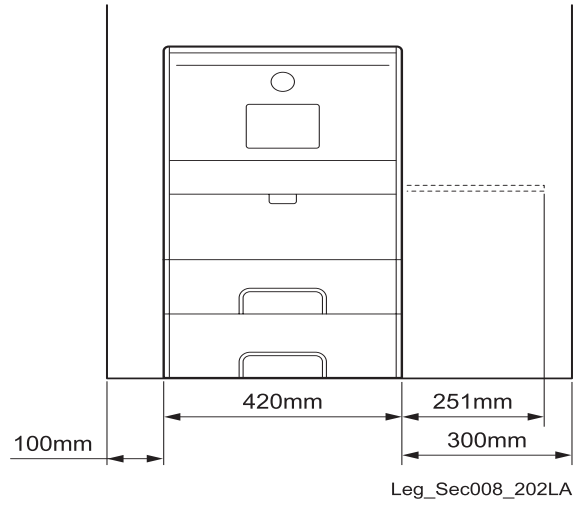
Minimum space as shown below is required to install the printer when it is used for normal objects. (Space occupied by the operator is not included.)

Top view

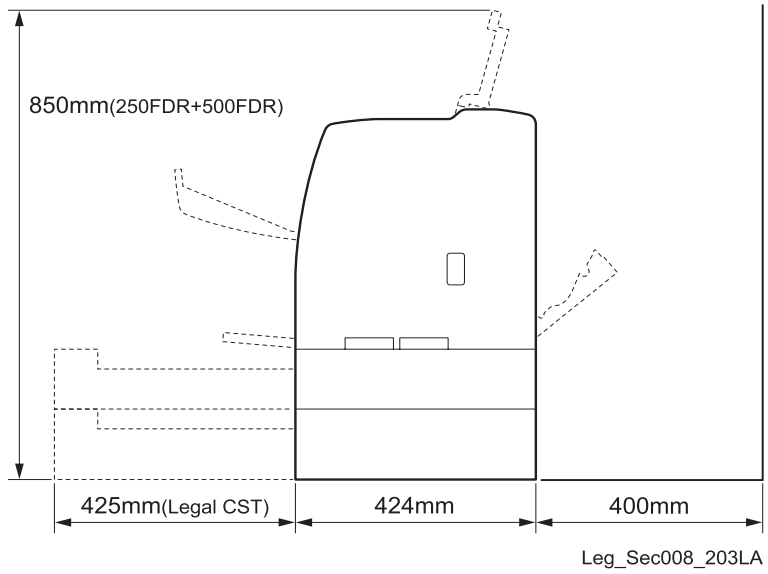


Leg_Sec008_011FA

Front view



Side view



4. Functions

4.1 Recording System

Electro-photographic system employing OPC drum and intermediate belt

4.2 Exposure System

Semiconductor laser beam scanning system

4.3 Development System

Development with dry type 2-component developer

4.4 Fixing System

Thermal fixing system by Free Belt Nip Fusing (FBNF)

4.5 Resolution

Two types of resolutions can be switched. Printing speed is halved at 1200dpi

- ◆ Main scanning direction: by the printer controller
- ◆ Sub scanning direction: 600 dots/25.4mm (fixed)

4.6 Operation Mode

The printer can be operated in either of 4 operation modes. The modes are switched over by command from the printer controller or change of printer operation, etc.

Proceeding from power ON, low power mode or sleep mode to standby mode will take place after going through a warm up stage.

◆ Running mode

State in running or recording operation

Fixing system:	Held at operating temperature.
Exposure system:	Operating status
Recording system:	Operating status

◆ Ready mode

Ready state

Fixing system:	Held at ready temperature.
Exposure system:	Stop status
Recording system:	Stop status

◆ Low power mode

Complete resting state. Compatible to E-Star requirement (35W or less).

Fixing system:	Stop status
Exposure system:	Stop status
Recording system:	Stop status

4.7 Warm-up Time

When nominal voltage (100V, 115V, 220V) is applied, the printer will proceed to standby mode from POWER-ON within 37 seconds.

Reference: Measured at 22°C, 55% RH, nominal voltage.

