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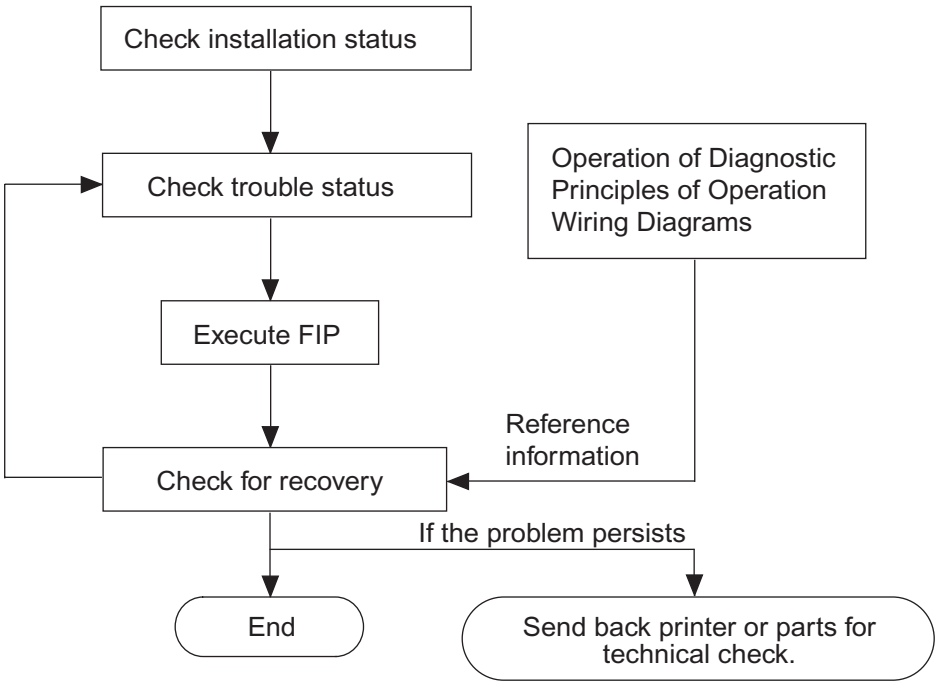
1. Troubleshooting Overview

To increase the efficiency of troubleshooting, ensure that preliminary checks should be made to confirm the trouble status before proceeding to the Fault Isolation Procedure (FIP), Operation of Diagnostic (Chapter 2), Wiring Diagrams (Chapter 7), and Principles of Operation (Chapter 6).

1.1 Flow of Troubleshooting

Flow of the troubleshooting is as follows:



1.2 Check Installation Status

Be sure to check the following items before starting the troubleshooting procedures

1) The power supply voltage is within the specifications (measure the voltage at the wall outlet).

2) Power cord is free from breakage, short-circuit, disconnected wire, or incorrect connection in the power cord.

3) The printer is properly grounded.

4) The printer is not installed at a place subjected to high/low temperature, humidity, and sudden temperature changes.

5) The printer is not installed at or near water facilities, humidifier, heating appliance, fire, dust, or in airflow from air conditioner.

6) The printer is not installed in a place subjected to volatile or inflammable gas.

7) The printer is not installed under direct sunlight.

8) The printer is installed in a well-ventilated place.

9) The printer is installed on a firm and stable surface.

10) The paper meets the specifications (standard paper is recommended).

11) The printer is handled properly.

12) The high frequency service items are replaced at the recommended print count intervals.

1.3 Cautions on Service Operations

1) Be sure to remove the power cord unless otherwise required.

While the printer is powered ON, never touch the conductive parts unless otherwise required.
Never touch the conductive parts of the power switch and inlet of the LVPS, because they are live even while the printer is powered off.

2) When checking some parts with covers removed and with the interlock, safety, and power switches ON, disconnect the connectors (P/J411 and P/J412) on the ROS ASSY except unless otherwise required.

When checking some parts with covers removed and with the interlock, safety, and power switches ON, laser beams may be irradiated from the ROS ASSY. For your safety, be sure to disconnect the connectors (P/J411 and P/J 412) unless otherwise required.

3) When checking some parts with the Front Cover removed and the printer powered ON, be sure to remove the connector (P/J16) on the PWBA MCU unless otherwise required.

When checking some parts with the Front Cover removed and the printer powered ON, be sure to remove the connector (P/J16) on the MCU. Otherwise, a high voltage may be output from the HVPS.
When connecting the connector (P/J16) on the MCU according to the instructions in the FIP, never touch the HVPS and high voltage parts.

4) When outputting a high voltage using the Diag Tool, etc., keep all the covers on unless otherwise required.

When outputting a high voltage using the Diag Tool, etc., ensure that:
- The high voltage carrying parts must never be touched.
- The instructions in this manual must be followed.

5) When operating the drive unit using the Diag Tool, etc., keep all the covers on unless otherwise required.

When operating the drive unit using the Diag Tool, etc., ensure that:
- The drive unit must never be touched.
- The instructions in this manual must be followed.

6) When touching hot parts, be careful not to get burnt.

7) While working, be sure to wear a wrist band or the like to dissipate static charges from your body.

1.4 Cautions on Using FIP

1) When troubleshooting according to the FIP, have on hand a normal MCU, LVPS, HVPS, FUSER ASSY, TRANSFER ASSY, etc., for possible fault isolation.

2) In the initial check according to the FIP, check only items which can be simply checked.

3) In the initial check according to the FIP, check the constitutive parts of the major check parts and related parts, as well as major check parts.

4) When working with the printer, be sure to remove the power cord unless otherwise required. Never touch live parts if not required, while the power cord is connected.

5) Connector condition is denoted as follows:
   [P/J12] → Connector (P/J12) is connected.
   [P12] → Plug side with the connector (P/J12) removed (except when attached directly to the board).
   [J12] → Jack side with the connector (P/J12) removed (except when attached directly to the board).

6) [P/J1-2PIN <=> P/J3-4PIN] in the FIP means measurement with the positive side of the measuring instrument connected to [2PIN] of [P/J1] and the negative side to [4PIN] of [P/J3].

7) [P/J1<=> P/J2] in the FIP means measurement for all terminals corresponding between [P/J1] and [P/J2] based on “Wiring Diagrams”.

8) In [P/J1-2PIN <=> P/J3-4PIN] in the FIP where voltage is measured, [P/J3-4PIN] on the rear negative side is always at the AG (analog ground), SG (signal ground), or RTN (return). Therefore, after checking of proper conductivity between AGs, SGs, or RTNs respectively, the rear negative side can be connected to the PIN of AG, SG or RTN instead of [P/J3-4PIN].
   However, care should be taken not to confuse [AG], [SG], and [RTN] because they are not on the same level.

9) When measuring the voltage at small connectors, use the dedicated tool. Handle the tool with care because its business end is pointed.

10) When measuring the voltage, set the TRANSFER ASSY, toner cartridge and sheet feeder, close the COVERs and power ON unless otherwise required.

11) Numerical values in the FIP are only for guideline. Approximate values are acceptable.

12) In each step of the FIP, parts removal and other procedures implicitly required for the step are omitted.

13) In the FIP, "Replacement" means the replacement of the parts that are considered to be the cause of the trouble. Replacement of those parts means the replacement of the assembly part (HIGH ASSY) that contain them.

14) In the FIP, the sheet feeder immediately below the printer main body is called "Tray 1", and the cassette below it is called "Tray 2".

15) Some of the instructions in the FIP are branched off depending on the specifications. Follow the applicable instruction.

16) For some optional components, you may have to refer to the manual of the relevant component for troubleshooting. Have the relevant manual at hand as needed.

1.5 Items To Be Confirmed Before Going To FIP Troubleshooting

Basic Printer Problems

Some printer problems can be easy to resolve. If a problem occurs with your printer, check each the following:

1) If a message is displayed on the LCD of operator panel, see “2.3 Status Code List”.
2) The printer power cable is plugged into the printer and a properly grounded electrical outlet.
3) The printer power is powered ON.
4) The electrical outlet is not turned off by any switch or breaker.
5) Other electrical equipment plugged into the outlet is working.
6) All options are properly installed.
7) If you have checked all of the above and still have a problem, turn off the printer, wait for 10 seconds, and then turn on the printer. This often solves the problem.

Display Problems

1) If the operator panel displays only diamonds or is blank, check and try the action below.
   If the problem persists even after checking and executing the items below, execute "Flow 27 Operator Panel-ESS Communication Fail", "Flow 112 AC Power" or "Flow 113 DC Power".
   a) Turn off the printer, wait for 10 seconds, and turn on the printer.
   b) Self Test Message appears on the operator panel. When the test is completed, “Ready to Print” is displayed.
2) If menu settings changed from the operator panel have no effect, check and try the actions below.
   Settings in the software program, the printer driver, or the printer utilities are overriding the settings made on the operator panel.
   a) Change the menu settings from the printer driver, the printer utilities, or the software program instead of the operator panel.
   b) Disable the settings in the printer driver, the printer utilities, or the software program so you can change settings on the operator panel.

Printing Problems

1) If a job did not print correct or incorrect characters were printed, check and try the actions below.
   a) Make sure “Ready to Print” appears on the operator panel before sending a job to print. Press **Menu** to return to “Ready to Print”.
   b) Make sure print media is loaded in the printer. Press **Menu** to return to “Ready to Print”.
   c) Verify that you are using the correct printer driver.
   d) Make sure you are using the correct Ethernet or USB cables and it securely connected at the back of the printer.
   e) Verify that the correct print media size is selected.
   f) If using a print spooler, verify that the spooler has not stalled.
   g) Check the printer interface from the “Configure” menu. Determine the host interface you are using. Print a Panel Setting page to verify that the current interfaces settings are correct.
   h) Output fonts will not print correctly using the PCL driver in its default mode. To correct this problem, use PostScript driver when using the PCL driver.

2) If secure print is not available or not printing, refer to the requirements below.
   a) Minimum 256 MB is required.
   b) RAM Disk must be enabled using the operation panel.
   c) The number of secure print jobs your printer can store is dependent on the job size including number of pages, graphics, color attributes, and the amount of memory installed. To increase this number, add additional memory.
3) If print media misfeeds or multiple feeds occur, check and try the actions below.
   a) Make sure the print media you are using meets the specifications for your printer. Refer to **Print Media Guidelines** of this section.
   b) Flex print media before loading it in any of the sources.
   c) Make sure the print media is loaded correctly.
   d) Make sure the width and length guides on the print media sources are adjusted correctly.
   e) If the print media are overfilled in sources, reduce the amount of media.
   f) Load the recommended print side correctly for the type of print media you are using.
   g) Turn the print media over or around and try printing again to see if feeding improves.
   h) Check the print media type loaded in the source, and refill only one type of print media, if print media types are mixed.
   i) Refill a new ream of print media, if some reams are mixed.
   j) Remove the top and bottom sheets of a ream before loading the print media.
   k) Do not reload print media until the print media source is empty.
4) If envelope misfeeds or multiple feeds occur, check and try the action below.
   a) Remove the stack of envelops from the Single Sheet Feeder (SSF).
5) If page breaks in unexpected places, check and try the action below.
   a) Check the “Job Time-out” in the Basic Settings menu and increase the value.
6) If a job prints from the wrong source or on the wrong print media, check and try the action below.
   a) Check the “Paper Size” and “Paper Type” in the Tray Settings menu on the printer operator panel and in the printer driver.
7) If print media does not stack neatly in the output tray, check and try the action below.
   a) Turn the print media stack over in the tray or multipurpose feeder.

Print Media Guidelines

Print media refers to paper, labels, envelopes, and coated paper among others. Your printer provides high-quality printing on a variety of print media. Selecting the appropriate print media for your printer helps avoid printing troubles. This section describes selecting print media, caring for print media, and loading the print media in the standard 250-sheet tray.

Paper

For the best print quality in color, use 75 g/m^2 (20 lb) xerographic, grain long paper. For the best print quality in black and white, use 90 g/m^2 (24 lb) xerographic, grain long paper. It is recommended that you perform trial print before purchasing large quantities of print media.
When loading paper, identify the recommended print side on the paper package, and load the paper accordingly. See "Loading Print Media in the Standard 250-Sheet Tray and the Optional 250-Sheet Feeder" and "Loading Print Media in the SSF" for detailed loading instructions.

Paper Characteristics

The following paper characteristics affect print quality and reliability. It is recommended that you follow these guidelines when evaluating new paper stock.

Weight

The tray automatically feeds paper weights from 60 g/m^2 to 216 g/m^2 (16 lb to 80 lb bond) grain long. The single sheet feeder automatically feeds paper weights from 60 g/m^2 to 216 g/m^2 (16 lb to 80 lb bond) grain long. Paper lighter than 60 g/m^2 (16 lb) may not feed properly, and could cause paper jams. For best performance, use 75 g/m^2 (20 lb bond) grain long paper.

Curl

Curl is the tendency of print media to curve at its edges. Excessive curl can cause paper feeding problems. Curl usually occurs after the paper passes through the printer, where it is exposed to high temperatures. Storing paper unwrapped, even in the paper tray, can contribute to paper curling prior to printing and cause feeding problems regardless of humidity. When printing on curled paper, straighten the paper and then insert it into the single sheet feeder.

Smoothness

The degree of paper smoothness directly affects the print quality. If the paper is too rough, the toner does not fuse on to the paper properly, resulting in poor print quality. If the paper is too smooth, it can cause paper feeding problems. Smoothness between 150 and 250 Sheffield points produces the best print quality.

Moisture Content

The amount of moisture in the paper affects both the print quality and the ability of the printer to feed the paper properly. Leave the paper in its original packaging until you are ready to use it. This limits the exposure of the paper to moisture changes that can degrade its performance.

Grain Direction

Grain refers to the alignment of the paper fibers in a sheet of paper. Grain is either grain long, running the length of the paper, or grain short, running the width of the paper. For 60 g/m^2 to 135 g/m^2 (16 lb to 36 lb bond) paper, grain long fibers are recommended. For paper heavier than 135 g/m^2 (36 lb bond), grain short is preferred.

Fiber Content

Most high-quality xerographic paper is made from 100% chemically pulped wood. Paper containing fibers such as cotton may lead to degraded paper handling.

Recommended Paper

To ensure the best print quality and feed reliability, use 75 g/m^2 (20 lb) xerographic paper. Business paper designed for general business use also provides acceptable print quality. Only use paper able to withstand high temperatures without discoloring, bleeding, or releasing hazardous emissions. The laser printing process heats paper to high temperatures. Check with the manufacturer or vendor to determine whether the paper you have chosen is acceptable for laser printers.

It is recommended that you perform trial print before purchasing large quantities of print media. When choosing any print media, you should consider the weight, fiber content, and color.

Unacceptable Paper

The following paper types are not recommended for use with the printer:

- Chemically treated paper used to make copies without carbon paper, also known as carbonless paper, carbonless copy paper (CCP), or no carbon required (NCR) paper.
- Preprinted paper with chemicals that may contaminate the printer.
- Preprinted paper that can be affected by the temperature in the fuser.
- Preprinted paper that requires a registration (the precise print location on the page) greater than ±0.09 inches, such as optical character recognition (OCR) forms.

In some cases, you can adjust registration with your software program to successfully print on these forms.

- Coated paper (erasable bond), synthetic paper, and thermal paper.
- Rough-edged, rough or heavily textured surface paper, or curled paper.
- Recycled paper containing more than 25% post-consumer waste that does not meet DIN 19 309.
- Multiple-part forms or documents.
- Print quality may deteriorate (blank spaces or blotches may appear in the text) when printing on talc or acid paper.

Selecting Paper

Proper paper selection helps prevent jams and ensures trouble-free printing.

To help avoid jams or poor print quality:

- Always use new, undamaged paper.
- Before loading the paper, identify the recommended print side of the paper.
  This information is usually indicated on the paper package.
- Do not use paper that you have cut or trimmed.
- Do not mix print media sizes, weights, or types in the same source. This may result in a paper jam.
- Do not remove the tray while printing is in progress.
- Ensure that the paper is properly loaded in the tray.
- Flex the paper back and forth, and then fan them. Straighten the edges of the stack on a level surface.

Identifying Print Media Sources and Specifications

The following tables provide information on standard and optional print media sources.

Supported Paper Sizes

Paper size	Single sheet feeder		Standard 250-sheet tray		Optional 250-sheet feeder		Duplexer
	Side 1	Side 2	Side 1	Side 2	Side 1	Side 2	
A4 (210 x 297 mm)	Y	Y	Y	Y	Y	Y	Y
B5 (182 x 257 mm)	Y	Y	Y	Y	Y	Y	N
A5 (148 x 210 mm)	Y	Y	Y	Y	Y	Y	N
Letter (8.5 x 11 in)	Y	Y	Y	Y	Y	Y	Y
Folio (8.5 x 13 in)	Y	Y	Y	Y	Y	Y	Y
Legal (8.5 x 14 in)	Y	Y	Y	Y	Y	Y	Y
Executive (7.25 x 10.5 in)	Y	Y	Y	Y	Y	Y	N
Envelope #10 (4.125 x 9.5 in)	Y	N	Y	N	N	N	N
Monarch (3.875 x 7.5 in)	Y*2	N	Y	N	N	N	N
DL(110 x 220mm)	Y*2	N	Y	N	N	N	N
C5 (162 x 229mm)	Y	N	Y	N	N	N	N
Custom*1	Y	Y	Y	N	N	N	N

*1: Custom: width: 76.2 mm (3.0 inch) to 215.9 mm (8.5 inch)
length: 127.0 mm (5.0 inch) to 355.6 mm (14.00 inch)

*2: Monarch LEF and DL LEF are not available.

Supported Paper Types

Paper type		Single sheet feeder		Standard 250-sheet tray		Optional 250-sheet feeder		Duplexer	
		Side 1	Side 2	Side 1	Side 2	Side 1	Side 2	Side 1	Side 2
Plain	Light	Y	Y	Y	Y	Y	Y	Y	N
	Normal	Y	Y	Y	Y	Y	Y	Y	N
	Thick	Y	Y	Y	Y	Y	Y	Y	N
Covers	Normal	Y	-	Y	-	N	-	N	-
	Thick	Y	-	Y	-	N	-	N	-
Coated	Normal	Y	-	N	-	N	-	N	-
	Thick	Y	-	N	-	N	-	N	-
Label	Normal	N	-	Y	-	N	-	N	-
	Thick	N	-	Y	-	N	-	N	-
Envelope		Y	-	Y	-	N	-	N	-
Recycled		Y	Y	Y	Y	Y	Y	Y	N
Letterhead		Y	-	Y	-	Y	-	Y	-
Preprinted		Y	-	Y	-	Y	-	Y	-
Prepunched		Y	-	Y	-	Y	-	Y	-
Color		Y	Y	Y	Y	Y	Y	Y	N

Paper Type Specifications

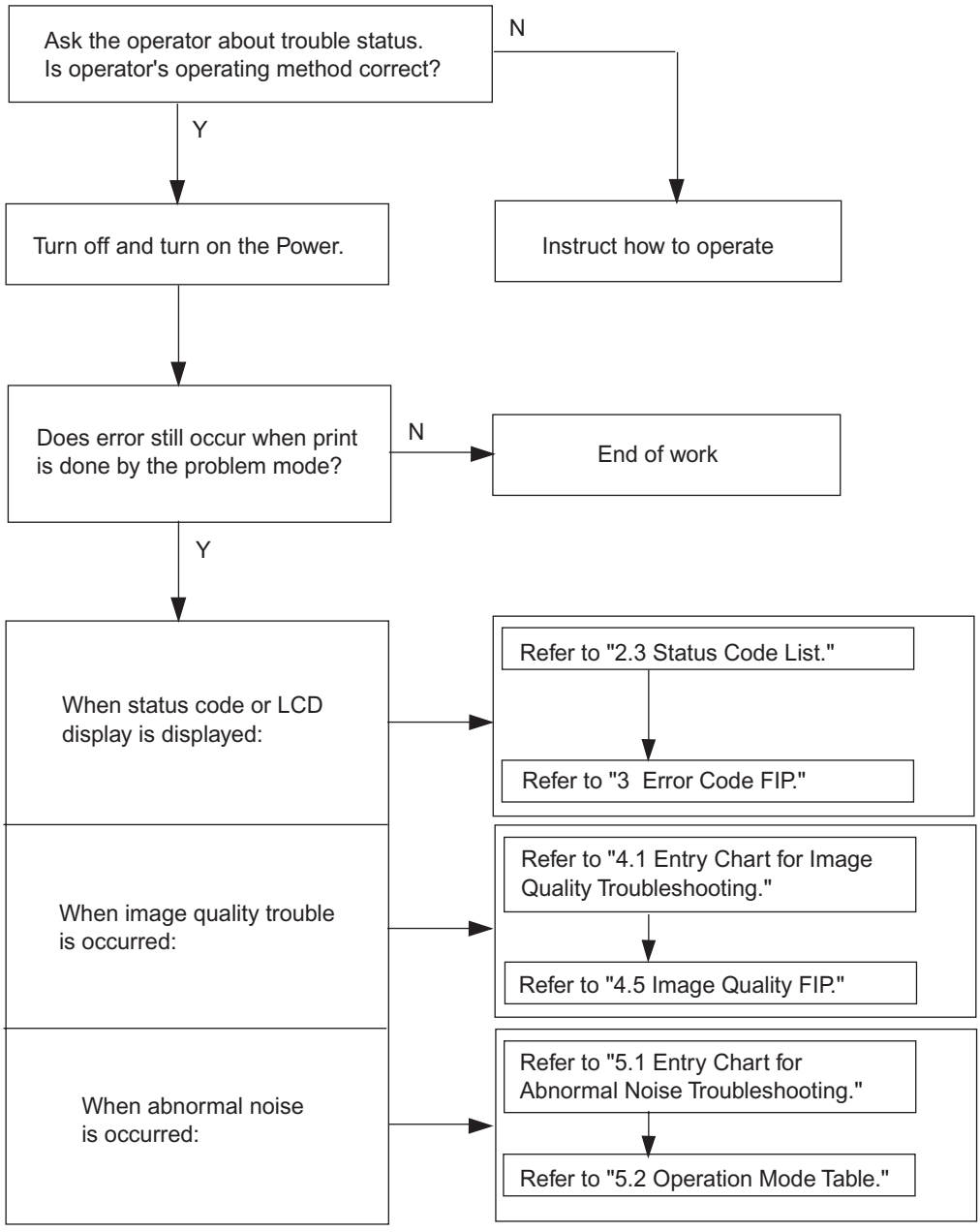
Paper type	Weight (g/m^2)	Remarks
Plain	60-90	-
Plain Thick	80/90-105	-
Recycled	60-105	-
Labels	-	Inkjet printer paper cannot be used.
Covers	106-163	-
Covers Thick	164-216	-
Envelope	-	-
Coated	106-163	Inkjet printer paper cannot be used.
Coated Thick	164-216	Inkjet printer paper cannot be used.
Letterhead	-	-
Preprinted	64	-
Prepunched	64	-
Color	64	-

2. FIP

2.1 FIP

The FIP is the first step for trouble diagnosis. The FIP isolates the presence of various troubles including error codes, and guides the troubleshooting procedure.

2.2 Flow of FIP



2.3 Status Code List

NOTE

Errors that occur when optional components are installed are gray-shaded.

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
001	360	Restart Printer Contact Support ⇕ Flip If Message Returns 001-360	Printer error. 001-360 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	< IOT Fan Motor Failure > MCU detects an error upon receiving error signal from the Fan.	Flows 1 FIP-1.1
003	340	Restart Printer Contact Support ⇕ Flip If Message Returns 003-340	Printer error. 003-340 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT Firmware Error> MCU firmware error occurs.	Flows 2 FIP-1.2
	356	Restart Printer Contact Support ⇕ Flip If Message Returns 003-356	Printer error. 003-356 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT NVRAM Error> The operation error of NVM (read/write check error etc.) is detected.	Flows 3 FIP-1.3
004	311	Restart Printer Reseat Duplexer ⇕ Flip Contact Support 004-311	Printer Error 004-311 Turn off the printer. Confirm Duplex is correctly installed. Turn on the printer. Contact customer support if this failure is repeated.	<IOT Duplexer Failure> (2150cdn only) The error is detected by Duplexer communication check.	Flows 4 FIP-1.4
004	This code is given when the Optional 250-Sheet Feeder is installed.				
	312	Restart Printer Reseat Feeder ⇕ Flip Contact Support 004-312	Printer error. 004-312 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT Feeder Configuration Failure> Option Sheet Feeder Configuration error is detected.	Flows 5 FIP-1.5

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
006	370	Restart Printer Contact Support Flip If Message Returns 006-370	Printer error. 006-370 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT ROS Failure> The operation error of ROS (rotational error etc.) is detected.	Flows 6 FIP-1.6
007	340	Restart Printer Contact Support Flip If Message Returns 007-340	Printer error. 007-340 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT Main Motor Failure> Main Motor failure is detected.	Flows 7 FIP-1.7
	341	Restart Printer Contact Support Flip If Message Returns 007-341	Printer error. 007-341 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT Sub Motor Failure> Sub Motor failure is detected.	Flows 8 FIP-1.8
	344	Restart Printer Contact Support Flip If Message Returns 007-344	Printer error. 007-344 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	< Option Feeder Motor Failure > Option Feeder Motor failure is detected.	Flows 9 FIP-1.9
	371	Restart Printer Contact Support Flip If Message Returns 007-371	Printer error. 007-371 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT K Mode Solenoid Error 1> The error is generated when K Mode Solenoid (Color Mode Switching Solenoid) does not operate in specified time.	Flows 10 FIP-1.10
007	372	Restart Printer Contact Support Flip If Message Returns 007-372	Printer Error 007-372 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT K Mode Solenoid Error 2> The error is generated when the gear which operates by K Mode Solenoid (Color Mode Switching Solenoid) rotates two times.	Flows 10 FIP-1.10

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
009	340	Restart Printer Contact Support Flip If Message Returns 009-340	Printer error. 009-340 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT CTD(ACD) Sensor Error> CTD(ACD) sensor error (analog-to-digital conversion etc.) is detected.	Flows 11 FIP-1.11
	360	Cartridge Error Reseat Flip Yellow Cartridge 009-360	Printer error. 009-360 Turn off the printer. Confirm Yellow Cartridge is correctly installed. Turn on the printer. Contact customer support if this failure is repeated.	<IOT Yellow Toner CRUM Comm Fail> The Yellow Toner Cartridge CRUM communication failure is detected.	Flows 12 FIP-1.12
	361	Cartridge Error Reseat Flip Magenta Cartridge 009-361	Printer error. 009-361 Turn off the printer. Confirm Magenta Cartridge is correctly installed. Turn on the printer. Contact customer support if this failure is repeated.	<IOT Magenta Toner CRUM Comm Fail > The Magenta Toner Cartridge CRUM communication failure is detected.	Flows 12 FIP-1.12
	362	Cartridge Error Reseat Flip Cyan Cartridge 009-362	Printer error. 009-361 Turn off the printer. Confirm Cyan Cartridge is correctly installed. Turn on the printer. Contact customer support if this failure is repeated.	<IOT Cyan Toner CRUM Comm Fail> The Cyan Toner Cartridge CRUM communication failure is detected.	Flows 12 FIP-1.12
	363	Cartridge Error Reseat Flip Black Cartridge 009-363	Printer error. 009-361 Turn off the printer. Confirm Black Cartridge is correctly installed. Turn on the printer. Contact customer support if this failure is repeated.	<IOT Black Toner CRUM Comm Fail> The Black Toner Cartridge CRUM communication failure is detected.	Flows 12 FIP-1.12

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
010	317	Restart Printer Reseat Fuser ↕ Flip Contact Support 010-317	The Fuser is either missing or not fully inserted into the printer. 010-317 CAUTION: Turn off the printer and wait for 30 minutes. Open the Front Cover and make sure that the Fuser have been fully installed. Please click the Show Me How Button for details.	<IOT Fuser Detached> Fuser detached is detected.	Flows 13 FIP-1.13
	351	Replace Fuser Now ↕ Flip Contact Support 010-351	Fuser Life Over 010-351 Contact customer support. Please click the Show Me How Button to show details.	<IOT Fuser Life Over> The value of Fuser counter has reached the replacement time.	Flows 14 FIP-1.14
	354	Restart Printer Contact Support ↕ Flip If Message Returns 010-354	Printer Error 010-354 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT Environment Sensor Error> The Temperature sensor detected the temperature anomaly.	Flows 15 FIP-1.15
	377	Restart Printer Reseat Fuser ↕ Flip Contact Support 010-377	Printer error. 010-377 Turn off the printer. Confirm Fuser is correctly installed. Turn on the printer. Contact customer support if this failure is repeated.	<IOT Fuser Failure> The operation error of Fuser (Temperature anomaly error etc.) is detected.	Flows 16 FIP-1.16
	421	Ready to Print Replace Fuser ↕ Flip Now Contact Support ↕ Flip 010-421	Replace Fuser Now Contact customer support 010-421	< IOT Fuser Near Life> The Fuser is approaching the replacement time.	Flows 17 FIP-1.17
016	300	Restart Printer Contact Support ↕ Flip If Message Returns 016-300	Printer error. 016-300 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<ESS Data Cache Error> The CPU cache error occurred.	Flows 18 FIP-1.18

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
016	301	Restart Printer Contact Support ⇕ Flip If Message Returns 016-301	Printer error. 016-301 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<ESS Instruction Cache Error> The CPU instruction cache error occurred.	Flows 18 FIP-1.18
	302	Restart Printer Contact Support ⇕ Flip If Message Returns 016-302	Printer error. 016-302 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<ESS Illegal Exception> The Exception error occurred.	Flows 18 FIP-1.18
	310	Restart Printer Contact Support ⇕ Flip If Message Returns 016-310	Printer Error 016-310 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<ESS Font ROM Error (Main)> Built-in Font ROM checksum error.	Flows 18 FIP-1.18
	313	016-313 Restart Printer ⇕ Flip Contact Support If Message Returns	Printer error. Turn off the printer, and turn it on again. Contact customer support if this failure is repeated. 016-313	<ESS ASIC Fail> The ASIC error occurred.	Flows 18 FIP-1.18
	315	Restart Printer Contact Support ⇕ Flip If Message Returns 016-315	Printer error. 016-315 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<ESS On Board RAM R/W Check Fail> An error occurred during the on-board RAM read/write check at the time of initialization.	Flows 18 FIP-1.18
	This code is given when the Optional Memory Module is installed.				
	316	Restart Printer Reseat Memory ⇕ Flip Contact Support 016-316	Printer error. 016-316 Turn off the printer. Remove the additional memory module from the slot, and then reattach it firmly. Turn on the printer. Contact customer support if this failure is repeated.	<ESS DIMM Slot RAM R/W Check Fail> Unsupported additional memory module is detected in the memory slot.	Flows 19 FIP-1.19

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
016	317	Restart Printer Contact Support ⇕ Flip If Message Returns 016-317	Printer error. 016-317 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<ESS ROM Check (Main) Fail> Checksum error occurred in the main program ROM.	Flows 18 FIP-1.18
	This code is given when the Optional Memory Module is installed.				
	318	Restart Printer Reseat Memory ⇕ Flip Contact Support 016-318	Printer error. 016-318 Remove the unsupported additional memory module. Contact customer support if this failure is repeated.	<ESS DIMM Slot RAM Error> Additional memory module is not completely inserted in the slot.	Flows 19 FIP-1.19
	323	Restart Printer Contact Support ⇕ Flip If Message Returns 016-323	Printer error. 016-323 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<ESS NVRAM 1 R/W Check Fail> An error occurred during the master NVRAM 1 read/write check at the time of initialization.	Flows 18 FIP-1.18
	324	Restart Printer Contact Support ⇕ Flip If Message Returns 016-324	Printer Error 016-324 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<ESS NVRAM 2 R/W Check Fail> An error occurred during the slave NVRAM 2 read/write check at the time of initialization. (Reserved)	Flows 18 FIP-1.18
	327	Restart Printer Contact Support ⇕ Flip If Message Returns 016-327	Printer error. 016-327 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<ESS NVRAM 1 SIZE And ID Check Fail> Upon turning the power ON, an error occurred during checks on consistency of the NVRAM size between the system-required one and actual one and on consistency of the recorded IDs.	Flows 18 FIP-1.18
	This code is given when the Optional Wireless Adapter is installed.				
	338	Restart Printer Reseat Wireless ⇕ Flip Contact Support 016-338	Printer Error 016-338 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Optional Wireless Adapter Error> The error is detected by Wireless option check.	Flows 20 FIP-1.20

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
016	340	Restart Printer Contact Support ⇕ Flip If Message Returns 016-340	Printer error. 016-340 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<ESS Network Communication Fail> A communication error occurred between the On Board Network and ESS firmware.	Flows 18 FIP-1.18
	347	Restart Printer Contact Support ⇕ Flip If Message Returns 016-347	Printer Error 016-347 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<On Board Network Fatal Error> A fatal error occurred the on board network communication.	Flows 21 FIP-1.21
	362	Restart Printer Contact Support ⇕ Flip If Message Returns 016-362	Printer error. 016-362 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<PCI Bus#0 Host Bridge Controller Error > Connection error occurred between the PCI BUS port and the port of peripheral devices.	Flows 22 FIP-1.22
	363	Restart Printer Contact Support ⇕ Flip If Message Returns 016-363	Printer error. 016-363 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<PCI Bus#1 Host Bridge Controller Error > Connection error occurred between the PCI BUS port and the port of peripheral devices.	Flows 22 FIP-1.22
	364	Restart Printer Contact Support ⇕ Flip If Message Returns 016-364	Printer error. 016-364 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<PCI Bus#0 Error Detected > Connection error occurred between the PCI BUS port and the port of peripheral devices.	Flows 22 FIP-1.22
	366	Restart Printer Contact Support ⇕ Flip If Message Returns 016-366	Printer error. 016-366 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<PCI Bus#1 Error Detected > Connection error occurred between the PCI BUS port and the port of peripheral devices.	Flows 22 FIP-1.22

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
016	367	Restart Printer Contact Support ⇕ Flip If Message Returns 016-367	Printer error. 016-367 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<PCI Error Messages received from Bus#0-Device#0 > Connection error occurred between the PCI BUS port and the port of peripheral devices.	Flows 22 FIP-1.22
	368	Restart Printer Contact Support ⇕ Flip If Message Returns 016-368	Printer error. 016-368 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<PCI Error Messages received from Bus#0-Device#1 > Connection error occurred between the PCI BUS port and the port of peripheral devices.	Flows 22 FIP-1.22
	369	Restart Printer Contact Support ⇕ Flip If Message Returns 016-369	Printer error. 016-369 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Operator Panel - ESS Communication Fail> Communication Fail with a Operator Panel and ESS F/W.	Flows 23 FIP-1.23
	370	Restart Printer Contact Support ⇕ Flip If Message Returns 016-370	Printer error. 016-370 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<MCU-ESS Communication Fail> Communication fail between MCU and ESS.	Flows 24 FIP-1.24
	383	Invalid ID Data Violation ⇕ Flip Press ✓ 016-383	Firmware download ID error has occurred 016-383 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Download ID Error> Download file ID is invalid.	Flows 25 FIP-1.25
	384	Range Chk Error Data Violation ⇕ Flip Press ✓ 016-384	Firmware download range error has occurred 016-384 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Download Range Error> At download, write-in destination address is invalid.Range check error.	Flows 25 FIP-1.25

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
016	385	Header Error Data Violation ↕ Flip Press ✓ 016-385	Firmware download header checksum error has occurred 016-385 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Download header Error> Download file header is invalid.	Flows 25 FIP-1.25
	386	Check Sum Error Data Violation ↕ Flip Press ✓ 016-386	Firmware download checksum error has occurred 016-386 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Download Check Sum Error> Download file checksum is invalid.	Flows 25 FIP-1.25
	387	Format Error Data Violation ↕ Flip Press ✓ 016-387	Firmware download format error has occurred 016-387 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Download Format Error> Download file format is invalid.	Flows 25 FIP-1.25
	388	MPC Error Reseat MPC ↕ Flip Press ✓ 016-388	Firmware download format error has occurred 016-388 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Download Initial Error> When downloading, failed in starting download mode.	Flows 25 FIP-1.25
	391	Protection Error Data Violation ↕ Flip Press ✓ 016-391	Firmware download protect error has occurred 016-391 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Download Protect Error> Performed FW download although FW update is prohibited by panel settings.	Flows 25 FIP-1.25
	392	Erase Flash Err. Contact Support ↕ Flip If Message Returns 016-392	Firmware download delete error has occurred 016-392 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Download Delete Error> Flash memory erase error occurred.	Flows 18 FIP-1.18

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
016	393	Write Flash Err. Contact Support ⇕ Flip If Message Returns 016-393	Firmware download write error has occurred 016-393 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Download Write Error> Flash memory write error occurred.	Flows 18 FIP-1.18
	394	Verify Error Contact Support ⇕ Flip If Message Returns 016-394	Firmware download verify error has occurred 016-394 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<Download Verify Error> Flash memory verify error occurred.	Flows 18 FIP-1.18
	520	Restart Printer Certificate Fail ⇕ Flip Contact Admin. 016-520	Certification error has occurred 016-520 Please inquire of the system administrator.	<Ipsec Certificate Error> Ipsec Certificate Error.	Flows 26 FIP-1.26
	700	Out of Memory Job Failed ⇕ Flip Press ✓ 016-700	The printer memory is full and cannot continue processing the current print job 016-700 Press Set Button to clear the message and cancel the current print job. Please click the Show Me How Button for details.	<Memory Over flow> The current printing job process cannot be continued because the memory capacity is exceeded.	Flows 27 FIP-1.27
	720	PDL Request Data Violation ⇕ Flip Press ✓ 016-720	Error relating to PDL emulation problems occurs 016-720 Press Set Button to clear the message and cancel the current print job. Please click the Show Me How Button for details.	<PDL Error> The print data cannot be processed by PDL.	Flows 28 FIP-1.28
	753	Wrong Password Press ✓ ⇕ Flip 016-753	-	<PDF password error> PDF password error.	Flows 29 FIP-1.29

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
016	755	PDF Print Disabled Flip Press ✓ 016-755	-	<PDF print disabled error> PDF print is not allowed.	Flows 29 FIP-1.29
	756	Job Failed Prohibited Time Flip Press ✓ 016-756	Now printer is in Prohibited Time 016-756 Please inquire of the system administrator.	<Auditron - Print prohibited time> Printing was executed at the print-prohibited time or the day of the week.	Flows 30 FIP-1.30
	757	User Account Not Registered Flip Press ✓ 016-757	Authentication error has occurred 016-757 The account is not registered. Please inquire of the system administrator.	<Auditron - Invalid User> An error occurred because the user's account settings did not match those of the Administrator.	Flows 31 FIP-1.31
	758	Function Disabled Denied Col print Flip Press ✓ 016-758	Function unavailable 016-758 It is a function that cannot be used. Please inquire of the system administrator.	<Auditron - Disabled Function> An error occurred because a user authorized only for B&W print attempted to execute color printing.	Flows 32 FIP-1.32
	759	Page Limit Reached Over your limits Flip Press ✓ 016-759	Printable page limit reached 016-759 Printable page limit reached, cannot print. Please inquire of the system administrator.	<Auditron - Reached Limit> An attempt was made to print more copies than the print count limit.	Flows 33 FIP-1.33
	799	Invalid Job Data Violation Flip Press ✓ 016-799	The configuration of the printer on the printer driver does not conform to the printer 016-799 Press the Set Button to clear the message and cancel the current print job. Make sure that the configuration of the printer on the printer driver conforms to the printer.	<Job Environment Violation> Detects violation data for the print condition. The print data specifies paper type/ size not available for the printer.	Flows 34 FIP-1.34
	This code is given when the Optional Wireless Adapter is installed.				
	920	Wireless Time-out Error Flip Press ✓ 016-920	Time-out Error has occurred thigh Wireless 016-920 Press set and try again.	<Wireless Setting Error Time-out Error> The time-out was done to the connection with Register.	Flows 35 FIP-1.35

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
016	921	Wireless Download Error Flip Press ✓ 016-921	Download Error has occurred thigh Wireless 016-921 Press set and try again.	<Wireless Setting Error Download Error> The error occurred while connecting it with Register.	Flows 36 FIP-1.36
	922	Wireless Session Overlap Error Flip Press ✓ 016-922	Session Overlap Error has occurred thigh Wireless 016-922 Press set and try again.	<Wireless Setting Error Session Overlap Error> Two or more Register that operated by WPS-PBC was found.	Flows 37 FIP-1.37
	This code is given when the Optional Memory Module is installed.				
	980	Disk Full Job too Large Flip Press ✓ 016-980	Disk space is insufficient and cannot continue processing the current print job 016-980 Press Set Button to clear the message and cancel the current print job. Please click the Show Me How Button for details.	<Disk Full> The current printing job process cannot be continued because the RAM disk is full.	Flows 38 FIP-1.38
	981	Collate Full Job too Large Flip Press ✓ 016-981	Disk space is insufficient and cannot continue processing the current print job 016-981 Press Set Button to clear the message and cancel the current print job. Please click the Show Me How Button for details.	< Collate Full> Unable to collate due to insufficient memory.	Flows 39 FIP-1.39
024	360	MCU Flash Error Contact Support Flip If Message Returns 024-360	MCU DownLoad Error 024-360 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<MCU DownLoad Error> Download failure of MCU firmware.	Flows 40 FIP-1.40

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
024	362	Restart Printer Contact Support ⇕ Flip If Message Returns 024-362	Printer Error 024-362 Turn off the printer, and turn it on again. Contact customer support if this failure is repeated.	<IOT Start Image Marking Time-out> "Start Image Making" has not been issued within the time allowed.	Flows 41 FIP-1.41
	985	Pause Feed SSF Press ✓ ⇕ Flip to Feed 024-985	-	<Waiting for "Continue" key to be pressed after reloading paper to the SSF> Printer starts printing automatically after a certain period of time even if the key is not pressed.	Flows 42 FIP-1.42
027	446	Restart Printer IPv6 Duplicate ⇕ Flip 027-446	-	<IPv6 duplicate> Duplicate IPv6 addresses detected upon startup.	Flows 43 FIP-1.43
	452	Restart Printer IPv4 Duplicate ⇕ Flip 027-452	-	<IPv4 duplicate> Duplicate IPv4 addresses detected upon startup.	Flows 43 FIP-1.43
042	700	Overheated Wait for printer ⇕ Flip to cool down 042-700	An internal temperature of the printer became a high temperature. 042-700 Please wait for a while until falling in temperature.	<IOT Over Heat Stop> The temp. Sensor sensed high temperature.	Flows 44 FIP-1.44
071	100	Paper Jam Open Tray1 ⇕ Flip Remove Paper Open and Close ⇕ Flip Front Cover 071-100	Paper Jam has occurred at the Tray 1 071-100 Remove the Tray 1 and remove the jammed paper. Open and close the Front Cover. Please click the Show Me How Button for details.	<IOT Tray1 Misfeed JAM> The Regi Sensor is not turned ON within the specified time after feeding a paper from Tray 1.	Flows 45 FIP-1.45
072	This code is given when the Option 250 Sheet Feeder is installed.				
	100	Paper Jam Open Tray2 ⇕ Flip Remove Paper Open and Close ⇕ Flip Front Cover 072-100	Paper Jam has occurred at the Tray 2 072-100 Remove the Tray 2 and remove the jammed paper. Open and close the Front Cover. Please click the Show Me How Button for details.	<IOT Tray2 Misfeed JAM> The Paper Path Sensor of Tray 2 is not turned ON within the specified time after feeding a paper from Tray 2.	Flows 46 FIP-1.46

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
072	101	Paper Jam Open Tray1 or 2 ↕ Flip Remove Paper Open and Close ↕ Flip Front Cover 072-101	Paper Jam has occurred at the Tray 1 or 2. 072-101 Remove the Tray 1 or 2, and remove the jammed paper. Open and close the Front Cover. Please click the Show Me How Button for details.	<IOT Feeder 2 JAM> A jam has been detected between the Regi Sensor and the Paper Sensor of Tray 2.	Flows 47 FIP-1.47
	908	Paper Jam Open Tray1 or 2 ↕ Flip Remove Paper Open and Close ↕ Flip Front Cover 072-908	Paper Jam has occurred at the Tray 1 or 2. 072-908 Remove the Tray 1 or 2, and remove the jammed paper. Open and close the Front Cover. Please click the Show Me How Button for details.	<IOT Remain Option Feeder JAM> The paper remains at the Paper Path Sensor of Tray 2.	Flows 48 FIP-1.48
075	101	Paper Jam Open Front Cover ↕ Flip Remove Paper 075-101	Paper Jam has occurred at the SSF 075-101 Open the Front Cover and remove the jammed paper. Open and close the Front Cover. Please click the Show Me How Button for details.	<IOT SSF Insert JAM> SSF No Paper Sensor detect when a paper is inserted from SSF.	Flows 49 FIP-1.49
	102	Paper Jam Open Front Cover ↕ Flip Remove Paper 075-102	Paper Jam has occurred at the SSF 075-102 Pull the jammed paper out of the SSF. Open and close the Front Cover. Please click the Show Me How Button for details.	<IOT SSF Paper Pullout JAM> Though it tried to feed a paper from SSF, the paper was not loaded or it was pulled out forcibly from SSF.	Flows 49 FIP-1.49
	923	Check SSF Reseat Paper SSF ↕ Flip 075-923	SSF is not holding the paper correctly 075-923 Pull the paper out of the SSF. Reload the paper of the SSF.	<Waiting for reseat paper of SSF> Wait for the paper on SSF to be reseated.	Flows 49 FIP-1.49

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
077	100	Paper Jam Open Front Cover ↕ Flip Remove Paper 077-100	-	<IOT Regi On early JAM> The paper remains at the paper transfer path between the Tray 1 and the Regi Sensor.	Flows 50 FIP-1.50
	101	Paper Jam Open Front Cover ↕ Flip Remove Paper 077-101	-	<IOT Regi OFF Jam> The paper does not pass through the Regi Sensor within the specified time.	Flows 51 FIP-1.51
	102	Paper Jam Open Front Cover ↕ Flip Remove Paper 077-102	-	<IOT Exit On JAM> The paper does not reach the Exit Sensor within the specified time.	Flows 52 FIP-1.52
	103	Paper Jam Open Front Cover ↕ Flip Remove Paper 077-103	-	<IOT Exit On early JAM> The paper remains at the paper transfer path between the Exit Sensor and the Regi Sensor.	Flows 52 FIP-1.52
	104	Paper Jam Open Front Cover ↕ Flip Remove Paper 077-104	-	<IOT Exit Off JAM> The paper does not pass through the Exit Sensor within the specified time.	Flows 53 FIP-1.53
	105	Paper Jam Open Front Cover ↕ Flip Remove Paper 077-105	-	<IOT Exit Off early JAM> The paper passed through the Exit Sensor earlier than the specified time.	Flows 53 FIP-1.53
	106	Paper Jam Open Front Cover ↕ Flip Remove Paper 077-106	-	<IOT Stop Reservation JAM> Detect jam when stopped before Fuser in forced stop mode.	Flows 52 FIP-1.52
	107	Paper Jam Open Front Cover ↕ Flip and Duplexer Remove Paper ↕ Flip 077-107	Paper Jam has occurred at the Duplexer. 077-107 Open the Front Cover and the Duplexer. Then remove the jammed paper. Close the Front Cover. Please click the Show Me How Button for details.	<IOT Duplex Misfeed JAM> (2150cdn only) In the duplex printing mode, the lead edge does not reach the Regi Sensor when the sheet changes the direction in the Duplexer after the standby.	Flows 54 FIP-1.54

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
077	108	Paper Jam Open Front Cover ↕ Flip and Duplexer Remove Paper ↕ Flip 077-108	Paper Jam has occurred at the Duplexer. 077-108 Open the Front Cover and the Duplexer. Then remove the jammed paper. Close the Front Cover. Please click the Show Me How Button for details.	<IOT Duplex JAM>(2150cdn only) In the duplex printing mode, the lead edge does not reach the SSF No Paper Sensor when the sheet changes the direction in the Duplexer after the standby.	Flows 54 FIP-1.54
	300	Front Cover Is Open ↕ Flip Close Front Cover 077-300	Front Cover is open 077-300 Close the Front Cover.	<IOT Cover Front Open> The Front Cover is open.	Flows 55 FIP-1.55
	301	Side Cover Is Open ↕ Flip Close Side Cover 077-301	Side Cover is open 077-301 Close the Side Cover.	<IOT Side Cover Open> The Toner Access Cover is open.	Flows 56 FIP-1.56
	900	Paper Jam Open Front Cover ↕ Flip Remove Paper 077-900	Paper Jam has occurred at the Output Tray 077-900 CAUTION: The Fuser is hot. Open the Front Cover and remove the jammed paper. If the jammed paper is in the Fuser, lift the levers at both ends of the Fuser and remove the jammed paper. Please click the Show Me How Button for details.	<IOT Exit JAM> The paper remains at the Exit Sensor.	Flows 57 FIP-1.57
	901	Paper Jam Open Front Cover ↕ Flip Remove Paper 077-901	Paper Jam has occurred at the Belt Unit 077-901 Open the Front Cover and remove the jammed paper. Close the Front Cover. If the jammed paper is not easily removed, work after pulling out the tray. Please click the Show Me How Button for details.	<IOT Remain Registration JAM> The paper remains at the Regi Sensor.	Flows 58 FIP-1.58

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
077	907	Paper Jam Open Front Cover ↕ Flip and Duplexer Remove Paper ↕ Flip 077-907	Paper Jam has occurred at the Duplexer. 077-907 Open the Front Cover and the Duplexer. Then remove the jammed paper. Close the Front Cover. Please click the Show Me How Button for details.	<IOT Remain Duplex JAM> (2150cdn only) The paper remains at the Duplex area.	Flows 59 FIP-1.59
091	402	Ready to Print Replace PHD ↕ Flip Now Contact Support ↕ Flip 091-402	Replace PHD unit Now Contact customer support 091-402	<IOT PHD Life Pre Warning> The PHD Unit is approaching the replacement time.	Flows 60 FIP-1.60
	912	PHD Reseat PHD ↕ Flip 091-912	PHD Tape Staying 091-912 Remove the Tape from the PHD unit. Contact customer support if this failure is repeated.	<PHD Tape Staying> Detect the tape staying on the PHD Unit.	Flows 61 FIP-1.61
	935	Replace PHD Now ↕ Flip Contact Support 091-935	Replace PHD unit 091-935 Contact customer support. Please click the Show Me How Button for details.	<IOT PHD Life Over> The PHD Unit has reached the replacement time.	Flows 62 FIP-1.62
	972	Insert PHD 091-972	PHD Unit is either missing or not fully inserted into the printer 091-972 Open the Front Cover and make sure that the PHD unit have been fully installed. Please click the Show Me How Button for details.	<IOT PHD Detached> The PHD Unit is not installed in the printer.	Flows 63 FIP-1.63
092	310	CTD Sensor Dirty Clean ↕ Flip CTD Sensor 092-310	CTD Sensor Dirty 092-310 Clean the CTD sensor.	<IOT CTD (ADC) Sensor Dustiness> The CTD (ADC) Sensor has reached the Cleaning time.	Flows 64 FIP-1.64
	910	Ready to Print Clean ↕ Flip CTD Sensor 092-910	-	<CTD (ADC) Sensor Dustiness Warning> The CTD (ADC) Sensor is approaching the Cleaning time.	Flows 64 FIP-1.64

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
093	423	Ready to Print Yellow Cartridge ↕ Flip Is close to life 093-423	Yellow Cartridge needs to be replaced soon 093-423	<IOT Toner Cartridge (Y) Near Life> The Toner Cartridge (Y) is approaching the replacement time. When all the toner cartridges are simultaneously approaching the replacement time, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 65 FIP-1.65
	424	Ready to Print Magenta Cartridge ↕ Flip Is close to life 093-424	Magenta Cartridge needs to be replaced soon 093-424	<IOT Toner Cartridge (M) Near Life> The Toner Cartridge (M) is approaching the replacement time. When all the toner cartridges are simultaneously approaching the replacement time, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 65 FIP-1.65
	425	Ready to Print Cyan Cartridge ↕ Flip Is close to life 093-425	Cyan Cartridge needs to be replaced soon 093-425	<IOT Toner Cartridge (C) Near Life> The Toner Cartridge (C) is approaching the replacement time. When all the toner cartridges are simultaneously approaching the replacement time, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 65 FIP-1.65
	426	Ready to Print Black Cartridge ↕ Flip Is close to life 093-426	Black Cartridge needs to be replaced soon 093-426	<IOT Toner Cartridge (K) Near Life> The Toner Cartridge (K) is approaching the replacement time. When all the toner cartridges are simultaneously approaching the replacement time, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 65 FIP-1.65
	919	Shake Cartridge Remove and Shake ↕ Flip Yellow Cartridge 093-919	Yellow Toner Low Density 093-919 Remove and shake the Yellow Cartridge. Contact customer support if this failure is repeated.	<IOT Y Toner Low Density> Detects low density of yellow.	Flows 66 FIP-1.66