4.8 FPOT (First Print Output Time)

FPOT time of the printer is shown in the table below.

The time required for the first sheet of paper to be delivered after the PRINT indication is given is calculated on the following conditions (rounded to one decimal place).

- IOT performance that the controller does not have IOT wait.
- The printer is in the standby mode. (ROS MOTOR OFF, FUSER READY)
- Paper is A4 or Letter SEF
- Except when process control is operating*1

*1:Process controller operation is process controls such as TC control, electric potential control, cleaning cycle, registration control, and so on. Sometimes, the engine stops feeding papers for a certain period of time while continuous printing for these operations.

OS	PDL	measurment chart	Paper SIZE	Paper	Paper is fed to i	Color mode	FPOT
XP	Like a GDI	J9E	A4/Letter SEF	Normal paper	MPF	F/C	≤ 25
XP	Like a GDI	J9E	A4/Letter SEF	Normal paper	MPF	B/W	≤ 16

4.9 Continuous Printing Speed

The continuous printing speed is shown in the below.

OS	PDL	measur-ment chart	Paper SIZE	Paper	Paper is fed to ;	Color mode	duplex/siplex	FPOT
XP	Like a GDI	J11E	A4/Letter SEF	Normal paper	MPF	F/C	siplex	≤ 158
XP	Like a GDI	J11E	A4/Letter SEF	Normal paper	MPF	B/W	siplex	≤ 45

4.10 Input Properties

4.10.1 Paper pick-up system

- ◆ Paper pick-up with paper tray
Feeding method of this printer is S-ARRF method.

- ◆ MSI paper pick-up
The MSI (Multi Sheet Inserter) is equipped as standard. Selection of MSI is designated from the controller.

4.10.2 Paper pick-up capacity

- ◆ Paper pick-up with paper tray
 - 500 sheet Paper Tray : 500 sheets or below 56mm of standard paper
 - 250 sheet Paper Tray : 250 sheets or below 28mm of standard paper
 - 250 sheet Legal Paper Tray: 250 sheets or below 28mm of standard paper

- ◆ MSI paper pick-up
150 sheets or below 16mm of standard paper

4.11 Output Properties

4.11.1 Paper delivery system

Paper can be delivered by the following method.

- ◆ FACE DOWN delivery

4.11.2 Paper delivery capacity

- ◆ FACE DOWN delivery

250 sheets (X-pressions Letter/A4 standard paper)*

* 5% AREA COVERAGE for each color (in the case of color printing). 5% in the case of black and white.

4.11.3 Delivery paper size/mass

- ◆ FACE DOWN delivery

All paper sizes applicable to this printer

4.11.4 Full stack detection

non

4.12 Paper

4.12.1 Paper type

Paper which can be used with this printer is classified into standard paper, general paper and special paper.

◆ Standard paper

Using this type of paper is recommended. Reliability, operability and print image quality are the application range of the specifications.

Following paper is the standard paper.

B/W	F/C
4200DP	X-pressions

◆ General paper

General paper is plain paper except standard paper and special paper, and its reliability and running performance are within the specification, but the print image quality is out of the specification.

◆ Special paper

Special paper except for plain paper. Reliability and operability are the applicable range of specifications but the print image quality is out of the applicable range of specifications.

4.12.2 Paper mass

◆ Paper feed from paper tray

"60 to 105 gsm" (16 - 28 lb)

◆ Paper feed from MSI

"60 to 210 gsm" (16 - 78 lb)

4.12.3 Paper size

Paper size which can be set to each paper pick-up unit is shown in the table below.

Cassette	Paper size
500 Sheet Paper Tray	A4, Letter
250 Sheet Paper Tray	A5, B5 (JIS, IOS), A4, Letter, Executive
250 Sheet Legal Paper Tray	A5, B5 (JIS, IOS), A4, Letter, Executive, Legal 13", Legal 14"
MSI Tray	Minimum size Width 90mm × Length 139.7mm Maximum size Width 215.9mm × Length 355.6mm* (Legal 14")

* :When a paper with the length exceeding 297mm is used, the MSI cover shall be kept open.

5. Consumables

Consumables are usually replaced by costumers. In the event of recovery of failure attributable to consumables or isolation of failure, you may replace them.