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
093	920	Shake Cartridge Remove and Shake ↕ Flip Magenta Cartridge 093-920	Magenta Toner Low Density 093-920 Remove and shake the Magenta Cartridge. Contact customer support if this failure is repeated.	<IOT M Toner Low Density> Detects low density of magenta.	Flows 66 FIP-1.66
	921	Shake Cartridge Remove and Shake ↕ Flip Cyan Cartridge 093-921	Cyan Toner Low Density 093-921 Remove and shake the Cyan Cartridge. Contact customer support if this failure is repeated.	<IOT C Toner Low Density> Detects low density of cyan.	Flows 66 FIP-1.66
	922	Shake Cartridge Remove and Shake ↕ Flip Black Cartridge 093-922	Black Toner Low Density 093-922 Remove and shake the Black Cartridge. Contact customer support if this failure is repeated.	<IOT K Toner Low Density> Detects low density of black.	Flows 66 FIP-1.66
	930	Crtrdg Life Over Replace ↕ Flip Yellow Cartridge 093-930	The Yellow Cartridge need to be replaced now. 093-930 Open the Toner Access Cover. Then remove the used Yellow Cartridge and install a new one. Please click the Show Me How Button for details.	<IOT Toner Cartridge (Y) Life Over> The Toner Cartridge (Y) has reached the replacement time. When all the toner cartridges have simultaneously reached the replacement time, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 67 FIP-1.67
	931	Crtrdg Life Over Replace ↕ Flip Magenta Cartridge 093-931	The Magenta Cartridge need to be replaced now. 093-931 Open the Toner Access Cover. Then remove the used Magenta Cartridge and install a new one. Please click the Show Me How Button for details.	<IOT Toner Cartridge (M) Life Over> The Toner Cartridge (M) has reached the replacement time. When all the toner cartridges have simultaneously reached the replacement time, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 67 FIP-1.67
	932	Crtrdg Life Over Replace ↕ Flip Cyan Cartridge 093-932	The Cyan Cartridge need to be replaced now 093-932 Open the Toner Access Cover. Then remove the used Cyan Cartridge and install a new one. Please click the Show Me How Button for details.	<IOT Toner Cartridge (C) Life Over> The Toner Cartridge (C) has reached the replacement time. When all the toner cartridges have simultaneously reached the replacement time, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 67 FIP-1.67

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
093	933	Crtrdg Life Over Replace ⇕ Flip Black Cartridge 093-933	The Black Cartridge need to be replaced now. 093-933 Open the Toner Access Cover. Then remove the used Black Cartridge and install a new one. Please click the Show Me How Button for details.	<IOT Toner Cartridge (K) Life Over> The Toner Cartridge (K) has reached the replacement time. When all the toner cartridges have simultaneously reached the replacement time, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 67 FIP-1.67
	934	Crtrdg Life Over Replace ⇕ Flip Yellow Cartridge 093-934	The Yellow Cartridge need to be replaced now. 093-934 Open the Toner Access Cover. Then remove the used Yellow Cartridge and install a new one. Please click the Show Me How Button for details.	<IOT CRU Waste (Y) Full> Waste Toner (Y) Counter value has reached replacement time.	Flows 68 FIP-1.68
	935	Crtrdg Life Over Replace ⇕ Flip Magenta Cartridge 093-935	The Magenta Cartridge need to be replaced now. 093-935 Open the Toner Access Cover. Then remove the used Magenta Cartridge and install a new one. Please click the Show Me How Button for details.	<IOT CRU Waste (M) Full> Waste Toner (M) Counter value has reached replacement time.	Flows 68 FIP-1.68
	936	Crtrdg Life Over Replace ⇕ Flip Cyan Cartridge 093-936	The Cyan Cartridge need to be replaced now. 093-936 Open the Toner Access Cover. Then remove the used Cyan Cartridge and install a new one. Please click the Show Me How Button for details.	<IOT CRU Waste (C) Full> Waste Toner (C) Counter value has reached replacement time.	Flows 68 FIP-1.68
	937	Crtrdg Life Over Replace ⇕ Flip Black Cartridge 093-937	The Black Cartridge need to be replaced now. 093-937 Open the Toner Access Cover. Then remove the used Black Cartridge and install a new one. Please click the Show Me How Button for details.	<IOT CRU Waste (K) Full> Waste Toner (K) Counter value has reached replacement time.	Flows 68 FIP-1.68

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
093	960	CRUM ID Reseat Yellow ↕ Flip Cartridge 093-960	An unsupported Yellow Cartridge is installed 093-960 Open the Toner Access Cover. Remove the unsupported Yellow Cartridge and install a supported one. Please click the Show Me How Button for details.	<IOT (Y) CRUM ID Error> An unsupported Toner Cartridge (Y) is detected.	Flows 69 FIP-1.69
	961	CRUM ID Reseat Magenta ↕ Flip Cartridge 093-961	An unsupported Magenta Cartridge is installed 093-961 Open the Toner Access Cover. Remove the unsupported Magenta Cartridge and install a supported one. Please click the Show Me How Button for details.	<IOT (M) CRUM ID Error> An unsupported Toner Cartridge (M) is detected.	Flows 69 FIP-1.69
	962	CRUM ID Reseat Cyan ↕ Flip Cartridge 093-962	An unsupported Magenta Cartridge is installed 093-961 Open the Toner Access Cover. Remove the unsupported Magenta Cartridge and install a supported one. Please click the Show Me How Button for details.	<IOT (C) CRUM ID Error> An unsupported Toner Cartridge (C) is detected.	Flows 69 FIP-1.69
	963	CRUM ID Reseat Black ↕ Flip Cartridge 093-963	An unsupported Black Cartridge is installed 093-963 Open the Toner Access Cover. Remove the unsupported Black Cartridge and install a supported one. Please click the Show Me How Button for details.	<IOT (K) CRUM ID Error> An unsupported Toner Cartridge (K) is detected.	Flows 69 FIP-1.69
	965	CRUM ID Reseat PHD ↕ Flip 093-965	An unsupported PHD unit is installed 093-965 Open the Front Cover. Remove the unsupported PHD unit and install a supported one. Please click the Show Me How Button for details.	<IOT PHD CRUM ID Error> An unsupported PHD Unit is detected.	Flows 70 FIP-1.70

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
093	970	Crtrdg Detached Insert ↕ Flip Yellow Cartridge 093-970	Yellow Cartridge is either missing or not fully inserted into the printer 093-970 Open the Toner Access Cover and make sure that the Yellow Cartridge have been fully installed. Please click the Show Me How Button for details.	<IOT Toner Cartridge (Y) Detached> The Toner Cartridge (Y) is not installed in the printer. If no toner cartridge has been installed in the printer, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 71 FIP-1.71
	971	Crtrdg Detached Insert ↕ Flip Magenta Cartridge 093-971	Magenta Cartridge is either missing or not fully inserted into the printer 093-971 Open the Toner Access Cover and make sure that the Magenta Cartridge have been fully installed. Please click the Show Me How Button for details.	<IOT Toner Cartridge (M) Detached> The Toner Cartridge (M) is not installed in the printer. If no toner cartridge has been installed in the printer, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 71 FIP-1.71
	972	Crtrdg Detached Insert ↕ Flip Cyan Cartridge 093-972	Cyan Cartridge is either missing or not fully inserted into the printer 093-972 Open the Toner Access Cover and make sure that the Cyan Cartridge have been fully installed. Please click the Show Me How Button for details.	<IOT Toner Cartridge (C) Detached> The Toner Cartridge (C) is not installed in the printer. If no toner cartridge has been installed in the printer, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 71 FIP-1.71
	973	Crtrdg Detached Insert ↕ Flip Black Cartridge 093-973	Black Cartridge is either missing or not fully inserted into the printer 093-973 Open the Toner Access Cover and make sure that the Black Cartridge have been fully installed. Please click the Show Me How Button for details.	<IOT Toner Cartridge (K) Detached> The Toner Cartridge (K) is not installed in the printer. If no toner cartridge has been installed in the printer, a warning is indicated on the LCD panel in the following order: 1)Black → 2)Cyan → 3)Magenta → 4)Yellow	Flows 71 FIP-1.71
094	422	Ready to Print Contact Support ↕ Flip If Message Returns 094-422	Contact customer support if this failure is repeated 094-422	<IOT Belt Unit Near Life> The Belt Unit has reached the replacement time.	Flows 72 FIP-1.72
	911	Contact Support If Message Returns ↕ Flip 094-911	Belt Unit Life Over 094-911 Contact customer support if this failure is repeated.	<IOT Belt Unit Life Over> The Belt Unit has reached the replacement time.	Flows 73 FIP-1.73

Status Code		Error Message		Status Contents	FIP to be referred
		LCD	Status Window		
193	700	Ready to Print Non-Dell Toner ↕ Flip Installed 193-700	Ready to print	<Custom Toner Mode> The printer is in custom toner mode.	Flows 74 FIP-1.74

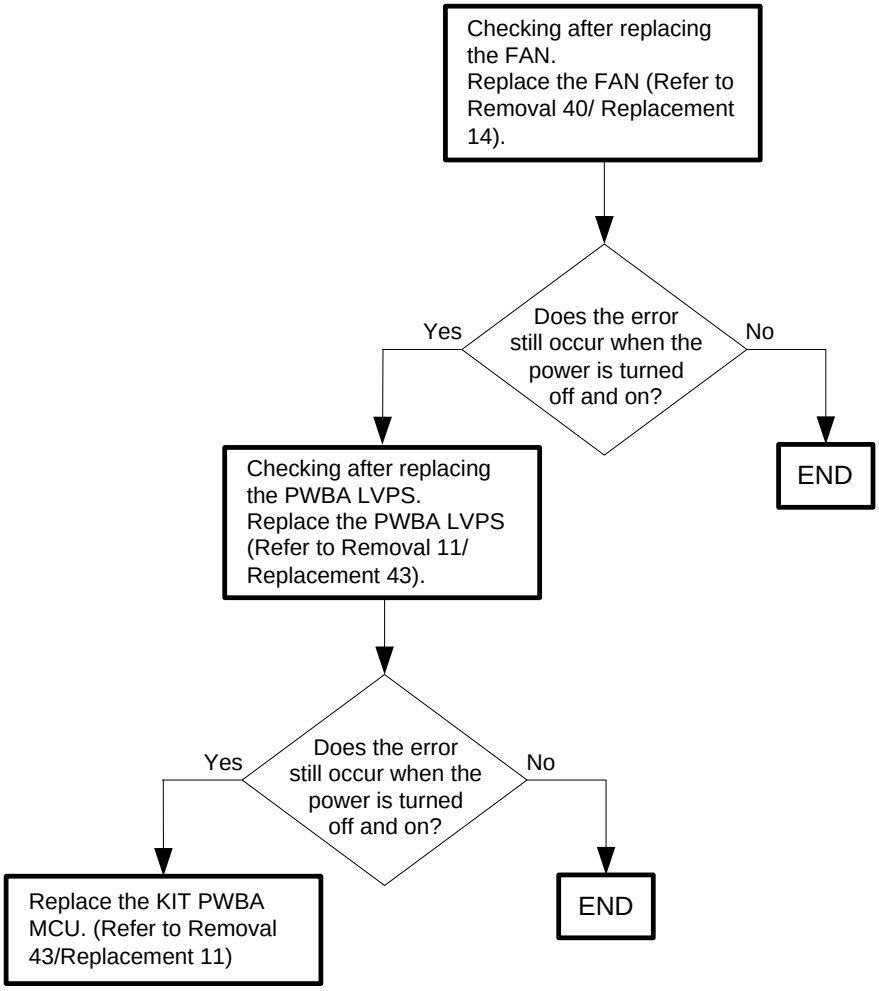
3. Error Code FIP

3.1 Troubleshooting for the call center

Flows 1 001-360: IOT Fan Motor Failure

Cause: MCU detects an error upon receiving error signal from the Fan.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



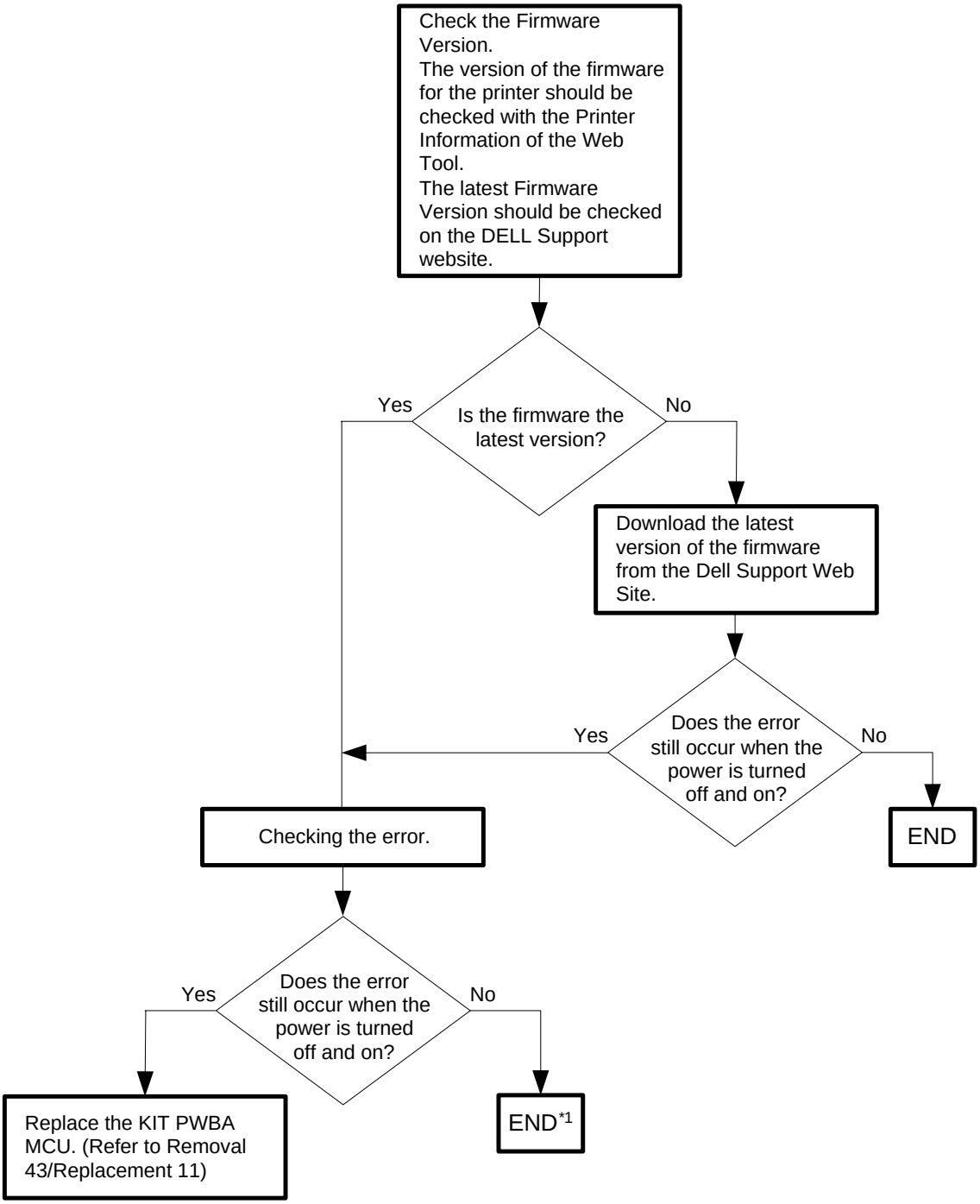
Flows 2 003-340: IOT Firmware Error

Cause: MCU firmware error occurs.

Solution: Proceed to the troubleshooting following the flowchart given below.

NOTE

Never turn off the power to the printer while the firmware is being downloaded. Turning the power off may cause a failure in the printer.

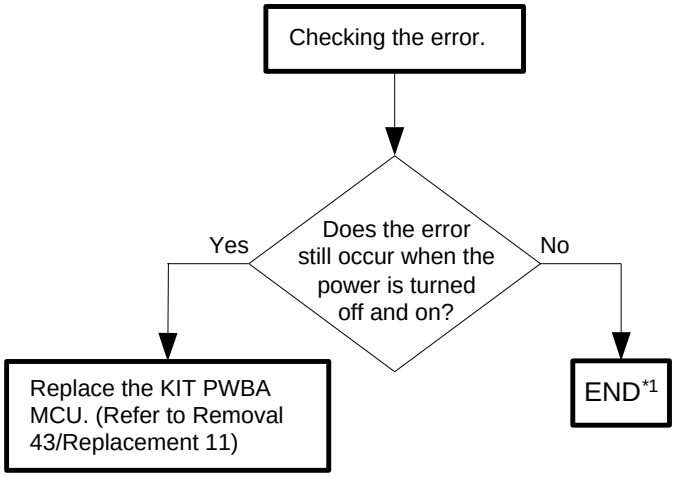


*1: Though some kind of external noise would be possible cause, go to [Flows 100 Electrical Noise] and check, to make sure.

Flows 3 003-356: IOT NVRAM Error

Cause: The operation error of NVM (read/write check error etc.) is detected.

Solution: Proceed to the troubleshooting following the flowchart given below.

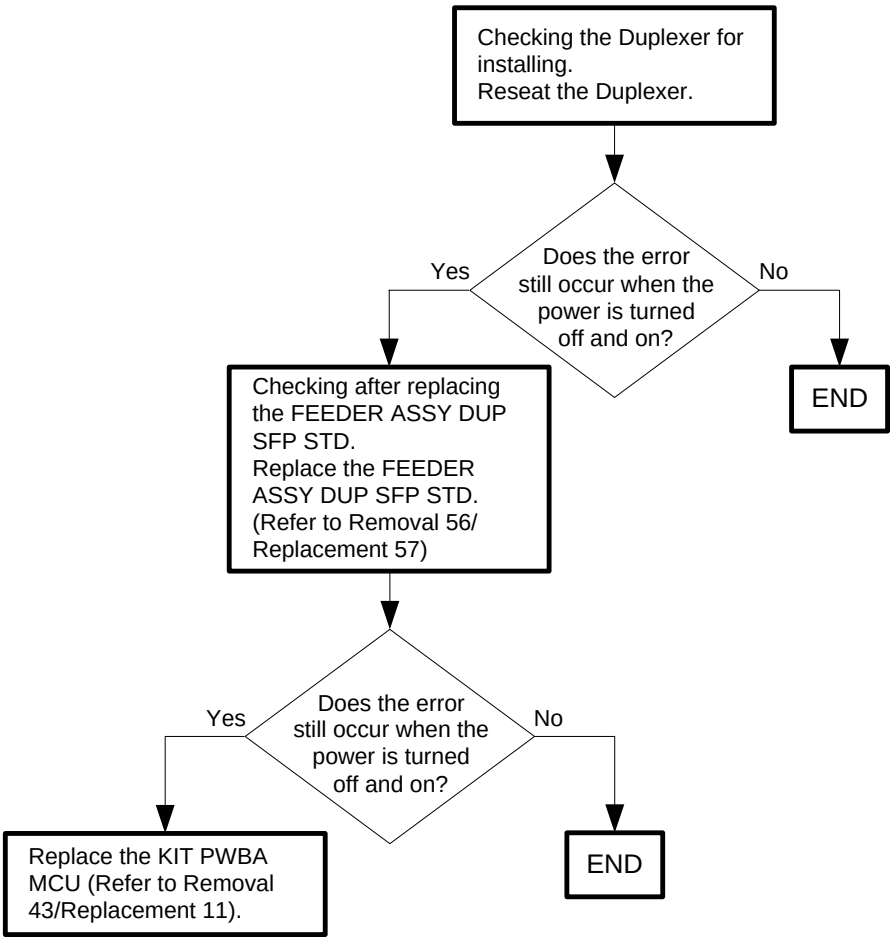


*1: Though some kind of external noise would be possible cause, go to [Flows 100 Electrical Noise] and check, to make sure.

Flows 4 004-311: IOT Duplexer Failure (2150cdn only)

Cause: The error is detected by Duplexer communication check.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



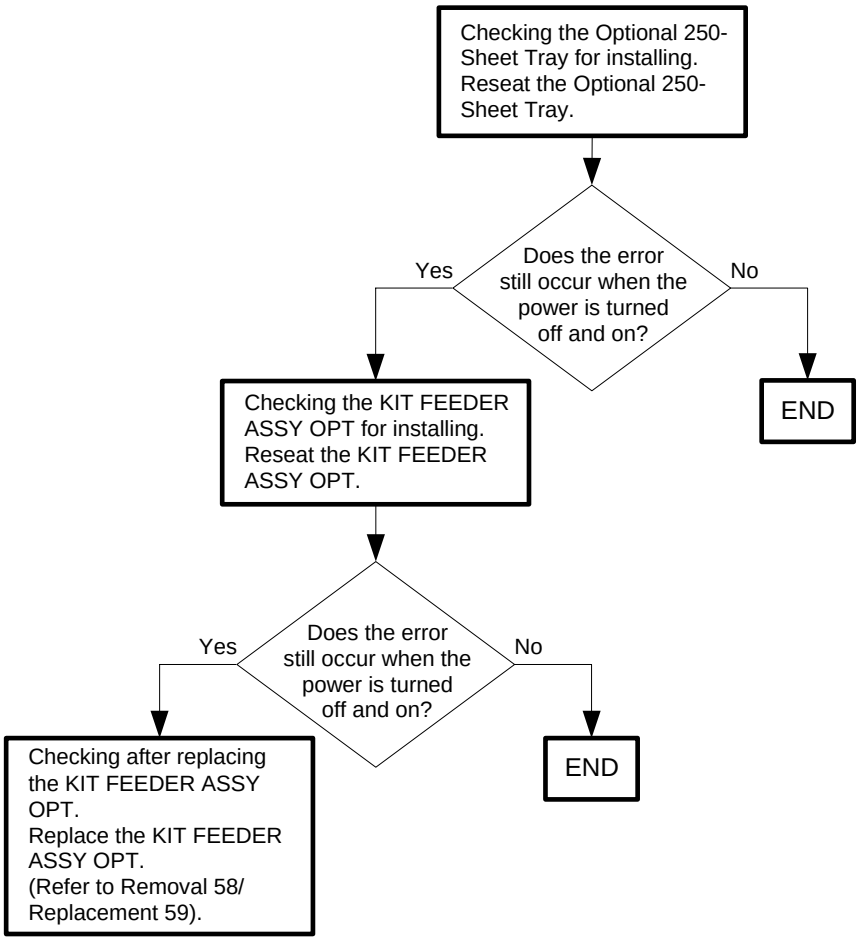
Flows 5 004-312: IOT Feeder Configuration Failure

Cause: Option Sheet Feeder Configuration error is detected.

Solution: The combinations of the Optional Feeder for 2150cn/2150cdn is not correct.Change the combinations to the correct one.

NOTE

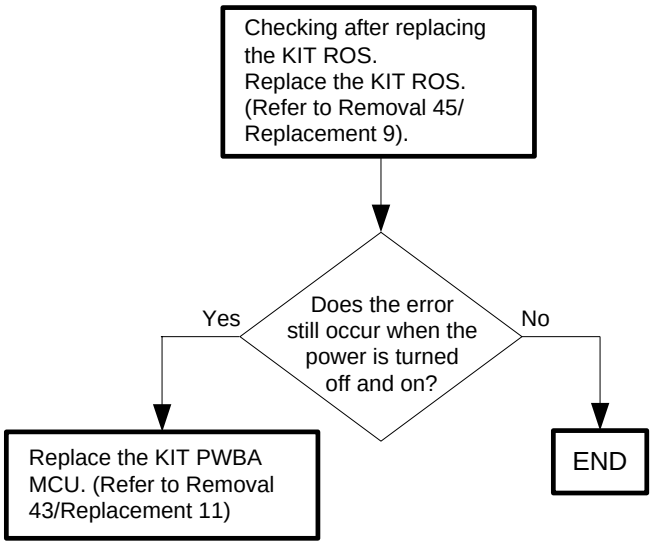
If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



Flows 6 006-370: IOT ROS Failure

Cause: The operation error of ROS (rotational error etc.) is detected.

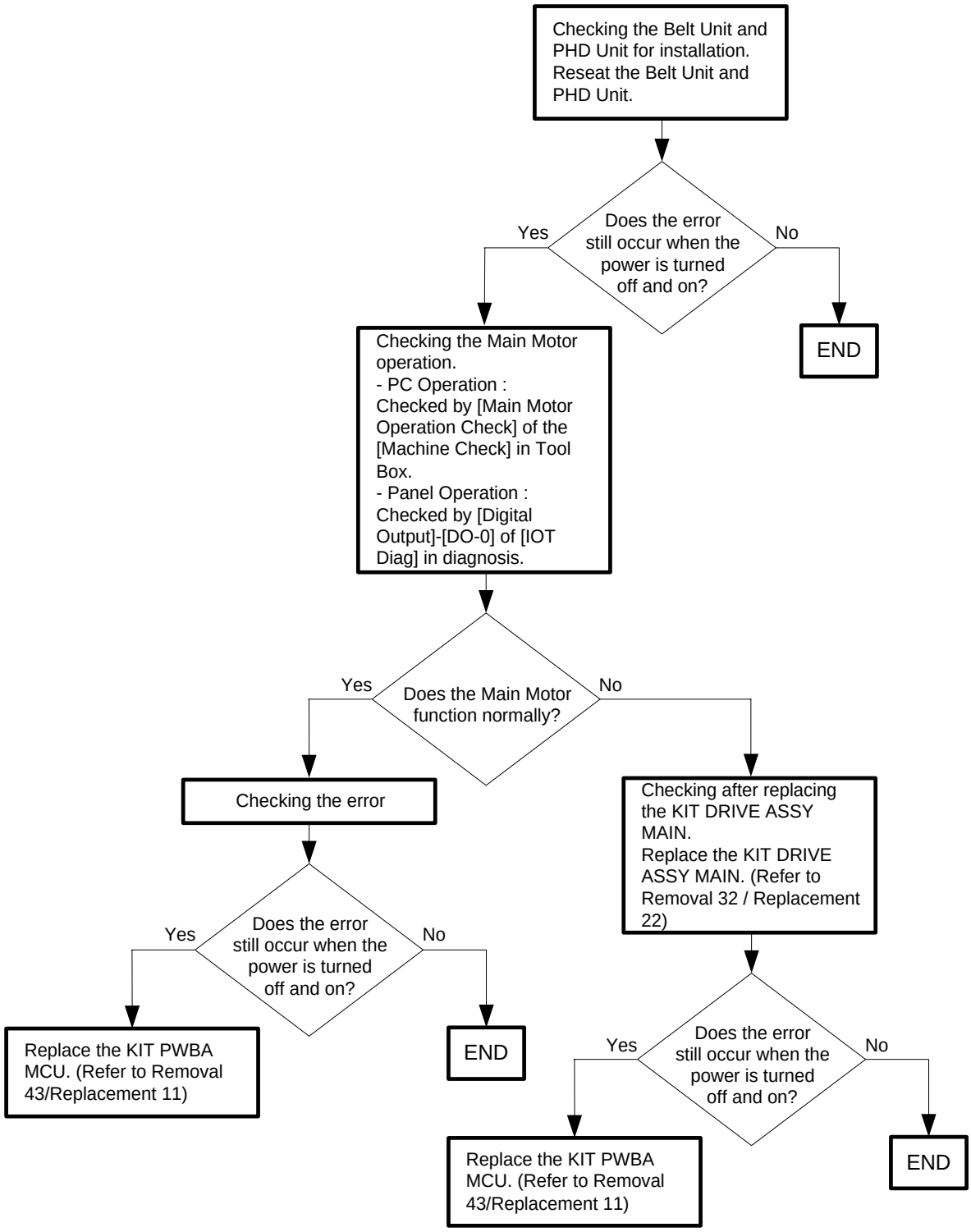
Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



Flows 7 007-340: IOT Main Motor Failure

Cause: Main Motor failure is detected.

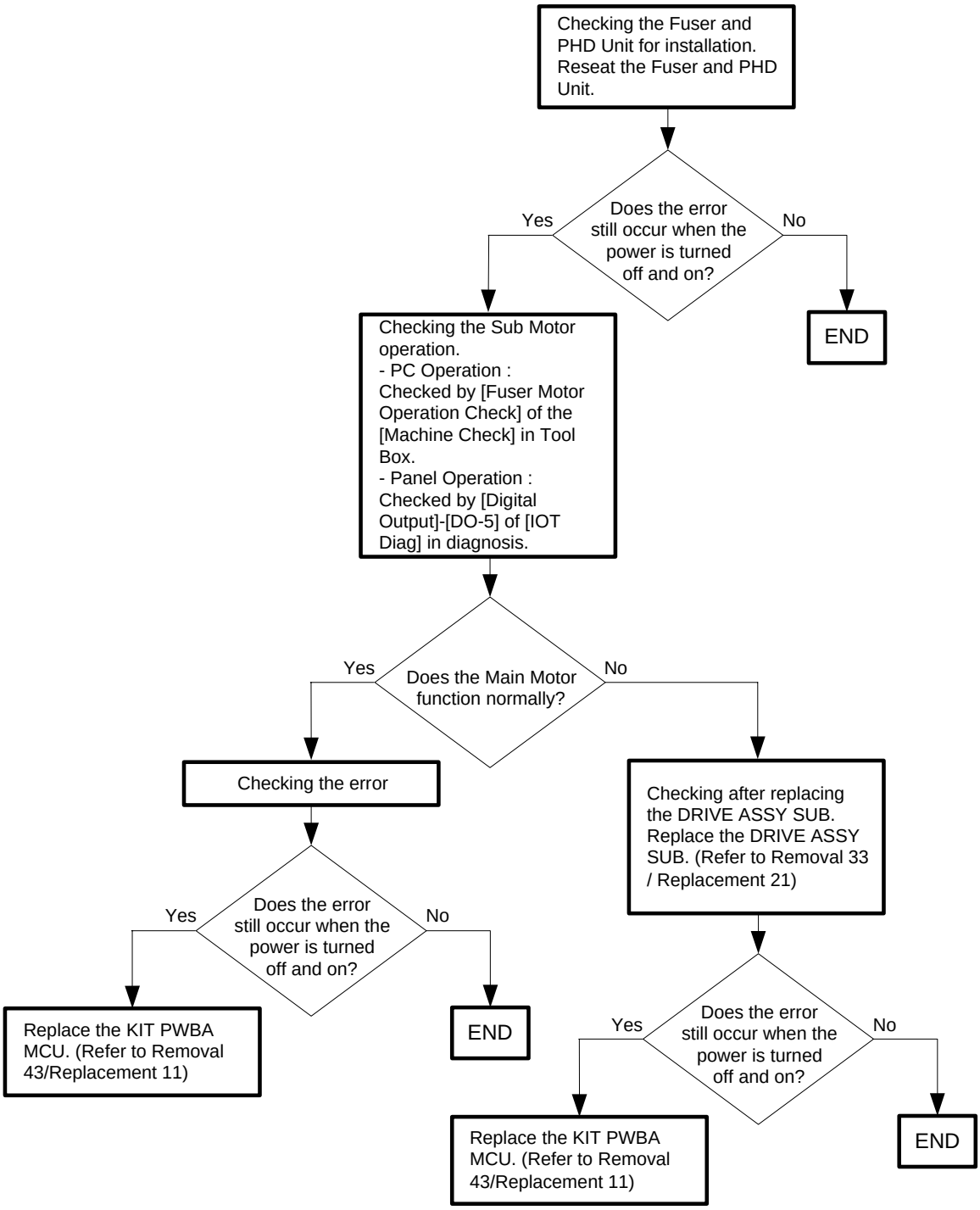
Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



Flows 8 007-341: IOT Sub Motor Failure

Cause: Sub Motor failure is detected.

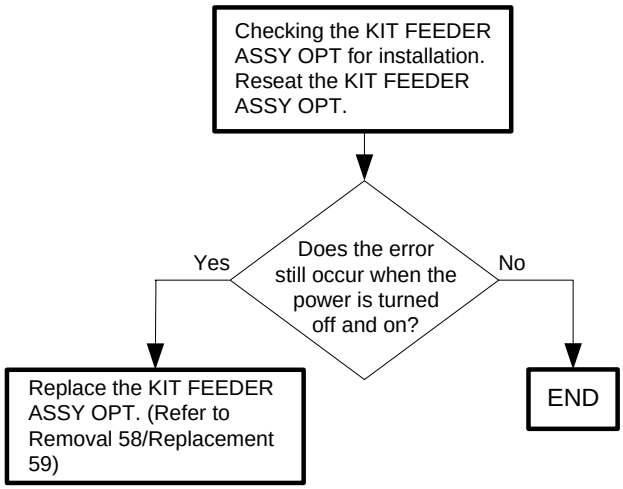
Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



Flows 9 007-344: Option Feeder Motor Failure

Cause: Option Feeder Motor failure is detected.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.

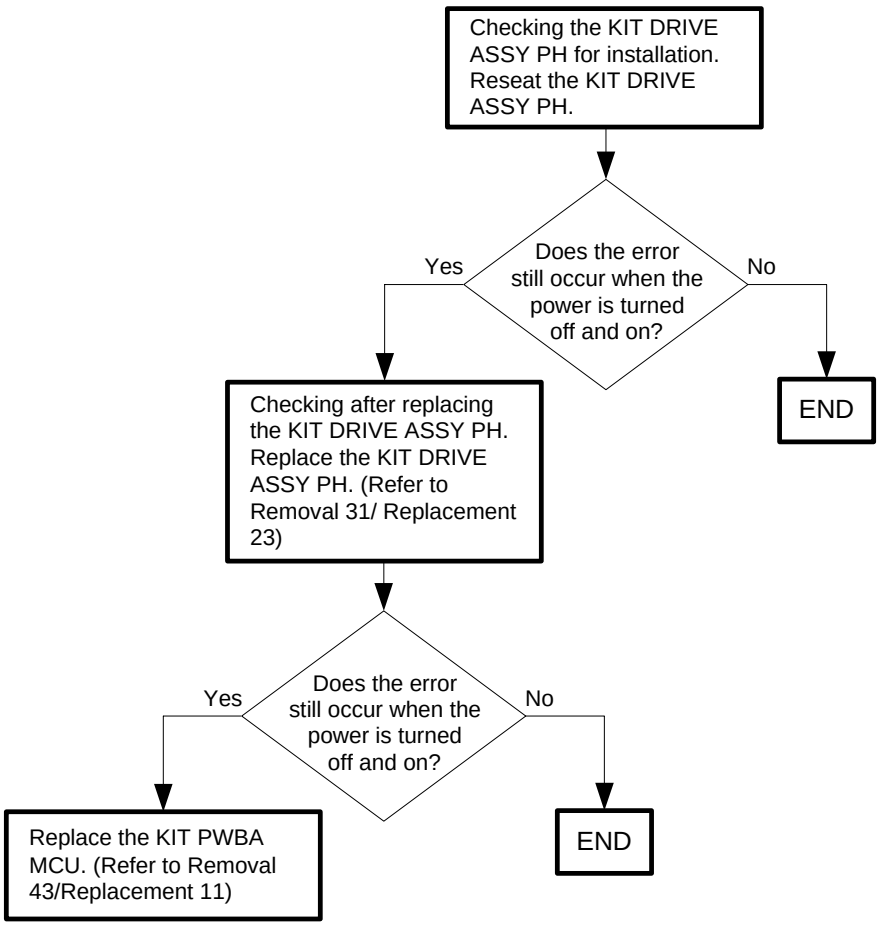


Flows 10 007-371 / 007-372: IOT K Mode Solenoid Error 1/2

Cause: 007-371:The error is generated when K Mode Solenoid (Color Mode Switching Solenoid) does not operate in specified time.

007-372:The error is generated when the gear which operates by K Mode Solenoid (Color Mode Switching Solenoid) rotates two times.

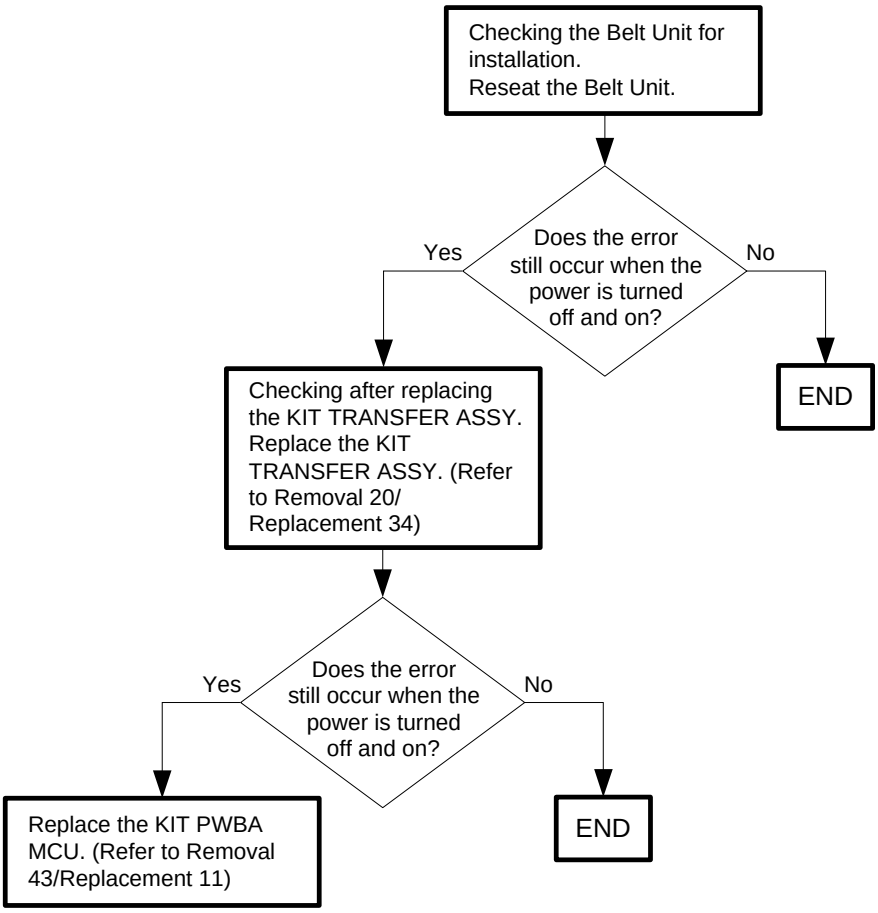
Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



Flows 11 009-340: IOT CTD (ACD) Sensor Error

Cause: CTD (ACD) sensor error (analog-to-digital conversion etc.) is detected.

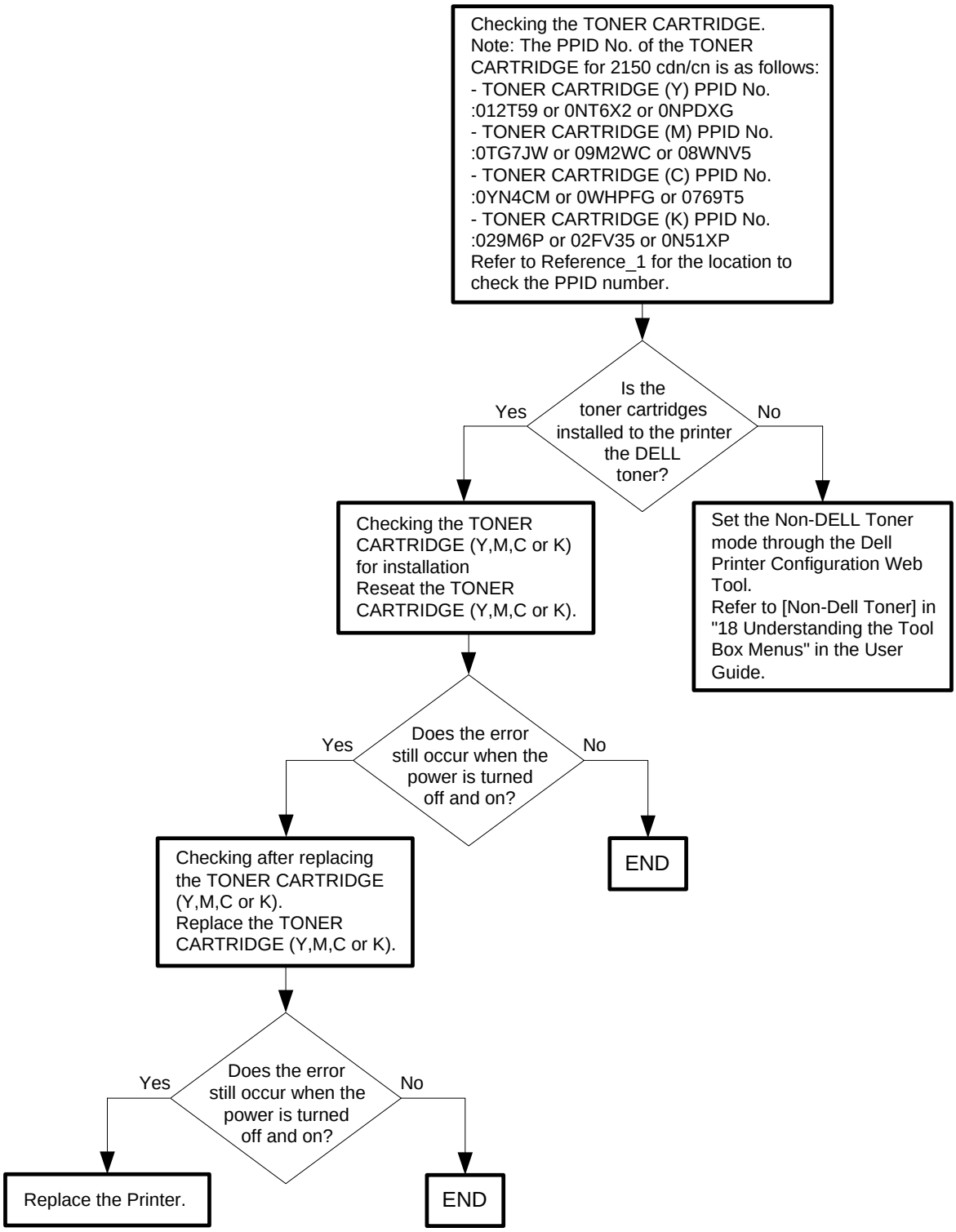
Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



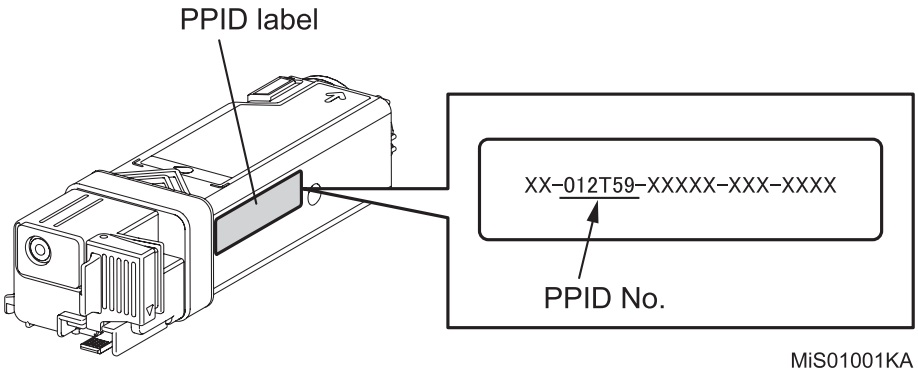
Flows 12 009-360 / 009-361 / 009-362 / 009-363: IOT Toner (YMCK) CRUM Comm Fail

Cause: 009-360:The Yellow Toner Cartridge CRUM communication failure is detected.
009-361:The Magenta Toner Cartridge CRUM communication failure is detected.
009-362:The Cyan Toner Cartridge CRUM communication failure is detected.
009-363:The Black Toner Cartridge CRUM communication failure is detected.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



- Reference_1: Position of PPID label.



MiS01001KA

Flows 13 010-317: IOT Fuser Detached

Cause: Fuser detached is detected.

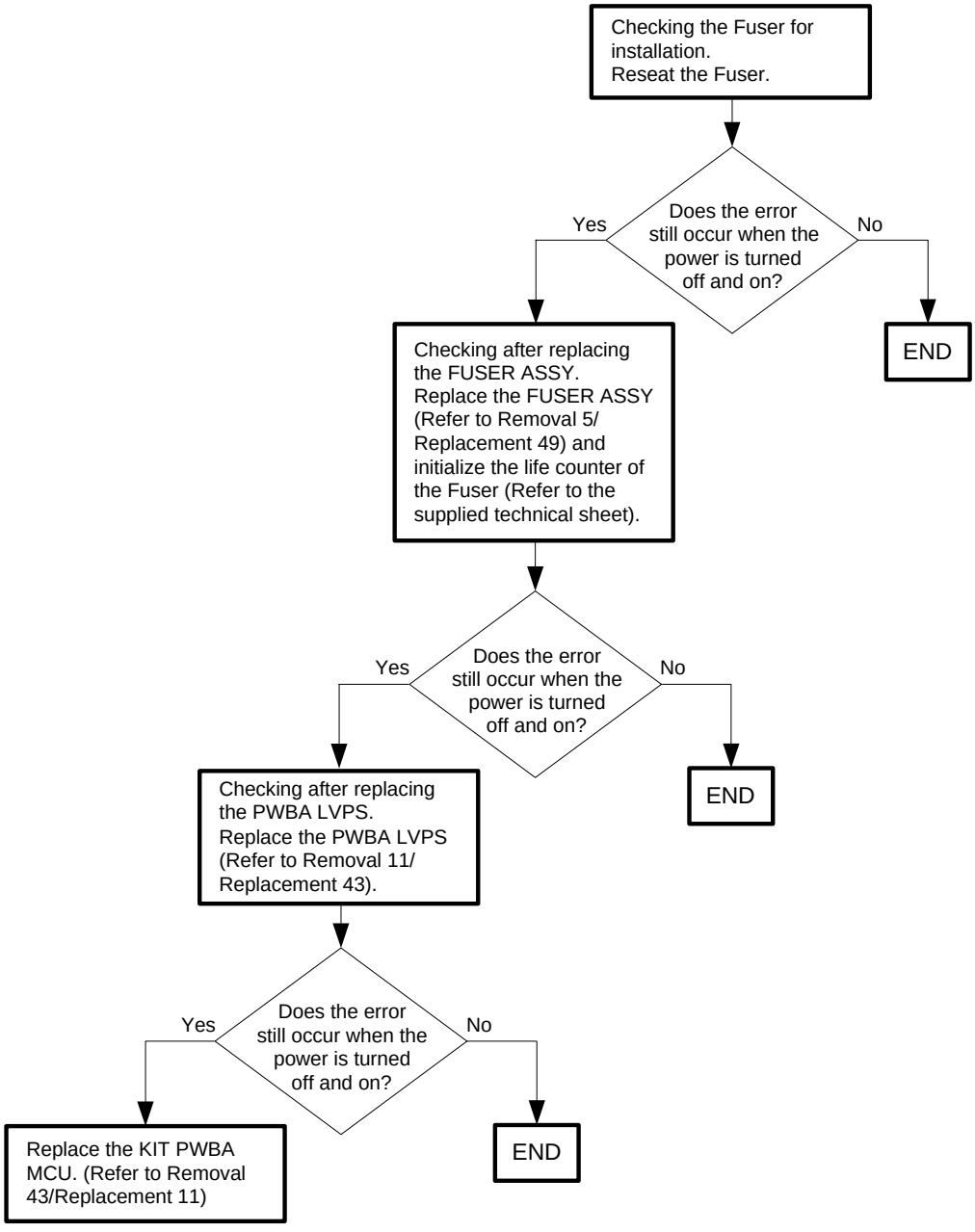
Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.

CAUTION

To avoid burns, do not replace the fuser immediately after printing. The fuser becomes extremely hot during use.
Turn off the printer and wait for 30 minutes before removing the fuser.

NOTE

When you have replaced the fuser, initialize the life counter of the Fuser.For details, refer to the supplied technical sheet.



Flows 14 010-351: IOT Fuser Life Over

Cause: The value of Fuser counter has reached the replacement time.

Solution: The Fuser has reached the end of its life. Replace the Fuser with a new one.

NOTE

Refer to "Appendix_2.1 Consumables and Periodic Replacement Parts Life" for the timing when the message "Life Over" is indicated.

NOTE

This error code is not related to any hardware fault.

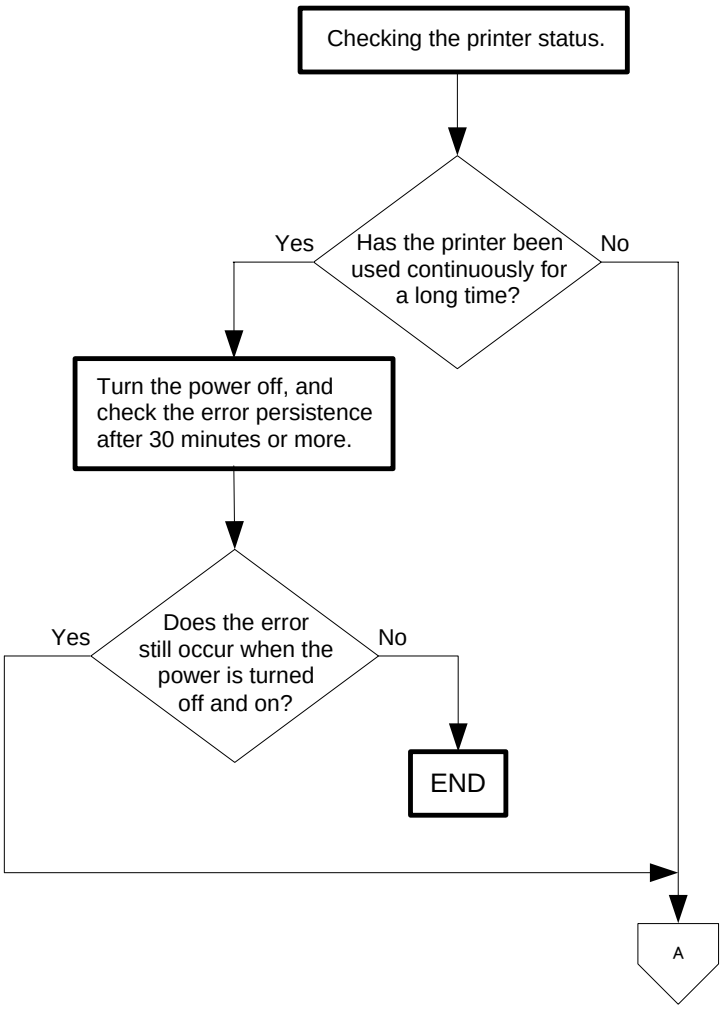
NOTE

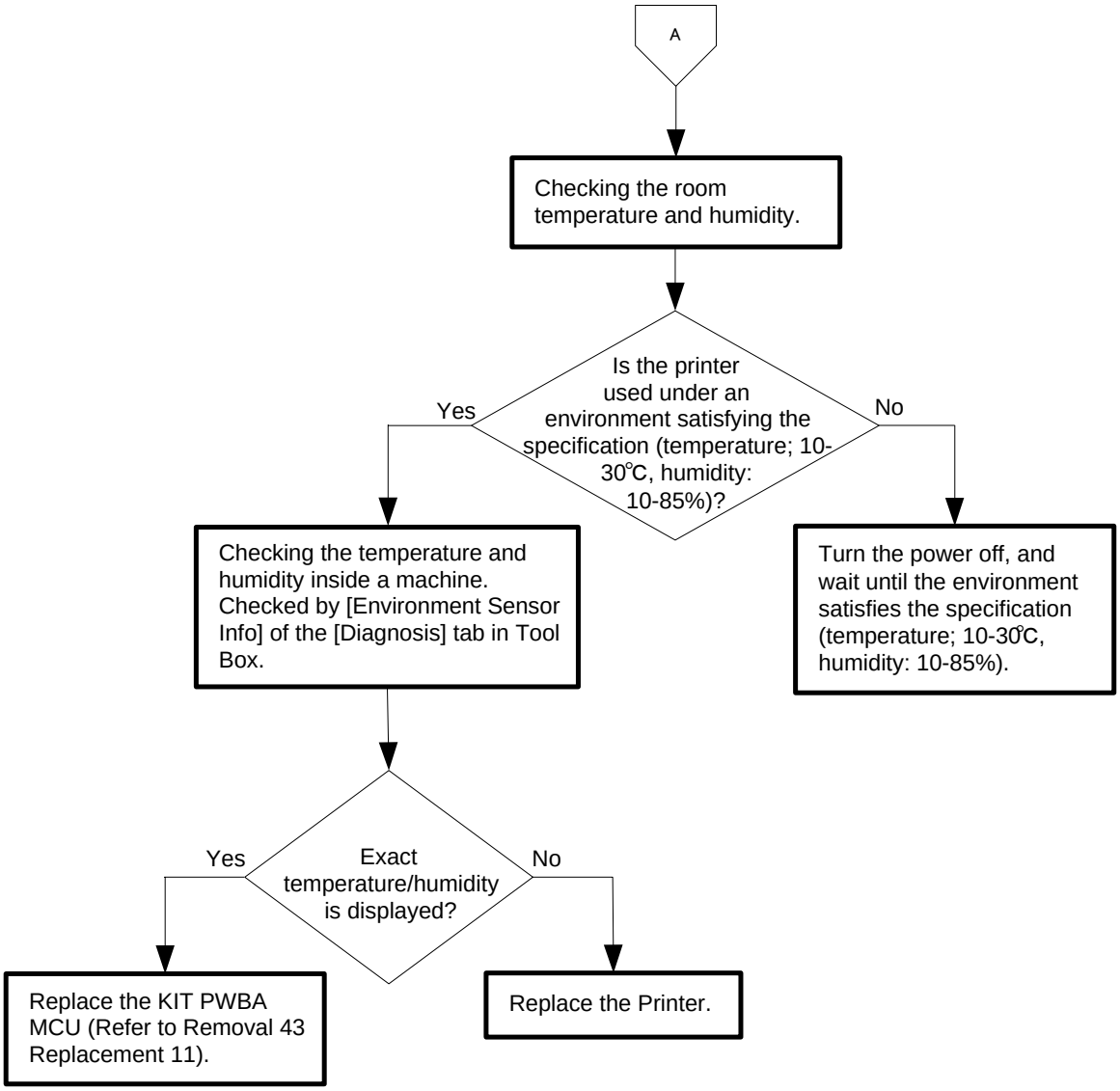
When you have replaced the fuser, initialize the life counter of the Fuser.For details, refer to the supplied technical sheet.