5.1 Items of Consumables

- ◆ Black toner cartridge
Cartridge to supply black toner to the development unit.
Black toner cartridge has CRUM (CRU memory) to record information.
- ◆ Yellow toner cartridge
Cartridge to supply yellow toner to the development unit.
Yellow toner cartridge has CRUM (CRU memory) to record information.
- ◆ Magenta toner cartridge
Cartridge to supply magenta toner to the development unit.
Magenta toner cartridge has CRUM (CRU memory) to record information.
- ◆ Cyan toner cartridge
Cartridge to supply cyan toner to the development unit.
Cyan toner cartridge has CRUM (CRU memory) to record information.
- ◆ IBT ASSY (with a toner recovery cartridge)
It consists of photosensitive device, IBT belt unit, cleaning mechanism, toner recovery cartridge, etc.
IBT ASSY has CRUM (CRU memory) to record information.

5.2 Consumable Life

- ◆ Black toner cartridge: 2kPV
- ◆ Yellow toner cartridge: 1k/2kPV
- ◆ Magenta toner cartridge: 1k/2kPV
- ◆ Cyan toner cartridge: 1k/2kPV
- ◆ IBT ASSY (with a toner recovery cartridge):24kPV

6. Operating Environment

6.1 Installation Temperature / Humidity

Installation temperature and humidity on the condition without condensation is as follows.

At operating: 5-32 °C, 15-85%RH

At stopping: minus 20-40 °C, 5-85%RH

6.2 Installation Altitude

0 to 3,100m

6.3 Installation Horizontality

Longitudinal levelness of table surface on which the printer is installed: 5mm

Lateral levelness of table surface on which the printer is installed : 10mm

6.4 Ambient Lighting

3000 Lux or less (without no direct sun beams)

6.5 Storage Temperature of a Toner Cartridge

TBD

7. Safety / Environment Conditions

7.1 Safety Standard

- ◆ 100V / 120V system
UL60950 3rd Edition
CSA C22.2 No.60950-00
- ◆ 220V / 240V system
IEC60950 3rd Edition / EN60950 2000

7.2 Laser Safety Standard

- ◆ 100V / 120V system
FDA21CFR Chapter 1, Subchapter J, Section 1010, 1040
- ◆ 220V / 240V system
IEC60825 Amendment 1 + Amendment 2 / EN60825-1 Amendment 11 + Amendment 2 Class 1
Laser Product

7.3 EMI

- ◆ 120V system (US)
FCC Part 15, Subpart B, Class B (ANSI C63.4/11.4D)
- ◆ 220V / 240V system (EC)
EN55022 (CISPR Publication 22), Class B

7.4 Noise

Noise of printing (including with option) is as follows.

	Sound power level	Sound power level of impulse (B)
Standby	≤ 4.0	-
Print	≤ 6.6 (TBD)	≤ 7.3 (TBD)

8. Print image Quality

8.1 Image Quality Guarantee Conditions

The image quality is specified and guaranteed under the following conditions.

8.1.1 Environmental conditions

Environment condition for evaluating image quality

Temperature: 10-32 °C

Humidity: 15-85%RH

8.1.2 Guaranteed paper

The print image quality specified here is guaranteed with standard paper fed from the paper tray.

Evaluation is performed with the maximum size of each standard paper.

image quality	standard paper	market
F/C(both Simplex/ Duplex)	X-Pression paper	For overseas market
B/W	4200 paper	For overseas market

8.1.3 Paper condition

The paper used is fresh paper immediately after unpacked, which has been left in the operating environment for 12 hours before unpacking.

8.1.4 Printer condition

The print image quality specified in this section is guaranteed with the printer in normal condition.

8.1.5 Image quality guaranteed area

The print image quality specified in this section is guaranteed in the guaranteed image quality area specified in this manual.

8.1.6 Criterion

The print image quality is guaranteed with the Spec. In rate = 95% ($\gamma = 90\%$).

9. Option

9.1 Options to be Installed by Users

Users can install the following units.