Flows 15 010-354: IOT Environment Sensor Error

Cause: The Temperature sensor detected the temperature anomaly.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.




A
Checking the room temperature and humidity.
Is the printer used under an environment satisfying the specification (temperature; 10-30℃, humidity: 10-85%)?
Yes
No
Checking the temperature and humidity inside a machine. Checked by [Environment Sensor Info] of the [Diagnosis] tab in Tool Box.
Turn the power off, and wait until the environment satisfies the specification (temperature; 10-30℃, humidity: 10-85%).
Exact temperature/humidity is displayed?
Yes
No
Replace the KIT PWBA MCU (Refer to Removal 43 Replacement 11).
Replace the Printer.

Flows 16 010-377: IOT Fuser Failure

Cause: The operation error of Fuser (Temperature anomaly error etc.) is detected.

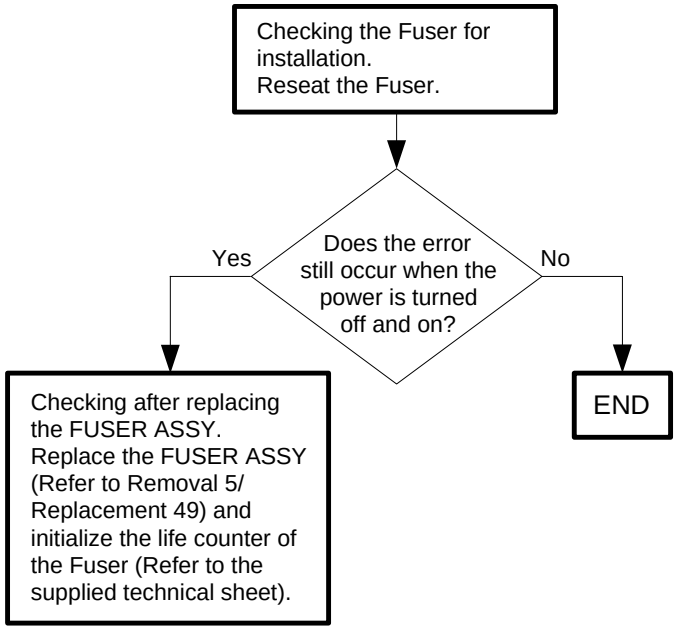
Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.

CAUTION

To avoid burns, do not replace the fuser immediately after printing. The fuser becomes extremely hot during use.
Turn off the printer and wait for 30 minutes before removing the fuser.

NOTE

When you have replaced the fuser, initialize the life counter of the Fuser.For details, refer to the supplied technical sheet.



Flows 17 010-421: IOT Fuser Near Life

Cause: The Fuser is approaching the replacement time.

Solution: The Fuser is approaching the replacement time. Prepare a new Fuser.

NOTE

Refer to "Appendix_2.1 Consumables and Periodic Replacement Parts Life" for the timing when the message "Near Life" is indicated.

NOTE

This error code is not related to any hardware fault.

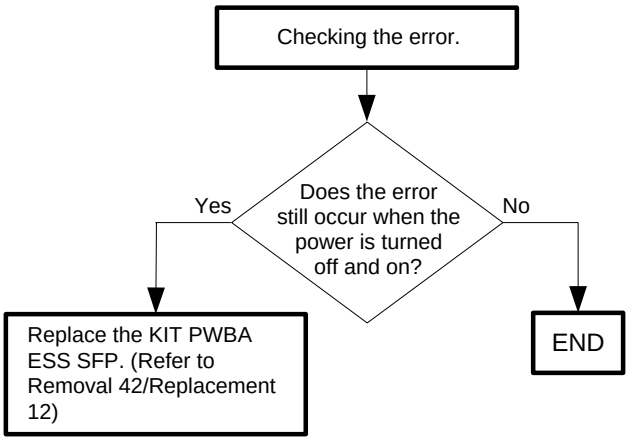
NOTE

When you have replaced the fuser, initialize the life counter of the Fuser.For details, refer to the supplied technical sheet.

Flows 18 016-300 / 016-301 / 016-302 / 016-310 / 016-313 / 016-315 / 016-317 / 016-323 / 016-324 / 016-327 / 016-340 / 016-392 / 016-393 / 016-394 : ESS Error

Cause: ESS-related error occurred.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.

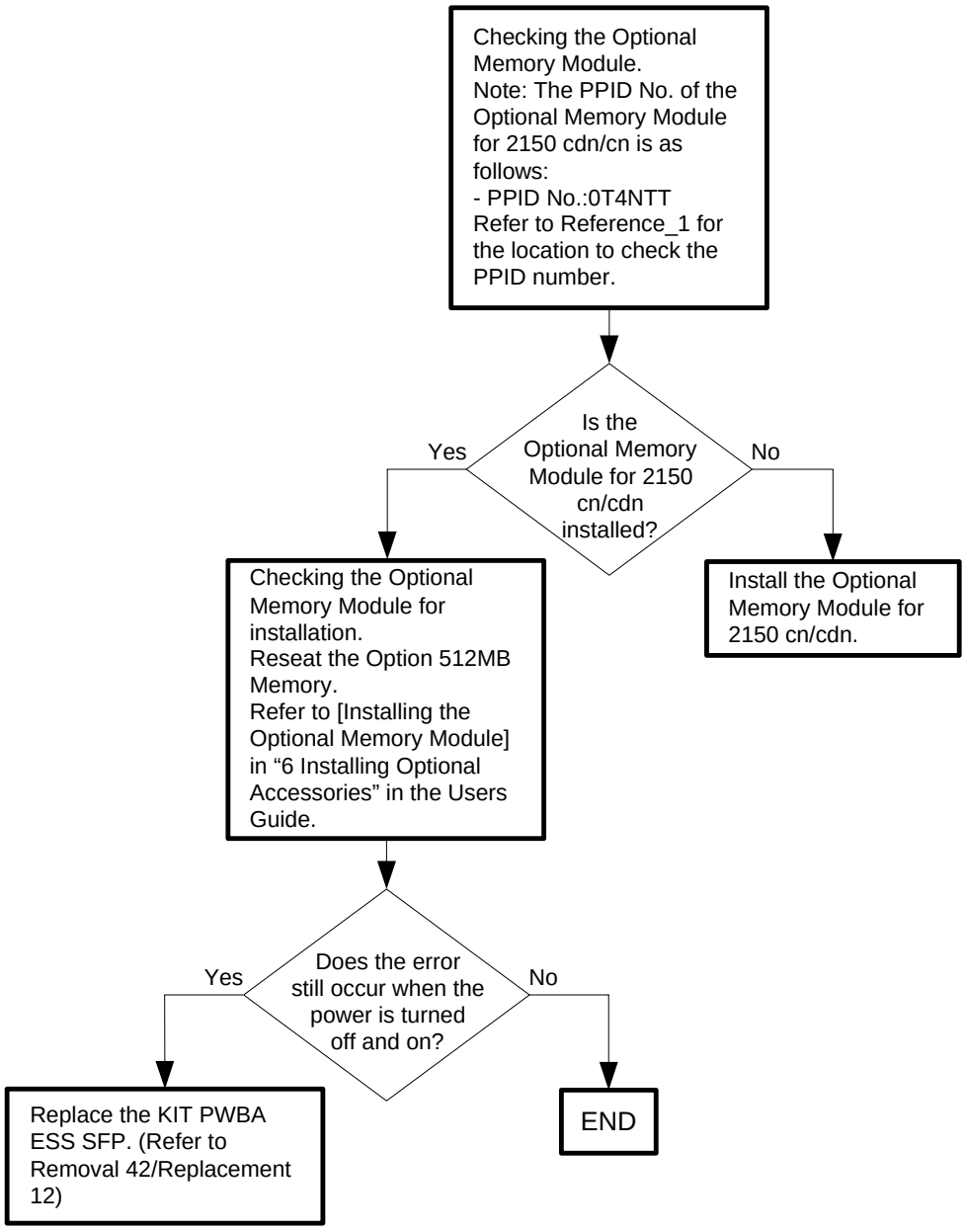


Flows 19 016-316 / 016-318: ESS DIMM Slot RAM R/W Check Fail / ESS DIMM Slot RAM Error

Cause: 016-316: Unsupported additional memory module is detected in the memory slot.
016-318: Additional memory module is not completely inserted in the slot.

Solution: 016-316: Remove the added memory module. To add a memory, use the Optional Memory Module.
016-318: Remove the Memory Module and re-install it.

NOTE **If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.**

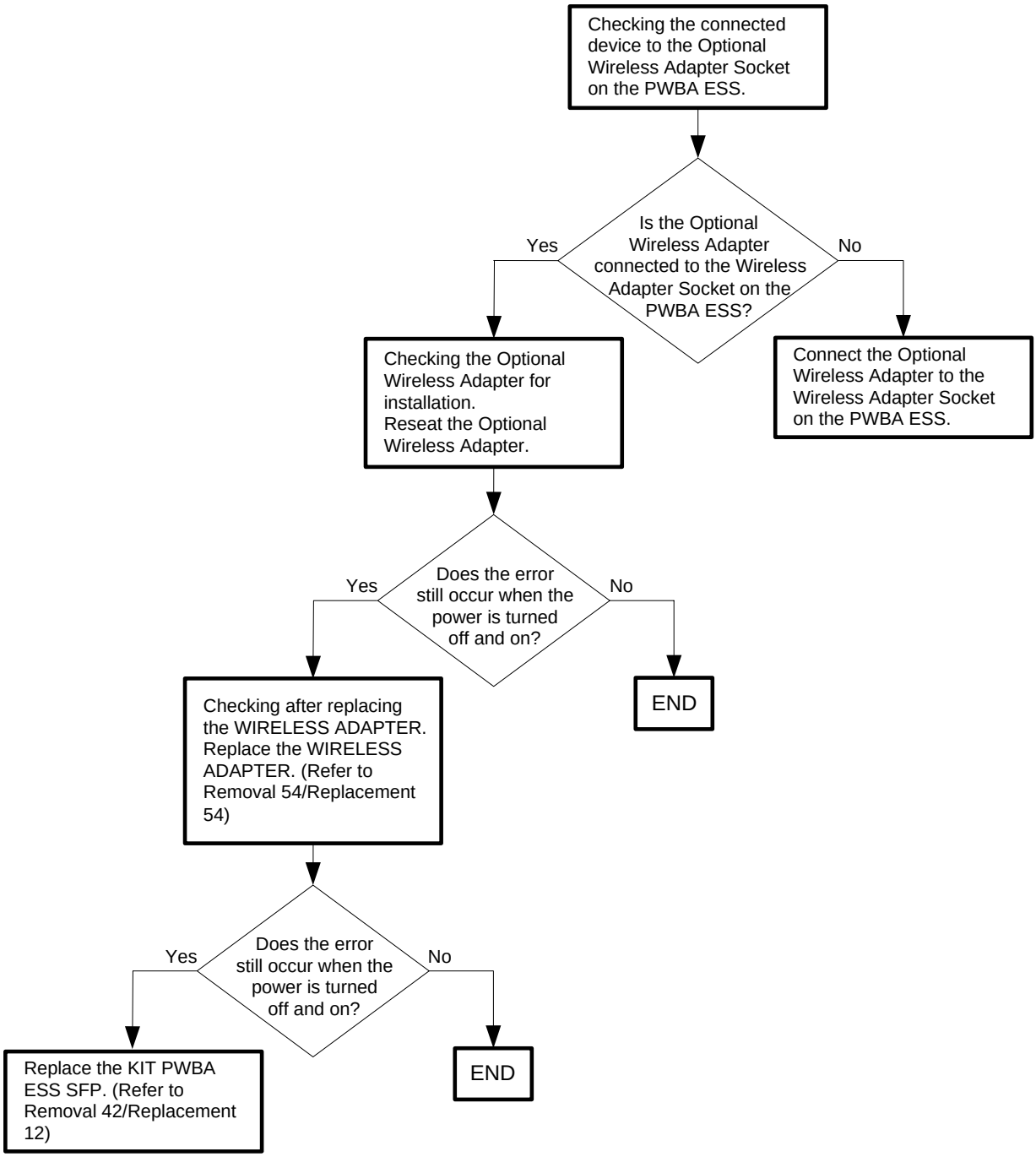


- Reference_1: The PPID number is on the packing box.
  XX-0T4NTT-XXXXX-XXX-XXXX
  ↑
  PPID No.

Flows 20 016-338: Optional Wireless Adapter Error

Cause: The error is detected by Optional Wireless Adapter check.

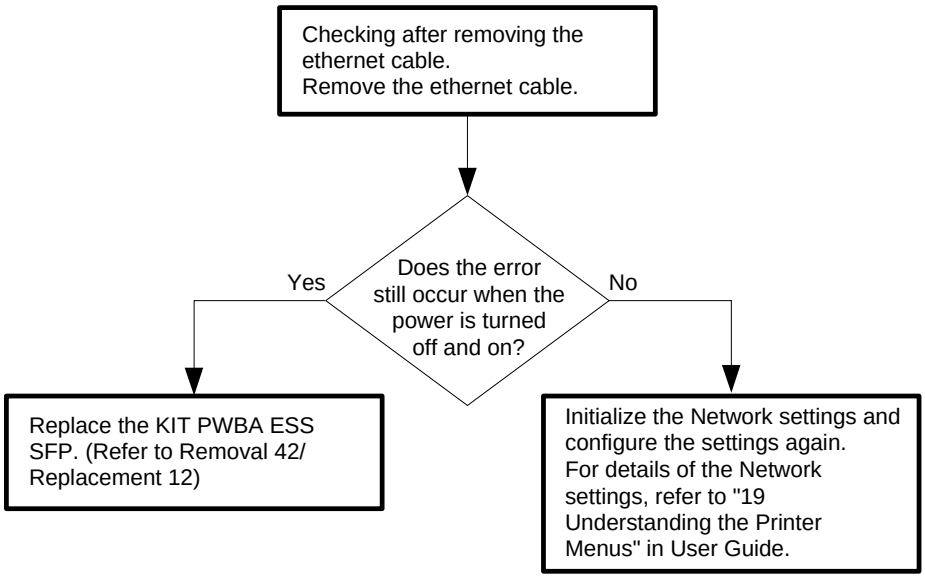
Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



Flows 21 016-347: On Board Network Fatal Error

Cause: A fatal error occurred the on board network communication.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



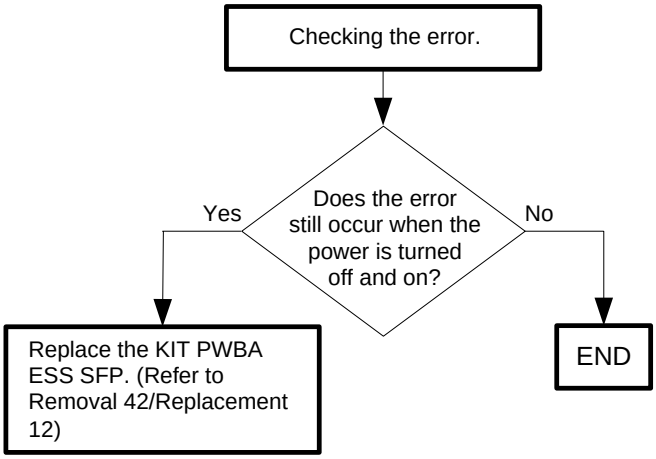
Flows 22 016-362 / 016-363 / 016-364 / 016-366 / 016-367 / 016-368: PCI Bus# (0 / 1) Host Bridge Controller Error / PCI Bus# (0 / 1) Error Detected / PCI Error Messages received from Bus#0-Device# (0 / 1)

Cause: Connection error occurred between the PCI BUS port and the port of peripheral devices.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.

NOTE

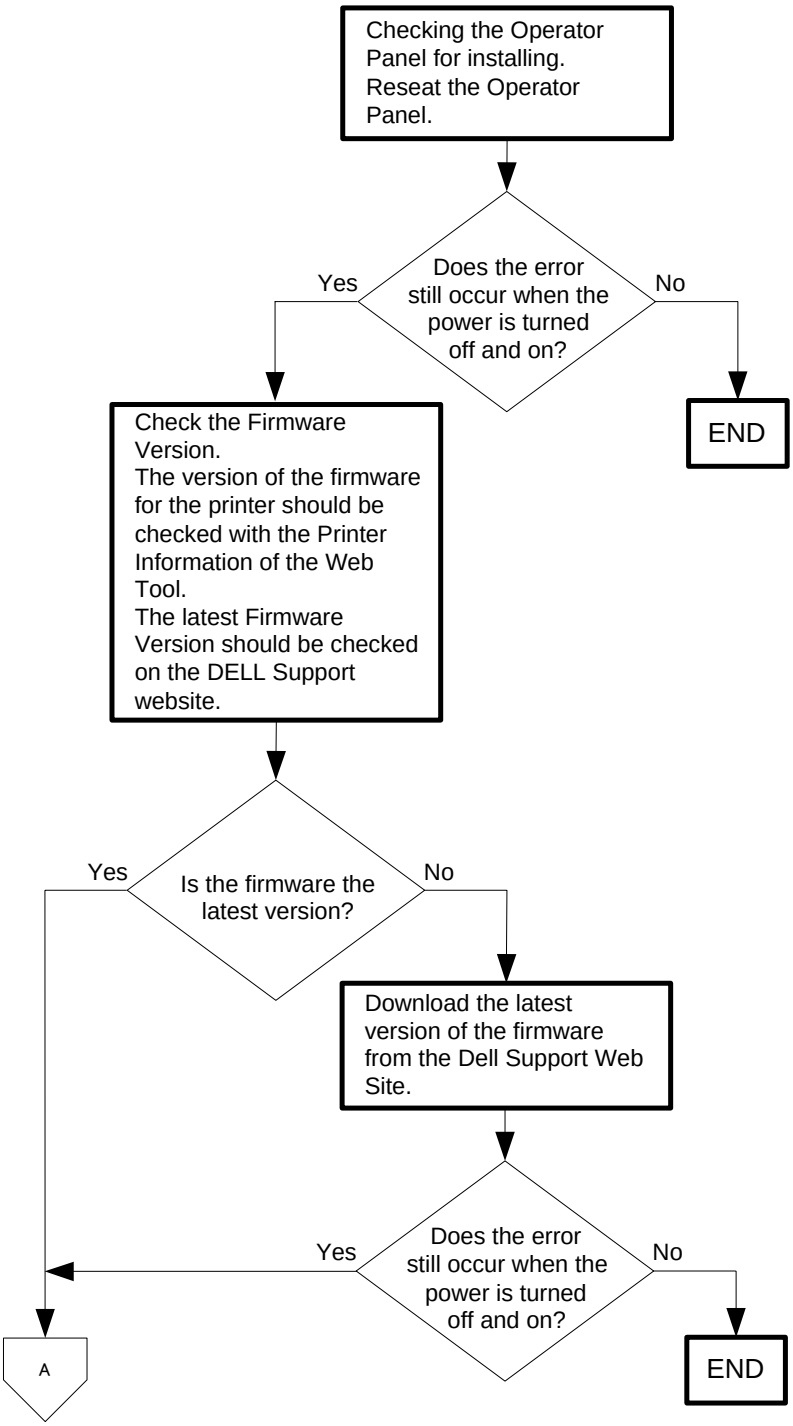
Never turn off the power to the printer while the firmware is being downloaded. Turning the power off may cause a failure in the printer.

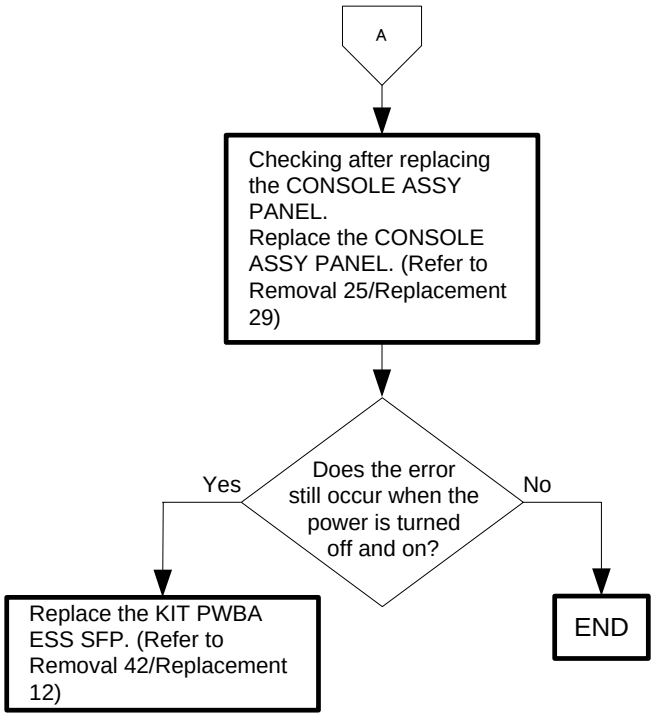


Flows 23 016-369: Operator Panel - ESS Communication Fail

Cause: Communication Fail with a Operator Panel and ESS F/W.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.




A
Checking after replacing the CONSOLE ASSY PANEL.
Replace the CONSOLE ASSY PANEL. (Refer to Removal 25/Replacement 29)
Does the error still occur when the power is turned off and on?
Yes
No
Replace the KIT PWBA ESS SFP. (Refer to Removal 42/Replacement 12)
END

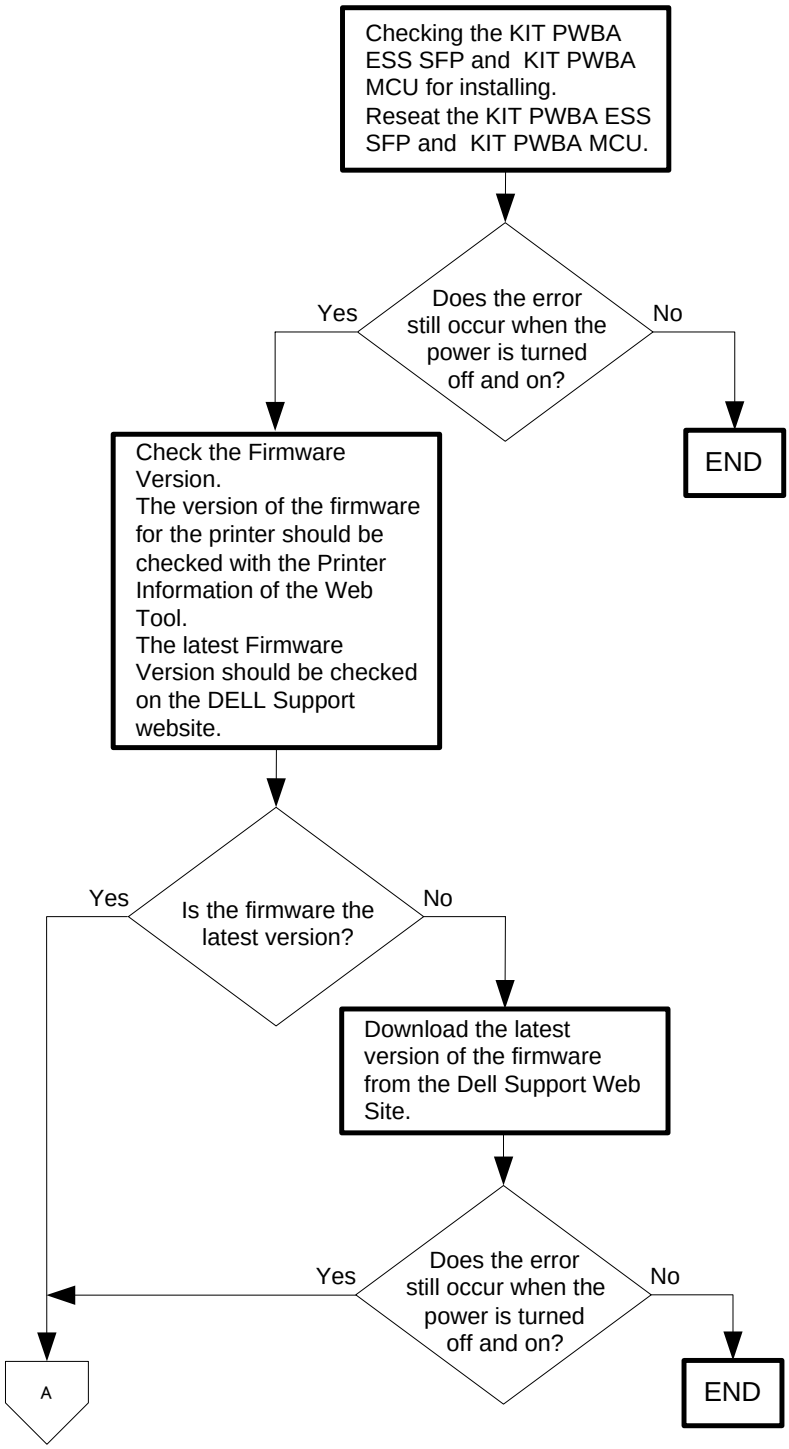
Flows 24 016-370: MCU-ESS Communication Fail

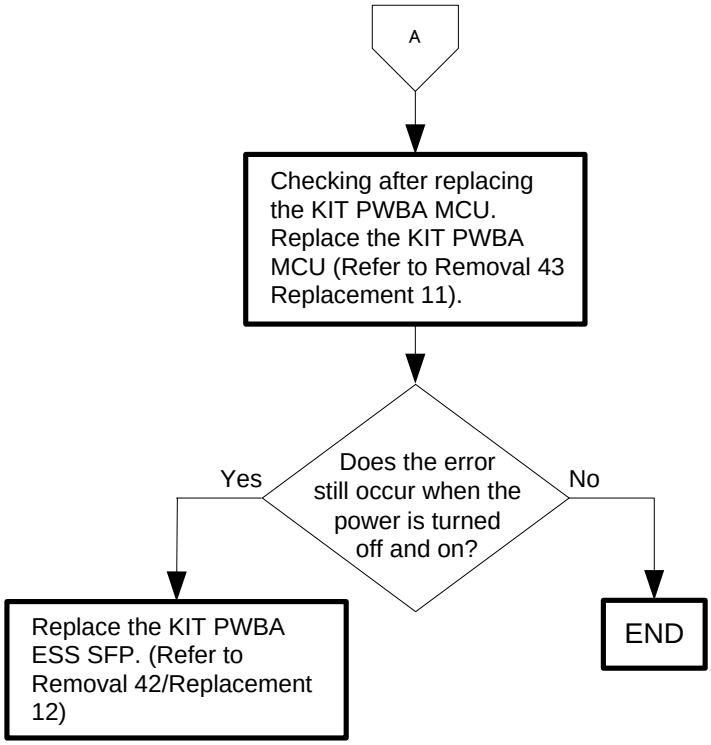
Cause: Communication fail between MCU and ESS.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.

CAUTION

When replacing the PWBA ESS and PWBA MCU concurrently, ensure that the ROM chip of the ESS is replaced and that the NVM data of the MCU is saved and reloaded. For details, refer to the supplied technical sheet.

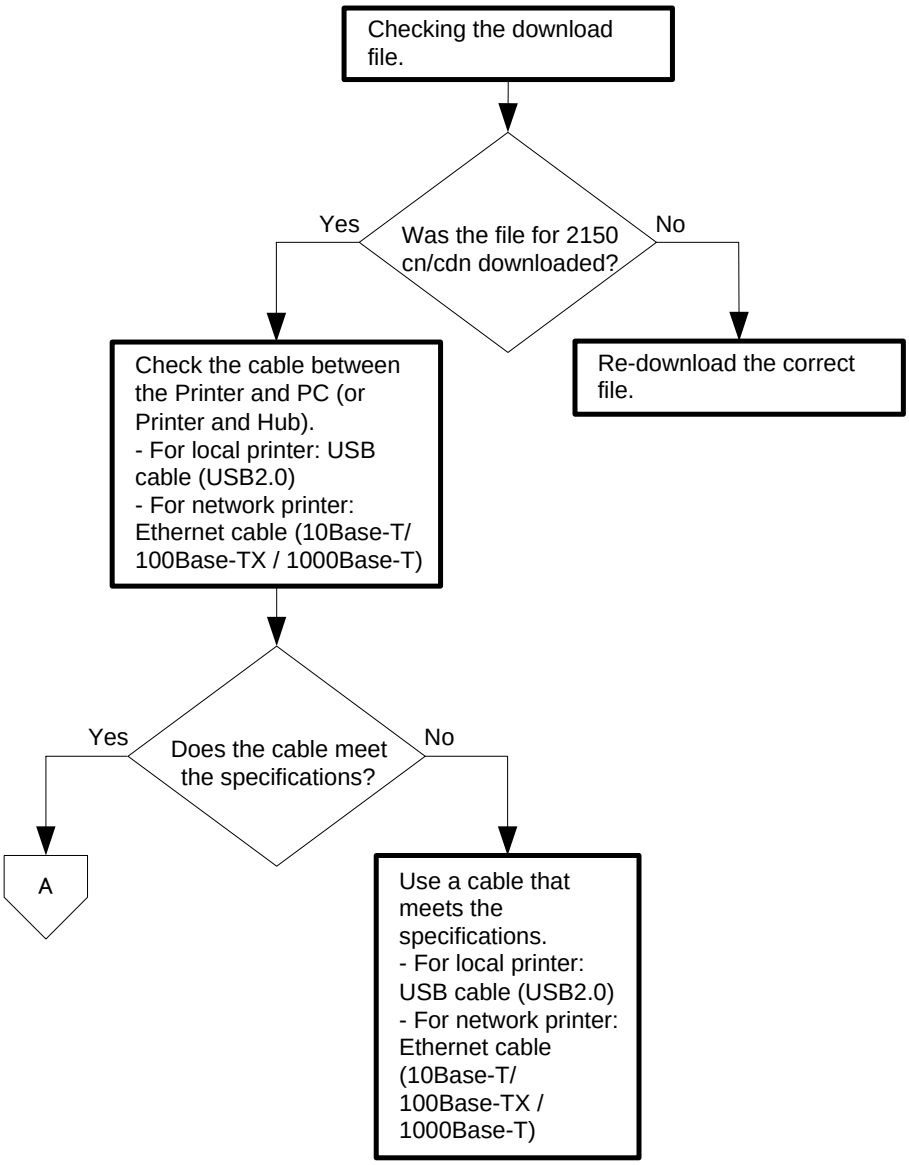


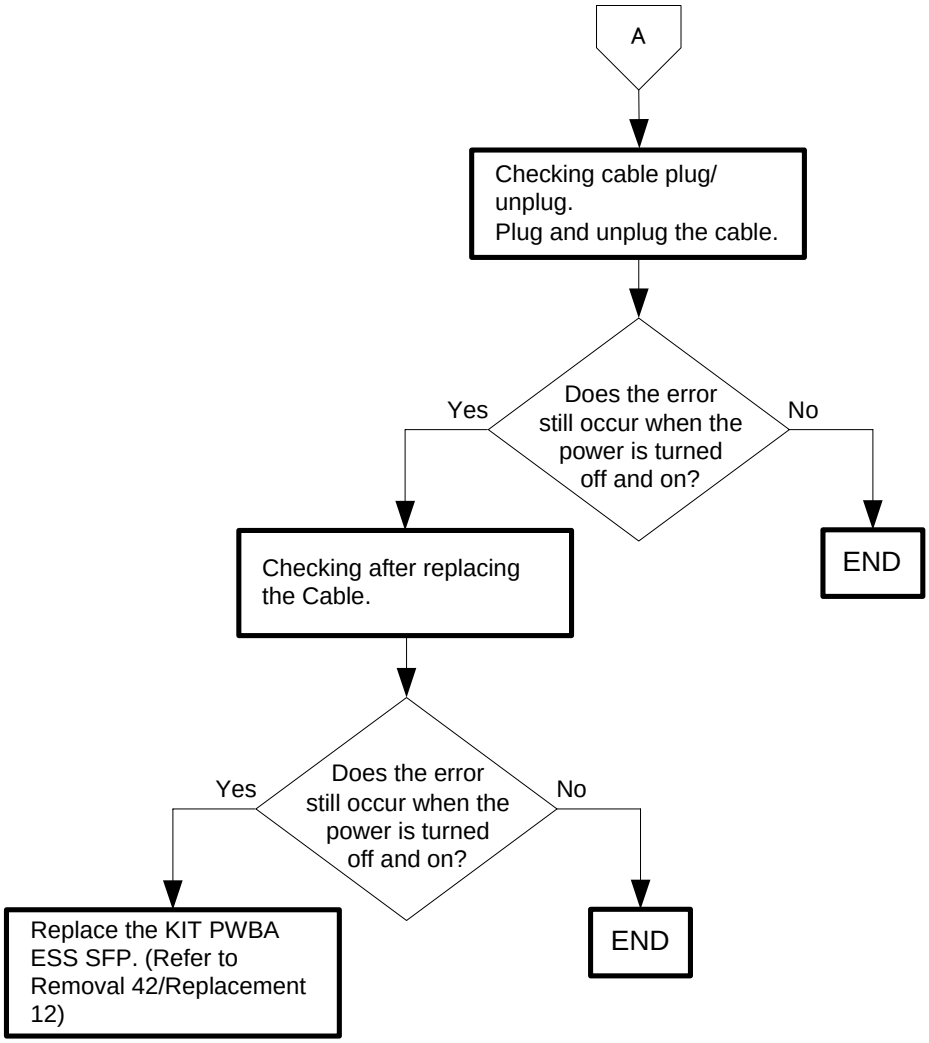

A
Checking after replacing the KIT PWBA MCU. Replace the KIT PWBA MCU (Refer to Removal 43 Replacement 11).
Does the error still occur when the power is turned off and on?
Yes
No
Replace the KIT PWBA ESS SFP. (Refer to Removal 42/Replacement 12)
END

Flows 25 016-383 / 016-384 / 016-385 / 016-386 / 016-387/ 016-388 / 016-391: Download ID Error / Download Range Error / Download header Error / Download Check Sum Error / Download Format Error / Download Initial Error / Download Protect Error

Cause: 016-383:Download file ID is invalid.
016-384:At download, write-in destination address is invalid.Range check error.
016-385:Download file header is invalid.
016-386:Download file checksum is invalid.
016-387:Download file format is invalid.
016-388:When downloading, failed in starting download mode.
016-391:Performed FW download although FW update is prohibited by panel settings.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.




A
Checking cable plug/ unplug.
Plug and unplug the cable.
Does the error still occur when the power is turned off and on?
Yes
No
END
Checking after replacing the Cable.
Does the error still occur when the power is turned off and on?
Yes
No
END
Replace the KIT PWBA ESS SFP. (Refer to Removal 42/Replacement 12)

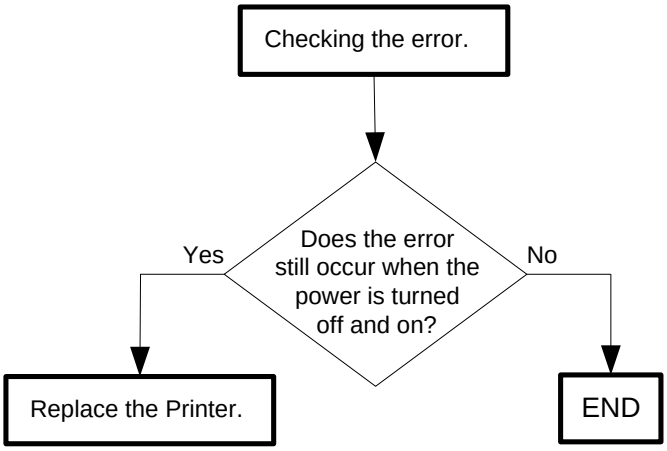
Flows 26 016-520: Ipsec Certificate Error

Cause: Ipsec Certificate Error.

Solution: A certification error occurred. Contact the system administrator.
Reset certificate from other connectable client with EWS.
If no device can be connected, disconnect cable, turn off IPsec, and then reset certificate with EWS.

NOTE

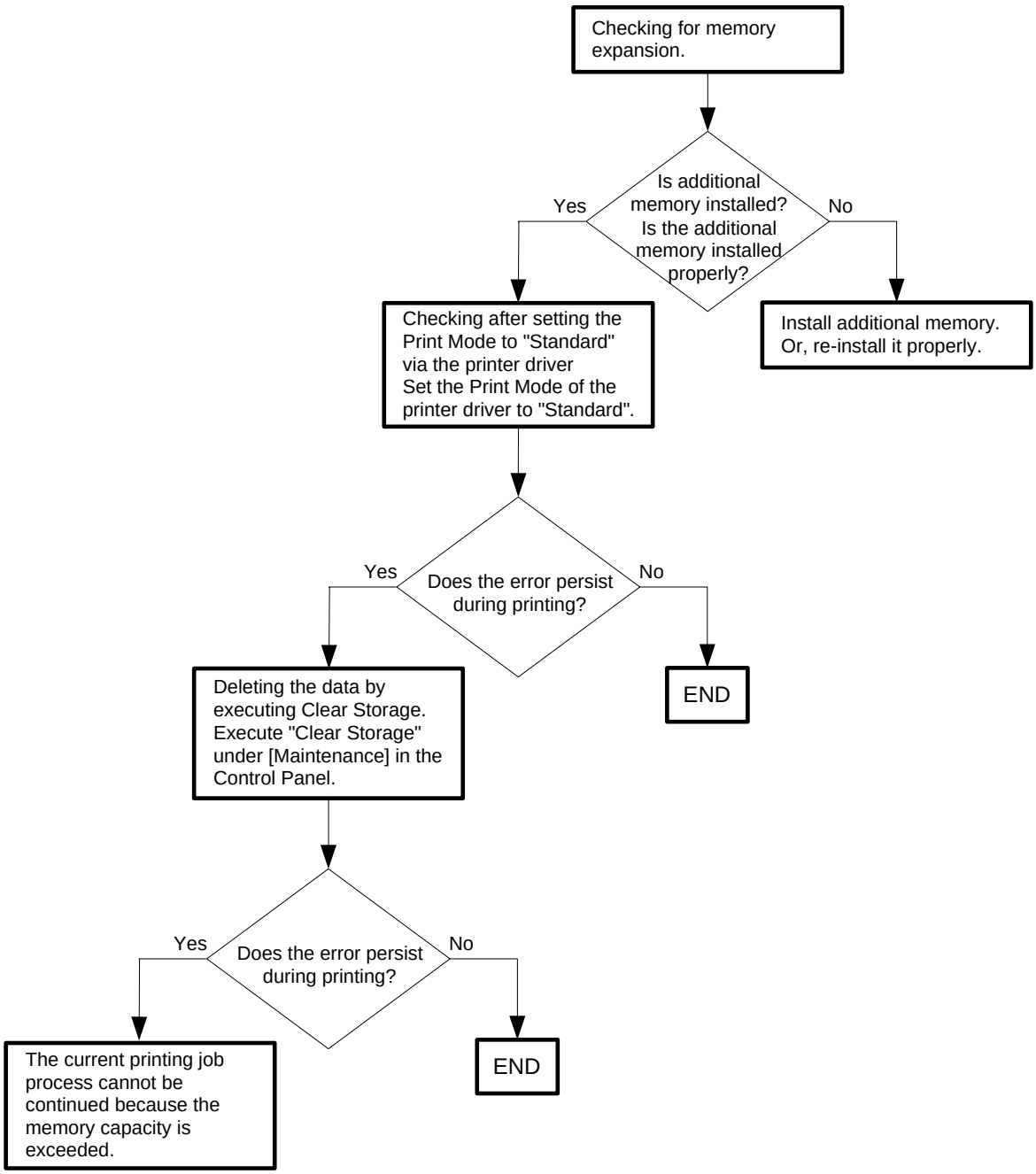
If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



Flows 27 016-700: Memory Over flow

Cause: The current printing job process cannot be continued because the memory capacity is exceeded.

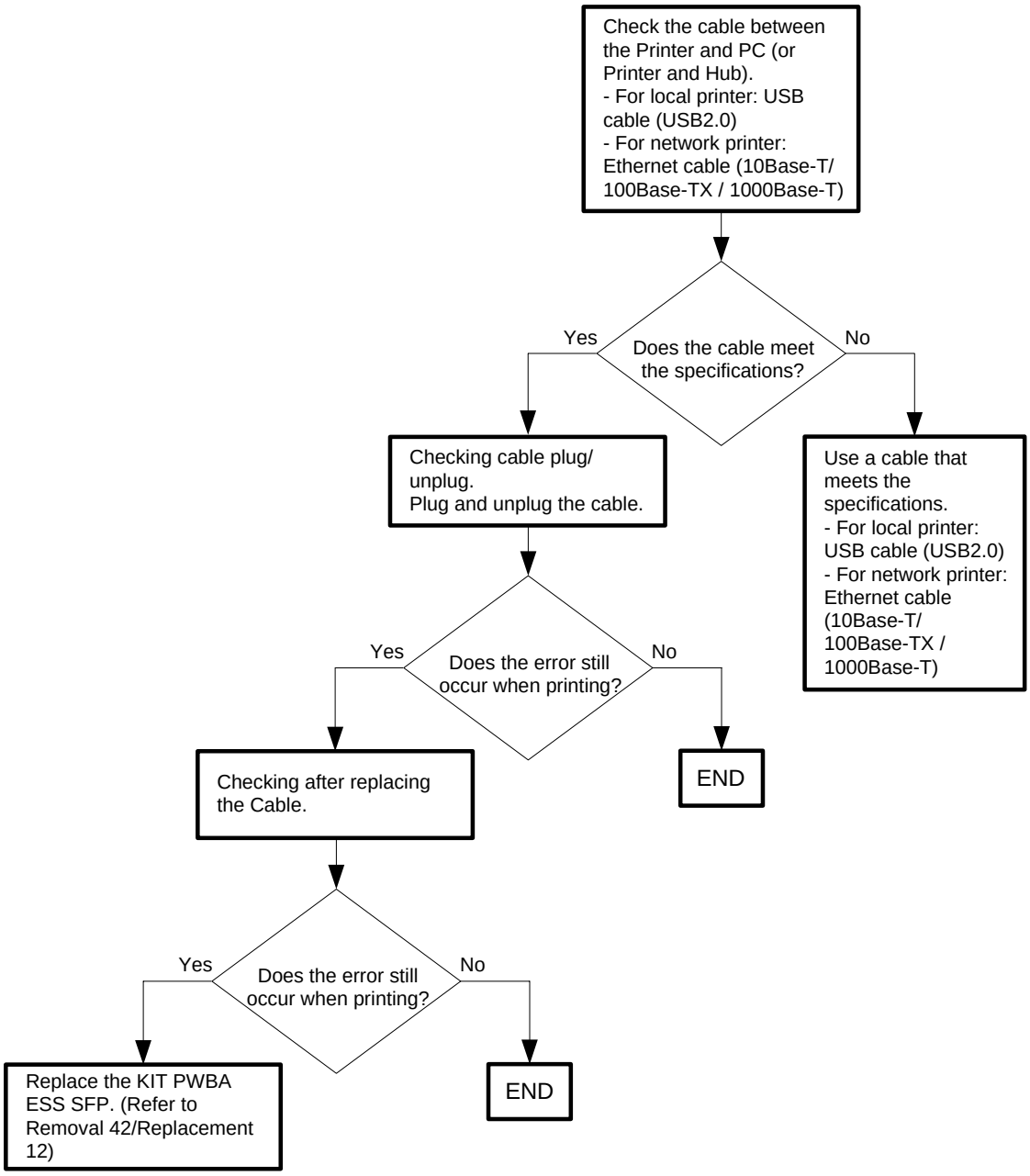
Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



Flows 28 016-720: PDL Error

Cause: The print data cannot be processed by PDL.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



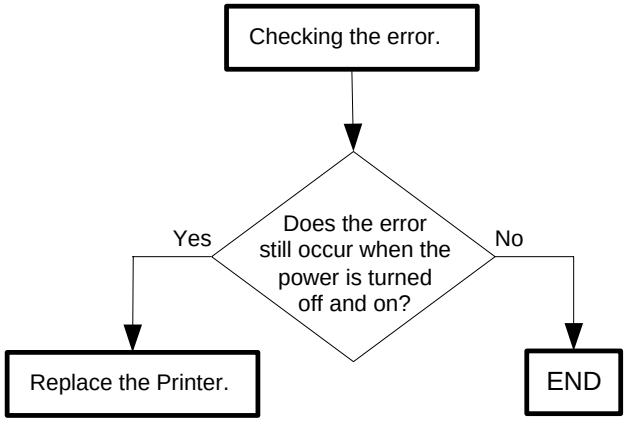
Flows 29 016-753 / 016-755:PDF password error / PDF print disabled error

Cause: 016-753:PDF password error.
016-755:PDF print is not allowed.

Solution: 016-753:The password is incorrect. Enter the correct password again.
016-755:This document cannot be printed because printing is set to "Not Allowed" in the PDF document security settings. Change the security settings.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



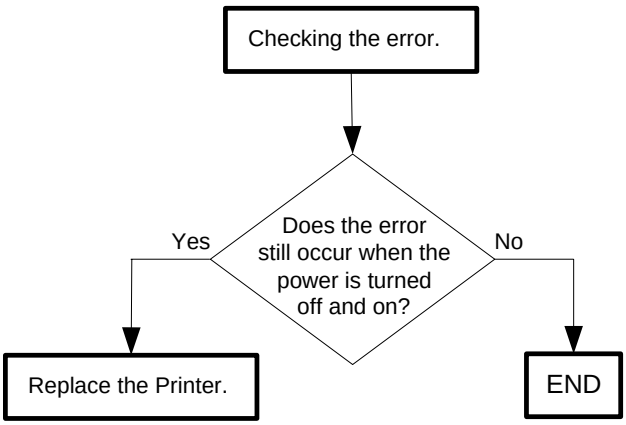
Flows 30 016-756: Auditron - Print prohibited time

Cause: Printing was executed at the print-prohibited time or the day of the week.

Solution: Printing cannot be executed because the printing is set in the print-prohibited day of the week or the time zone.
To execute printing, consult the system administrator.
This error is automatically reset after a lapse of the specified time.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



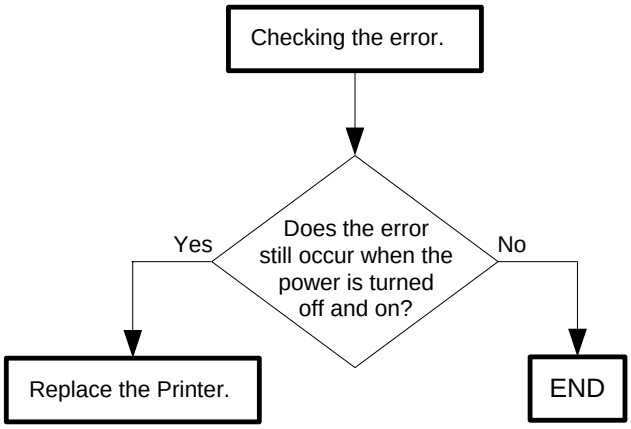
Flows 31 016-757: Auditron - Invalid User

Cause: An error occurred because the user's account settings did not match those of the Administrator.

Solution: Printing cannot be executed because your account (user name and password) has not been registered. To execute printing, consult the system administrator.
This error is automatically reset after a lapse of the specified time.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



Flows 32 016-758: Auditron - Disabled Function

Cause: An error occurred because a user authorized only for B&W print attempted to execute color printing.

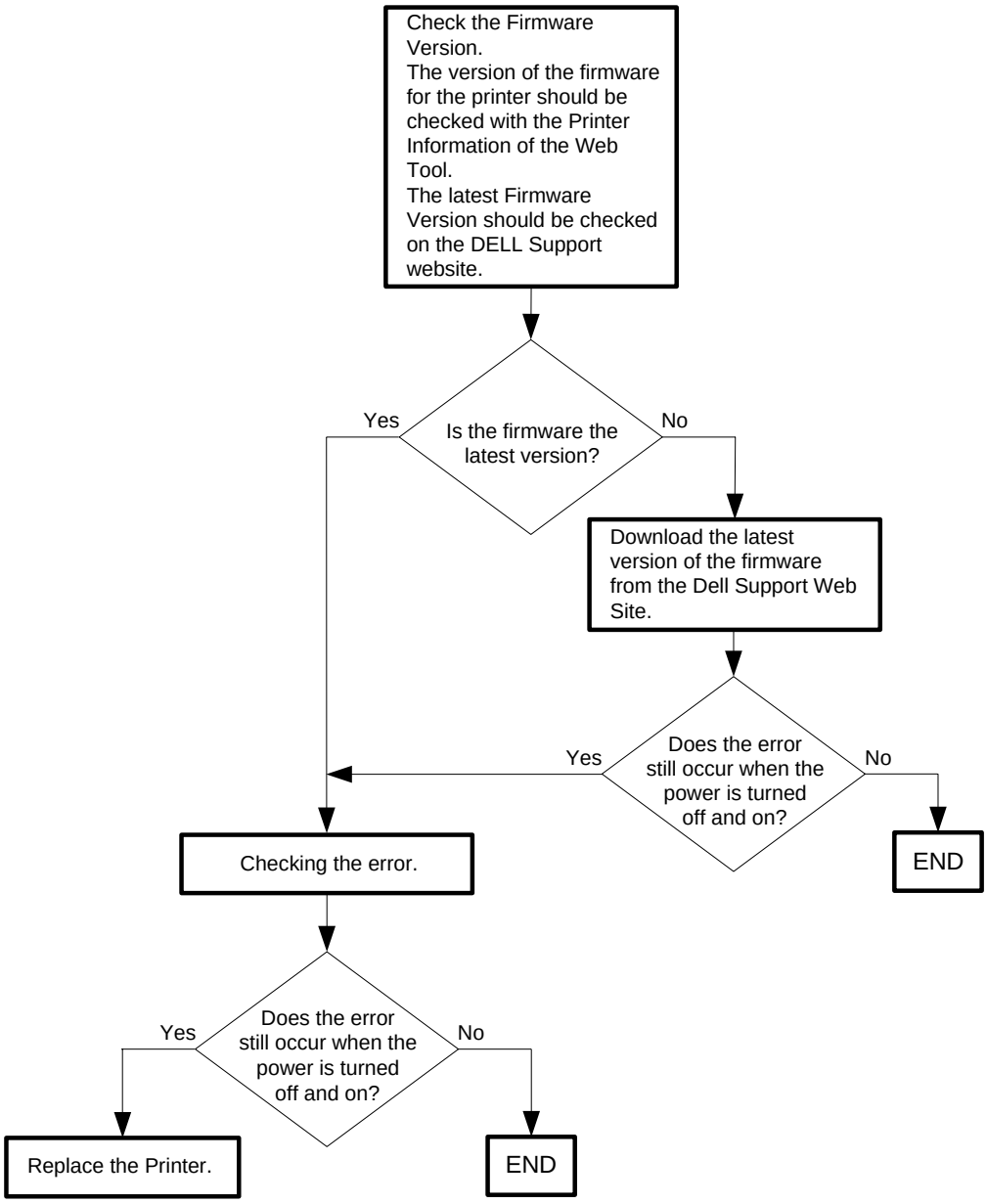
Solution: Color printing cannot be executed because the printer has been set only to enable B&W printing. To use color printing, consult the system administrator.
This error is automatically reset after a lapse of the specified time.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.

NOTE

Never turn off the power to the printer while the firmware is being downloaded. Turning the power off may cause a failure in the printer.



Flows 33 016-759: Auditron - Reached Limit

Cause: An attempt was made to print more copies than the print count limit.