- ◆ 250 Feeder Unit
- ◆ 500 Feeder Unit
- ◆ Legal cassette for 250 Feeder Unit

10. ESS Specification

10.1 External Interface

10.1.1 USB

Item	Specification
Connector	Type-B x 1
Protocol	USB2.0, HighSpeed
Supported Client	Windows2000/XP/2003Server PC with USB

10.1.2 Ethernet

Item	Specification
Connection	10 Base-T/100Base-TX
Protocol	See Network Protocol for details
Supported Client	WindowsNT4.0/2000/XP/2003Server PC

10.2 Network Protocol

10.2.1 Printing Protocol

Protocol	Transport	Maximum Session *1	Supported Client
LPD	TCP/IP	1	WindowsNT4.0/2000/XP/2003Server (DPU)
Port9100	TCP/IP	1	Windows /2000/XP/2003Server (DPU)
FTP	TCP/IP	1	WindowsNT4.0/2000/XP/2003Server

*1: Maximum session is defined as the number of print request acceptable at the same time.

10.2.2 Other Protocols

Protocol	Transport	Support
SNMP	TCP/IP	[Supported MIB] MIB-II (RFC1213) HostResources MIB (RFC1514) PrinterMIB (RFC1759) XCM12.4
HTTP	TCP/IP	[Client] (Windows 2000/XP,Windows NT4.0) Netscape Communicator 7.x or later Internet Explorer 6.0 or later
DHCP	TCP/IP	[Supported OS] WindowsNT4.0/2000/2003Server
BOOTP	TCP/IP	[Supported OS] WindowsNT4.0/2000/2003Server
AutoIP	TCP/IP	[Software] Installer
SMTP	TCP/IP	E-mail Alert [Supported Mail Server] LotusNotes, MS-Exchange, Eudora
FTP	TCP/IP	Firmware Update

10.3 Decomposer

10.3.1 PDL/Emulation

Decomposer is still PCL. However printer can accept the job generated only by the own printer driver.

Interface/Protocol	PDL/Emulation
	GDI like
USB	available
LPD	available
Port9100	available
IPP	not available
SMB	not available
NetWare (P-Server)	not available
EtherTalk (A-PAP)	not available
FTP	not available

10.3.2 Font

81 fonts and Symbol Sets 35 fonts for GDI like(PCL).

10.3.3 Form Overlay

Not supported.

10.3.4 Image Area

Usable Area Size	Maximum: 215.9mmx355.6mm
Unprintable Area	4mm each from four edges (left, right, top and bottom) of paper For DL, 6.1mm from left and right edges, 4mm from top and bottom edges are not printable
Printable Area	Maximum: 207.9mmx347.6mm
Print Image Quality Guaranteed Area	Same as Printable Area

10.4 Job Control

10.4.1 Cancel Print

A print job in process can be cancelled at the operation panel.

10.4.2 Job Recovery

When a job fails due to a paper jam, the printer automatically restarts the job after the jammed paper is removed.

10.4.3 Job Time Out

When job transmission is interrupted for a certain period of time (Time can be changed at the operation panel and unlimited time can be selected), the print data is deleted as an error.

10.4.4 Secure Print (/Store Print)

When memory is expanded (256MB or more), the printer holds print data, including a user password (12 digits) specified in the printer driver, user name and document name, in memory. The data is not printed until the same password, user name and document name are specified at the printer UI. The user can select whether the data is cleared or not after being printed. The data remains in the printer as long as it is not cleared. The data is cleared when the printer is turned on/off. The user can omit entering a password (This is called Store Print).

10.4.5 Proof Print

When memory is expanded (256MB or more), proof print can be selected only when multiple sets of prints are specified in the printer driver. The printer prints only the first set of the print data including a user name and document name specified in the printer driver. Then the user can select whether the remaining sets are printed or not (the remaining data is cleared) when the same user name and document name are entered at the printer UI. The data remains in the printer as long as it is not cleared. The data is cleared when the printer is turned on/off.

10.4.6 IP Filter

The user can select to accept or reject jobs for the specified IP address. Up to 5 IP addresses can be specified.

IP filter is available only to LPD and Port9100.

10.5 Logging

10.5.1 Job Logging

The printer can retain up to 22 job logs.