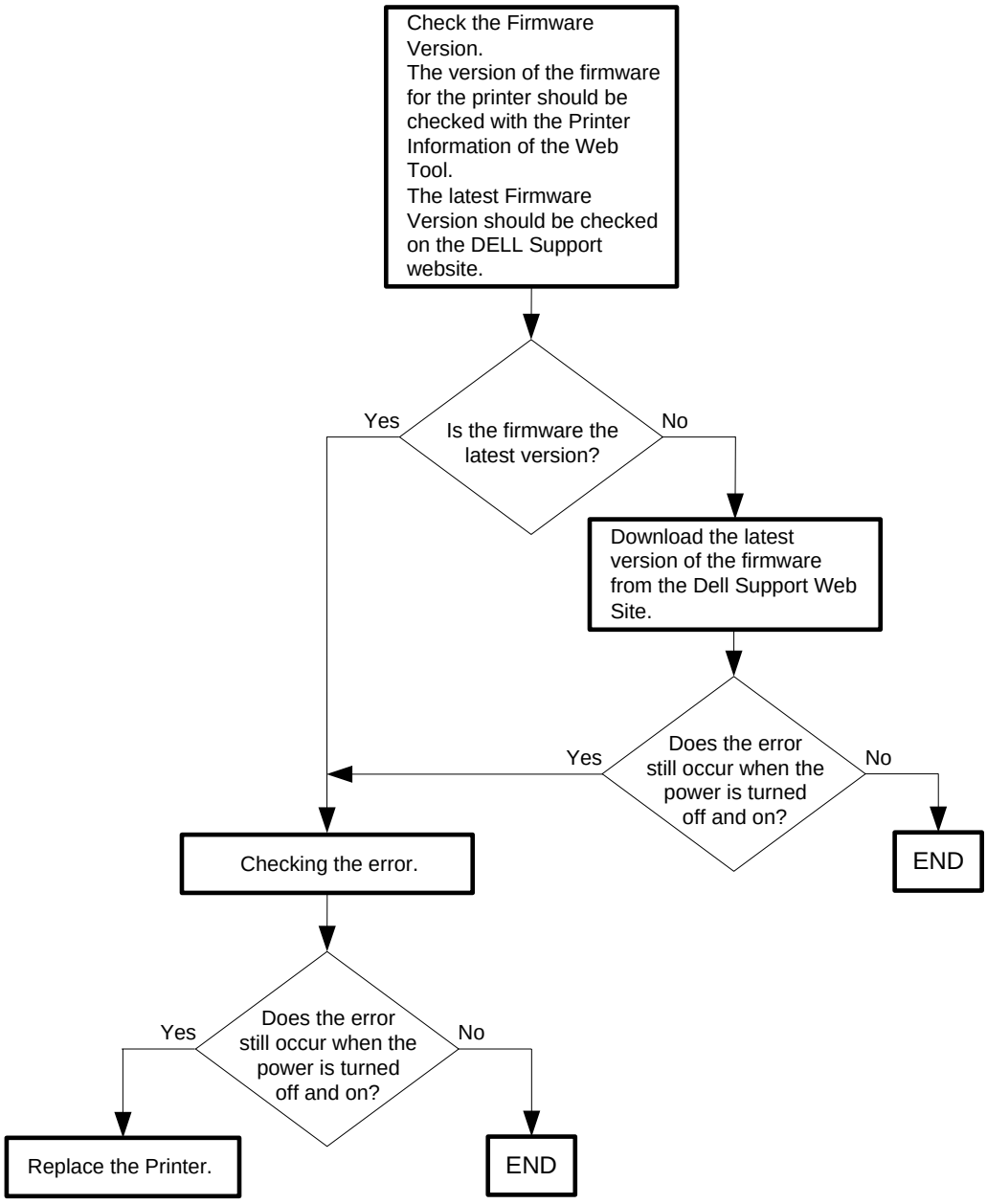
Solution: The printer has been set so that it does not continue printing when the specified number is reached. To continue printing, consult the system administrator.
This error is automatically reset after a lapse of the specified time.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.

NOTE

Never turn off the power to the printer while the firmware is being downloaded. Turning the power off may cause a failure in the printer.



Flows 34 016-799: Job Environment Violation

Cause: Detects violation data for the print condition. The print data specifies paper type/ size not available for the printer.

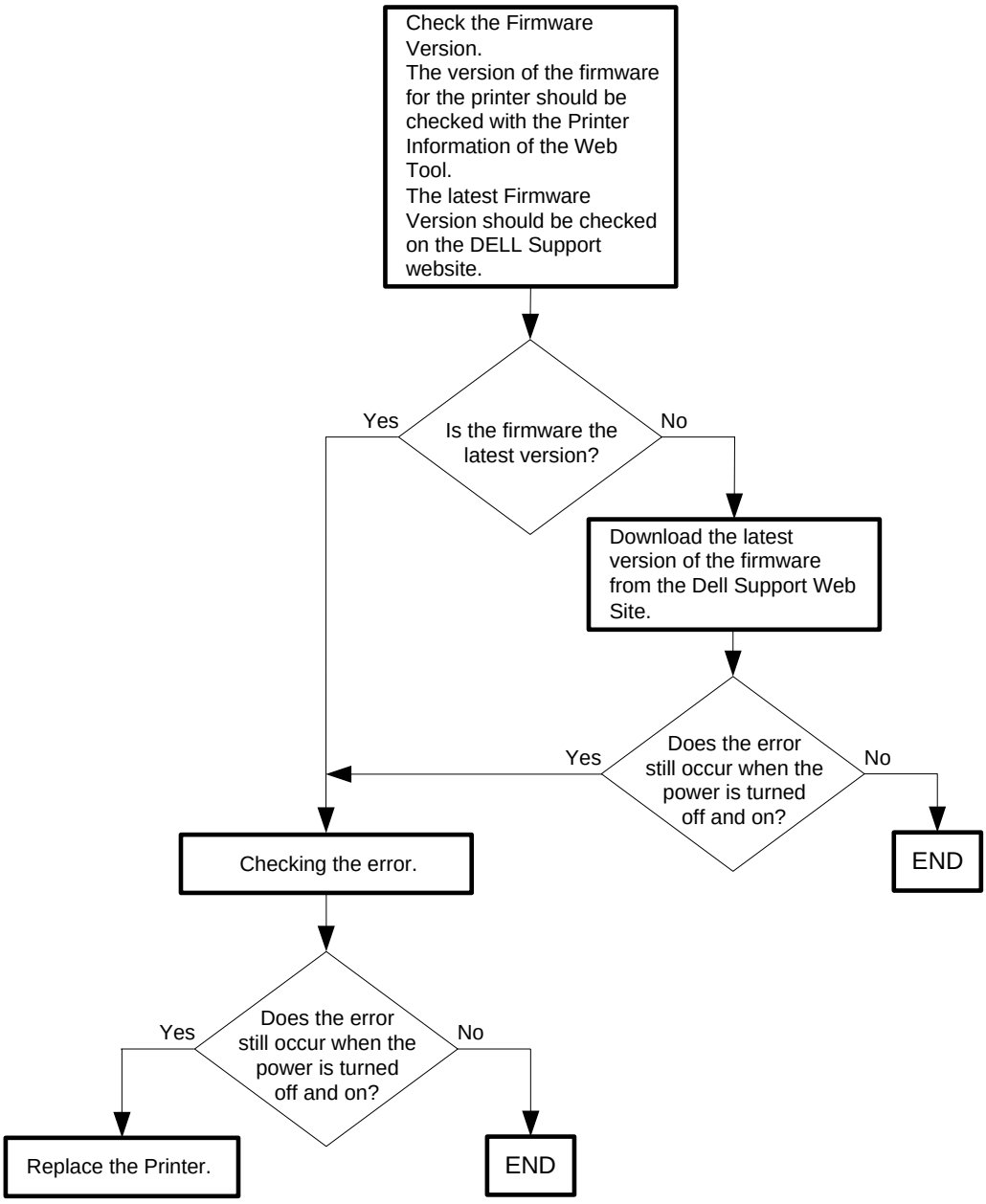
Solution: Ensure that the printer configuration on the printer driver conforms to the printer you are using.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.

NOTE

Never turn off the power to the printer while the firmware is being downloaded. Turning the power off may cause a failure in the printer.



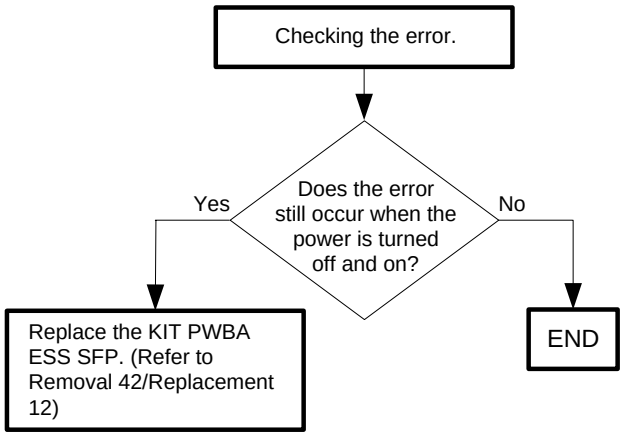
Flows 35 016-920: Wireless Setting Error Time-out Error

Cause: The time-out was done to the connection with Register.

Solution: A time-out error occurred. Contact the system administrator.
The WPS procedure between the wireless LAN access point (Registrar) timed out. Try connecting again.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



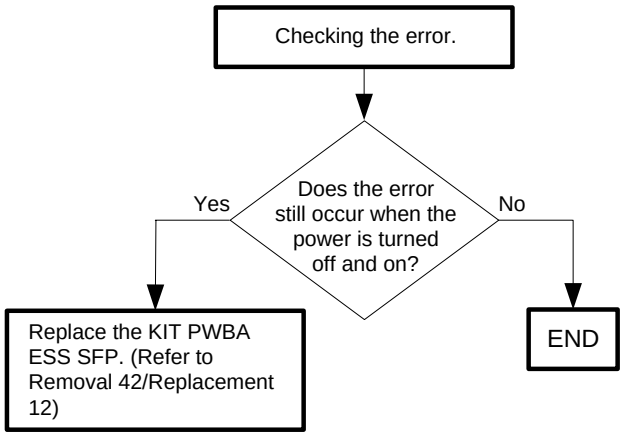
Flows 36 016-921: Wireless Setting Error Download Error

Cause: The error occurred while connecting it with Register.

Solution: An error occurred while connecting. Contact the system administrator.
An error occurred while connecting to the wireless LAN access point (Registrar) in WPS mode. Try connecting again.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



Flows 37 016-922: Wireless Setting Error Session Overlap Error

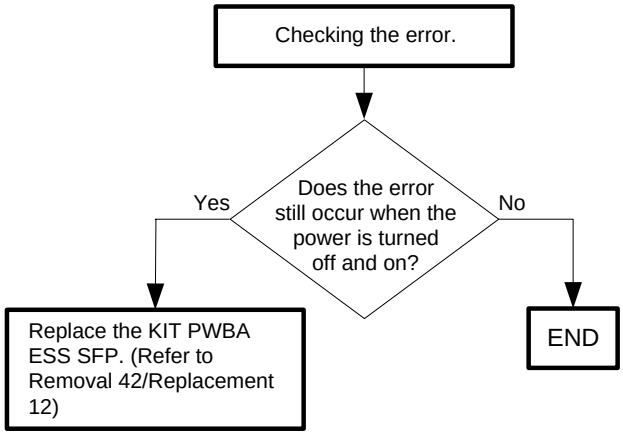
Cause: Two or more Register that operated by WPS-PBC was found.

Solution: Two or more wireless LAN access points (Registrars) have been found to operate in the WPS-PBC mode.

Set only one wireless access point (Registrar) to operate in the WPS-PBC mode, and execute the process again according to the procedure.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



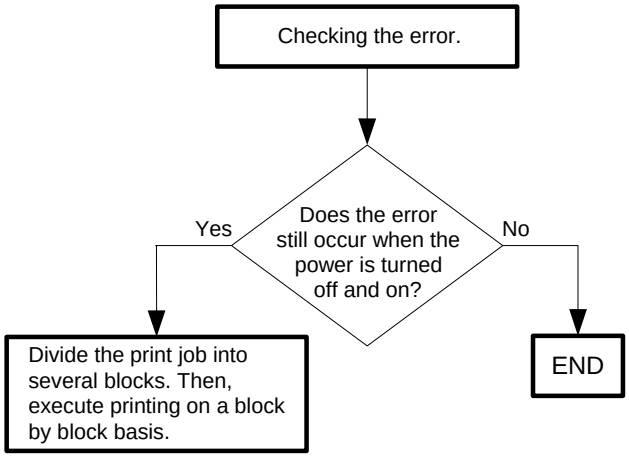
Flows 38 016-980: Disc Full

Cause: The current printing job process cannot be continued because the RAM disk is full.

Solution: It is necessary to delete unnecessary data or System Settings increase the RAM Disk capacity in System Settings.
After increasing the RAM Disk capacity, turn the printer off and then on.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



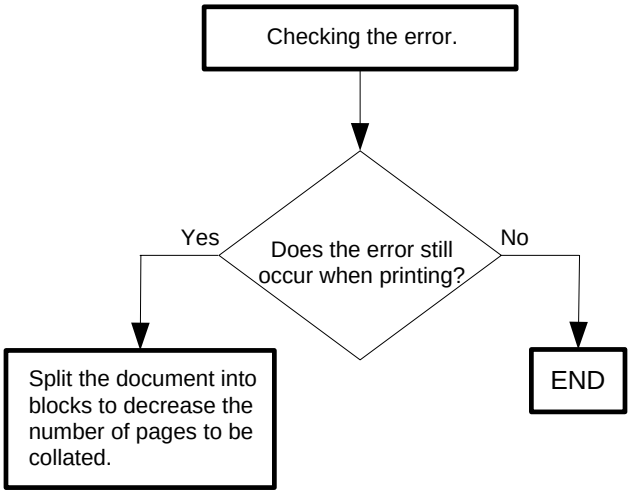
Flows 39 016-981: Collate Full

Cause: Unable to collate due to insufficient memory.

Solution: Collating cannot be performed due to insufficient memory. Decrease the RAM Disk capacity in System Settings. After decreasing the RAM Disk capacity, turn the printer off and then on.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



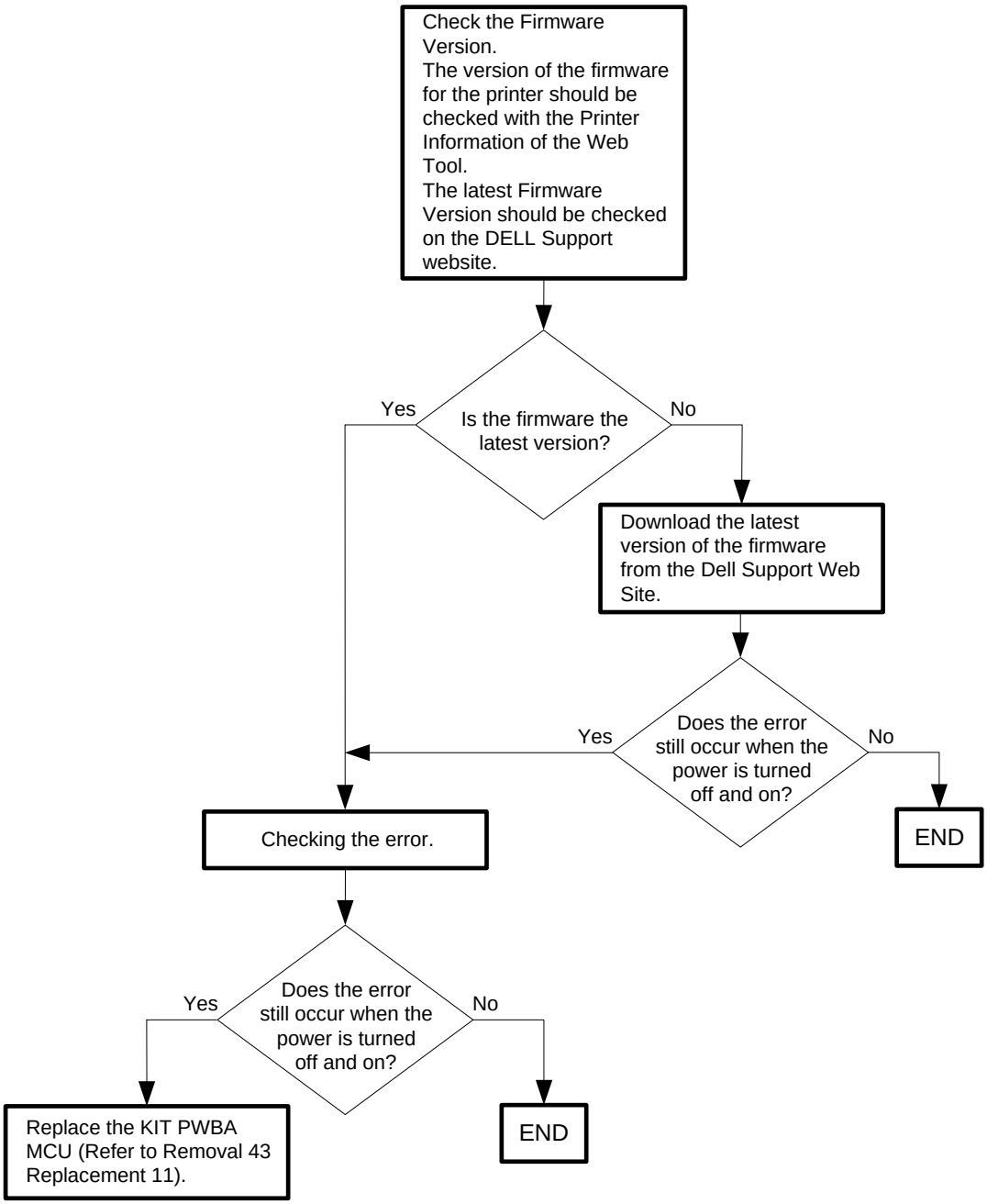
Flows 40 024-360: MCU Down Load Error

Cause: Download failure of MCU firmware.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.

NOTE

Never turn off the power to the printer while the firmware is being downloaded. Turning the power off may cause a failure in the printer.



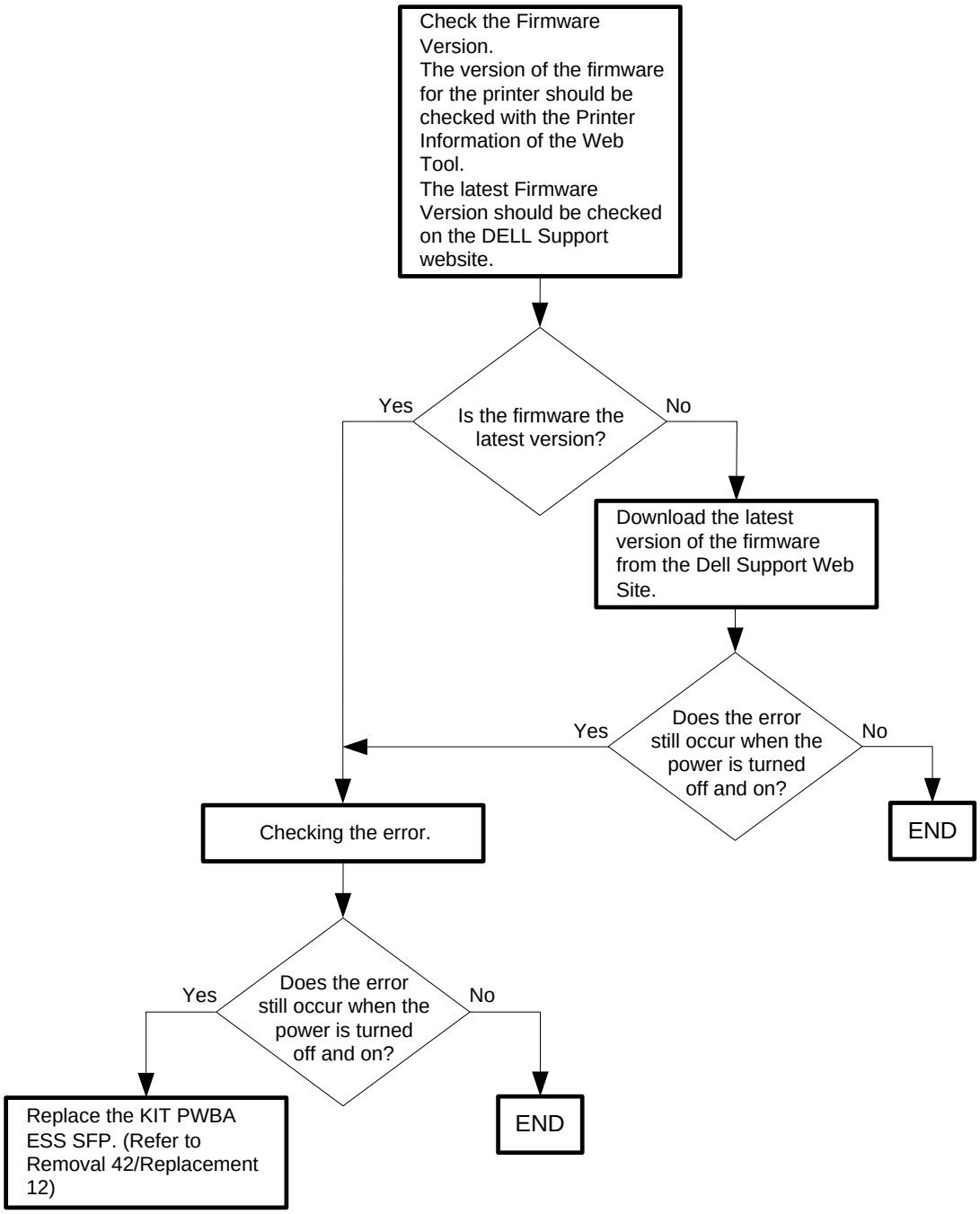
Flows 41 024-362: IOT Start Image Marking Time-out

Cause: "Start Image Making" has not been issued within the time allowed.

Solution: Turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.

NOTE

Never turn off the power to the printer while the firmware is being downloaded. Turning the power off may cause a failure in the printer.



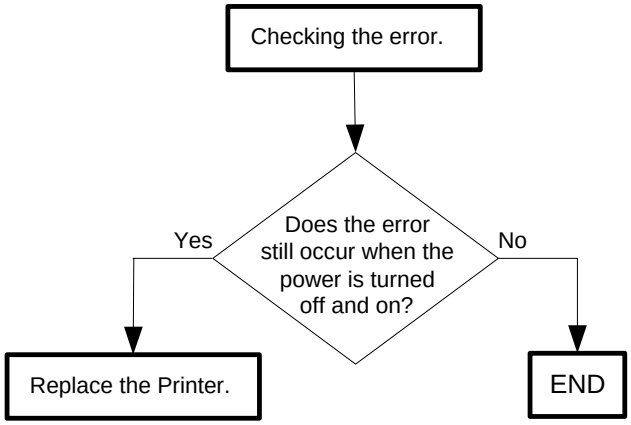
Flows 42 024-985: Waiting for "Continue" key to be pressed after reloading paper to the SSF

Cause: Printer starts printing automatically after a certain period of time even if the key is not pressed.

Solution: The printer is waiting for the user to press the <✓> (Set) key. Press the <✓> (Set) key. After the predetermined time elapses, this error is cleared, and the printer starts feeding automatically.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



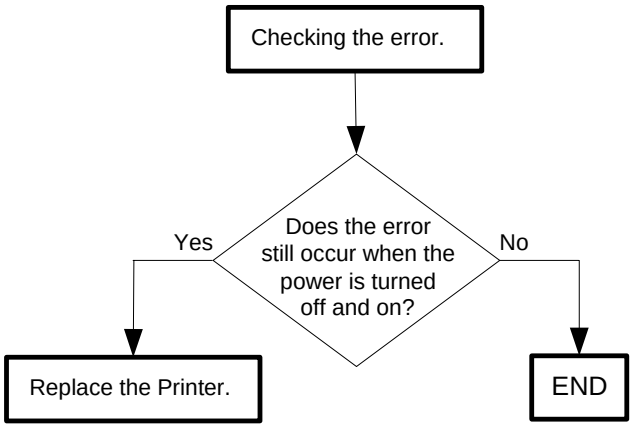
Flows 43 027-446 / 027-452: IPv6 duplicate/IPv4 duplicate

Cause: 027-446:Duplicate IPv6 addresses detected upon startup.
027-452:Duplicate IPv4 addresses detected upon startup.

Solution: 027-446:Duplicate IPv6 addresses have been detected. Contact the system administrator. Remove duplicates and then power off the printer and then on. For details of the IP address settings, refer to "13 Dell Printer Configuration Web Tool" in User Guide.
027-452:Duplicate IPv4 addresses have been detected. Contact the system administrator. Remove duplicates and then power off the printer and then on. For details of the IP address settings, refer to "13 Dell Printer Configuration Web Tool" in User Guide.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



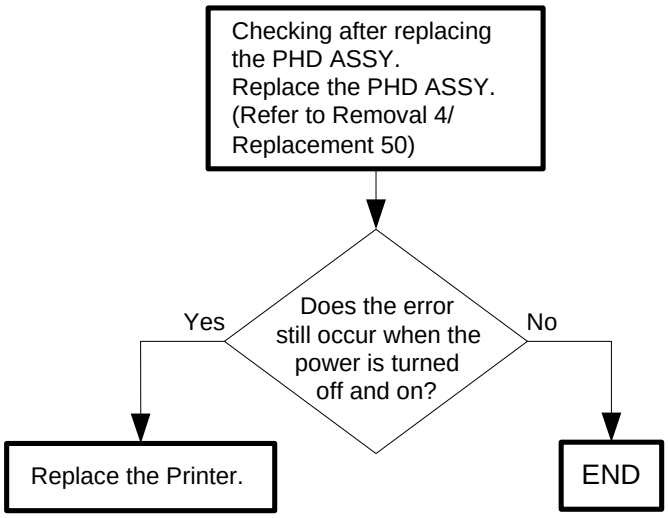
Flows 44 042-700: IOT Over Heat Stop

Cause: The temp. Sensor sensed high temperature.

Solution: Printing has been suspended because inside of the printer is extraordinarily hot. Turn off the printer.Open the Front Cover and remove the PHD Unit.
Start the operation after the Printer has cooled down.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



Flows 45 071-100: IOT Tray1 Misfeed JAM

Cause: The Regi Sensor is not turned ON within the specified time after feeding a paper from Tray 1.

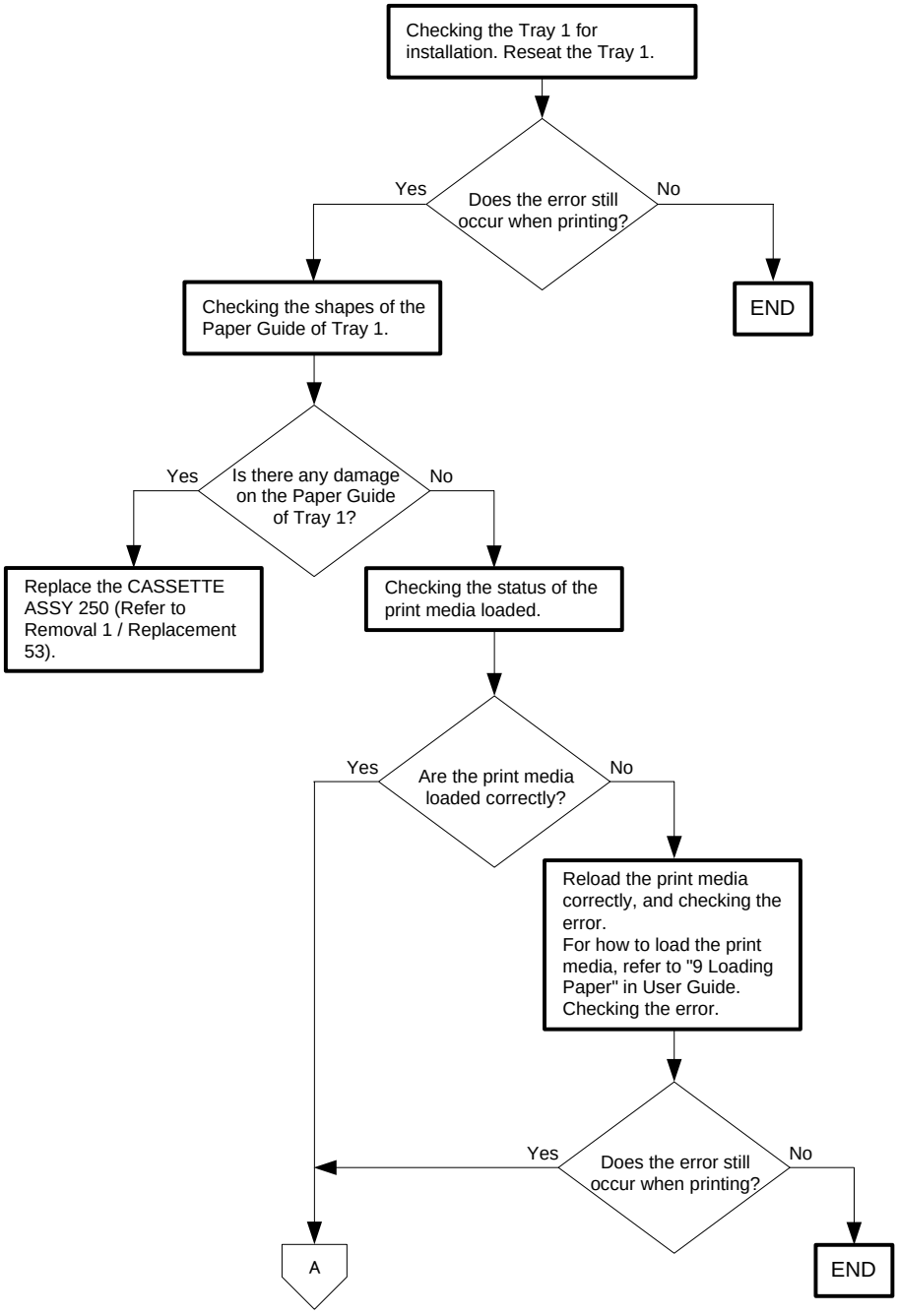
Solution: Paper jam has occurred. Remove the jammed paper.
And then open and close the front cover.Refer to "Appendix_1.2 Clearing Paper Jams From the Standard 250-Sheet Tray" for how to remove the jammed paper.

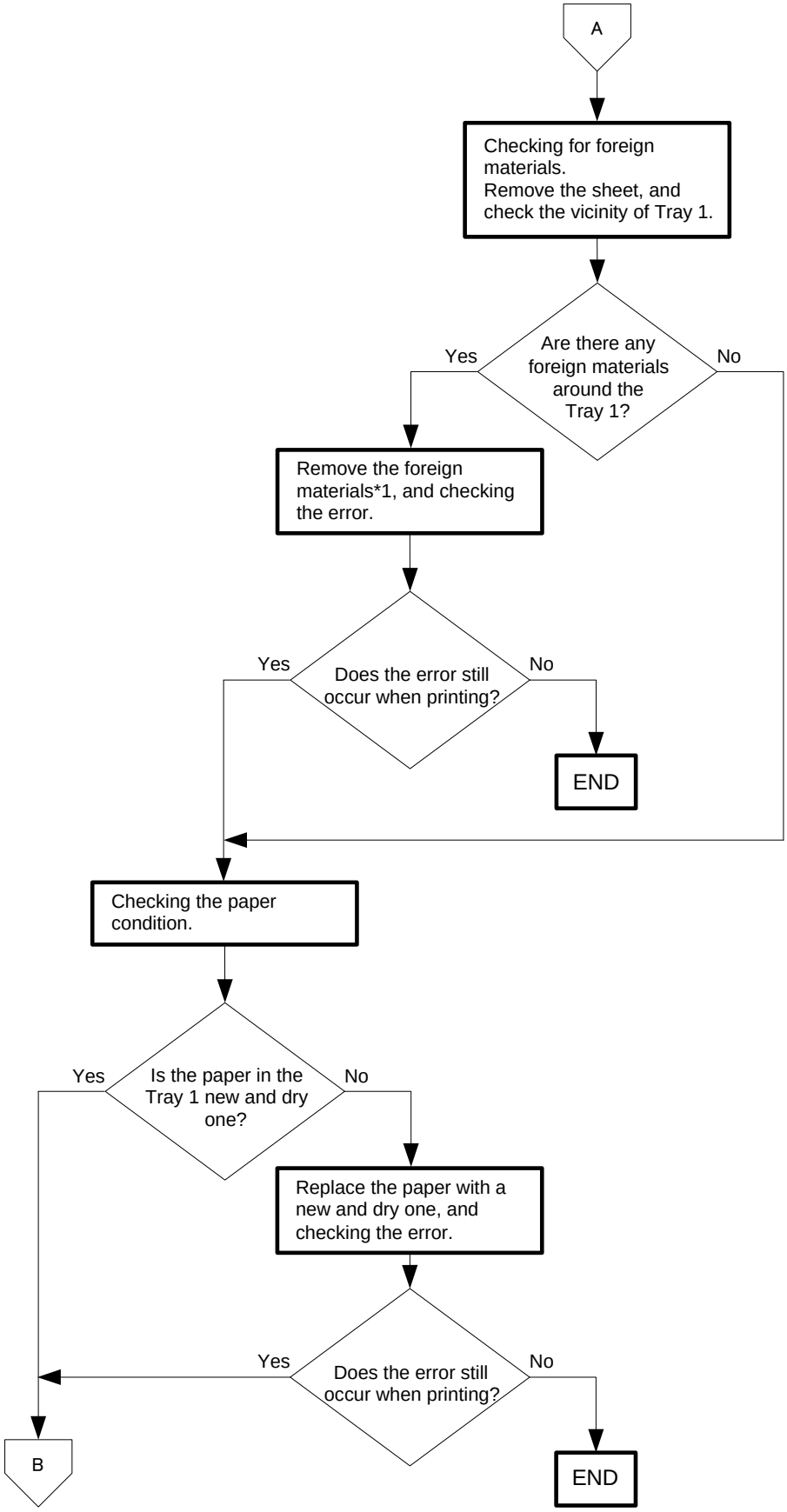
NOTE

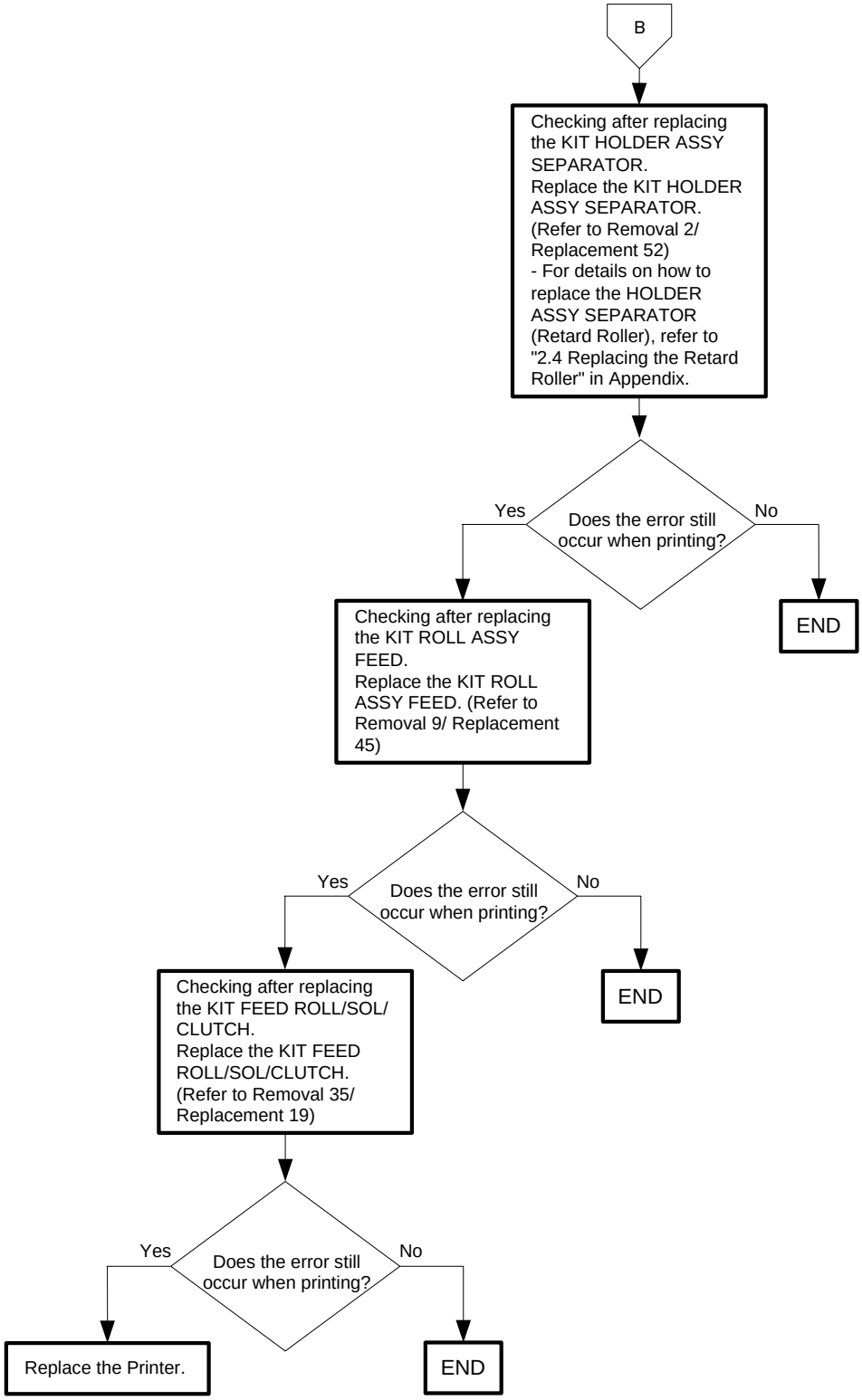
Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.




A
Checking for foreign materials.
Remove the sheet, and check the vicinity of Tray 1.
Are there any foreign materials around the Tray 1?
Yes
No
Remove the foreign materials*1, and checking the error.
Does the error still occur when printing?
Yes
No
END
Checking the paper condition.
Is the paper in the Tray 1 new and dry one?
Yes
No
Replace the paper with a new and dry one, and checking the error.
Does the error still occur when printing?
Yes
No
END
B



*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 46 072-100: IOT Tray2 Misfeed JAM

Cause: The Paper Path Sensor of Tray 2 is not turned ON within the specified time after feeding a paper from Tray 2.

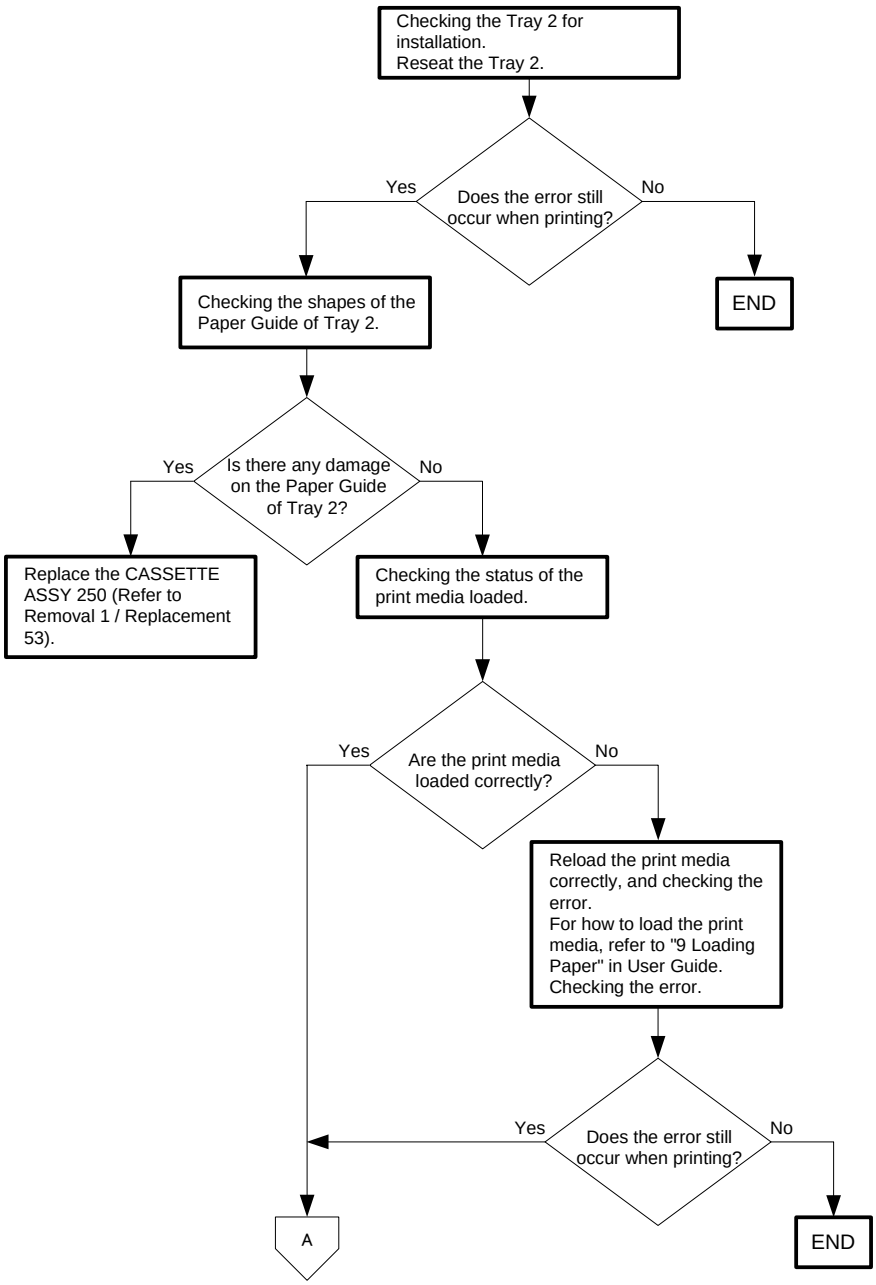
Solution: Paper jam has occurred. Remove the jammed paper. And then open and close the front cover.Refer to "Appendix_1.5 Clearing Paper Jams From the Optional 250-Sheet Feeder" for how to remove the jammed paper.

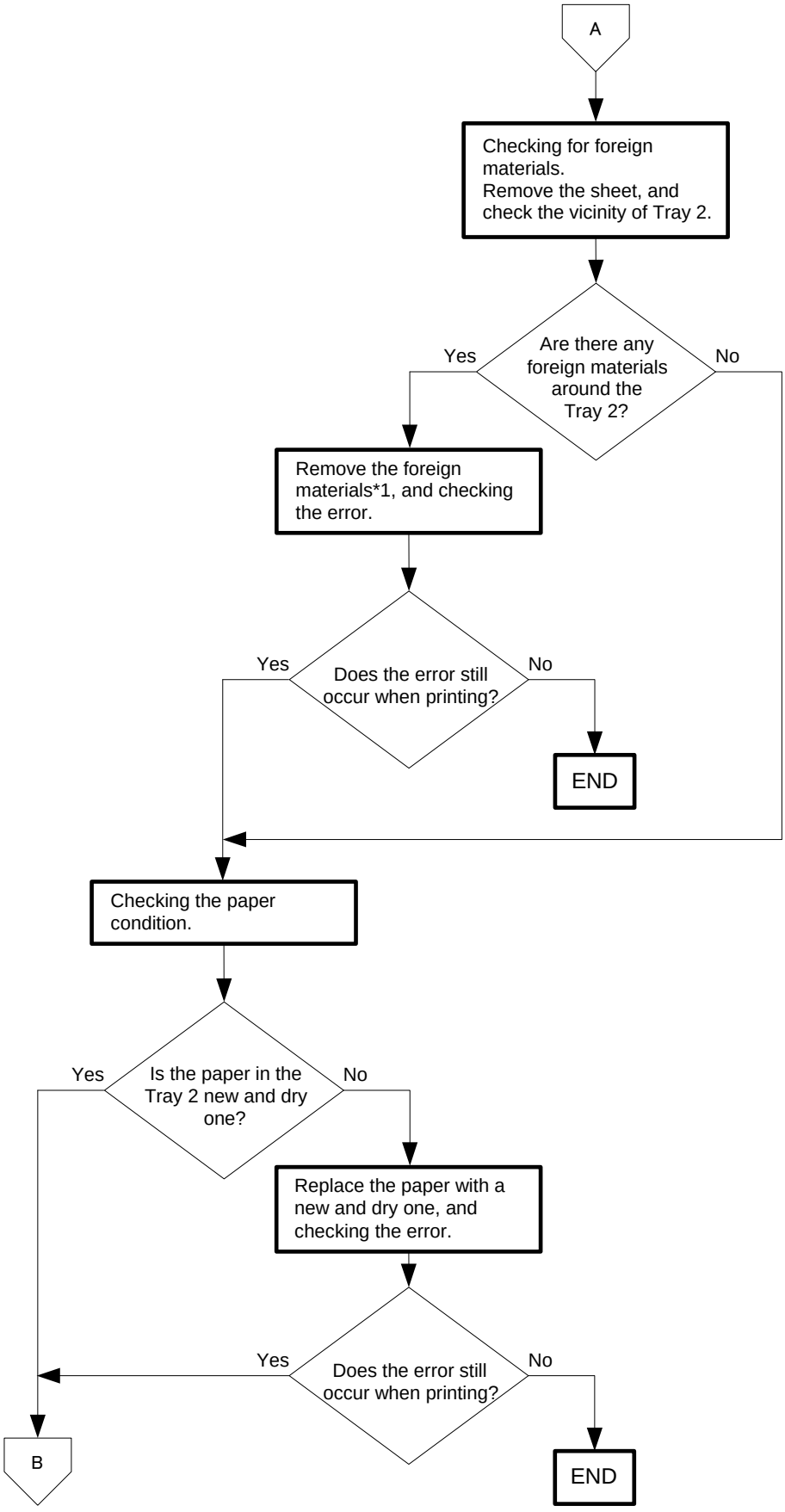
NOTE

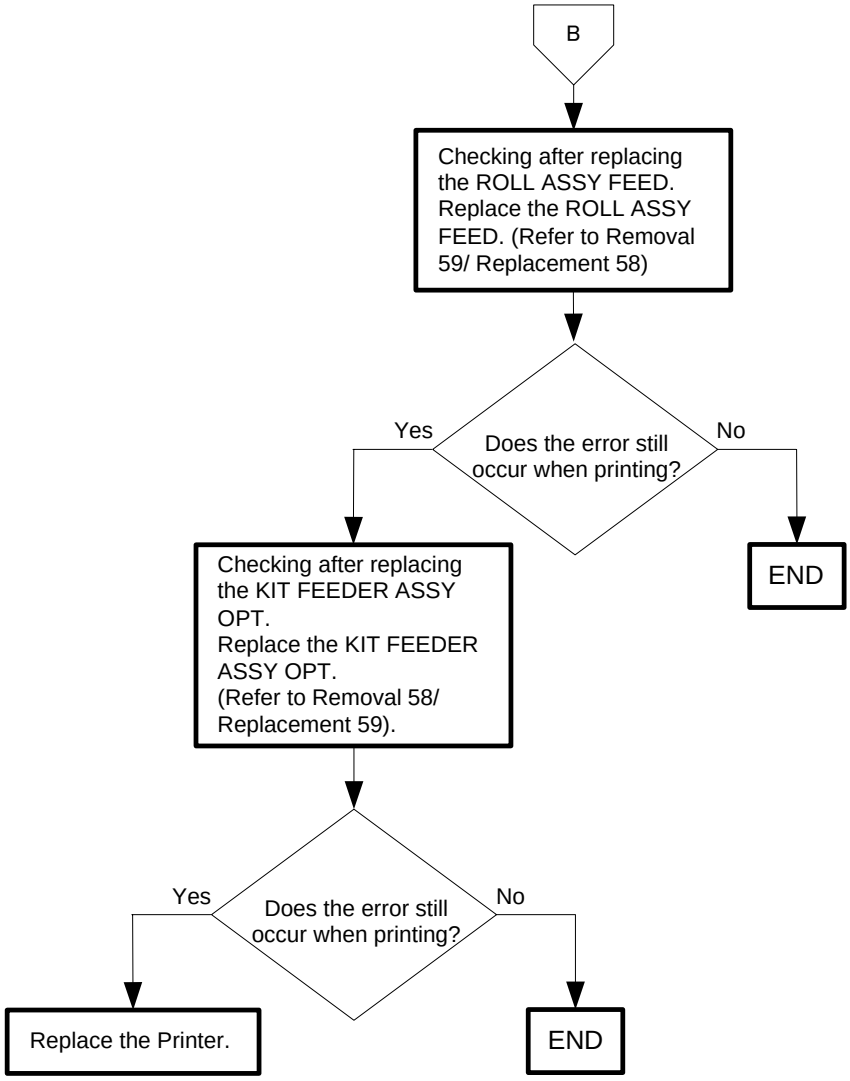
Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.




A
Checking for foreign materials.
Remove the sheet, and check the vicinity of Tray 2.
Are there any foreign materials around the Tray 2?
Yes
No
Remove the foreign materials*1, and checking the error.
Does the error still occur when printing?
Yes
No
END
Checking the paper condition.
Is the paper in the Tray 2 new and dry one?
Yes
No
Replace the paper with a new and dry one, and checking the error.
Does the error still occur when printing?
Yes
No
END
B



*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 47 072-101: IOT Feeder 2 JAM

Cause: A jam has been detected between the Regi Sensor and the Paper Sensor of Tray 2.

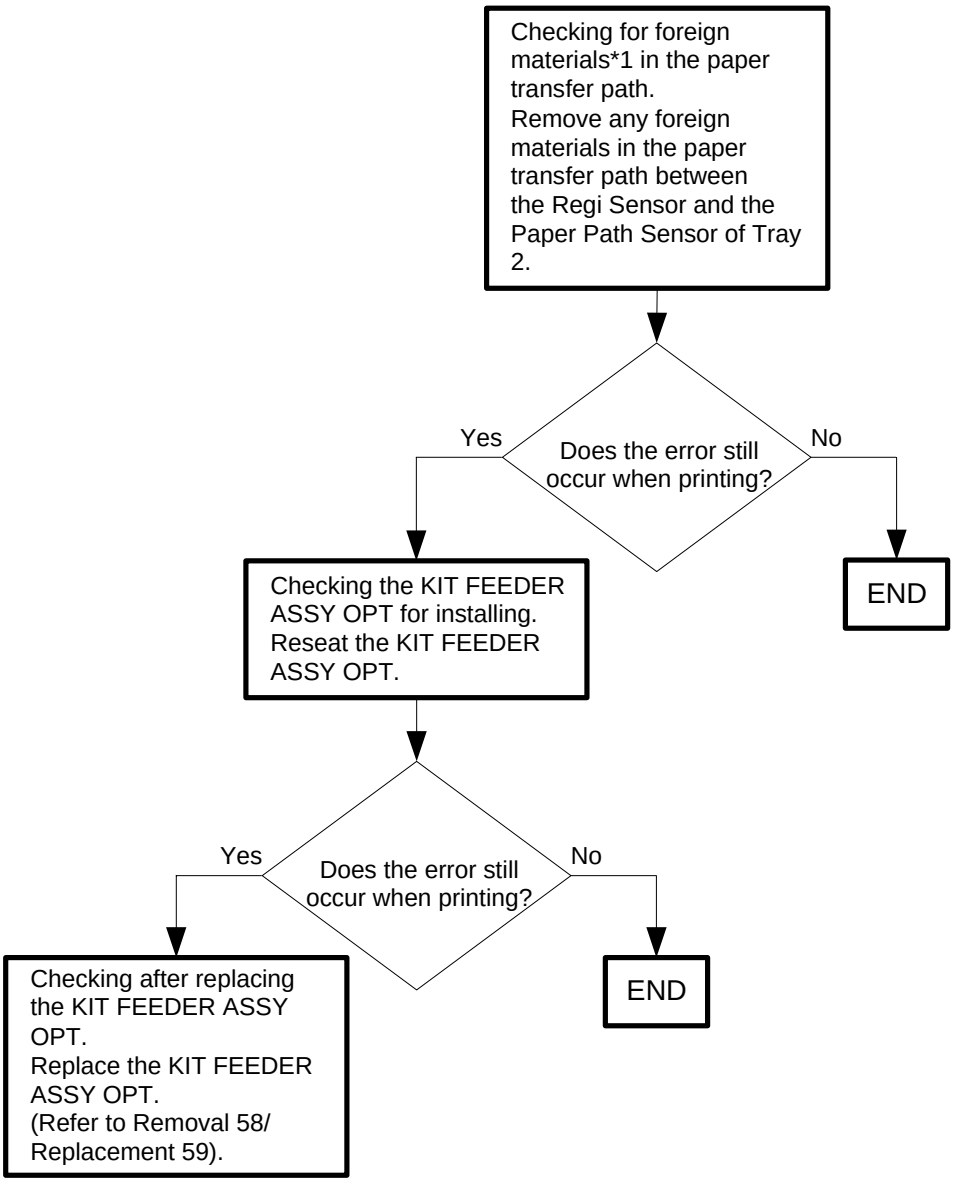
Solution: Paper jam has occurred. Remove the jammed paper. And then open and close the front cover. Refer to "Appendix_1.2 Clearing Paper Jams From the Standard 250-Sheet Tray" or "Appendix_1.5 Clearing Paper Jams From the Optional 250-Sheet Feeder" for how to remove the jammed paper.

NOTE

Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing.
Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 48 072-908: IOT Remain Option Feeder JAM

Cause: The paper remains at the Paper Path Sensor of Tray 2.