Job log can be printed instantly according to the user's request or automatically printed when the number of the retained job logs has reached 22.

Job log includes the following information:

- Job sent date and time
- Input interface (USB, Lpd etc.)
- Document name (File name)
- Output color
- User name/Host name
- Number of printed pages (Color/B/W)
- Number of printed impressions (Color/B/W)
- Paper size
- Result (Successful, Error, etc.)

10.5.2 Error Logging

The printer can retain up to 42 jam errors and up to 42 fatal errors.

The user can print error log by the panel operation.

Jam error log includes the following information:

- TOTAL PV when jam has occurred
- Name of jam

Fatal error log includes the following information:

- TOTAL PV when error has occurred
- Error code

10.5.3 Billing Count

NOTE

- **The same data is stored in two or more addresses in one IC. Datacheck (checksum etc.) is conducted.**

NOTE

- **When ESS is replaced, IC can be transferred. (IC is mounted on socket)**

Counter	Description
Color Print Counter	Count the number of paper printed in color (7 digits)
B/W Print Counter	Count the number of paper printed in B/W (7 digits)
Total Print Counter	Count the total number of paper printed in color and B/W (7 digits)

10.6 ID Print

User name can be printed. The printing position can be selected from upper right, upper left, lower right and lower left.

The user selects using the operation panel whether user name is printed or not and where it is printed.

10.7 3rd Party Mode

When life of toner cartridge has ended, the printer stops accepting print request (life of toner cartridge is counted by the counter in CRUM). Taking into consideration that some users use refilled toner cartridges, the printer can accept print request by the user's panel operation even if life of toner cartridge has ended. When the mode has changed so that the printer does not stop even after life of toner cartridge ends, the printer displays a message on the operation panel to inform the user of the mode change. When the printer operates in this mode, print image quality is not guaranteed. Also, remaining toner level is not displayed (as CRUM data can not be guaranteed).

10.8 Power Save Function

10.8.1 Power Save Mode

Mode	Description
Power Save Mode (30W or less)	Fusing: pause, Exposing: pause, Recording: pause

10.8.2 Transfer Time to Power Save Mode

Mode Transfer	Transfer Time	Default
From Standby Mode to Power Save Mode	Selectable from 1 to 60 minutes by 1 minute	15minutes

10.8.3 Recovery from Power Save Mode

When the printer receives a print job or any button on the operation panel is pressed, the printer recovers from the Power Save mode and enters the Ready mode.

10.9 Utility Print

10.9.1 Printer Settings List

Printer Settings List can be printed according to the user's request.

Printer Settings List is printed in B/W on A4 size paper (Letter size paper for the US) in the automatically selected paper tray.

Printer Settings List includes the following information:

[Title] Product name (Logo)

[General] Service tag, Asset tag, Memory capacity, Printer language, Number of fonts available, PDL name and version, ESS version, IOT version, Boot version, Color print volume, B/W print volume, Total print volume, Default paper size, Default paper type for plain paper, Default paper type for label, Default panel display language

[Network]

MPC version, MAC address, 10 or 100base & half or full

TCP/IP:TCP/IP settings (Panel or DHCP), IP address, Subnet Mask, Gateway Address

Other supported protocols

[Printer Options]

"Available Paper Tray" (Tray 1, Tray 2, MPF)

[Print Volume]

Print volume for each paper size

10.9.2 Panel Settings List Print

Panel Settings List can be printed by the user's operation. Panel Settings List is printed in B/W on A4 size paper (Letter size paper for the US) in the automatically selected paper tray.

10.9.3 Job Log Print

The user can print Job Log by requesting instant print or by setting auto print.

Job Log is printed in B/W on A4 size paper (Letter size paper for the US) in the automatically selected paper tray.

10.9.4 Error Log Print

Error log can be printed by the user's operation.

Jam error and fatal error log are printed in B/W on A4 size paper (Letter size paper for the US) in the automatically selected paper tray.

10.9.5 Stored Document List Print

The list of documents stored in the printer by Secure Print/Proof Print can be printed by the user's operation.

The list is printed in B/W on A4 size paper (Letter size paper for the US) in the automatically selected paper tray.