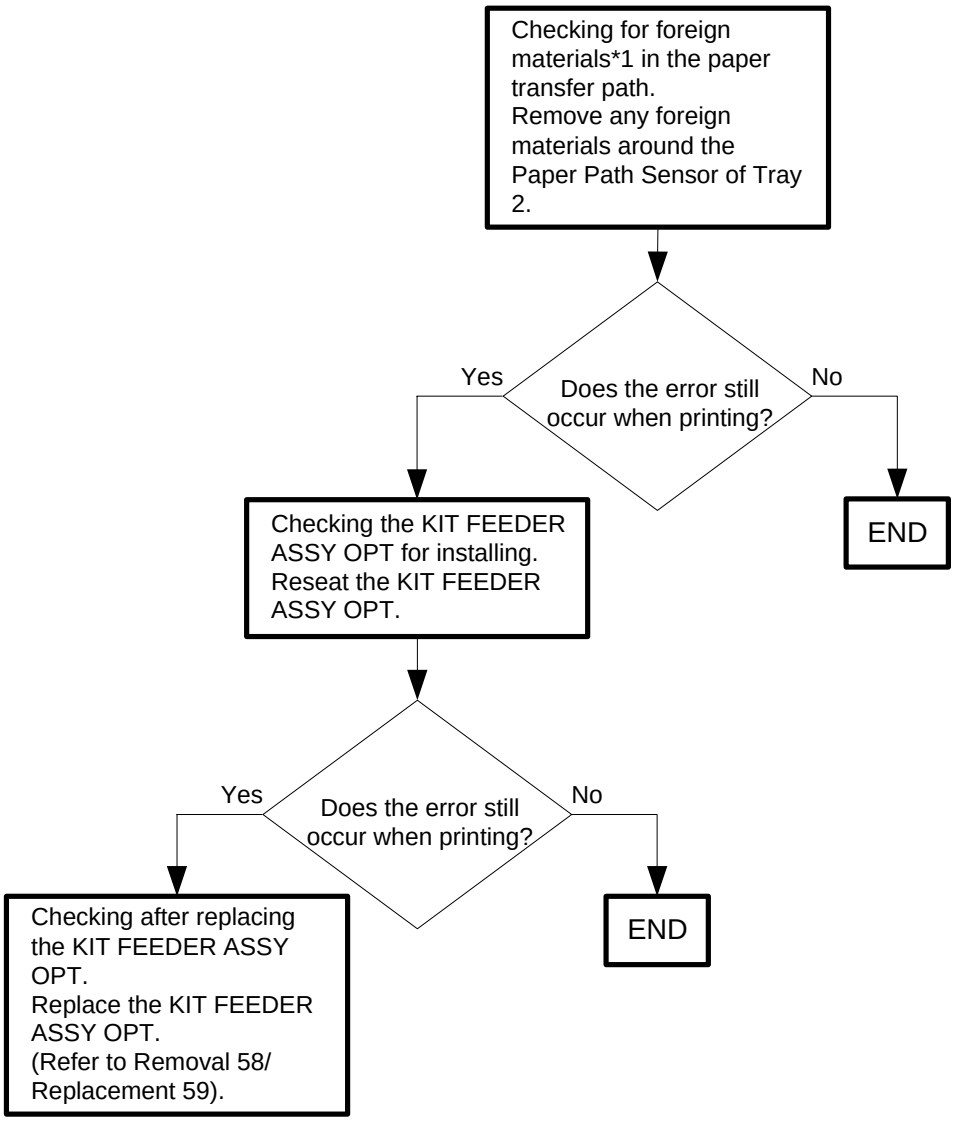
Solution: Paper jam has occurred. Remove the jammed paper. And then open and close the front cover. Refer to "Appendix_1.2 Clearing Paper Jams From the Standard 250-Sheet Tray" (or "Appendix_1.5 Clearing Paper Jams From the Optional 250-Sheet Feeder") for how to remove the jammed paper.

NOTE

Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing.
Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 49 075-101 / 075-102 / 075-923: IOT SSF Insert JAM / IOT SSF Paper Pullout JAM / Waiting for reseat paper of SSF

Cause: 075-101:SSF No Paper Sensor detect when a paper is inserted from SSF.
075-102:Though it tried to feed a paper from SSF, the paper was not loaded or it was pulled out forcibly from SSF.
075-923:Wait for the paper on SSF to be reseated.

Solution: 075-101:Remove the paper from the SSF.
075-102:Pull the jammed paper out of the SSF. Open and close the front cover.
075-923:Pull the paper out of the SSF. Reload the paper in the SSF.

NOTE

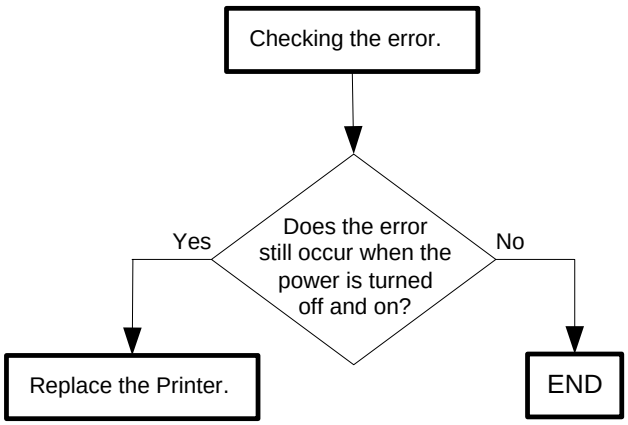
Do not load a sheet to the SSF while printing source. Otherwise, a Jam error occurs.

NOTE

Refer to "Appendix_1.1 Clearing Paper Jams From the SSF" for how to remove the jammed paper.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



Flows 50 077-100: IOT Regi On early JAM

Cause: The paper remains at the paper transfer path between the Tray 1 and the Regi Sensor.

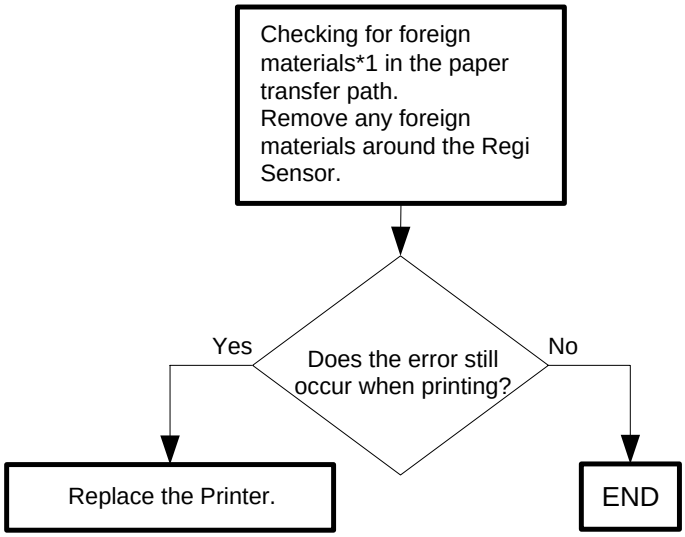
Solution: Paper jam has occurred. Remove the jammed paper. Refer to "Appendix_1.1 Clearing Paper Jams From the SSF" for how to remove the jammed paper.

NOTE

Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 51 077-101: IOT Regi OFF Jam

Cause: The paper does not pass through the Regi Sensor within the specified time.

Solution: Paper jam has occurred. Remove the jammed paper. Refer to "Appendix_1.1 Clearing Paper Jams From the SSF" for how to remove the jammed paper.

NOTE

Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

CAUTION

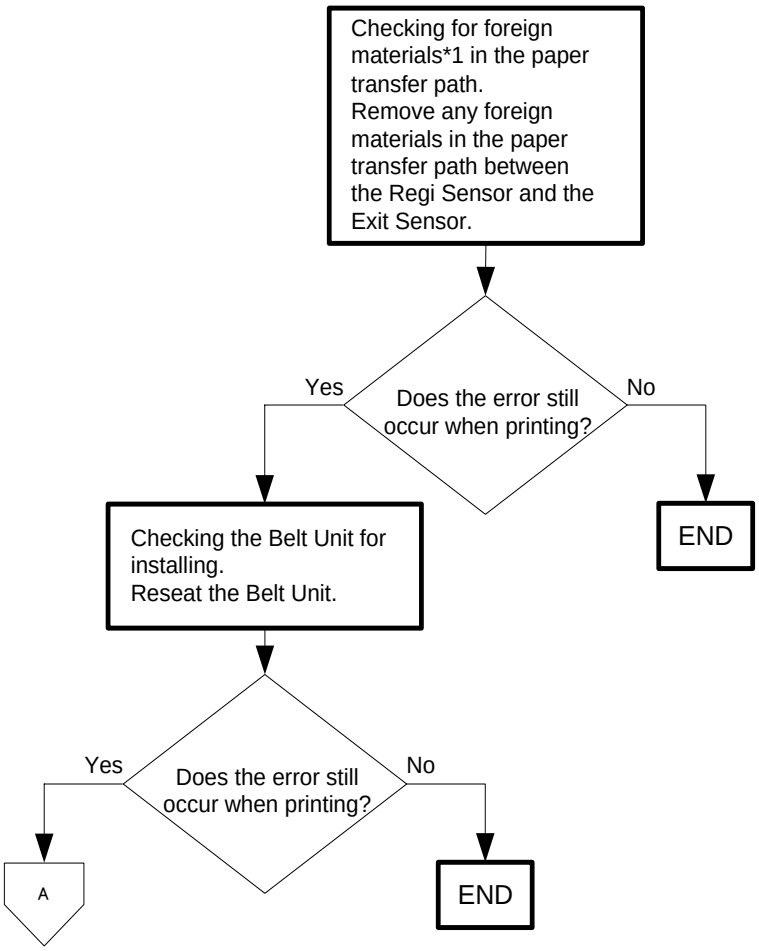
To avoid burns, do not replace the fuser immediately after printing. The fuser becomes extremely hot during use.
Turn off the printer and wait for 30 minutes before removing the fuser.

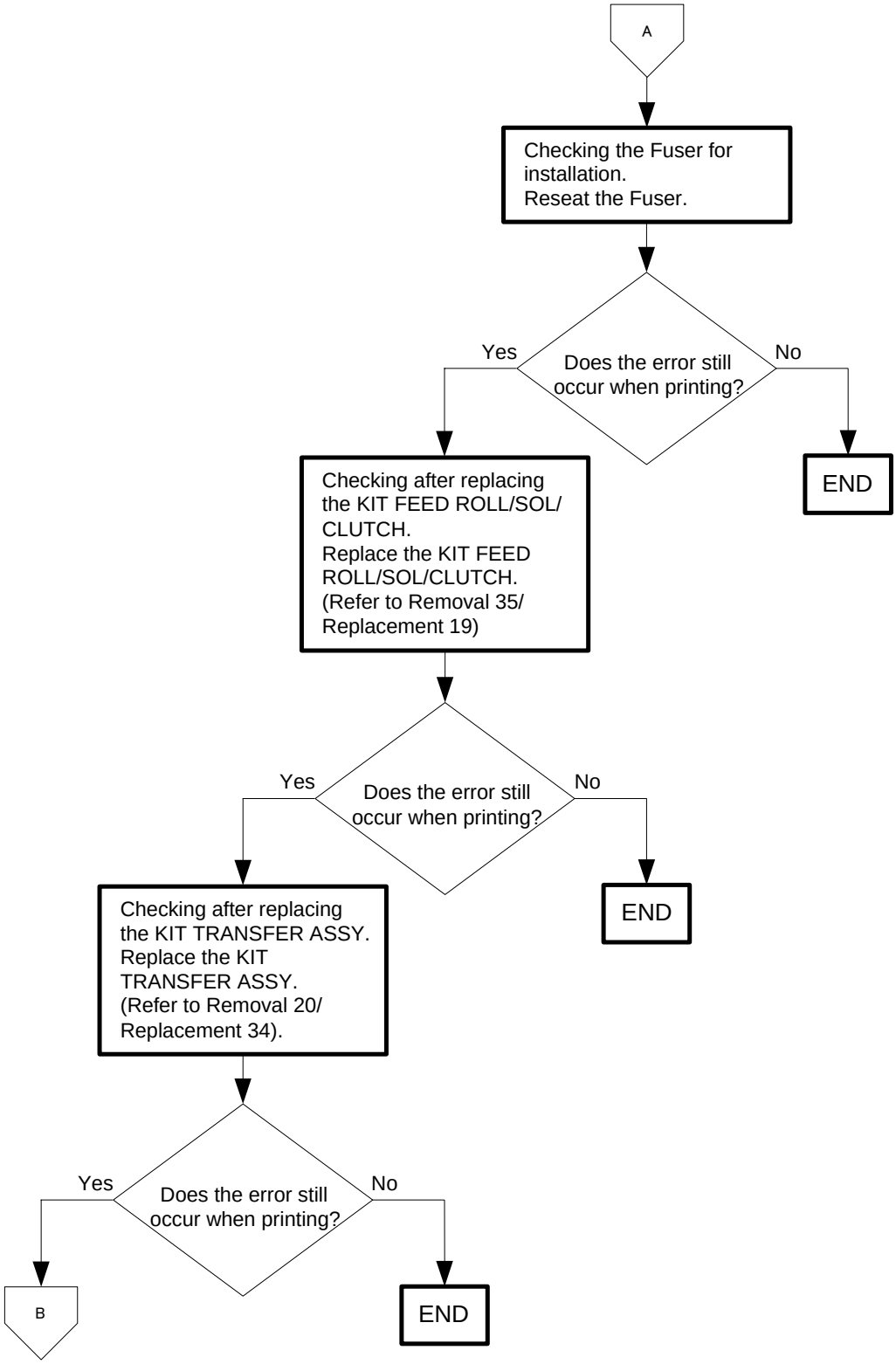
NOTE

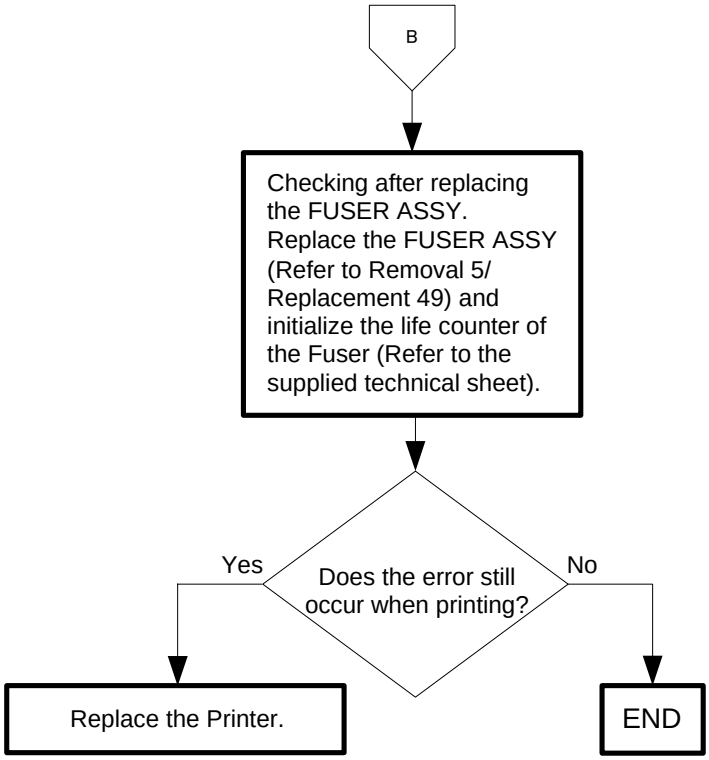
When you have replaced the fuser, initialize the life counter of the Fuser.For details, refer to the supplied technical sheet.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.




A
Checking the Fuser for installation.
Reseat the Fuser.
Does the error still occur when printing?
Yes
No
END
Checking after replacing the KIT FEED ROLL/SOL/ CLUTCH.
Replace the KIT FEED ROLL/SOL/CLUTCH.
(Refer to Removal 35/ Replacement 19)
Does the error still occur when printing?
Yes
No
END
Checking after replacing the KIT TRANSFER ASSY.
Replace the KIT TRANSFER ASSY.
(Refer to Removal 20/ Replacement 34).
Does the error still occur when printing?
Yes
No
B
END



*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 52 077-102 / 077-103 / 077-106: IOT Exit On JAM / IOT Exit On early JAM / IOT Stop Reservation JAM

Cause: 077-102:The paper does not reach the Exit Sensor within the specified time.
077-103:The paper remains at the paper transfer path between the Exit Sensor and the Regi Sensor.
077-106:Detect jam when stopped before Fuser in forced stop mode.

Solution: Paper jam has occurred. Remove the jammed paper. Refer to "Appendix_1.1 Clearing Paper Jams From the SSF" for how to remove the jammed paper.

NOTE

Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

CAUTION

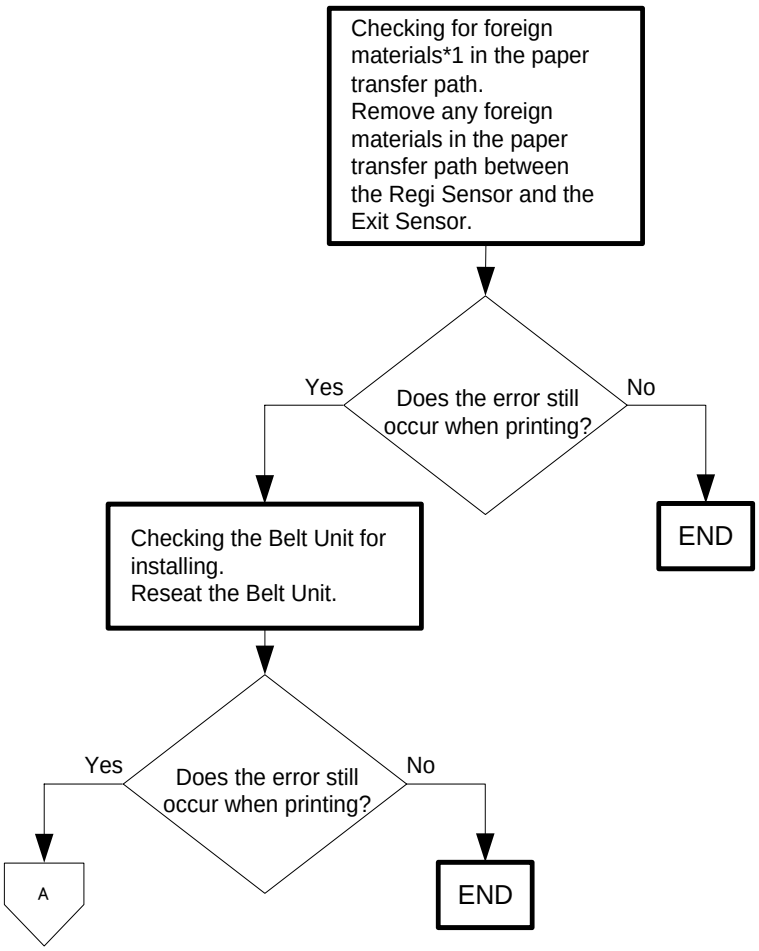
To avoid burns, do not replace the fuser immediately after printing. The fuser becomes extremely hot during use.
Turn off the printer and wait for 30 minutes before removing the fuser.

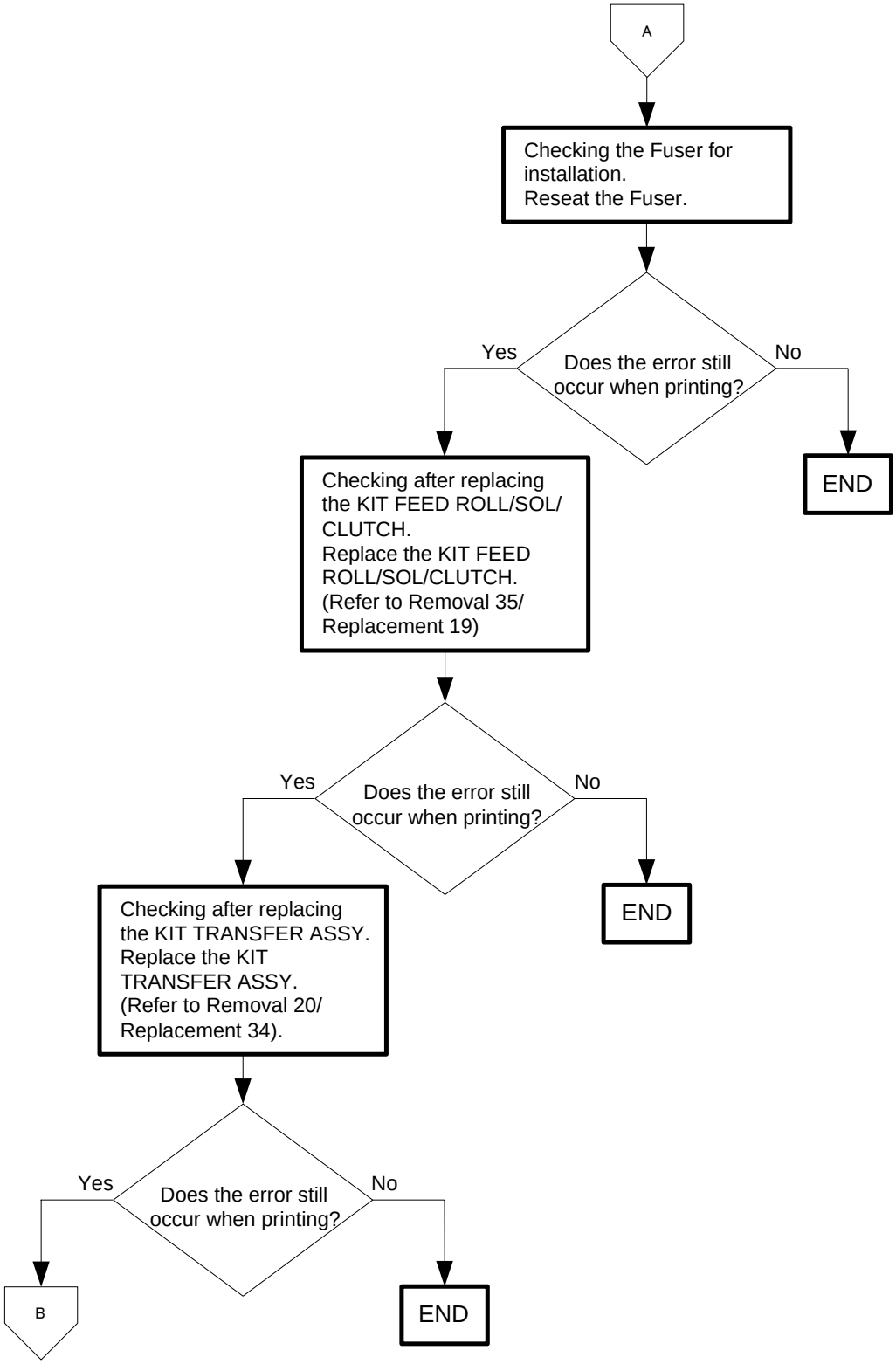
NOTE

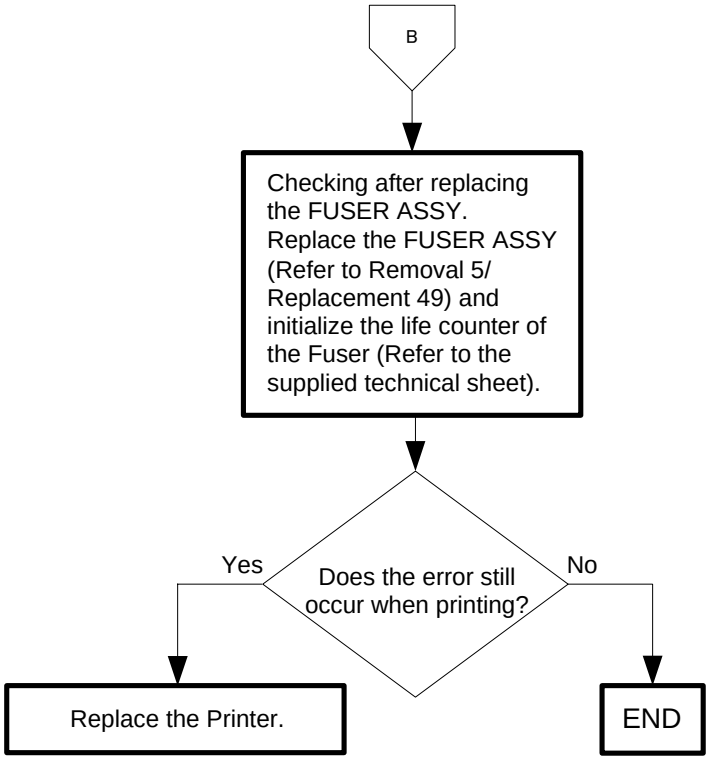
When you have replaced the fuser, initialize the life counter of the Fuser.For details, refer to the supplied technical sheet.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.




A
Checking the Fuser for installation.
Reseat the Fuser.
Does the error still occur when printing?
Yes
No
END
Checking after replacing the KIT FEED ROLL/SOL/CLUTCH.
Replace the KIT FEED ROLL/SOL/CLUTCH.
(Refer to Removal 35/ Replacement 19)
Does the error still occur when printing?
Yes
No
END
Checking after replacing the KIT TRANSFER ASSY.
Replace the KIT TRANSFER ASSY.
(Refer to Removal 20/ Replacement 34).
Does the error still occur when printing?
Yes
No
B
END



*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 53 077-104 / 077-105: IOT Exit Off JAM / IOT Exit Off early JAM

Cause: 077-104:The paper does not pass through the Exit Sensor within the specified time.
077-105:The paper passed through the Exit Sensor earlier than the specified time.

Solution: Paper jam has occurred. Remove the jammed paper. Refer to "Appendix_1.3 Clearing Paper Jams From the Fuser" for how to remove the jammed paper.

NOTE

Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

CAUTION

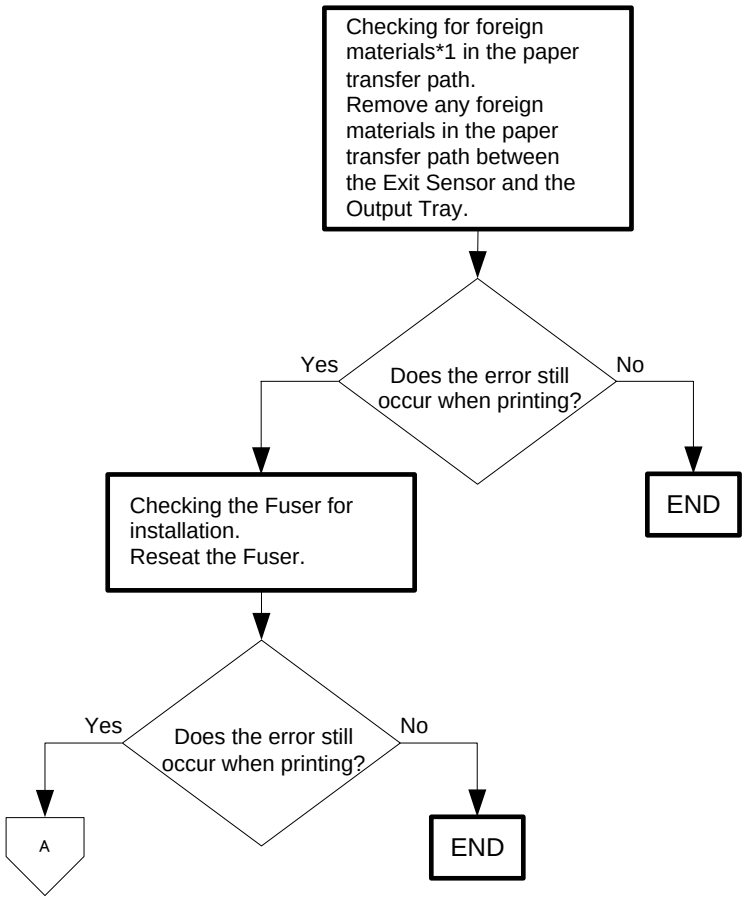
To avoid burns, do not replace the fuser immediately after printing. The fuser becomes extremely hot during use.
Turn off the printer and wait for 30 minutes before removing the fuser.

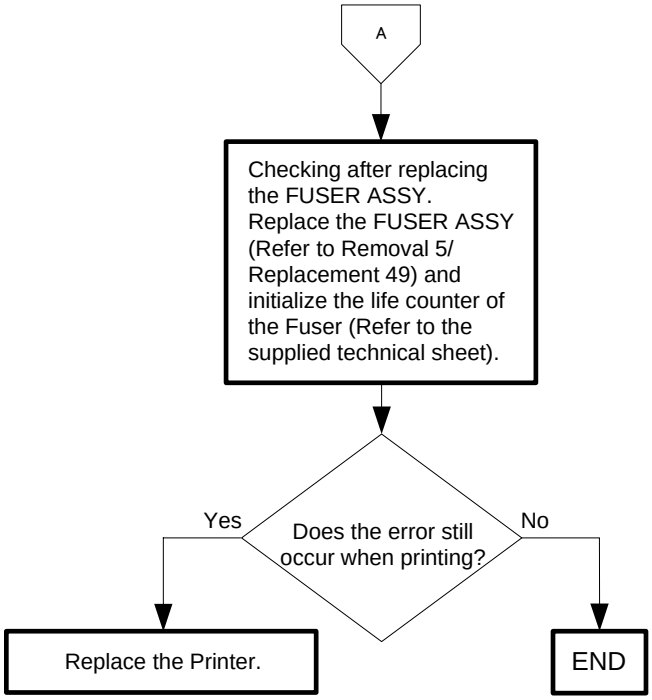
NOTE

When you have replaced the fuser, initialize the life counter of the Fuser.For details, refer to the supplied technical sheet.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.





*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 54 077-107 / 077-108: IOT Duplex Misfeed JAM / IOT Duplex JAM (2150cdn only)

Cause: 077-107: In the duplex printing mode, the lead edge does not reach the Regi Sensor when the sheet changes the direction in the Duplexer after the standby.

077-108: In the duplex printing mode, the lead edge does not reach the SSF No Paper Sensor when the sheet changes the direction in the Duplexer after the standby.

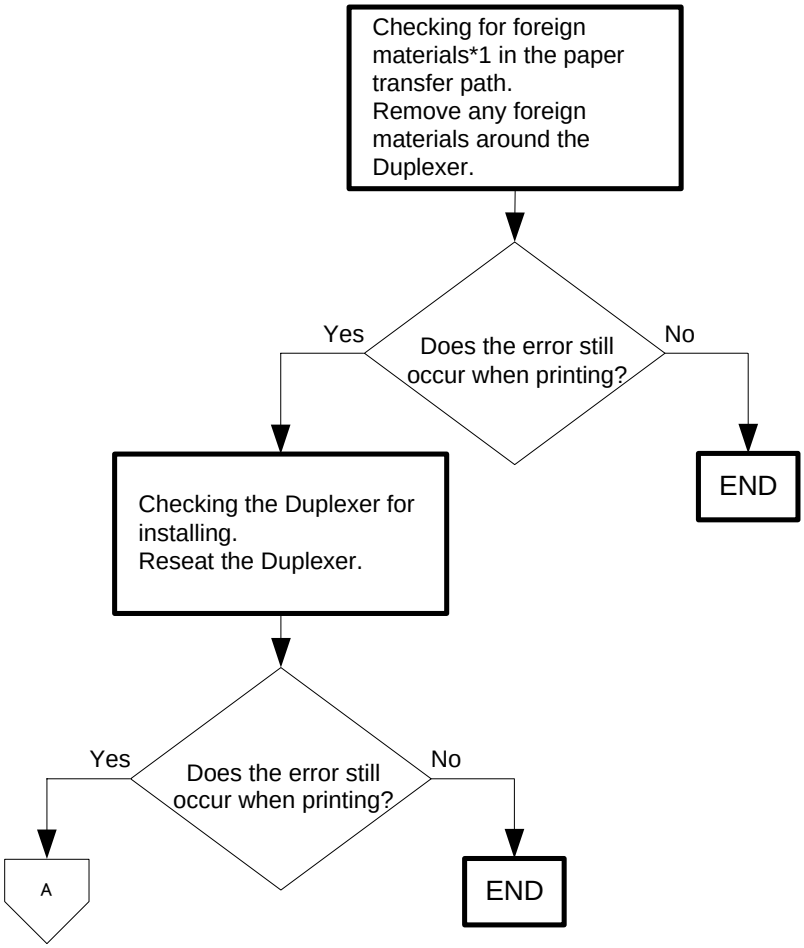
Solution: Paper jam has occurred. Remove the jammed paper. Refer to "Appendix_1.4 Clearing Paper Jams From the Duplexer" for how to remove the jammed paper.

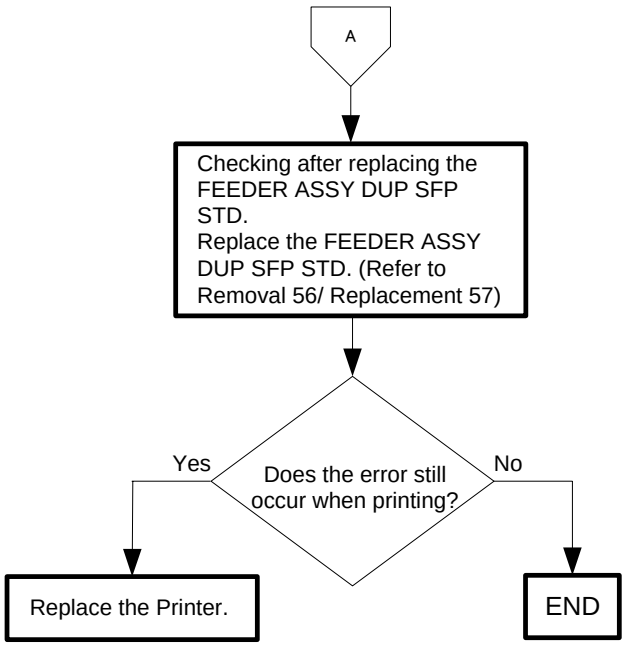
NOTE

Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.





*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

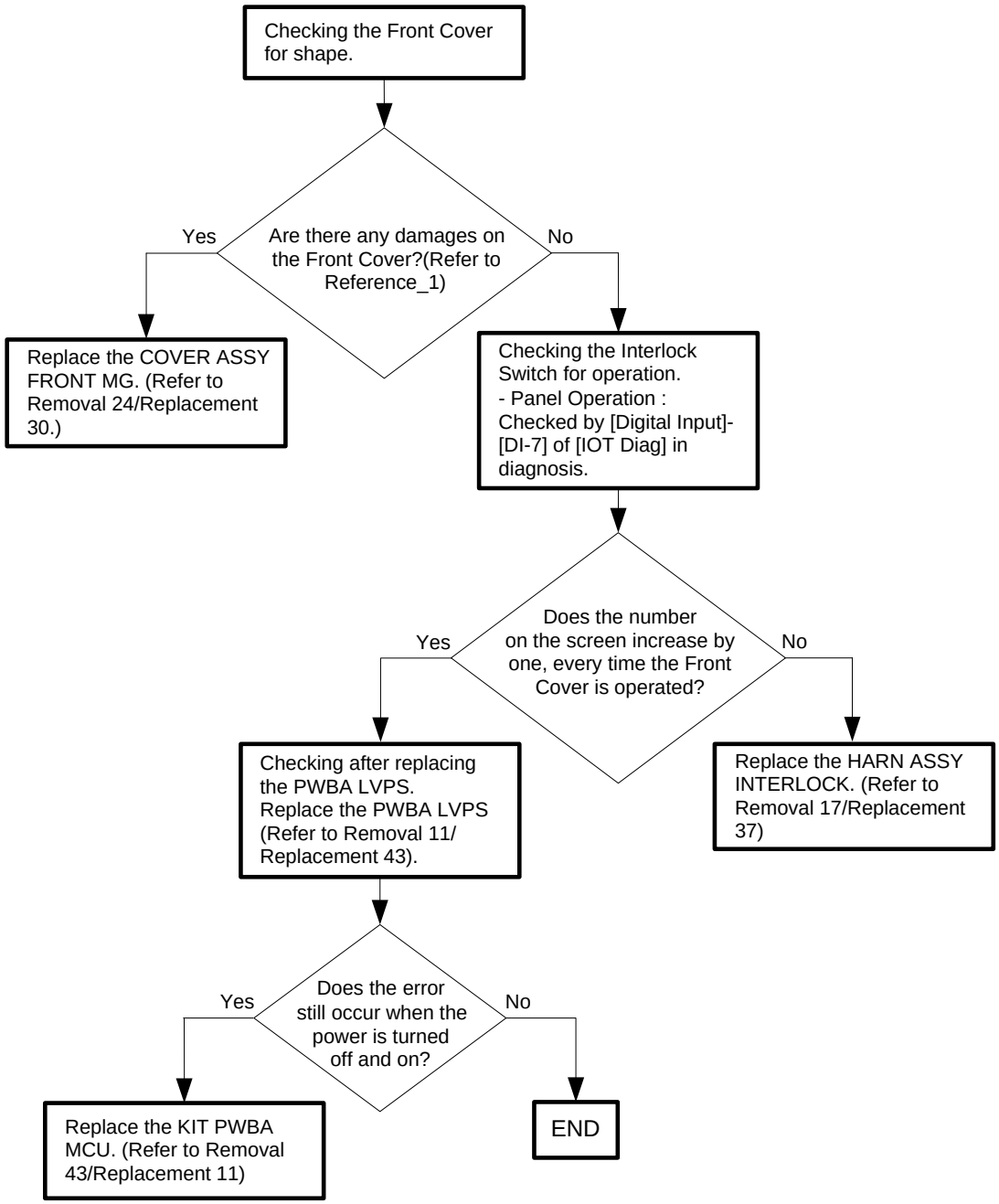
Flows 55 077-300: IOT Cover Front Open

Cause: The Front Cover is open.

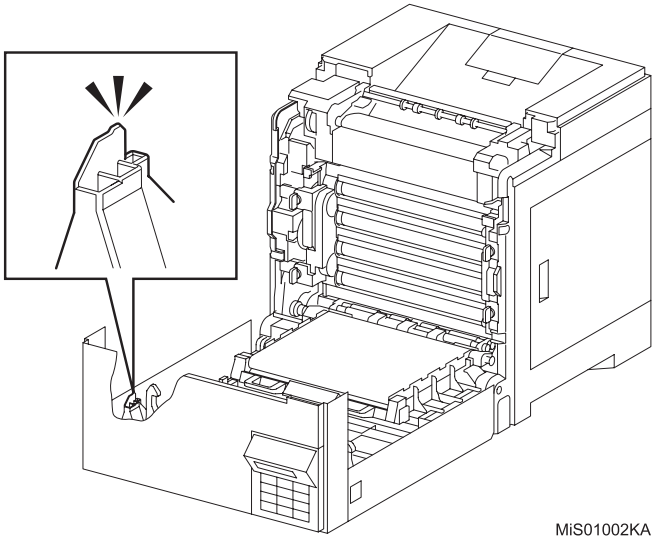
Solution: Close the Front cover.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



- Reference_1: Section to be checked for damage.



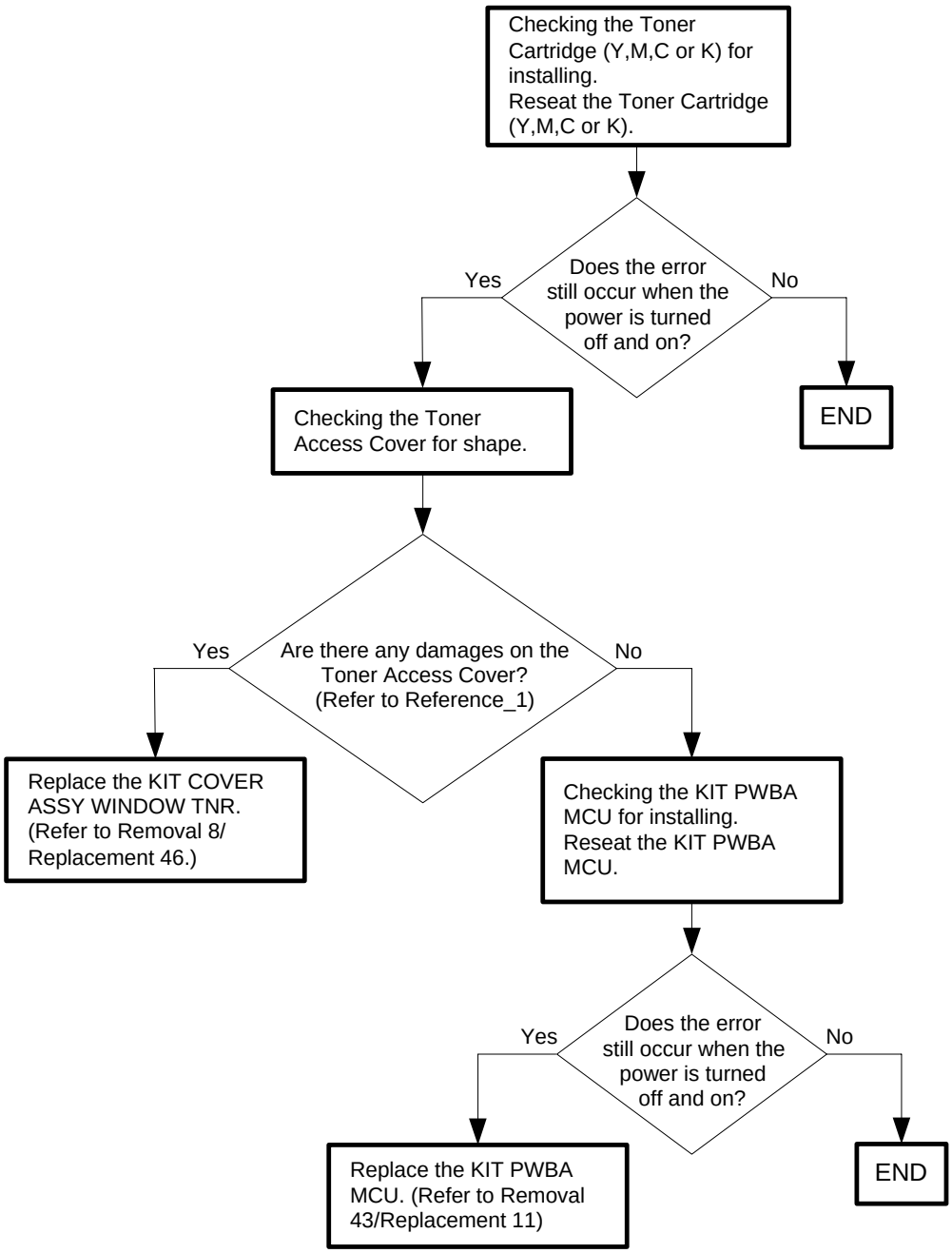
Flows 56 077-301: IOT Side Cover Open

Cause: The Toner Access Cover is open.

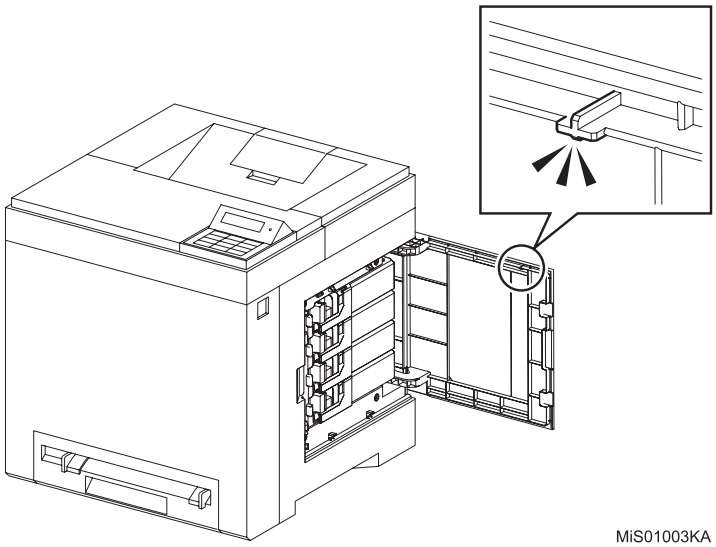
Solution: Close the Toner Access Cover.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



- Reference_1: Section to be checked for damage.



MiS01003KA

Flows 57 077-900: IOT Exit JAM

Cause: The paper remains at the Exit Sensor.

Solution: Paper jam has occurred. Remove the jammed paper. Refer to "Appendix_1.3 Clearing Paper Jams From the Fuser" for how to remove the jammed paper.

NOTE

Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

CAUTION

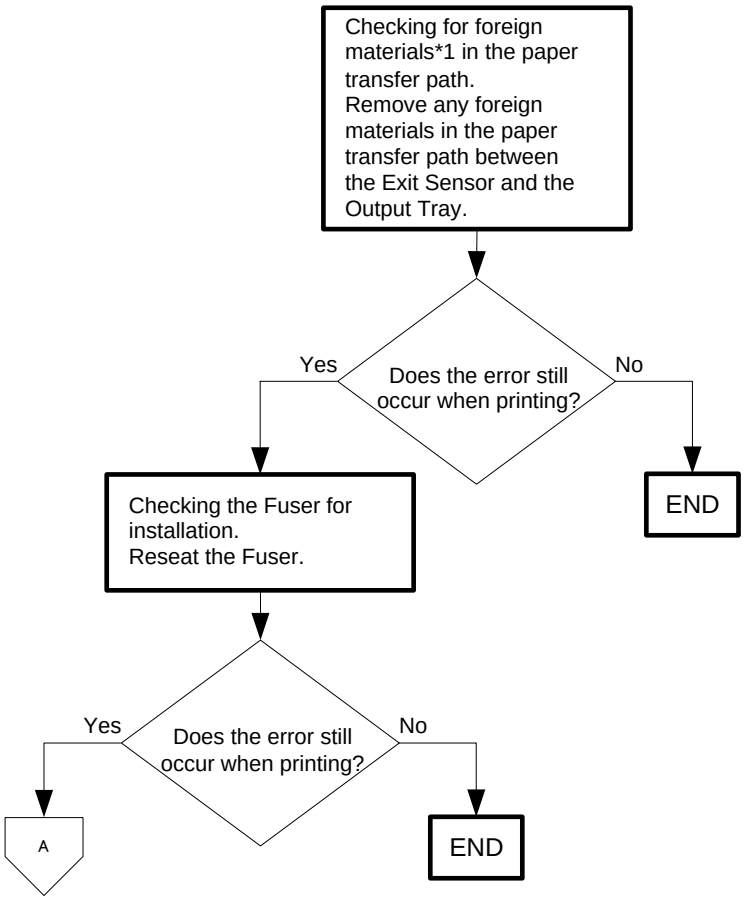
To avoid burns, do not replace the fuser immediately after printing. The fuser becomes extremely hot during use.
Turn off the printer and wait for 30 minutes before removing the fuser.

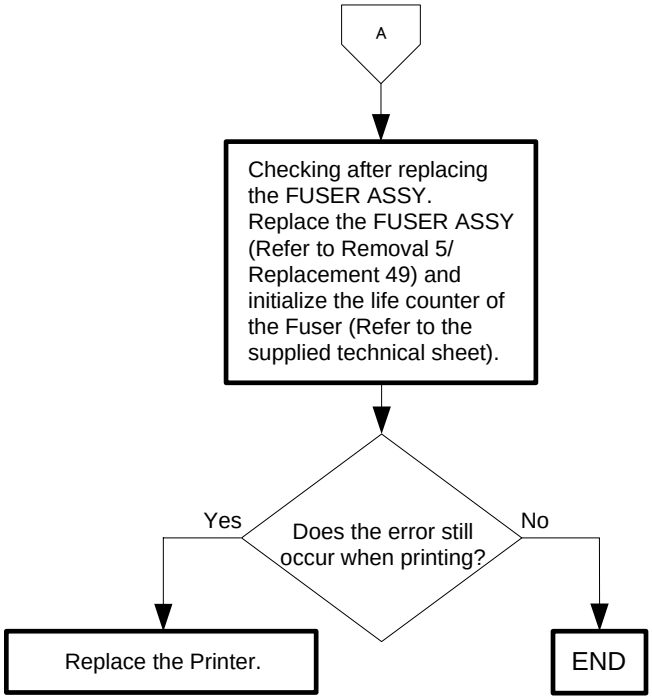
NOTE

When you have replaced the fuser, initialize the life counter of the Fuser.For details, refer to the supplied technical sheet.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.





*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 58 077-901: IOT Remain Registration JAM

Cause: The paper remains at the Regi Sensor.

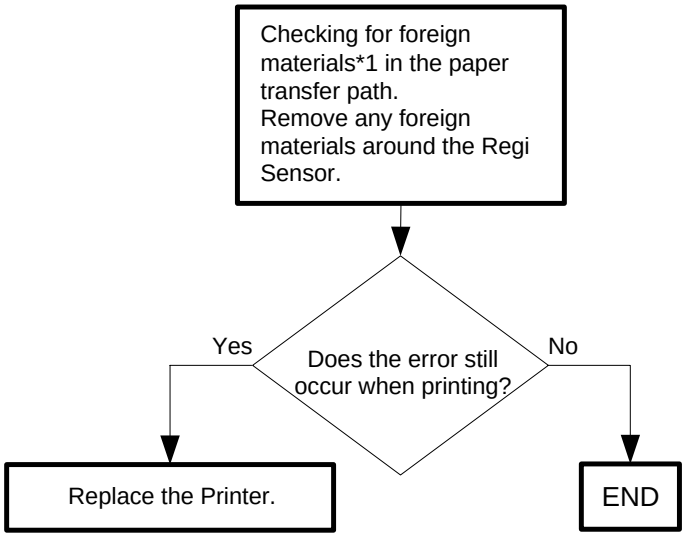
Solution: Paper jam has occurred. Remove the jammed paper. Refer to "Appendix_1.1 Clearing Paper Jams From the SSF" for how to remove the jammed paper.

NOTE

Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 59 077-907: IOT Remain Duplex JAM (2150cdn only)

Cause: The paper remains at the Duplex area.

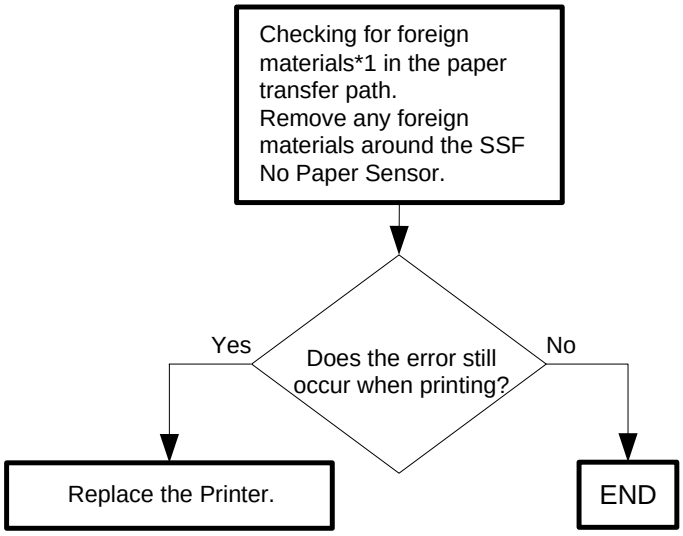
Solution: Paper jam has occurred. Remove the jammed paper. Refer to "Appendix_1.4 Clearing Paper Jams From the Duplexer" for how to remove the jammed paper.

NOTE

Do not load a sheet to the SSF while printing with the Paper Cassette as the media source.Otherwise, a Jam error occurs.

NOTE

If there is no jammed paper, or the error still occurs after having removed the jammed paper, turn the power off and on to check that the error recurs. Then, proceed to the troubleshooting following the flowchart given below.



*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

Flows 60 091-402: IOT PHD Life Pre Warning

Cause: The PHD Unit is approaching the replacement time.

Solution: The PHD Unit is approaching the replacement time. Prepare a new PHD Unit.

NOTE

Refer to "Appendix_2.1 Consumables and Periodic Replacement Parts Life" for the timing when the messages "Near Life" is indicated.

NOTE

This error code is not related to any hardware fault.

Flows 61 091-912: PHD Tape Staying

Cause: Detected the ribbons staying on the PHD Unit.

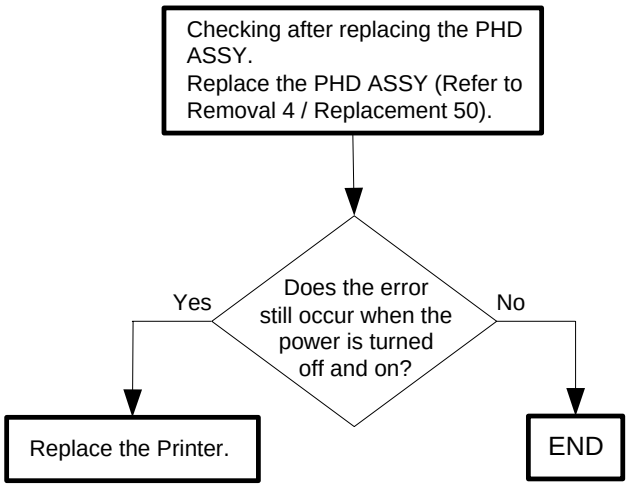
Solution: Completely pull out the eight yellow ribbons from the PHD unit. For how to pull out the ribbons, refer to "25 Maintaining Your Printer" in User Guide.

NOTE

If the ribbon is found, it takes a long time until the density is recovered. To use the printer immediately, change the PHD ASSY to another one.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



Flows 62 091-935: IOT PHD Life Over

Cause: The PHD Unit has reached the replacement time.

Solution: The PHD Unit has reached the end of its life. Replace the PHD Unit with a new one.

NOTE

Refer to "Appendix_2.3 Replacing the Print Head Device (PHD) Unit" for the timing when the message "Life Over" is indicated.

NOTE

This error code is not related to any hardware fault.

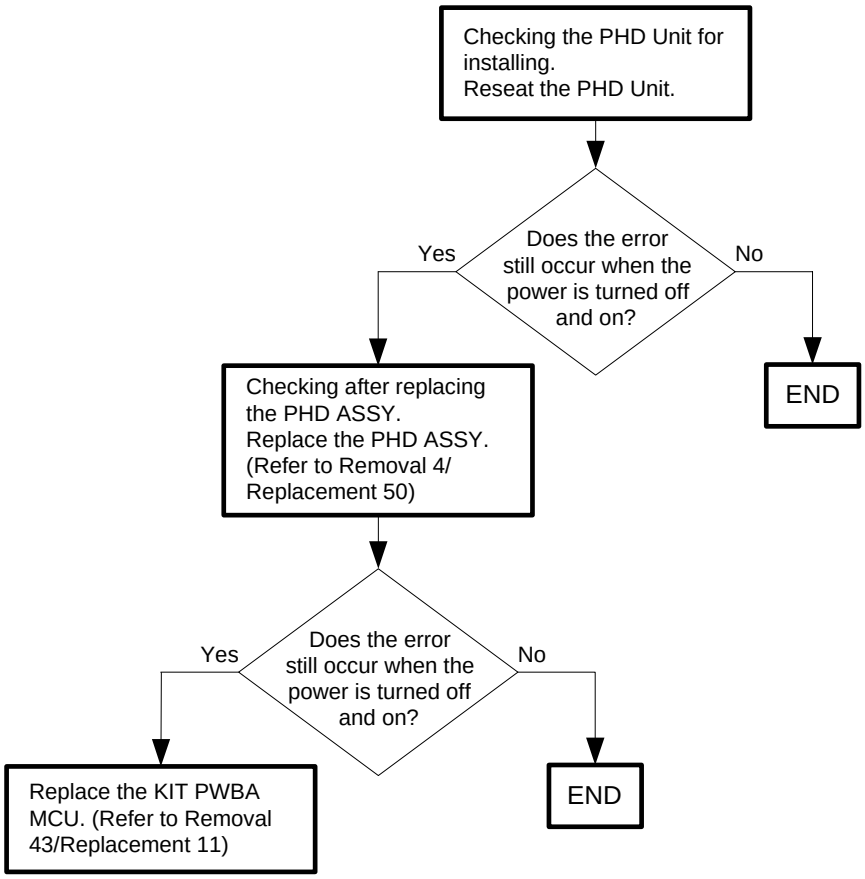
Flows 63 091-972: IOT PHD Detached

Cause: The PHD Unit is not installed in the printer.

Solution: The PHD Unit is not installed in the printer. Install the PHD Unit in the printer.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



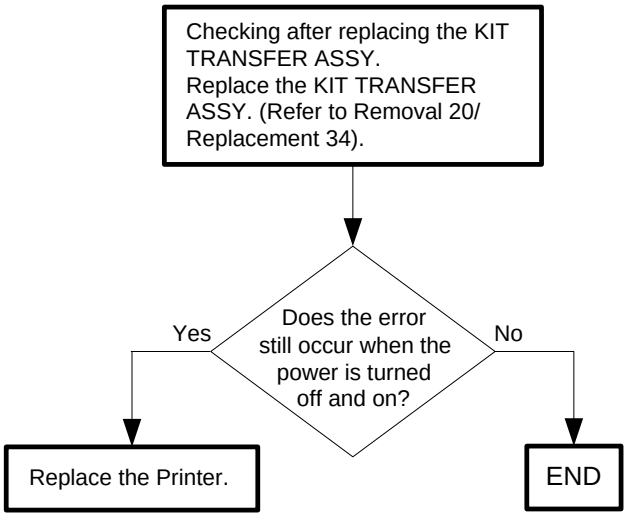
Flows 64 092-310 / 092-910: IOT CTD (ADC) Sensor Dustiness / IOT CTD (ADC) Sensor Dustiness Warning

Cause: 092-310:The CTD (ADC) Sensor has reached the Cleaning time.
092-910:The CTD (ADC) Sensor is approaching the Cleaning time.

Solution: The CTD (ADC) sensor has reached the cleaning time. Clean up the CTD (ADC) sensor. Refer to "Appendix_3.2 Cleaning the CTD (ADC) Sensor" for how to clean up the CTD (ADC) Sensor.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



Flows 65 093-423 / 093-424 / 093-425 / 093-426: IOT Toner Cartridge Near Life

Cause: 093-423:The Toner Cartridge (Y) is approaching the replacement time.
093-424:The Toner Cartridge (M) is approaching the replacement time.
093-425:The Toner Cartridge (C) is approaching the replacement time.
093-426:The Toner Cartridge (K) is approaching the replacement time.

Solution: The Toner Cartridge (YMCK) is approaching the replacement time. Prepare a new Toner Cartridge of the relevant one.

NOTE

Refer to "Appendix_2.1 Consumables and Periodic Replacement Parts Life" for the timing when the message "Near Life" is indicated.

NOTE

This error code is not related to any hardware fault.

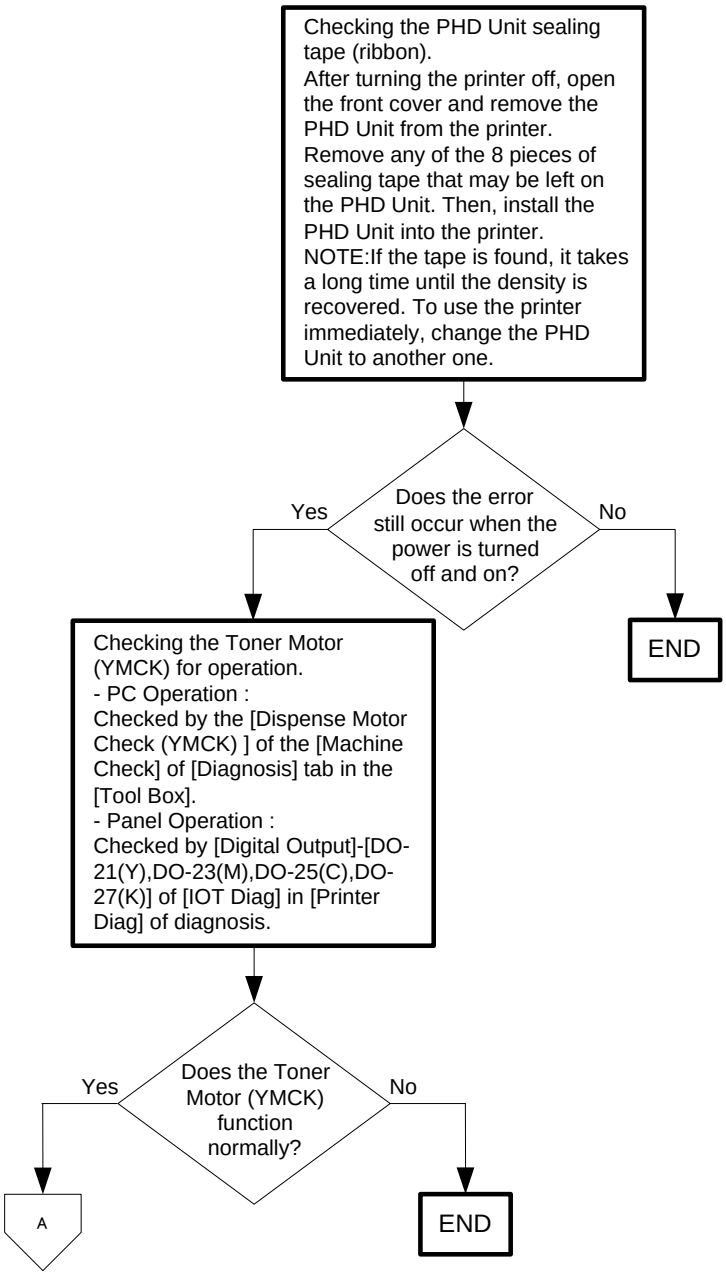
Flows 66 093-919 / 093-920 / 093-921 / 093-922: IOT YMCK Toner Low Density

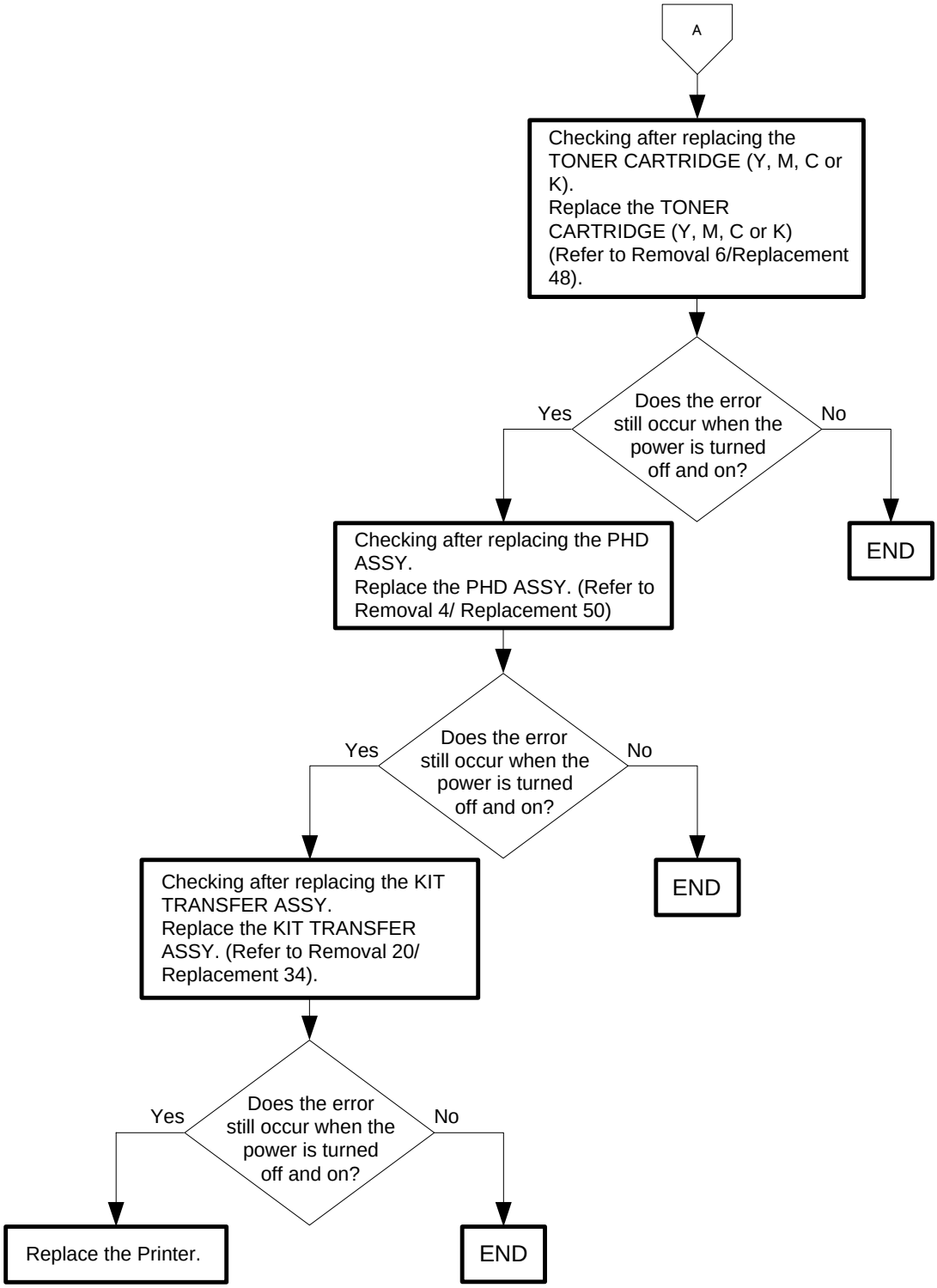
Cause: 093-919:Detects low density of yellow.
093-920:Detects low density of magenta.
093-921:Detects low density of cyan.
093-922:Detects low density of black.

Solution: The toner may be compacted in the Y, M, C, or K cartridge. Remove the toner relevant cartridge and shake it to free any compacted toner. If the problem persists, clean the CTD (ADC) Sensor.For details on the CTD (ADC) Sensor, refer to "Appendix_3.2 Cleaning the CTD (ADC) Sensor".

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.




A
Checking after replacing the TONER CARTRIDGE (Y, M, C or K).
Replace the TONER CARTRIDGE (Y, M, C or K) (Refer to Removal 6/Replacement 48).
Does the error still occur when the power is turned off and on?
Yes
No
END
Checking after replacing the PHD ASSY.
Replace the PHD ASSY. (Refer to Removal 4/ Replacement 50)
Does the error still occur when the power is turned off and on?
Yes
No
END
Checking after replacing the KIT TRANSFER ASSY.
Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34).
Does the error still occur when the power is turned off and on?
Yes
No
Replace the Printer.
END

Flows 67 093-930 / 093-931 / 093-932 / 093-933: IOT Toner Cartridge Life Over

Cause: 093-930:The Toner Cartridge (Y) has reached the replacement time.
093-931:The Toner Cartridge (M) has reached the replacement time.
093-932:The Toner Cartridge (C) has reached the replacement time.
093-933:The Toner Cartridge (K) has reached the replacement time.

Solution: The Toner Cartridge (Y,M,C or K) has reached the end of its life. Replace the Toner Cartridge (Y,M,C or K) with a new one. Refer to "Appendix_2.2 Replacing the Toner Cartridges" for how to replace the Toner Cartridge.

NOTE

Refer to "Appendix_2.1 Consumables and Periodic Replacement Parts Life" for the timing when the message "Life Over" is indicated.

NOTE

This error code is not related to any hardware fault.

Flows 68 093-934 / 093-935 / 093-936 / 093-937: IOT CRU Waste (YMCK) Full

Cause: 093-934:Waste Toner (Y) Counter value has reached replacement time.
093-935:Waste Toner (M) Counter value has reached replacement time.
093-936:Waste Toner (C) Counter value has reached replacement time.
093-937:Waste Toner (K) Counter value has reached replacement time.

Solution: The Waste Toner Box in Toner Cartridge (Y, M, C or K) is full. Replace the Toner Cartridge (Y, M, C or K) with a new one. Refer to "Appendix_2.2 Replacing the Toner Cartridges" for how to replace the Toner Cartridge.

NOTE

Refer to "Appendix_2.1 Consumables and Periodic Replacement Parts Life" for the timing when the message "Life Over" is indicated.

NOTE

This error code is not related to any hardware fault.

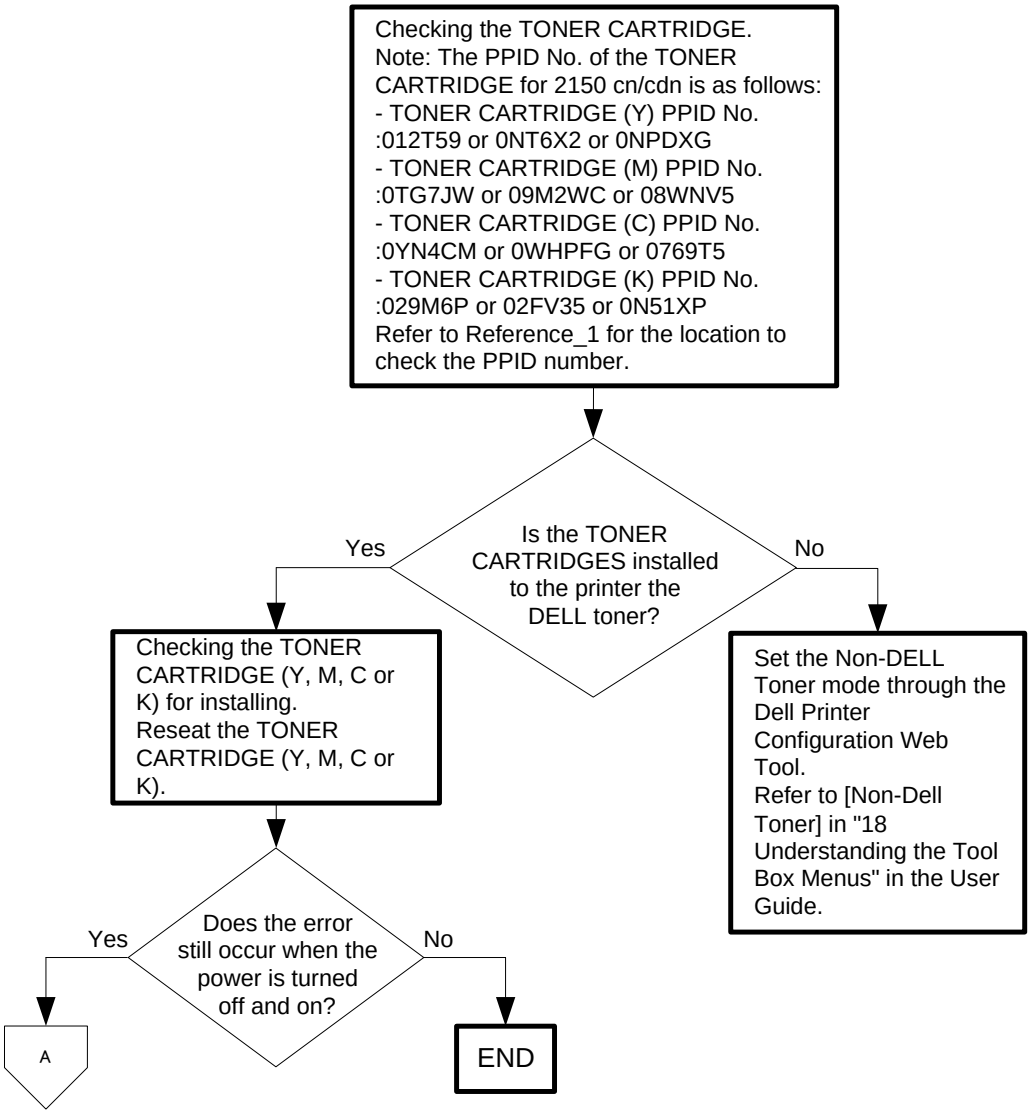
Flows 69 093-960 / 093-961 / 093-962 / 093-963: IOT (YMCK) CRUM ID Error

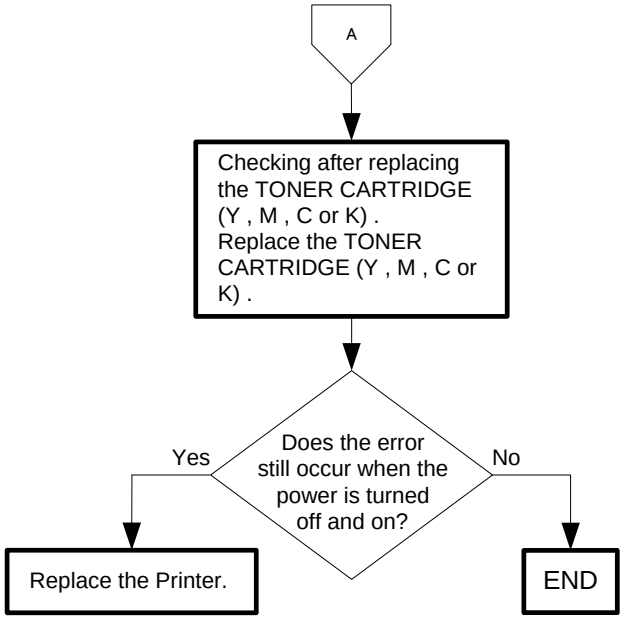
Cause: 093-960:An unsupported Toner Cartridge (Y) is detected.
093-961:An unsupported Toner Cartridge (M) is detected.
093-962:An unsupported Toner Cartridge (C) is detected.
093-963:An unsupported Toner Cartridge (K) is detected.

Solution: The Dell-genuine Toner Cartridge (Y, M, C or K) for the 2150cn/cdn is not installed. Install the Dell-genuine Toner Cartridge (Y, M, C or K).

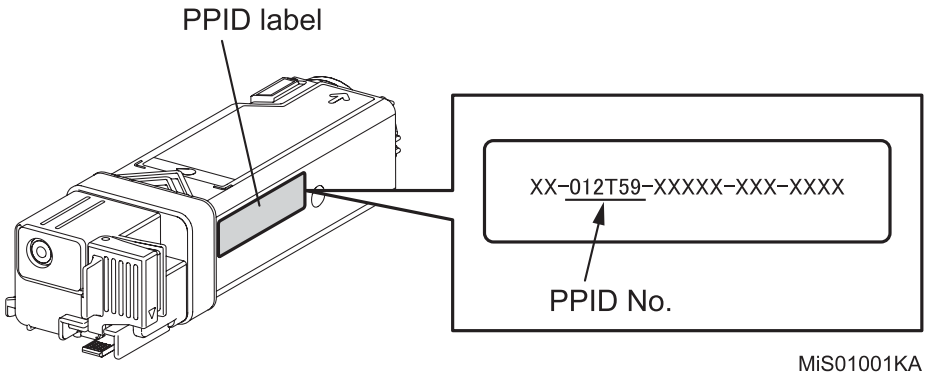
NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.





- Reference_1: Position of PPID label.



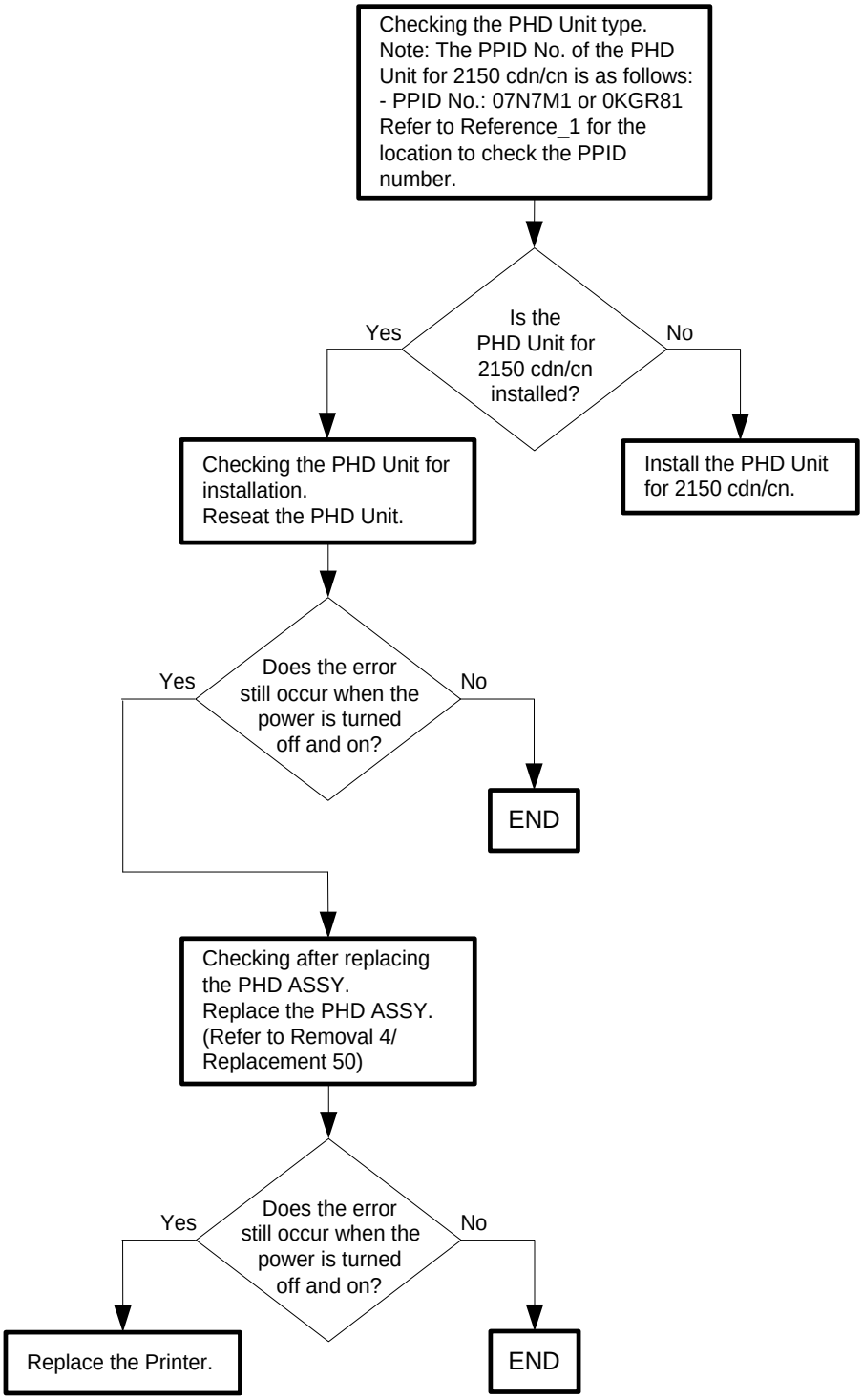
Flows 70 093-965: IOT PHD CRUM ID Error

Cause: An unsupported PHD Unit is detected.

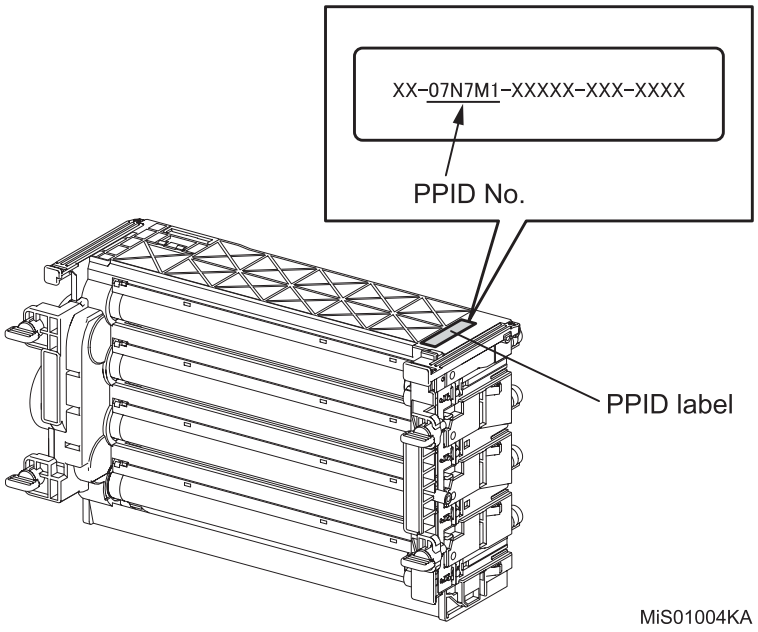
Solution: The Dell-genuine PHD Unit for the 2150cn/cdn is not installed. Install the Dell-genuine PHD Unit.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



- Reference_1: Position of PPID label.



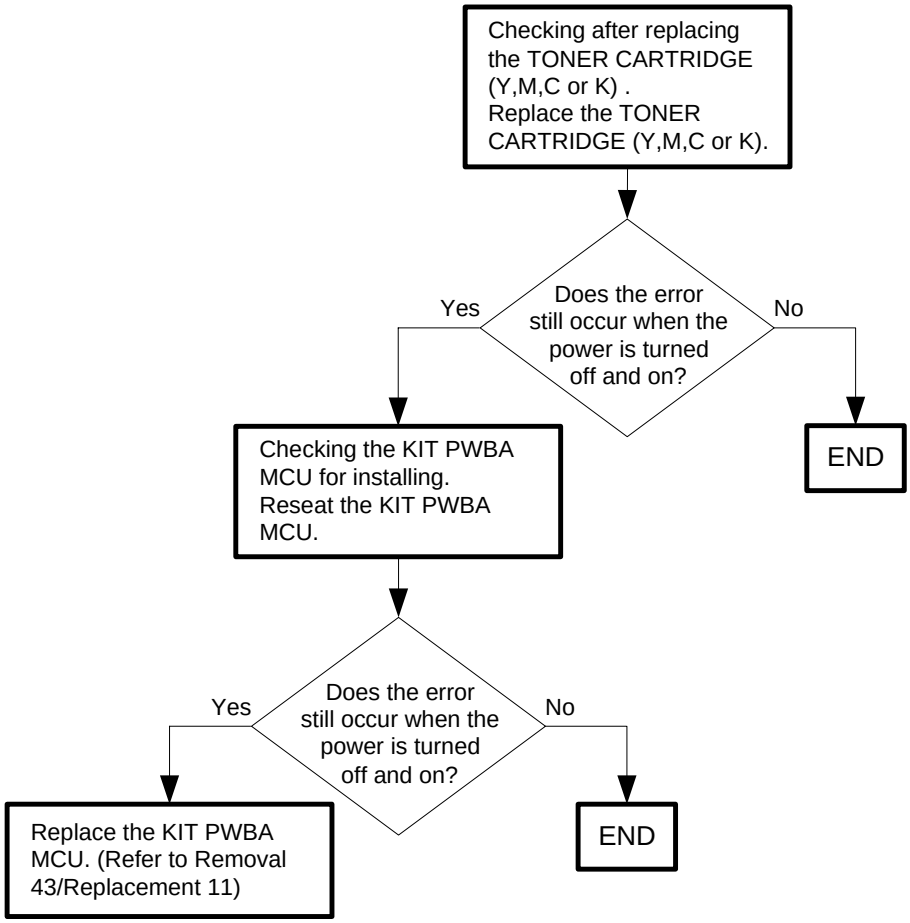
Flows 71 093-970 / 093-971 / 093-972 / 093-973: IOT Toner Cartridge Detached

Cause: 093-970:The Toner Cartridge (Y) is not installed in the printer.
093-971:The Toner Cartridge (M) is not installed in the printer.
093-972:The Toner Cartridge (C) is not installed in the printer.
093-973:The Toner Cartridge (K) is not installed in the printer.

Solution: Install the Toner Cartridge (Y,M,C or K) properly.

NOTE

If the error persists after the action above is taken, ensure that the error replicates after the printer is powered off and then on, and then go to the following steps to continue further fault isolation.



Flows 72 094-422: IOT Belt Unit Near Life

Cause: The Belt Unit has reached the replacement time.

Solution: The Belt Unit is approaching the replacement time. Prepare a new Belt Unit.

NOTE

This error code is not related to any hardware fault.

Flows 73 094-911: IOT Belt Unit Life Over

Cause: The Belt Unit has reached the replacement time.

Solution: The Belt Unit has reached the end of its life. Replace the Belt Unit with a new one.

NOTE

This error code is not related to any hardware fault.

Flows 74 193-700: Custom Toner Mode

Cause: The printer is in custom toner mode.

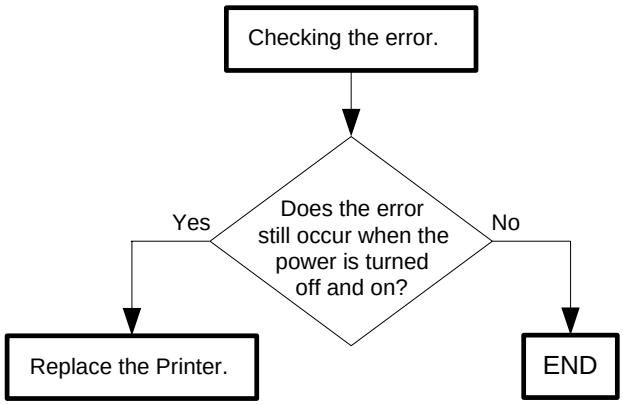
Solution: The printer has been set to use the toner cartridge made by other manufacturer than DELL (Non DELL Toner Mode). When the DELL-specified toner cartridge is used, set the Non DELL Toner Mode in "Off." Refer to [Non-Dell Toner] in "13. Dell Printer Configuration Web Tool" in the User Guide for how to set the Non DELL Toner Mode.

NOTE

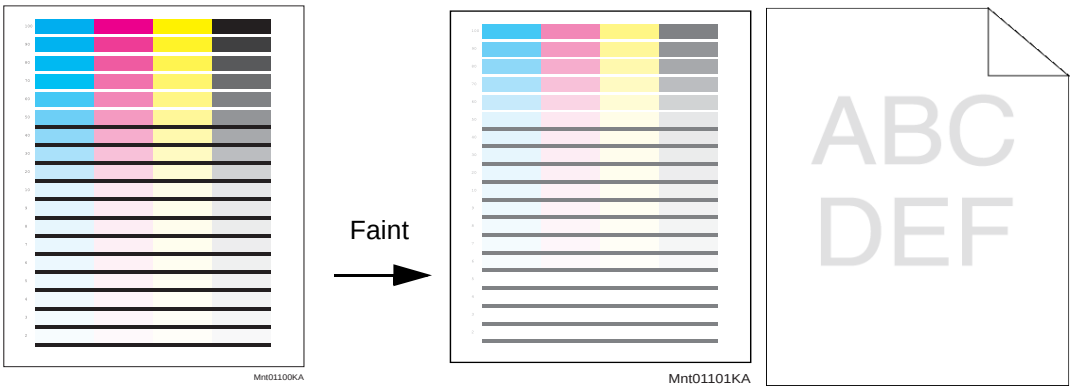
When the toner cartridge made by other manufacturer than DELL is used, the warranty may not apply to your printer even if it is severely damaged.

NOTE

If the error still occurs when the DELL-specified toner cartridge is installed and the Non DELL Toner Mode is set in "Off," turn the power off and on to check that the error recurs. Then, proceed to troubleshooting following the flowchart given below.

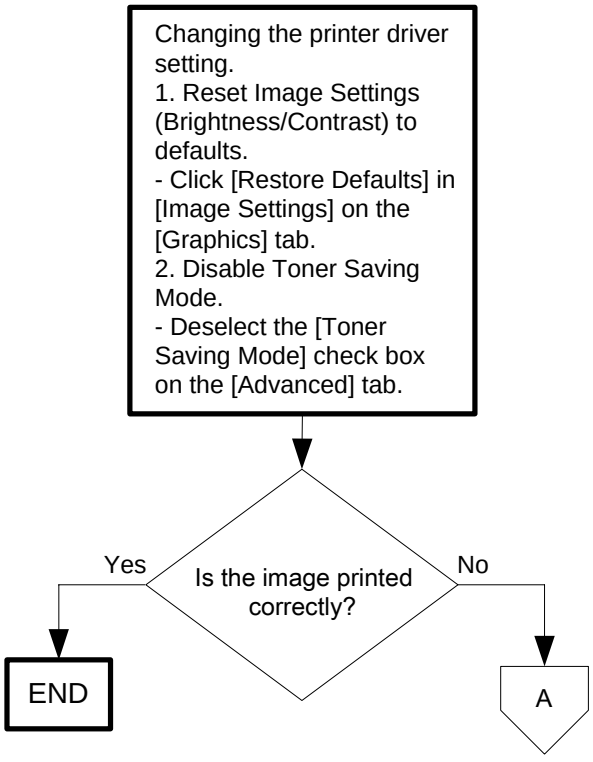


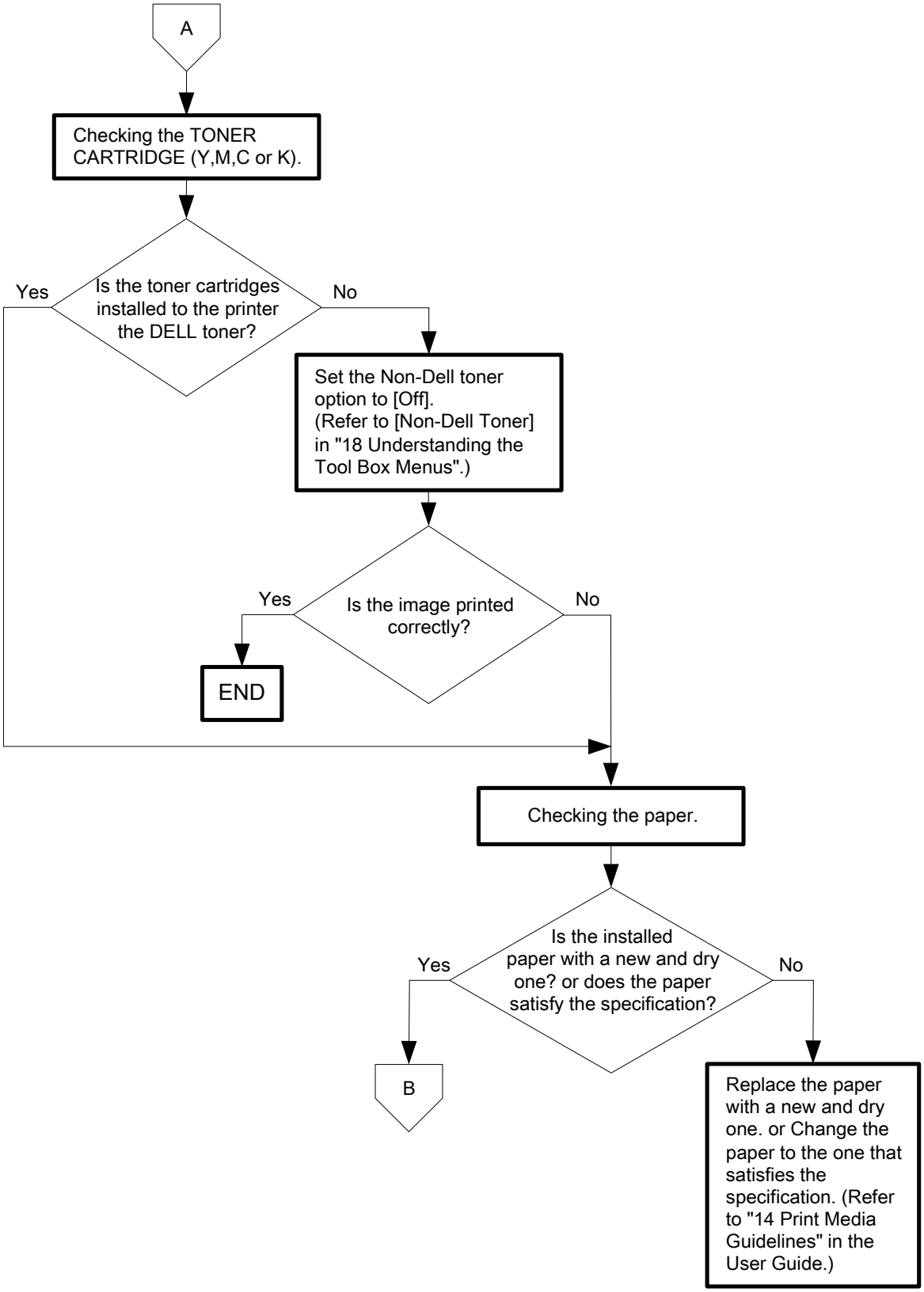
Flows 75 The output is too light

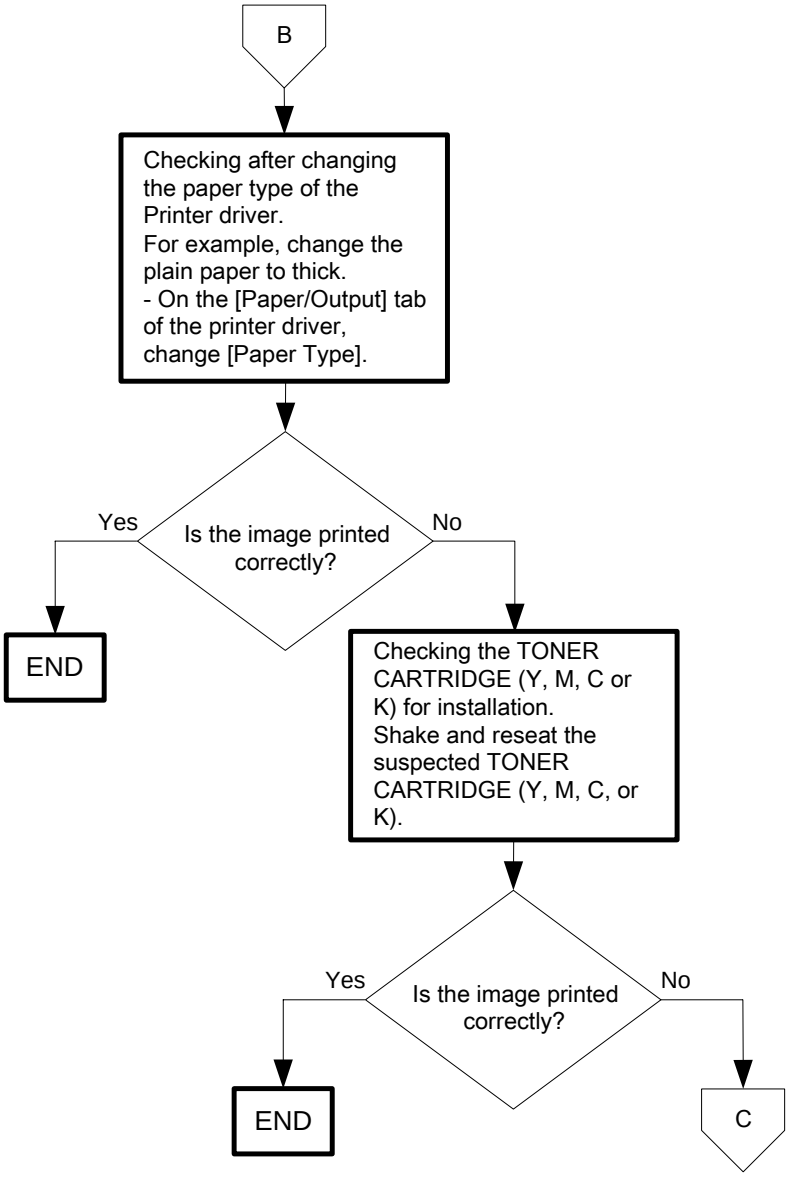


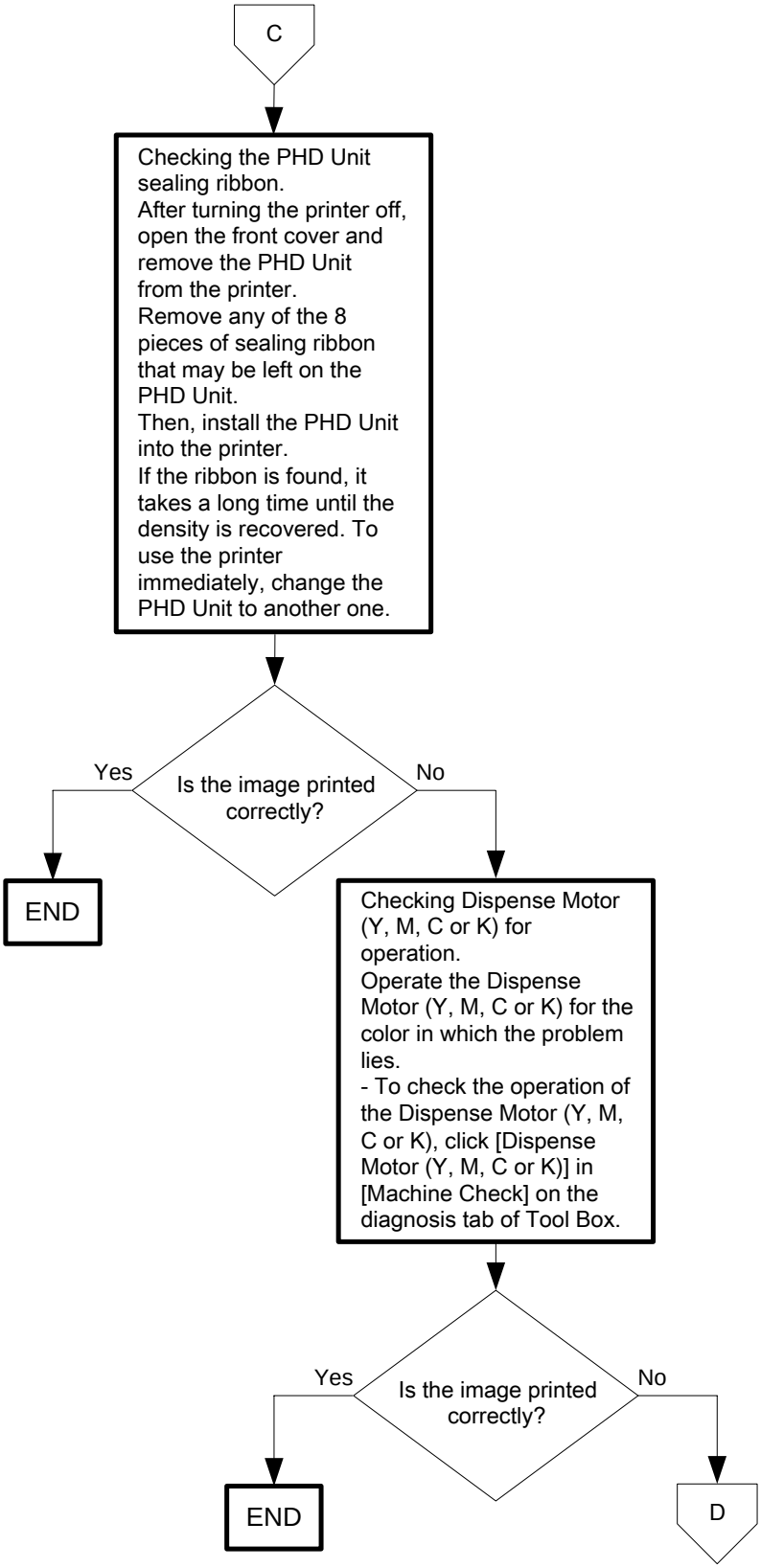
NOTE

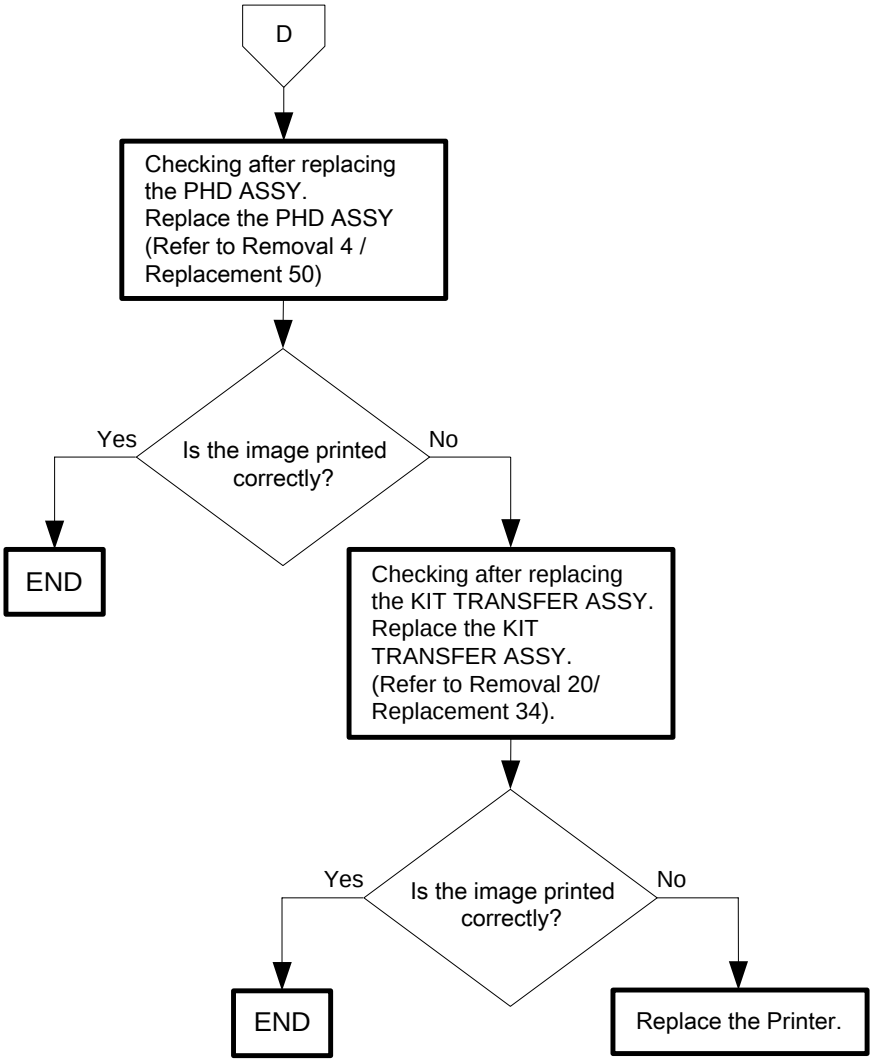
When the PHD Unit has been replaced, be sure to clean up the CTD (ADC) Sensor. Refer to "Appendix_3.2 Cleaning the CTD (ADC) Sensor" for how to clean up the CTD (ADC) Sensor.



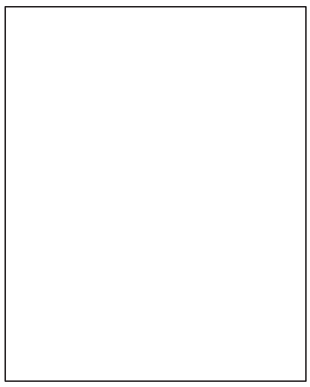

A
Checking the TONER CARTRIDGE (Y,M,C or K).
Is the toner cartridges installed to the printer the DELL toner?
Yes
No
Set the Non-Dell toner option to [Off]. (Refer to [Non-Dell Toner] in "18 Understanding the Tool Box Menus".)
Is the image printed correctly?
Yes
No
END
Checking the paper.
Is the installed paper with a new and dry one? or does the paper satisfy the specification?
Yes
No
B
Replace the paper with a new and dry one. or Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)


B
Checking after changing the paper type of the Printer driver.
For example, change the plain paper to thick.
- On the [Paper/Output] tab of the printer driver, change [Paper Type].
Is the image printed correctly?
Yes
No
END
Checking the TONER CARTRIDGE (Y, M, C or K) for installation.
Shake and reseat the suspected TONER CARTRIDGE (Y, M, C, or K).
Is the image printed correctly?
Yes
No
END
C


C
Checking the PHD Unit sealing ribbon.
After turning the printer off, open the front cover and remove the PHD Unit from the printer.
Remove any of the 8 pieces of sealing ribbon that may be left on the PHD Unit.
Then, install the PHD Unit into the printer.
If the ribbon is found, it takes a long time until the density is recovered. To use the printer immediately, change the PHD Unit to another one.
Is the image printed correctly?
Yes
No
END
Checking Dispense Motor (Y, M, C or K) for operation.
Operate the Dispense Motor (Y, M, C or K) for the color in which the problem lies.
- To check the operation of the Dispense Motor (Y, M, C or K), click [Dispense Motor (Y, M, C or K)] in [Machine Check] on the diagnosis tab of Tool Box.
Is the image printed correctly?
Yes
No
END
D

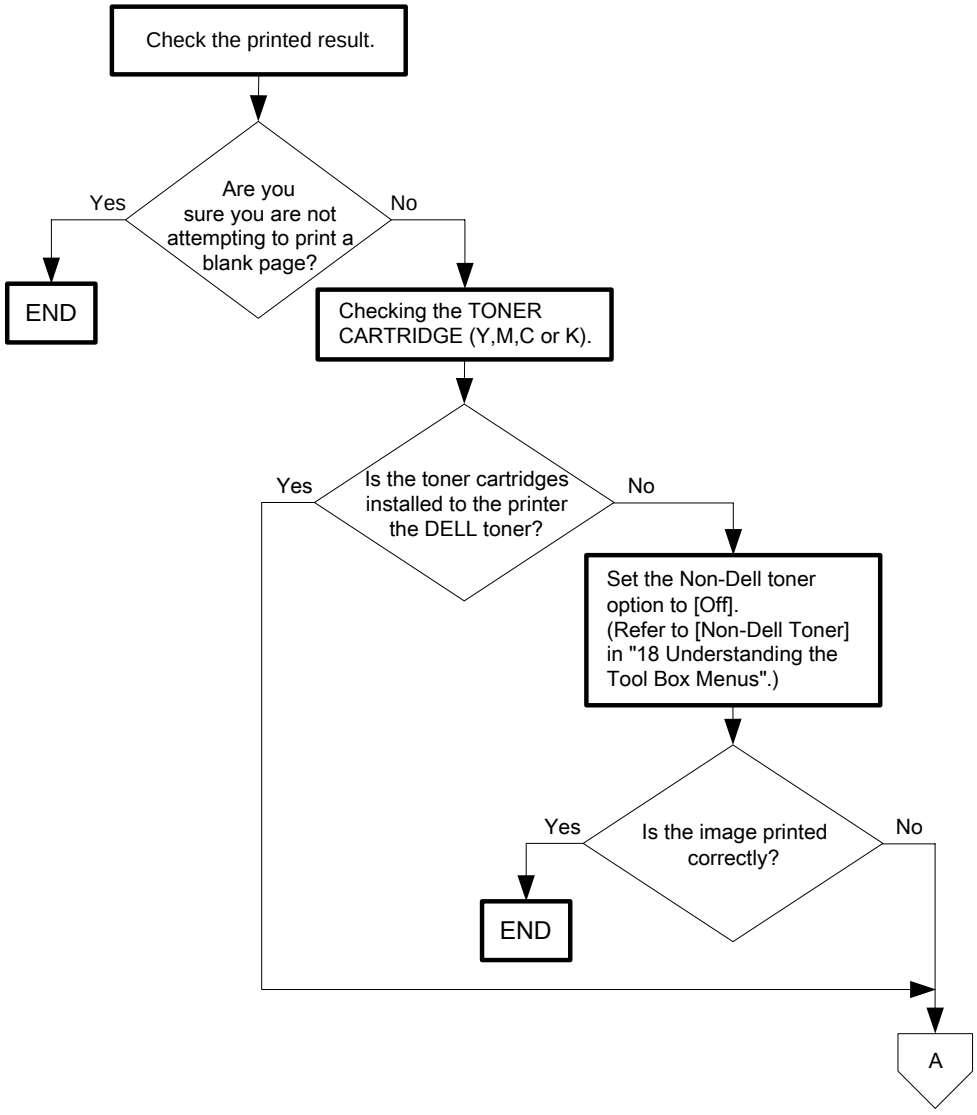

D
Checking after replacing the PHD ASSY. Replace the PHD ASSY (Refer to Removal 4 / Replacement 50)
Yes
Is the image printed correctly?
No
END
Checking after replacing the KIT TRANSFER ASSY. Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34).
Yes
Is the image printed correctly?
No
END
Replace the Printer.

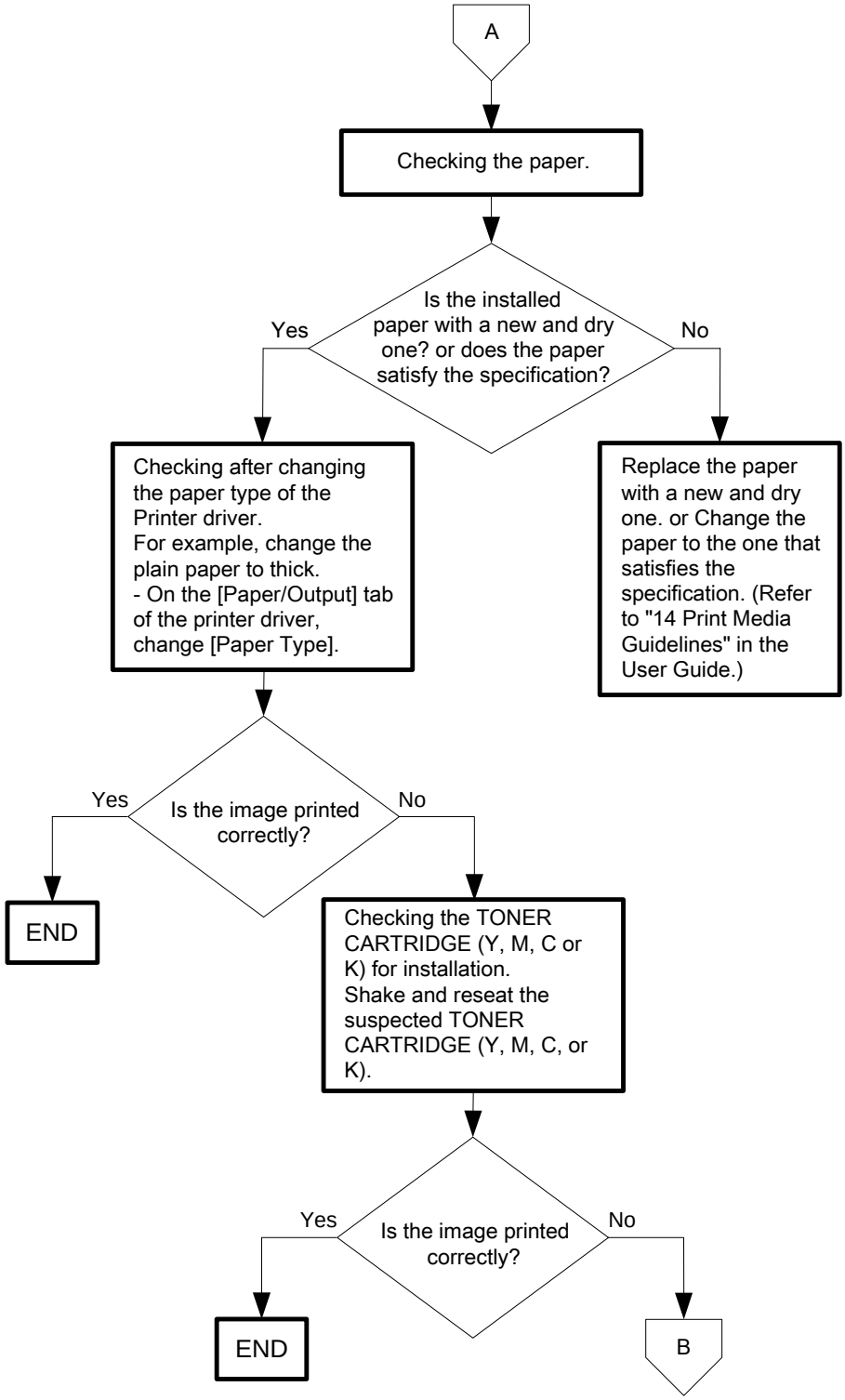
Flows 76 The entire output is blank

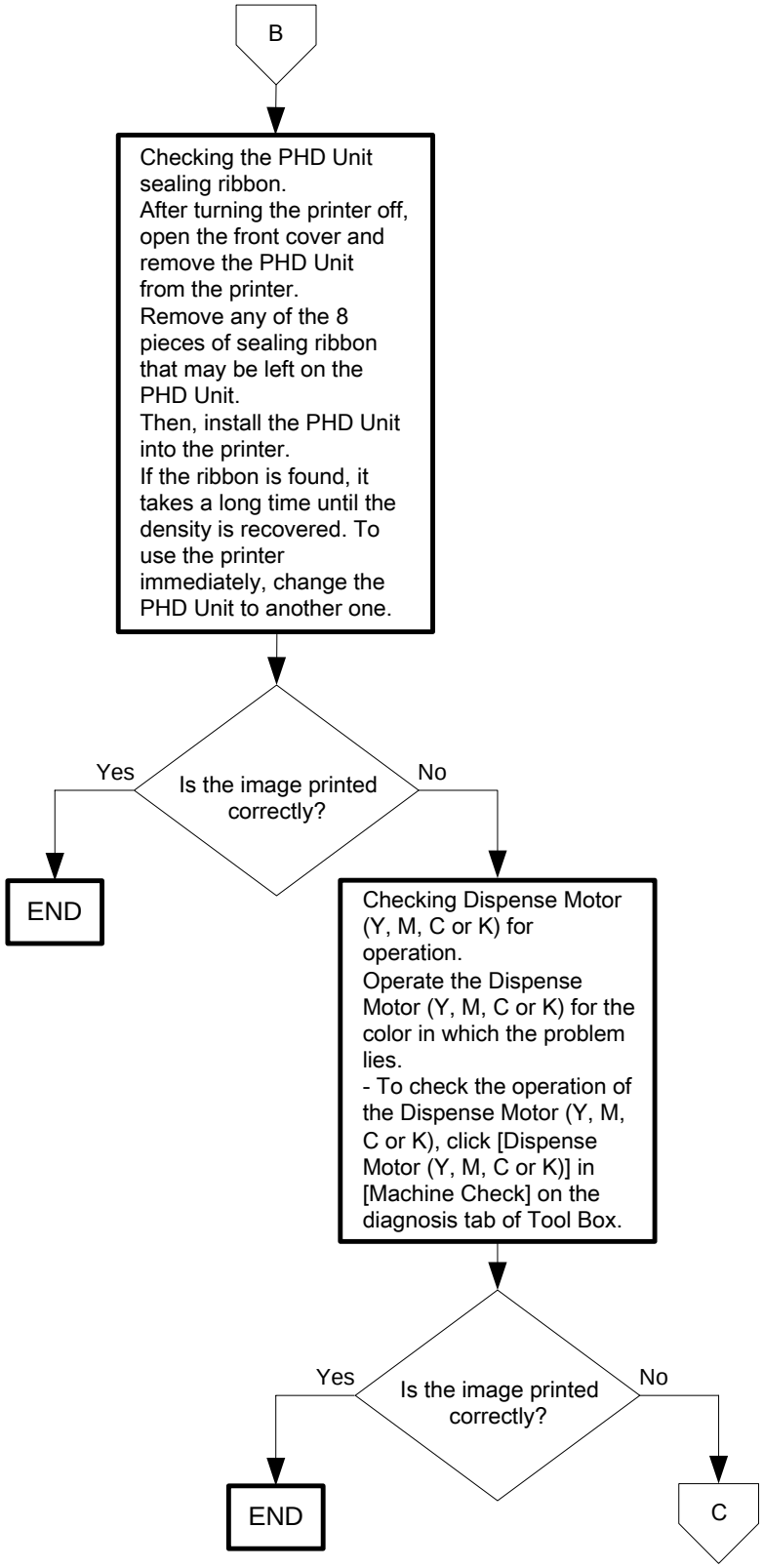


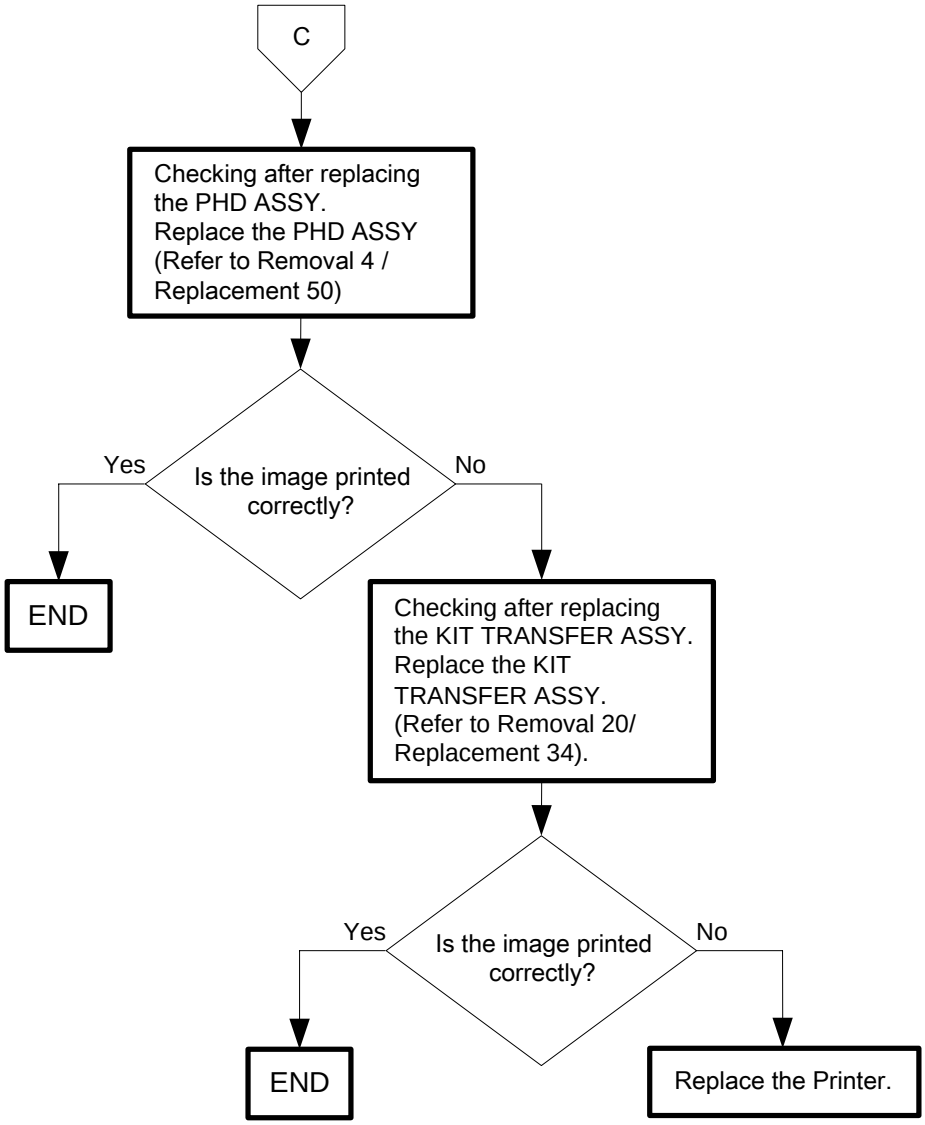
NOTE

When the PHD Unit has been replaced, be sure to clean up the CTD (ADC) Sensor. Refer to "Appendix_3.2 Cleaning the CTD (ADC) Sensor" for how to clean up the CTD (ADC) Sensor.

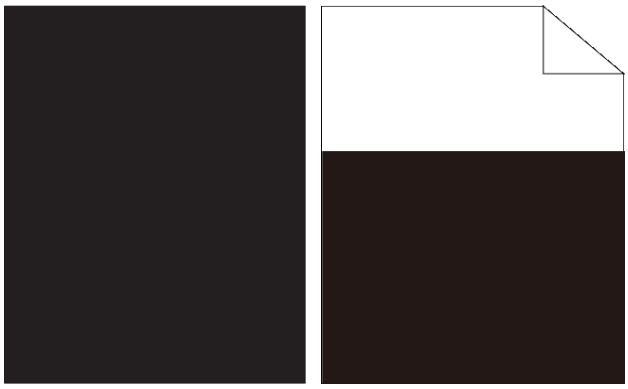



A
Checking the paper.
Is the installed paper with a new and dry one? or does the paper satisfy the specification?
Yes
No
Checking after changing the paper type of the Printer driver.
For example, change the plain paper to thick.
- On the [Paper/Output] tab of the printer driver, change [Paper Type].
Replace the paper with a new and dry one. or Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)
Is the image printed correctly?
Yes
No
END
Checking the TONER CARTRIDGE (Y, M, C or K) for installation.
Shake and reseat the suspected TONER CARTRIDGE (Y, M, C, or K).
Is the image printed correctly?
Yes
No
END
B


B
Checking the PHD Unit sealing ribbon.
After turning the printer off, open the front cover and remove the PHD Unit from the printer.
Remove any of the 8 pieces of sealing ribbon that may be left on the PHD Unit.
Then, install the PHD Unit into the printer.
If the ribbon is found, it takes a long time until the density is recovered. To use the printer immediately, change the PHD Unit to another one.
Is the image printed correctly?
Yes
No
END
Checking Dispense Motor (Y, M, C or K) for operation.
Operate the Dispense Motor (Y, M, C or K) for the color in which the problem lies.
- To check the operation of the Dispense Motor (Y, M, C or K), click [Dispense Motor (Y, M, C or K)] in [Machine Check] on the diagnosis tab of Tool Box.
Is the image printed correctly?
Yes
No
END
C

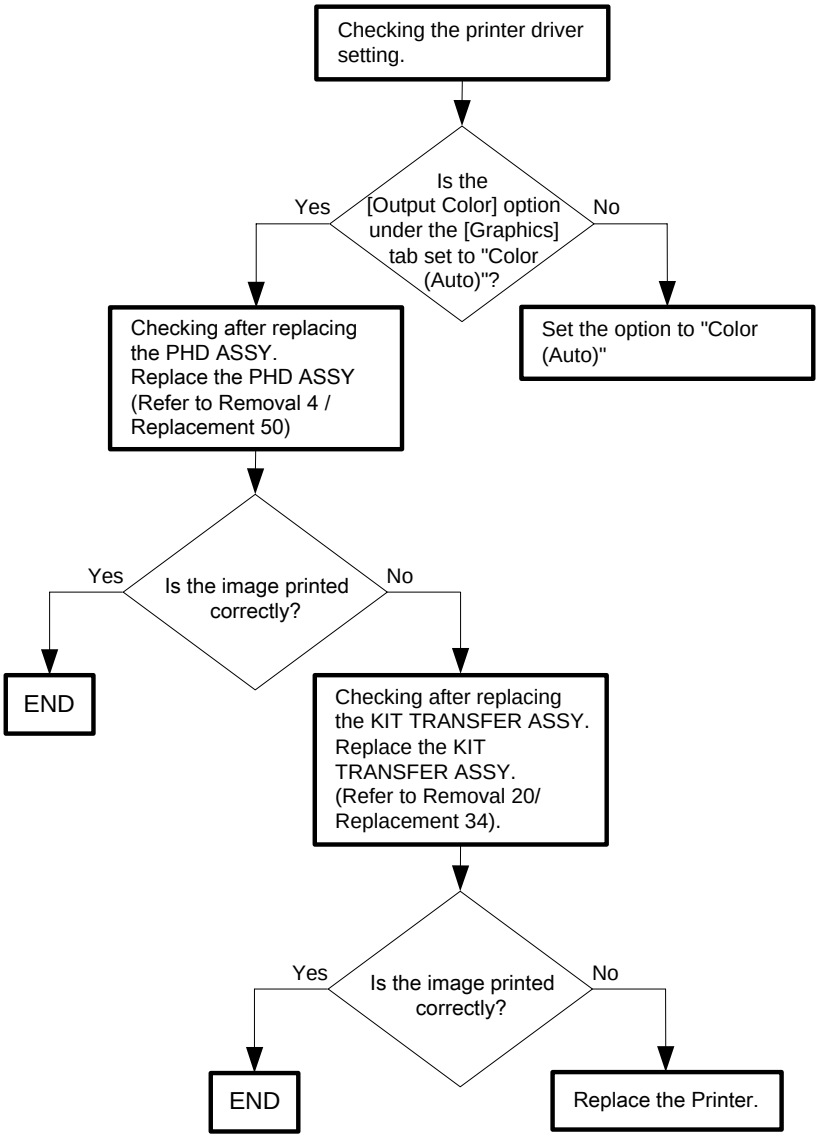

C
Checking after replacing the PHD ASSY. Replace the PHD ASSY (Refer to Removal 4 / Replacement 50)
Is the image printed correctly?
Yes
No
END
Checking after replacing the KIT TRANSFER ASSY. Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34).
Is the image printed correctly?
Yes
No
END
Replace the Printer.

Flows 77 Part or the entire output is black

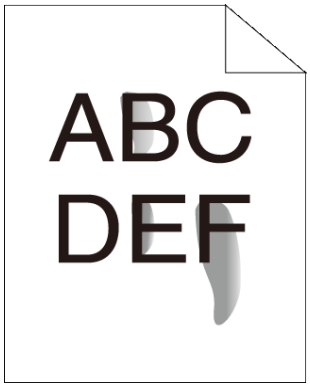


NOTE

When the PHD Unit has been replaced, be sure to clean up the CTD (ADC) Sensor. Refer to "Appendix_3.2 Cleaning the CTD (ADC) Sensor" for how to clean up the CTD (ADC) Sensor.

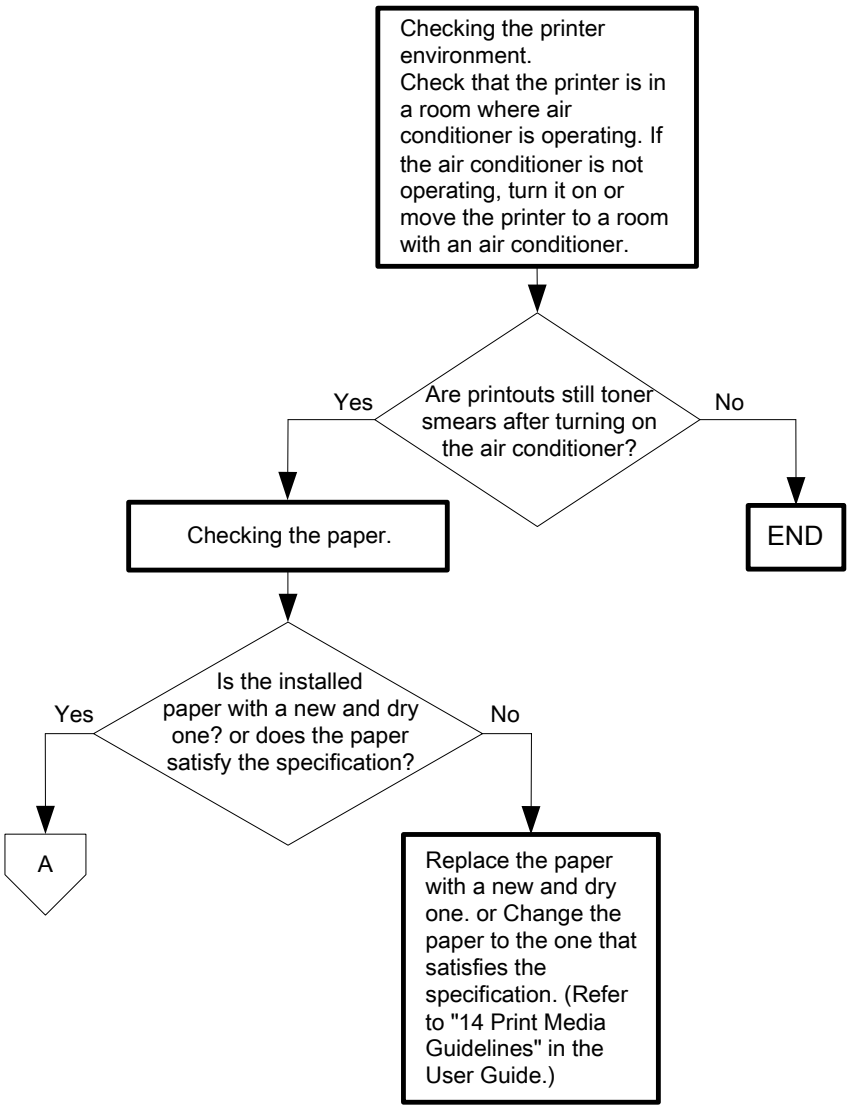


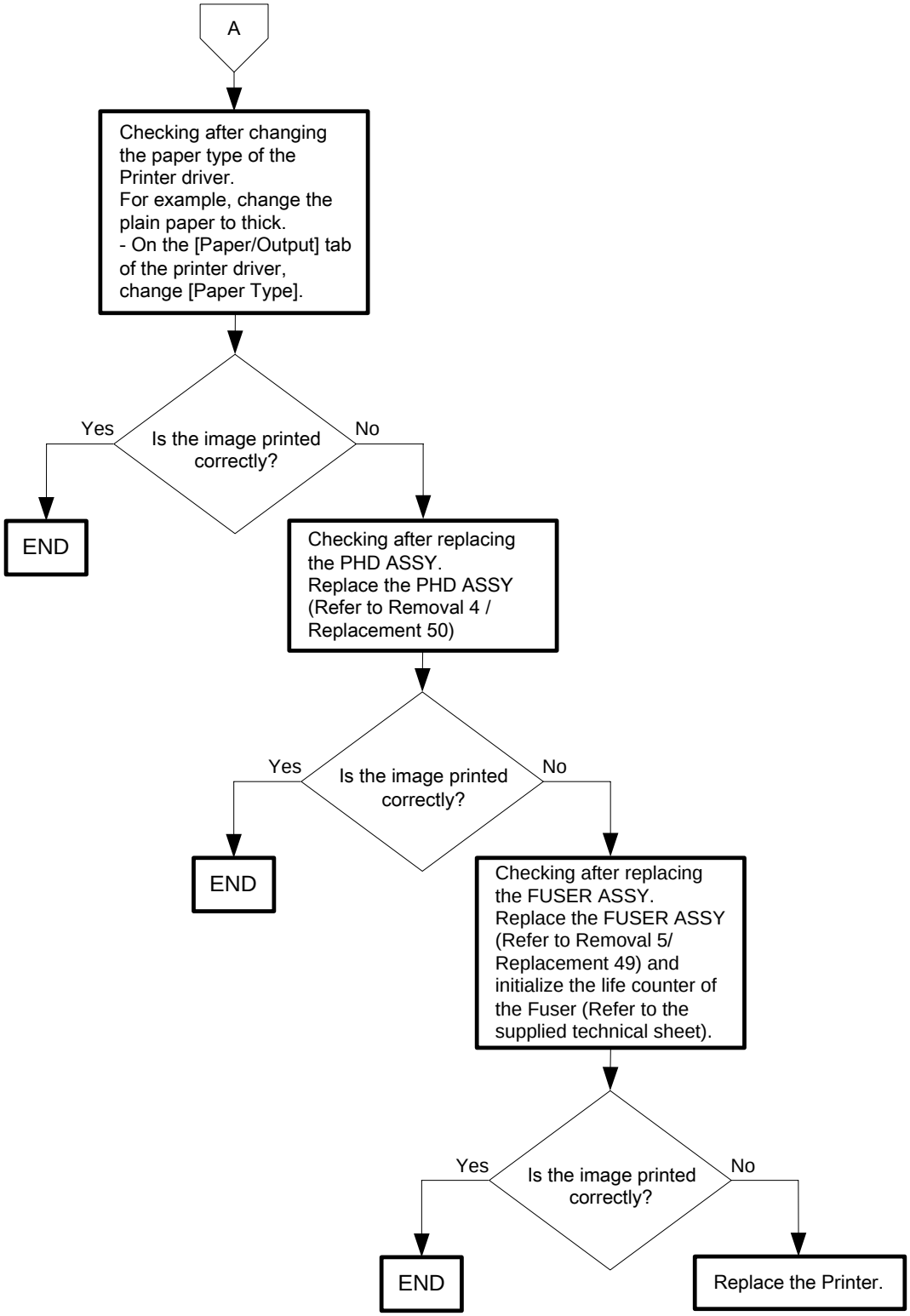
Flows 78 Toner smears



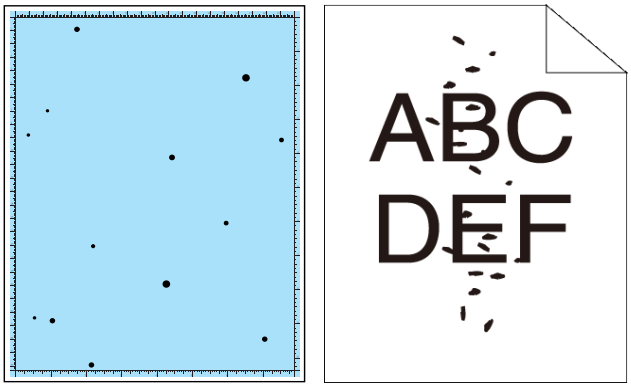
NOTE

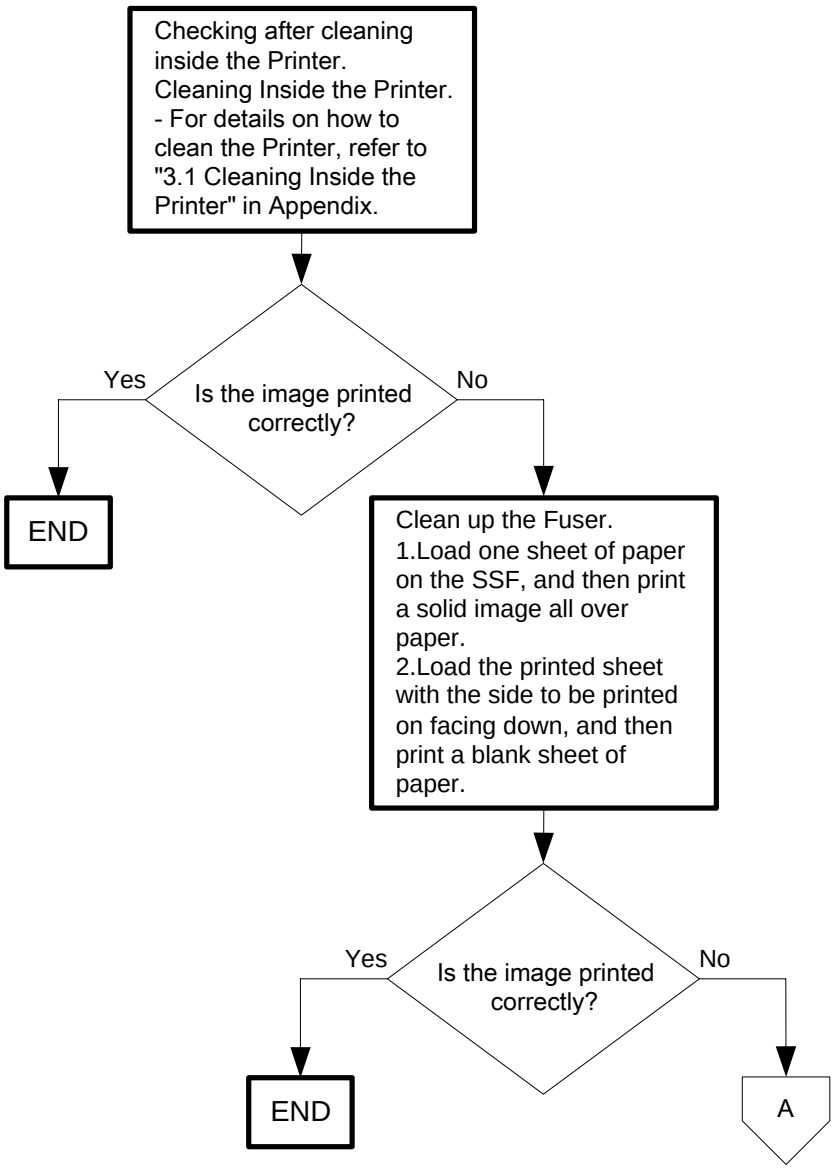
When you have replaced the Fuser, initialize the life counter of the Fuser.For details, refer to the supplied technical sheet.

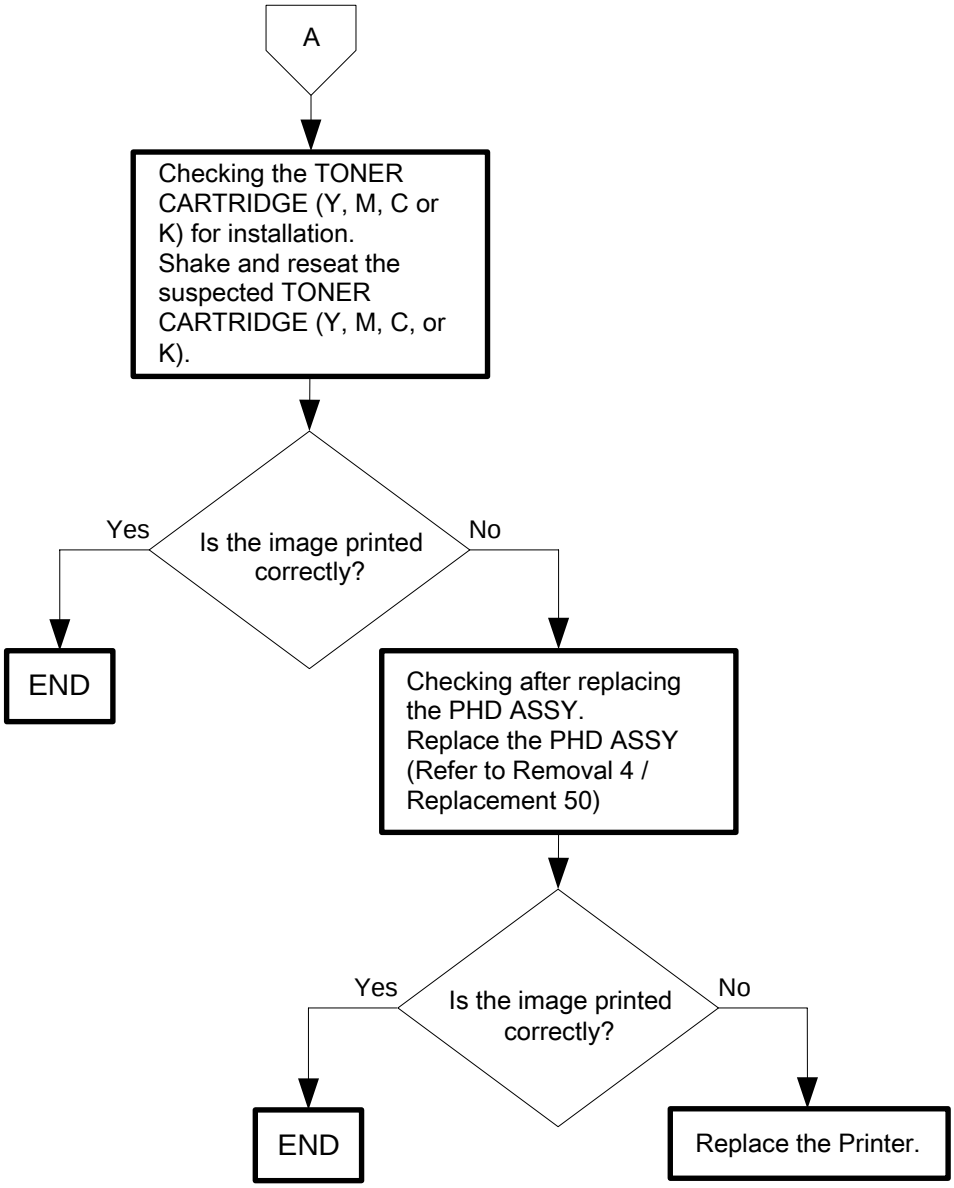



A
Checking after changing the paper type of the Printer driver.
For example, change the plain paper to thick.
- On the [Paper/Output] tab of the printer driver, change [Paper Type].
Is the image printed correctly?
Yes
No
END
Checking after replacing the PHD ASSY.
Replace the PHD ASSY (Refer to Removal 4 / Replacement 50)
Is the image printed correctly?
Yes
No
END
Checking after replacing the FUSER ASSY.
Replace the FUSER ASSY (Refer to Removal 5/ Replacement 49) and initialize the life counter of the Fuser (Refer to the supplied technical sheet).
Is the image printed correctly?
Yes
No
END
Replace the Printer.

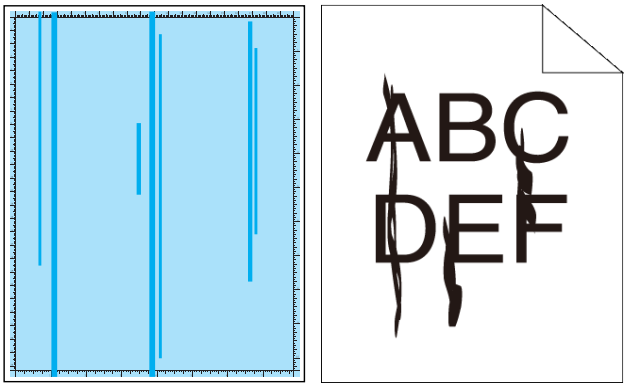
Flows 79 Random spots

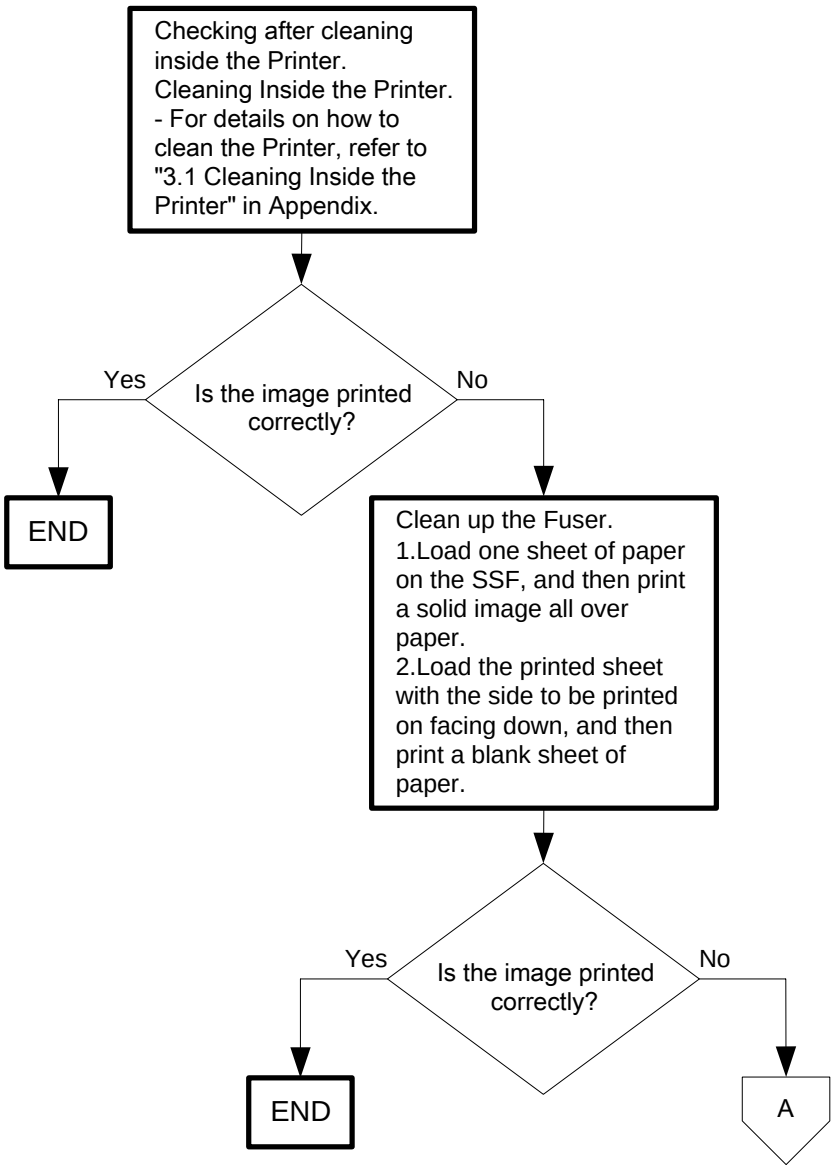


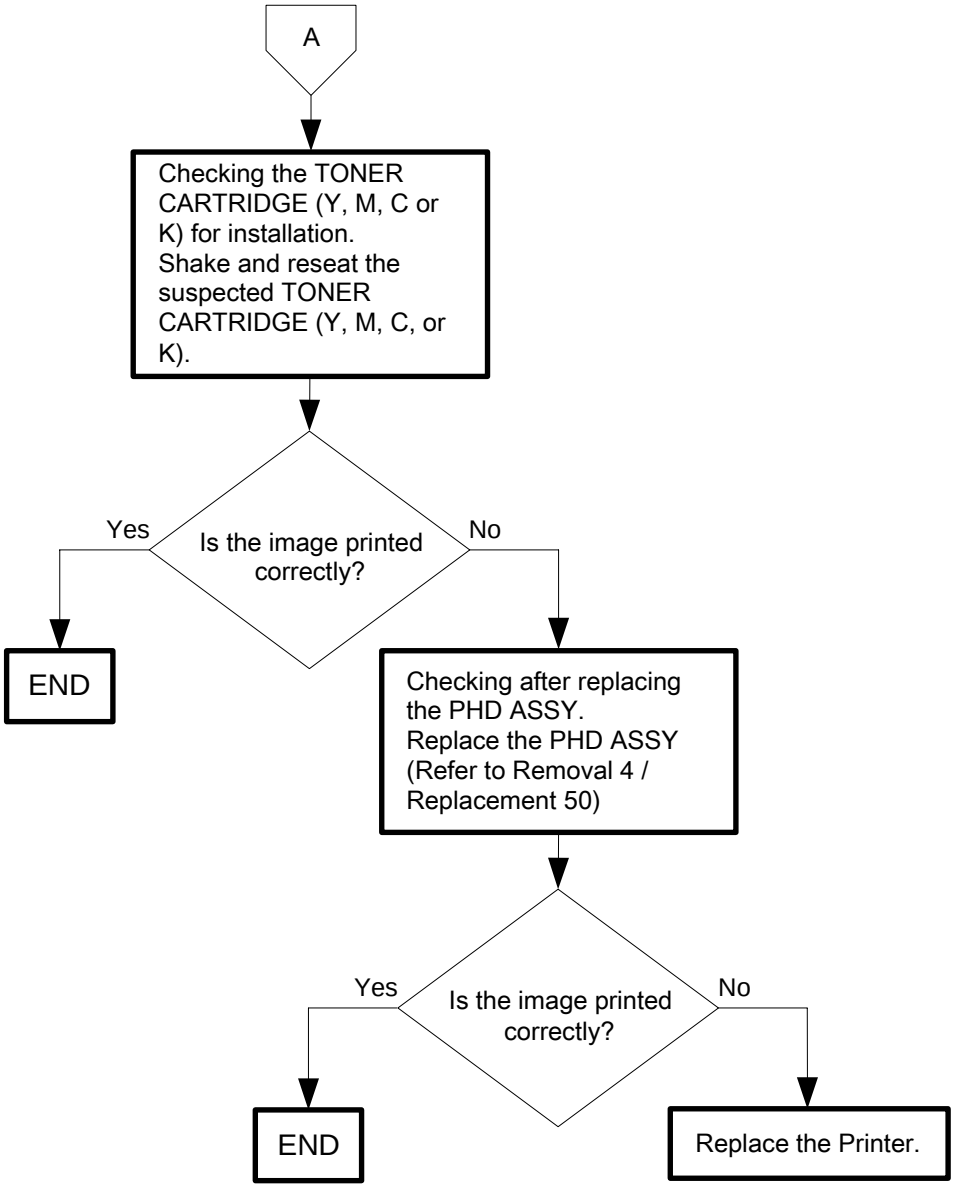



A
Checking the TONER CARTRIDGE (Y, M, C or K) for installation.
Shake and reseat the suspected TONER CARTRIDGE (Y, M, C, or K).
Is the image printed correctly?
Yes
No
END
Checking after replacing the PHD ASSY.
Replace the PHD ASSY (Refer to Removal 4 / Replacement 50)
Is the image printed correctly?
Yes
No
END
Replace the Printer.

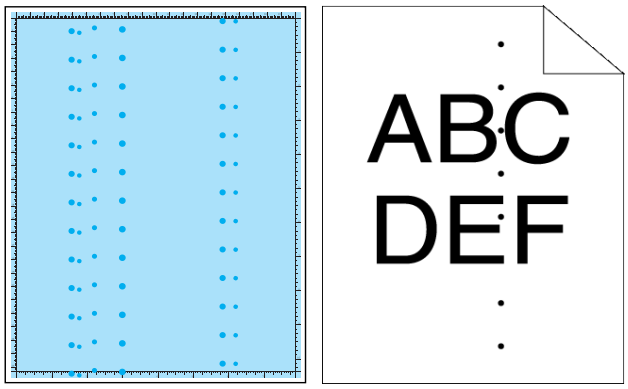
Flows 80 Streaks appear on the output





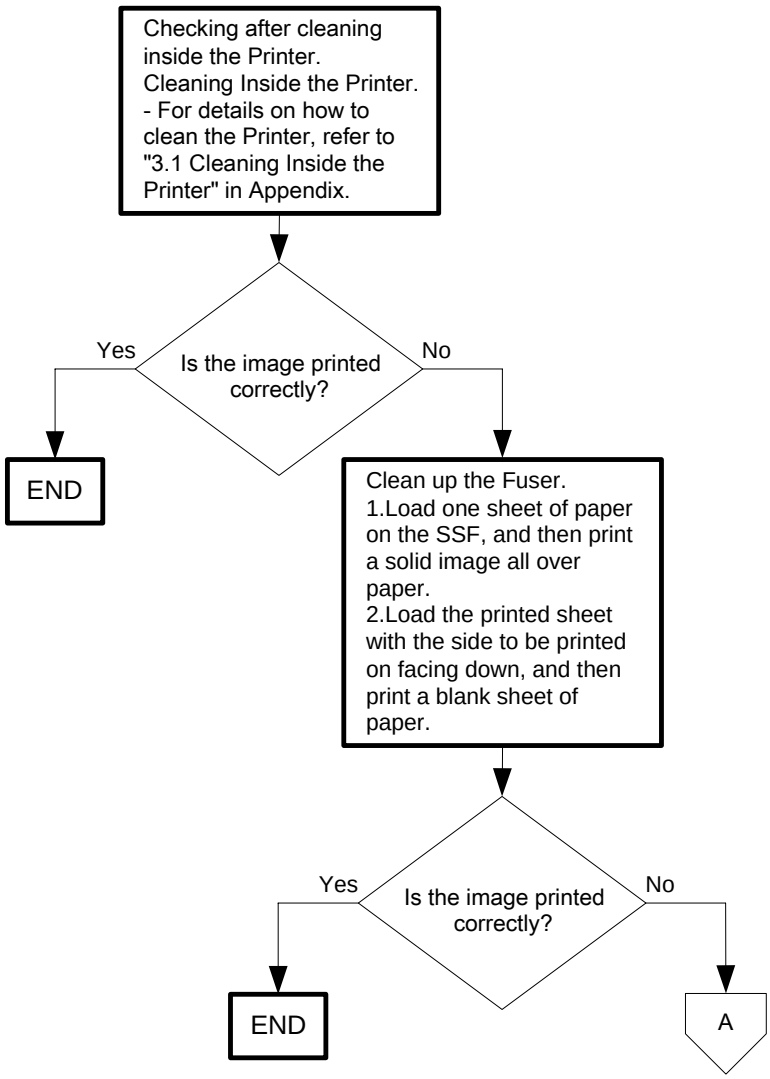

A
Checking the TONER CARTRIDGE (Y, M, C or K) for installation.
Shake and reseat the suspected TONER CARTRIDGE (Y, M, C, or K).
Is the image printed correctly?
Yes
No
END
Checking after replacing the PHD ASSY.
Replace the PHD ASSY (Refer to Removal 4 / Replacement 50)
Is the image printed correctly?
Yes
No
END
Replace the Printer.

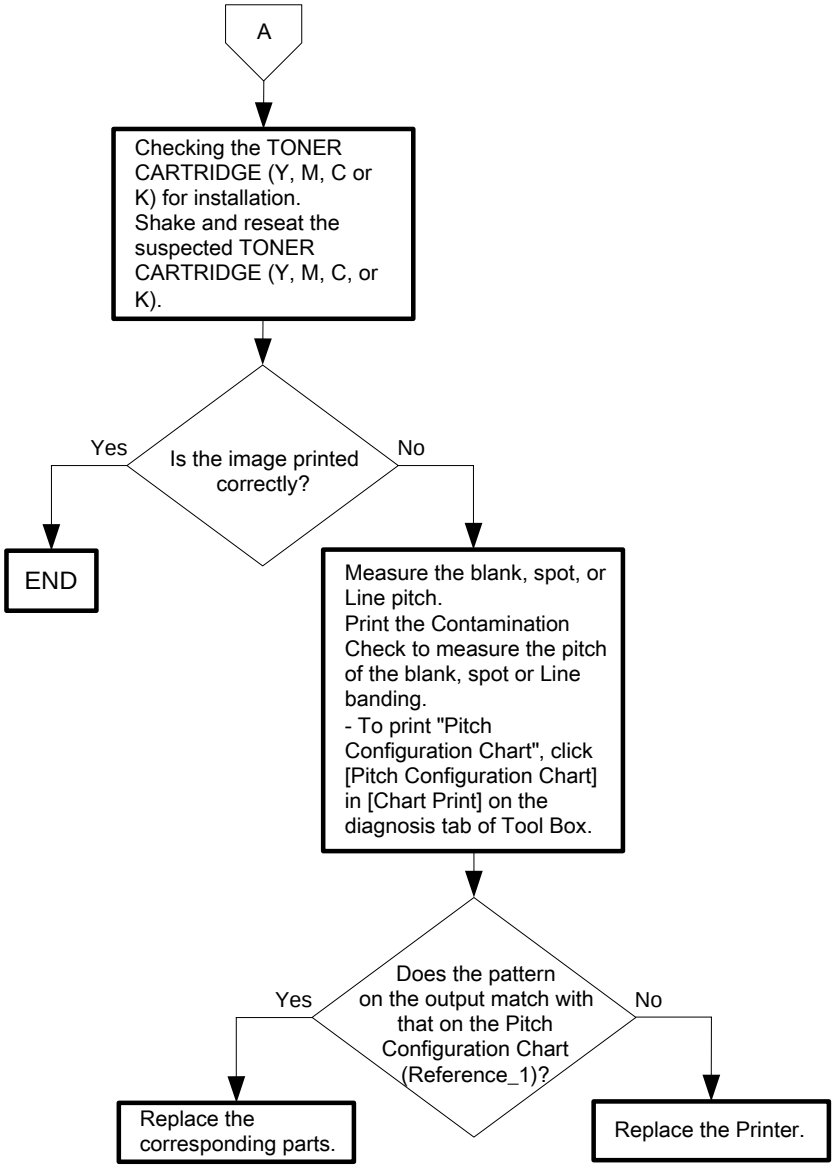
Flows 81 Pitched color dots



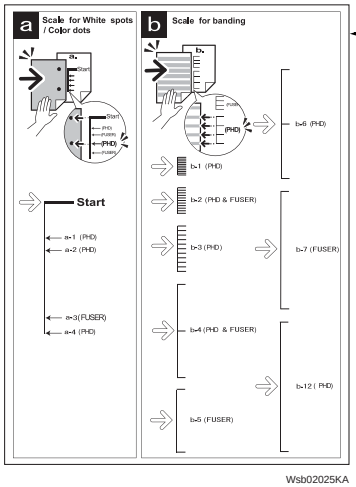
NOTE

When you have replaced the fuser, initialize the life counter of the Fuser. For details, refer to the supplied technical sheet.



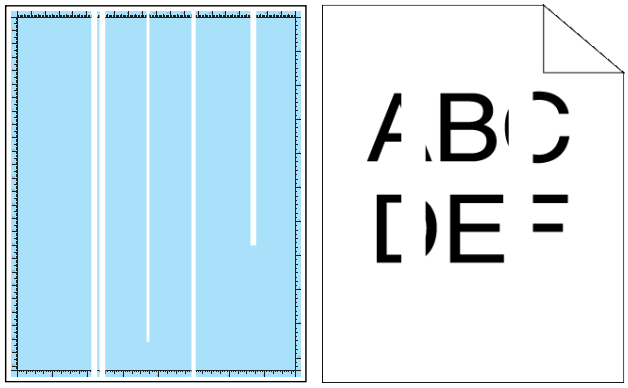


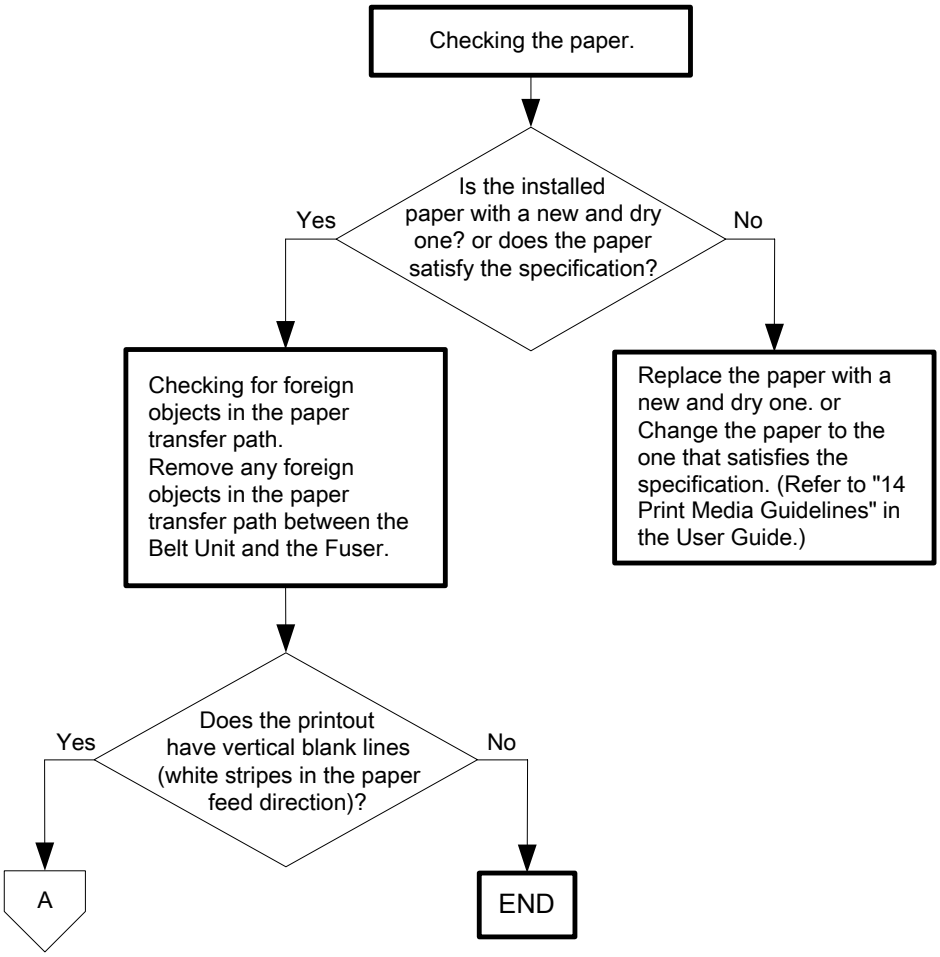
- Reference_1: Pitch Configuration Chart

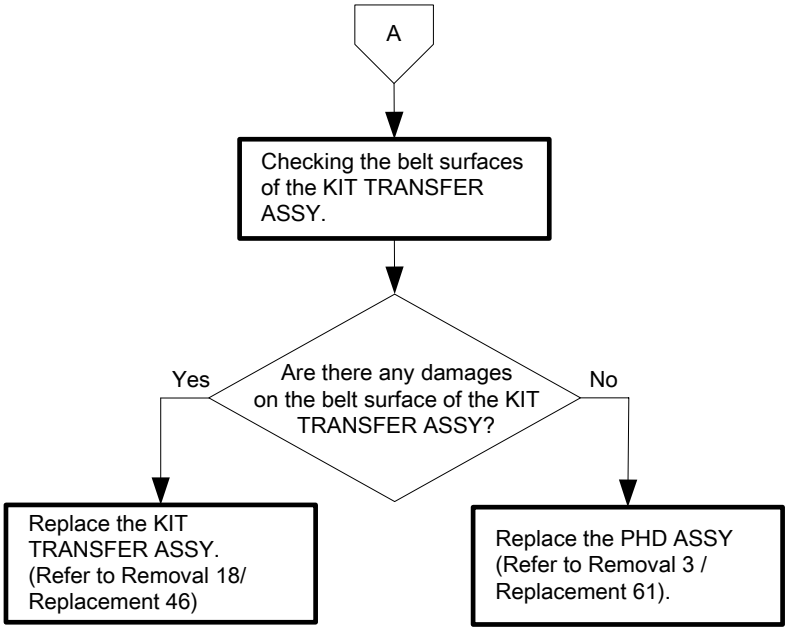


If the pitch of the blank banding matches any of the three pitches (PHD and FUSER) shown in the Pitch Configuration Chart, replace the relevant component:
(PHD): PHD Unit
(FUSER): Fuser

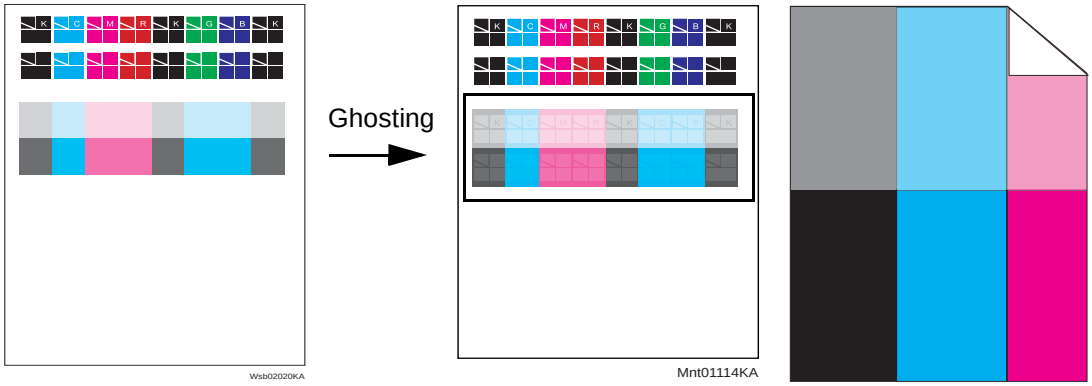
Flows 82 Vertical blanks

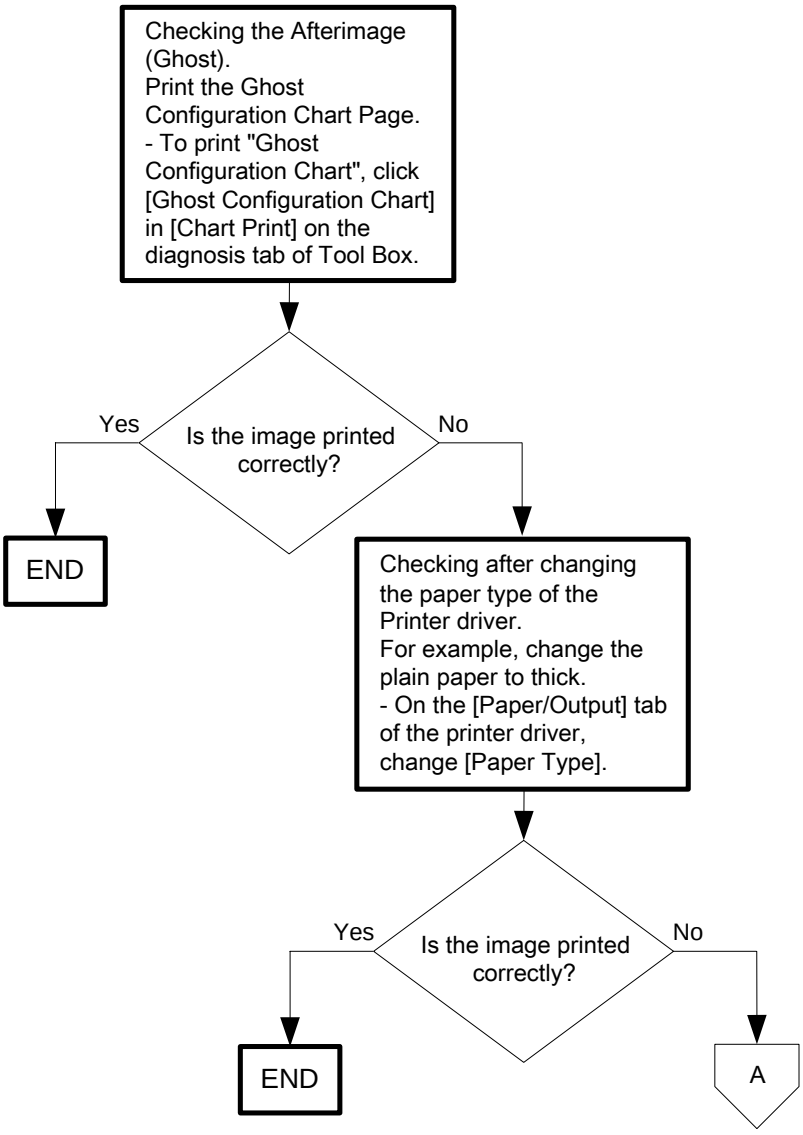


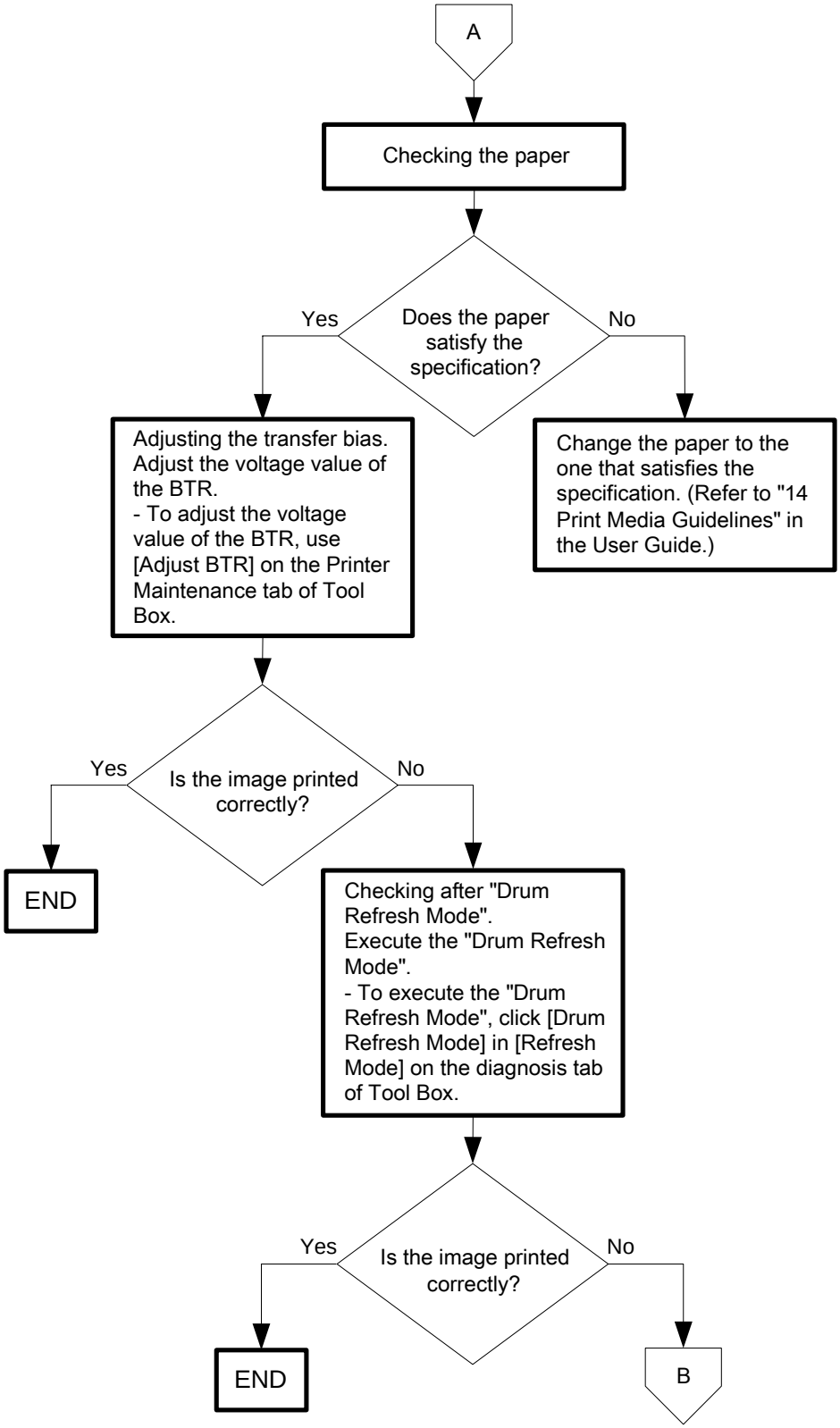


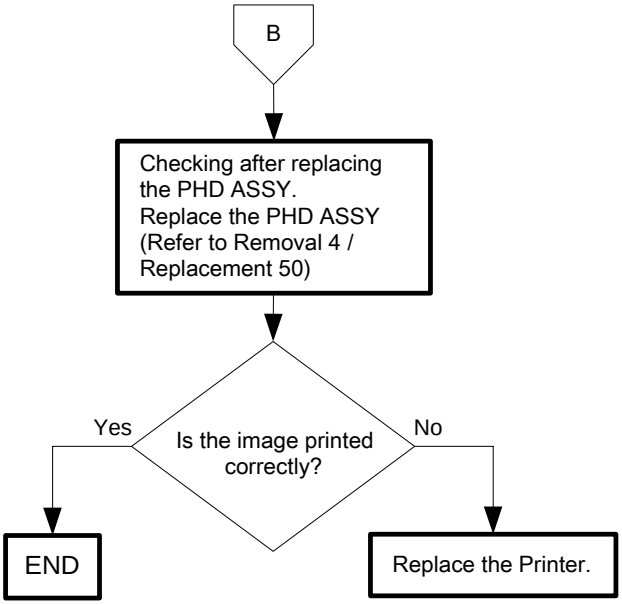

A
Checking the belt surfaces of the KIT TRANSFER ASSY.
Are there any damages on the belt surface of the KIT TRANSFER ASSY?
Yes
No
Replace the KIT TRANSFER ASSY. (Refer to Removal 18/ Replacement 46)
Replace the PHD ASSY (Refer to Removal 3 / Replacement 61).

Flows 83 Ghosting



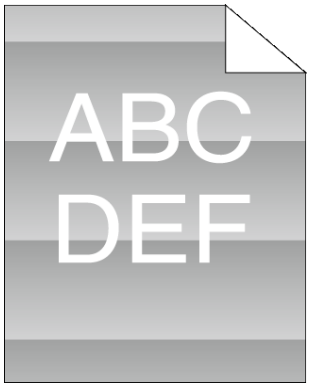


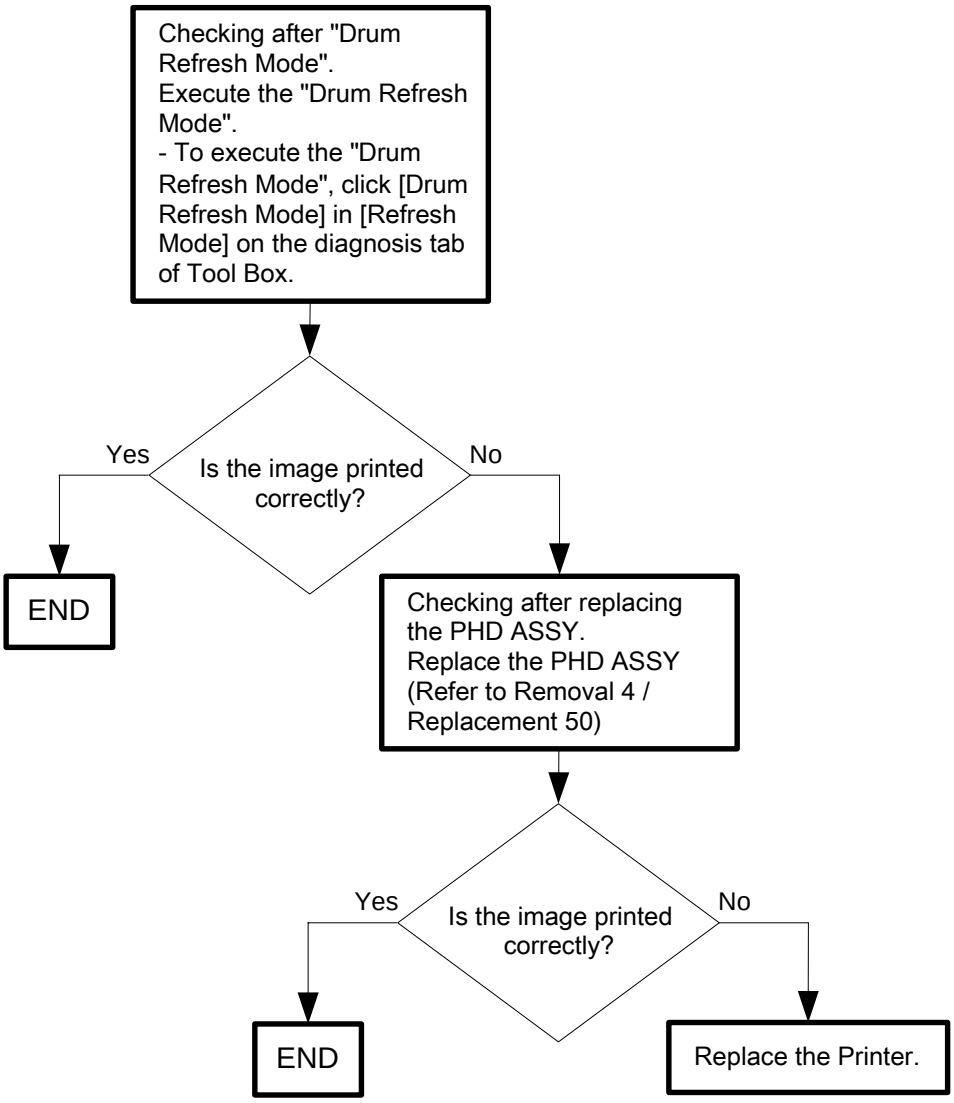

A
Checking the paper
Does the paper satisfy the specification?
Yes
No
Adjusting the transfer bias. Adjust the voltage value of the BTR.
- To adjust the voltage value of the BTR, use [Adjust BTR] on the Printer Maintenance tab of Tool Box.
Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)
Is the image printed correctly?
Yes
No
END
Checking after "Drum Refresh Mode".
Execute the "Drum Refresh Mode".
- To execute the "Drum Refresh Mode", click [Drum Refresh Mode] in [Refresh Mode] on the diagnosis tab of Tool Box.
Is the image printed correctly?
Yes
No
END
B


B
Checking after replacing the PHD ASSY.
Replace the PHD ASSY (Refer to Removal 4 / Replacement 50)
Is the image printed correctly?
Yes
No
END
Replace the Printer.

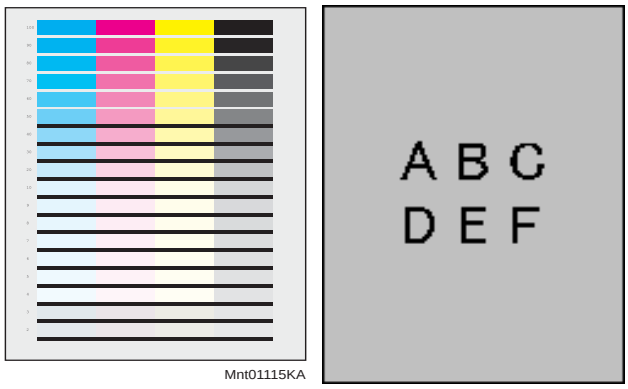
]

Flows 84 Light-Induced Fatigue



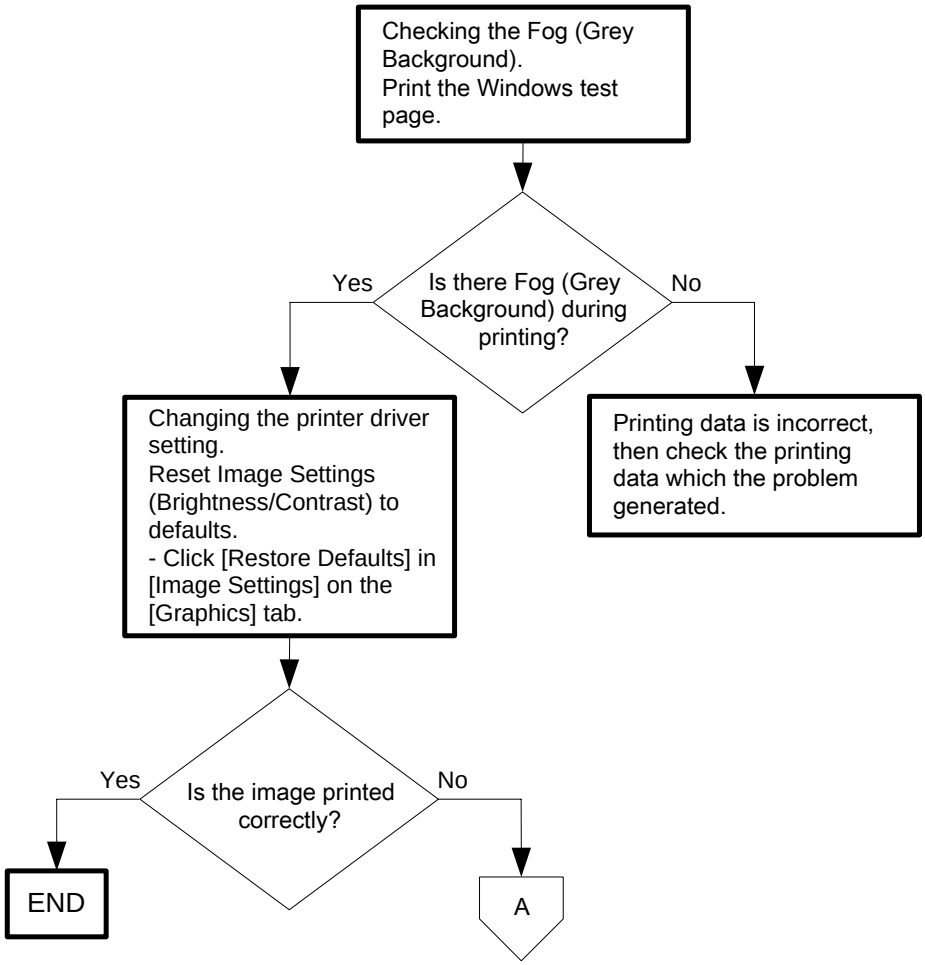


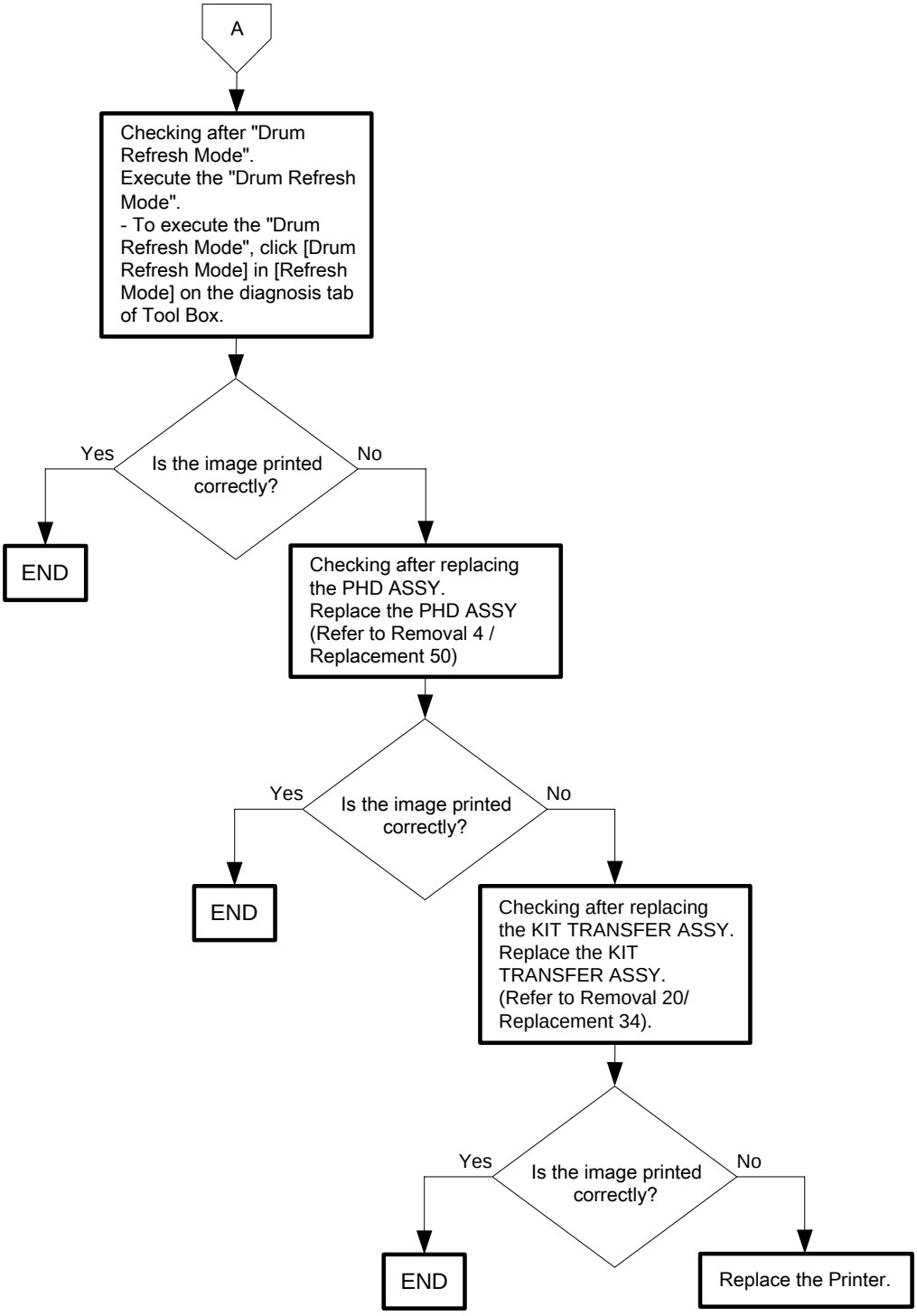
Flows 85 Fog



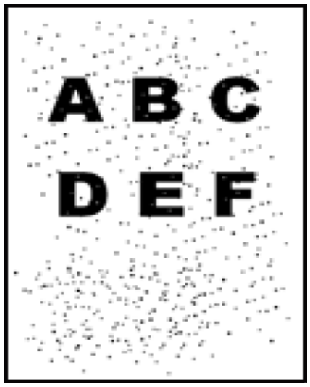
NOTE

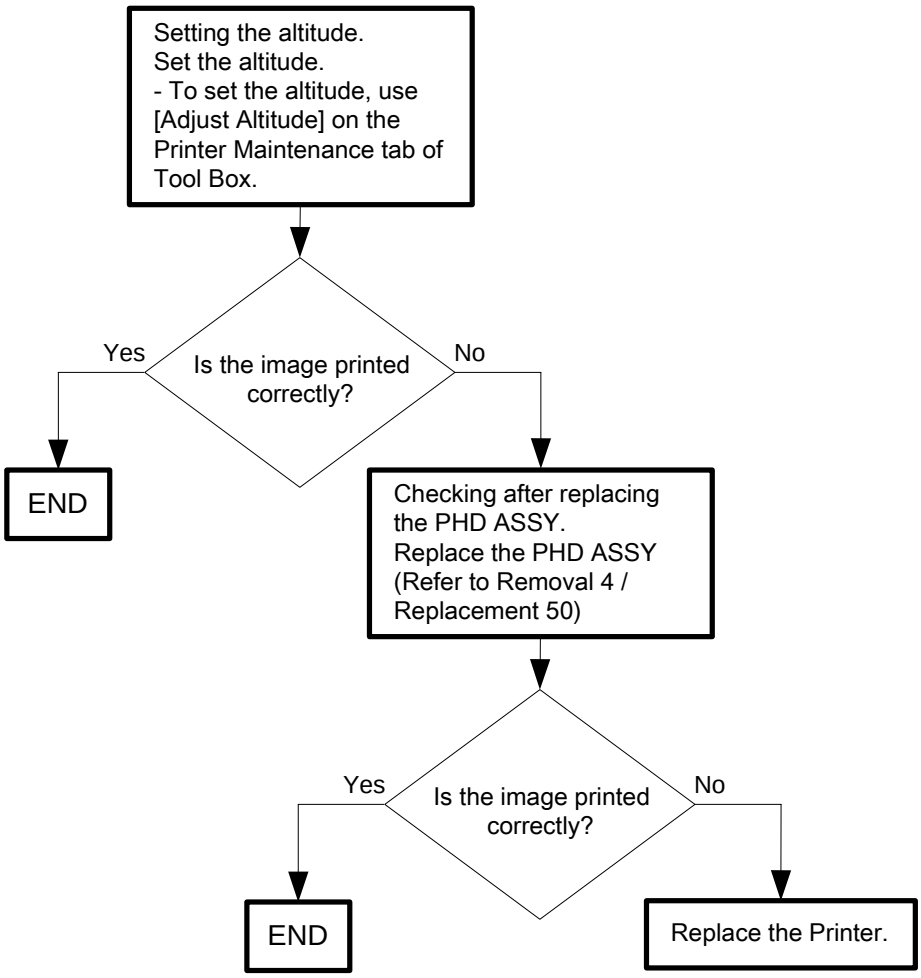
When the PHD Unit has been replaced, be sure to clean up the CTD (ADC) Sensor. Refer to "Appendix_3.2 Cleaning the CTD (ADC) Sensor" for how to clean up the CTD (ADC) Sensor.



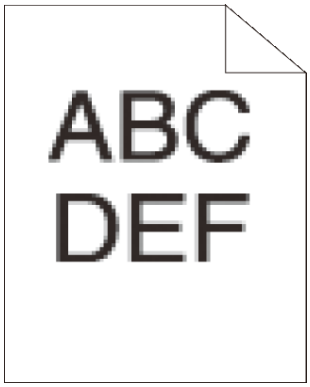

A
Checking after "Drum Refresh Mode".
Execute the "Drum Refresh Mode".
- To execute the "Drum Refresh Mode", click [Drum Refresh Mode] in [Refresh Mode] on the diagnosis tab of Tool Box.
Is the image printed correctly?
Yes
No
END
Checking after replacing the PHD ASSY.
Replace the PHD ASSY (Refer to Removal 4 / Replacement 50)
Is the image printed correctly?
Yes
No
END
Checking after replacing the KIT TRANSFER ASSY.
Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34).
Is the image printed correctly?
Yes
No
END
Replace the Printer.

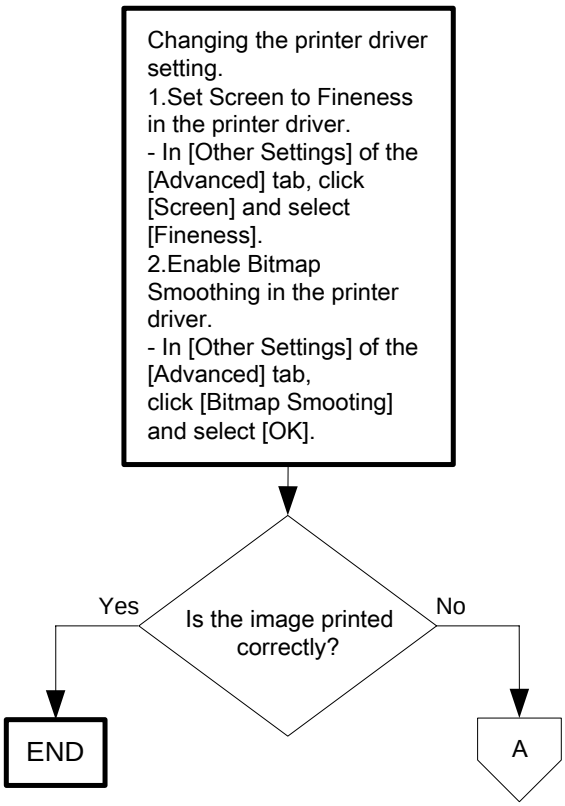
Flows 86 Bead-Carry-Out (BCO)

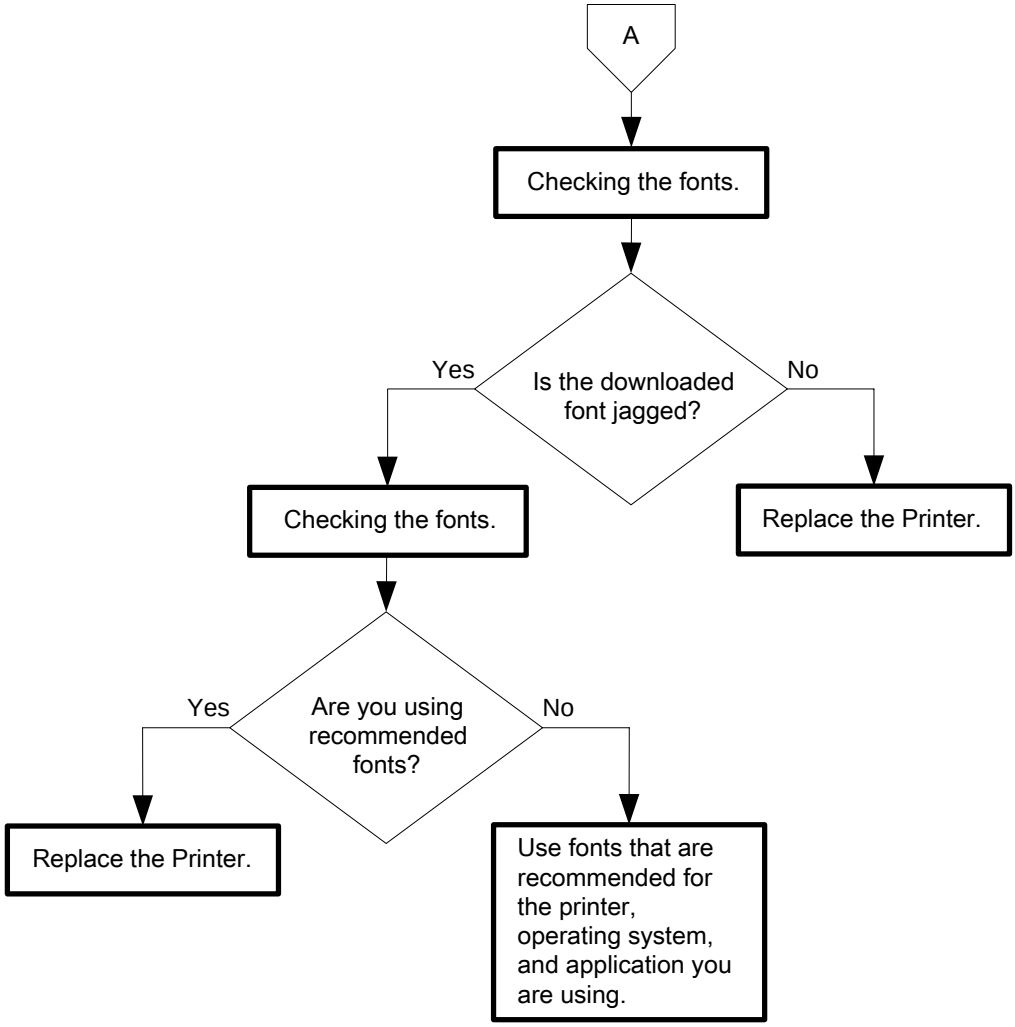




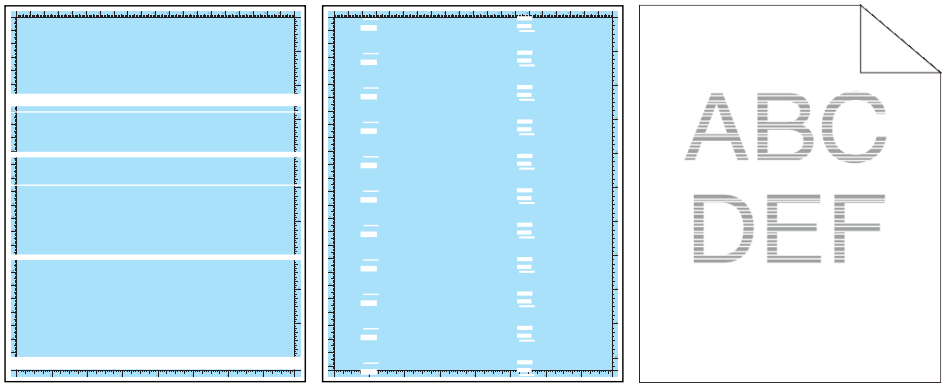
Flows 87 Jagged characters





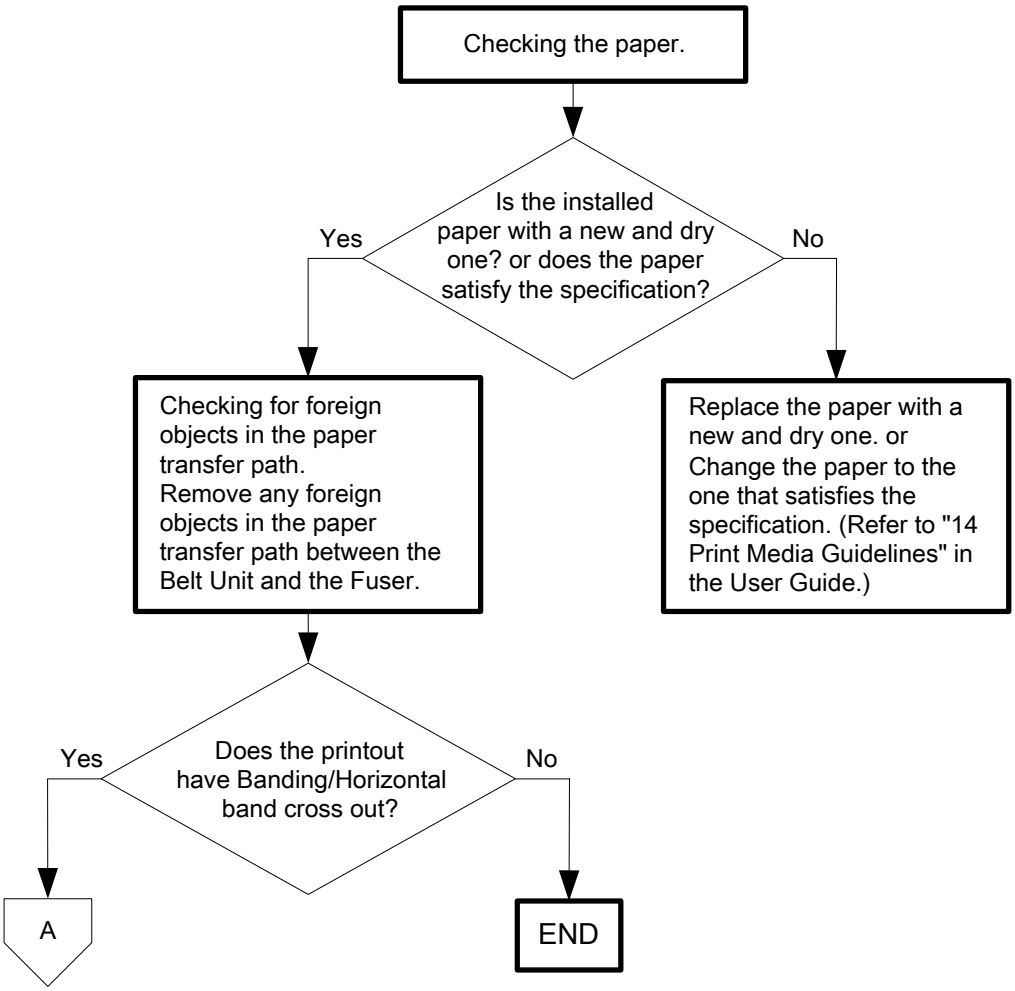

A
Checking the fonts.
Is the downloaded font jagged?
Yes
No
Checking the fonts.
Replace the Printer.
Are you using recommended fonts?
Yes
No
Replace the Printer.
Use fonts that are recommended for the printer, operating system, and application you are using.

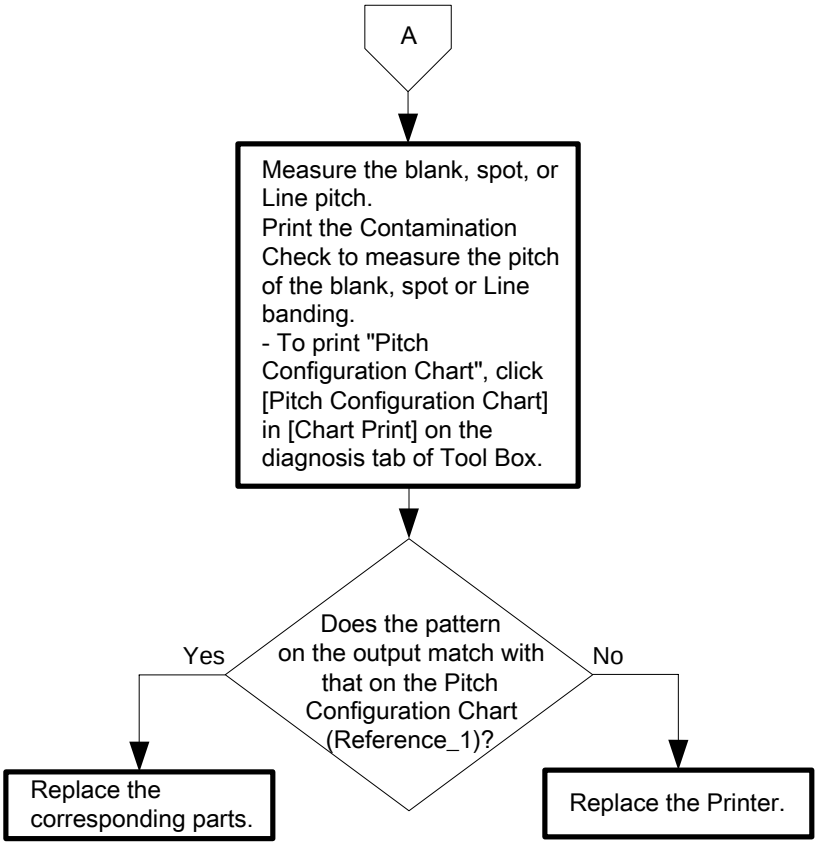
Flows 88 Banding/Horizontal band cross out



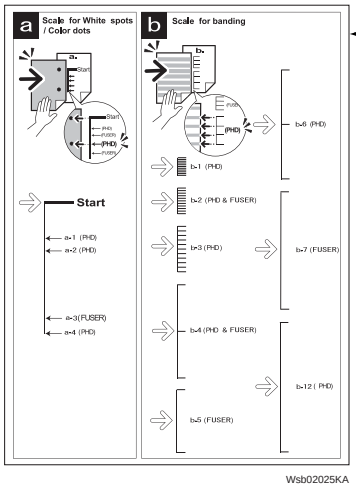
NOTE

When you have replaced the fuser, initialize the life counter of the Fuser. For details, refer to the supplied technical sheet.



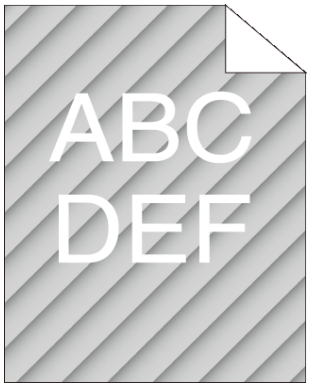


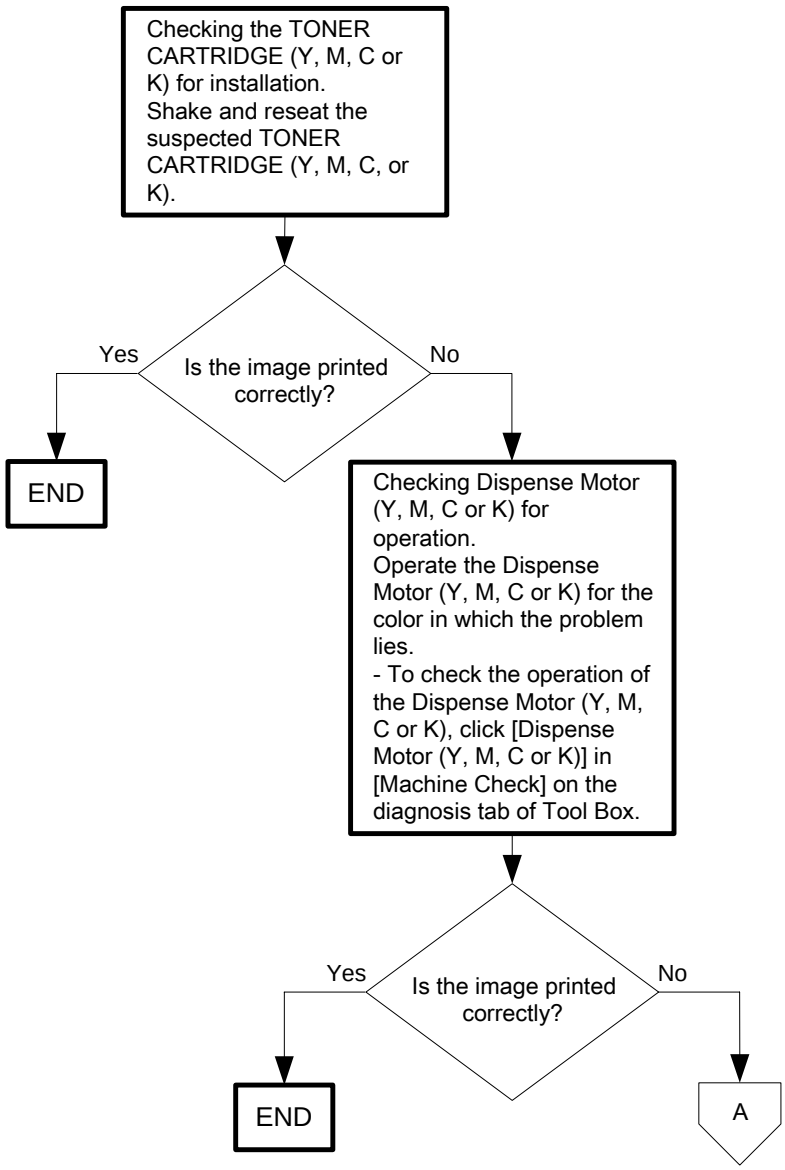
- Reference_1: Pitch Configuration Chart

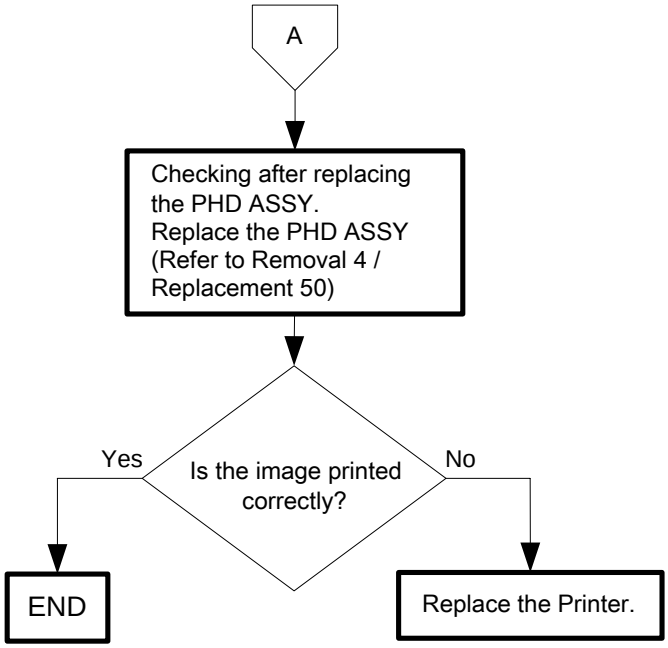


If the pitch of the blank banding matches any of the three pitches (PHD and FUSER) shown in the Pitch Configuration Chart, replace the relevant component:
(PHD): PHD Unit
(FUSER): Fuser

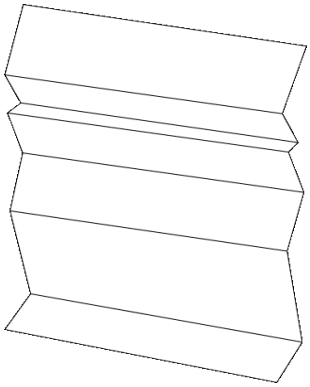
Flows 89 Auger mark



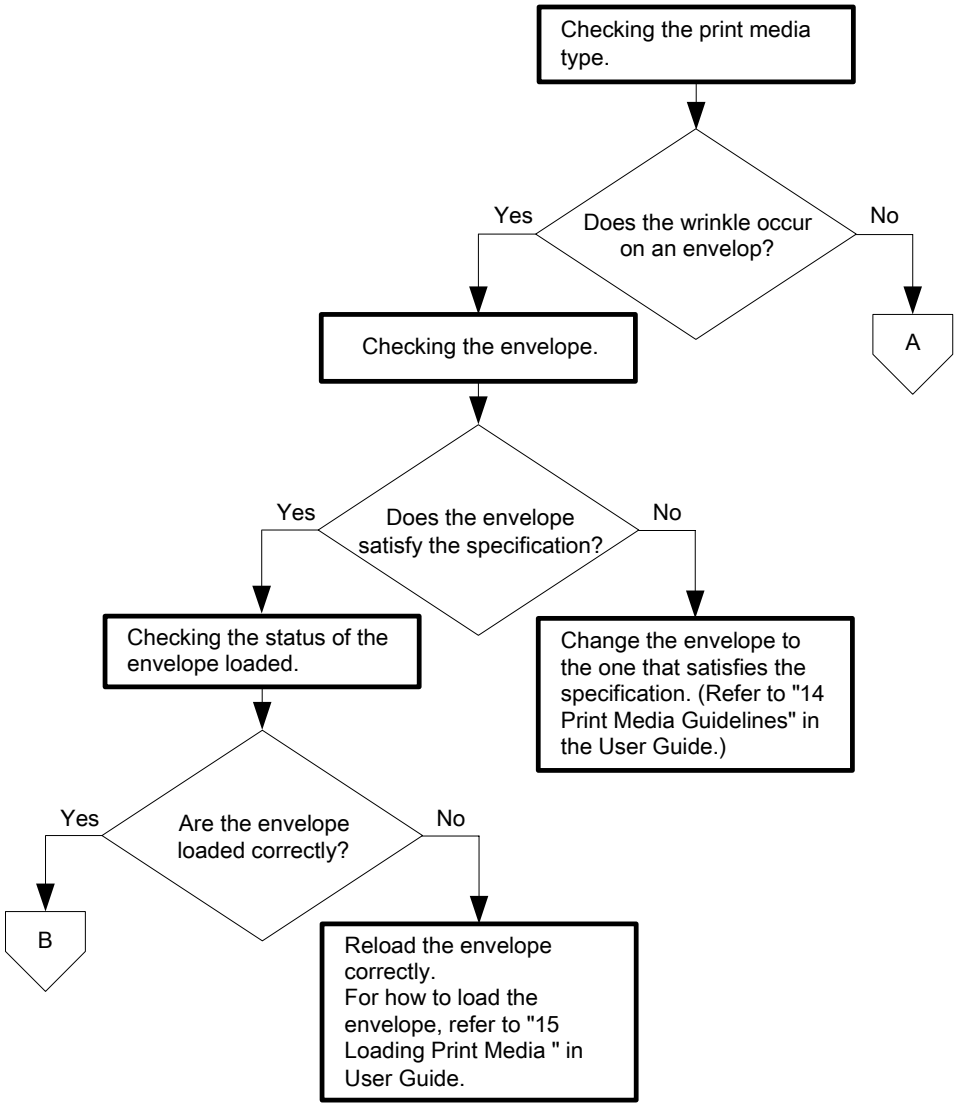


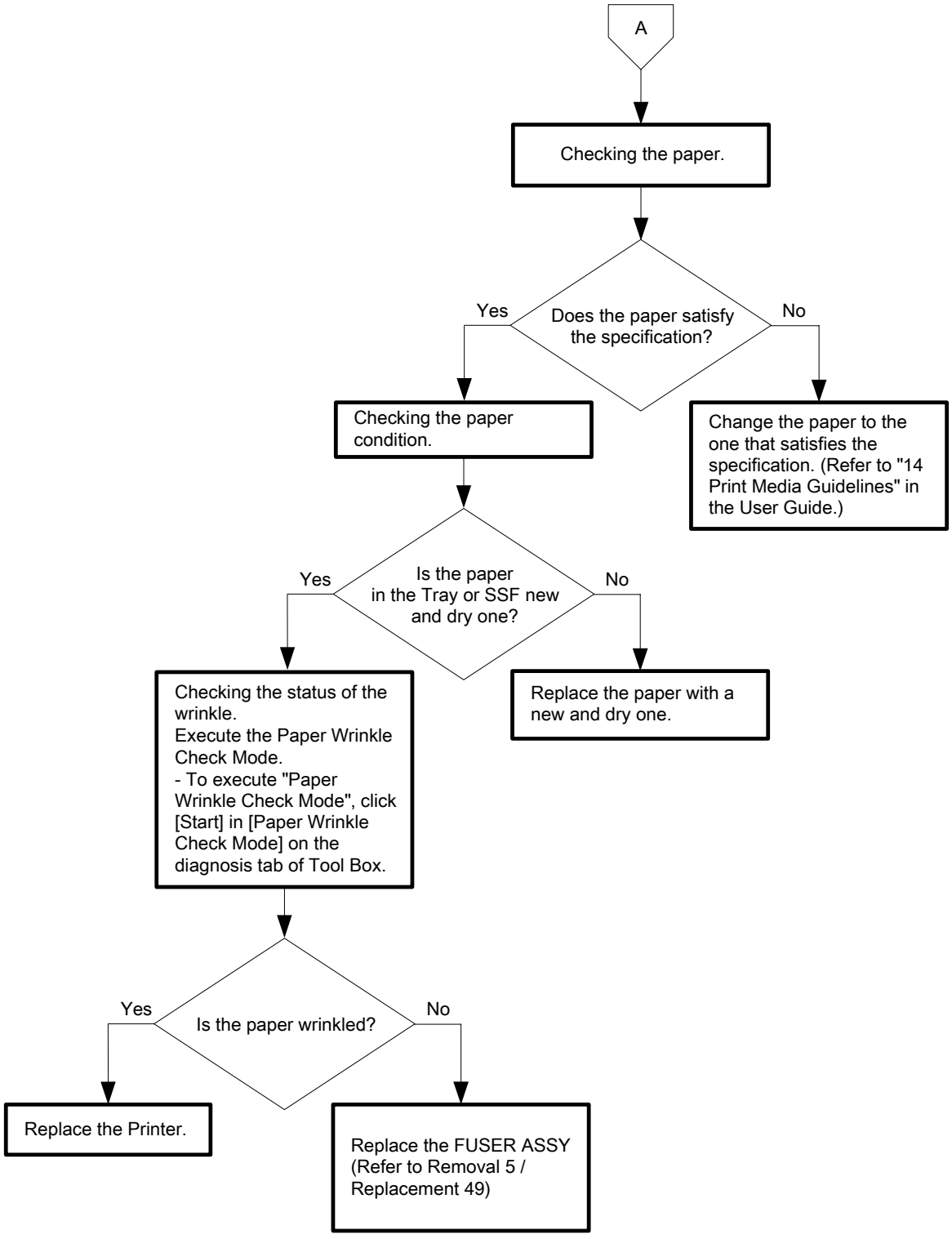

A
Checking after replacing the PHD ASSY. Replace the PHD ASSY (Refer to Removal 4 / Replacement 50)
Is the image printed correctly?
Yes
No
END
Replace the Printer.

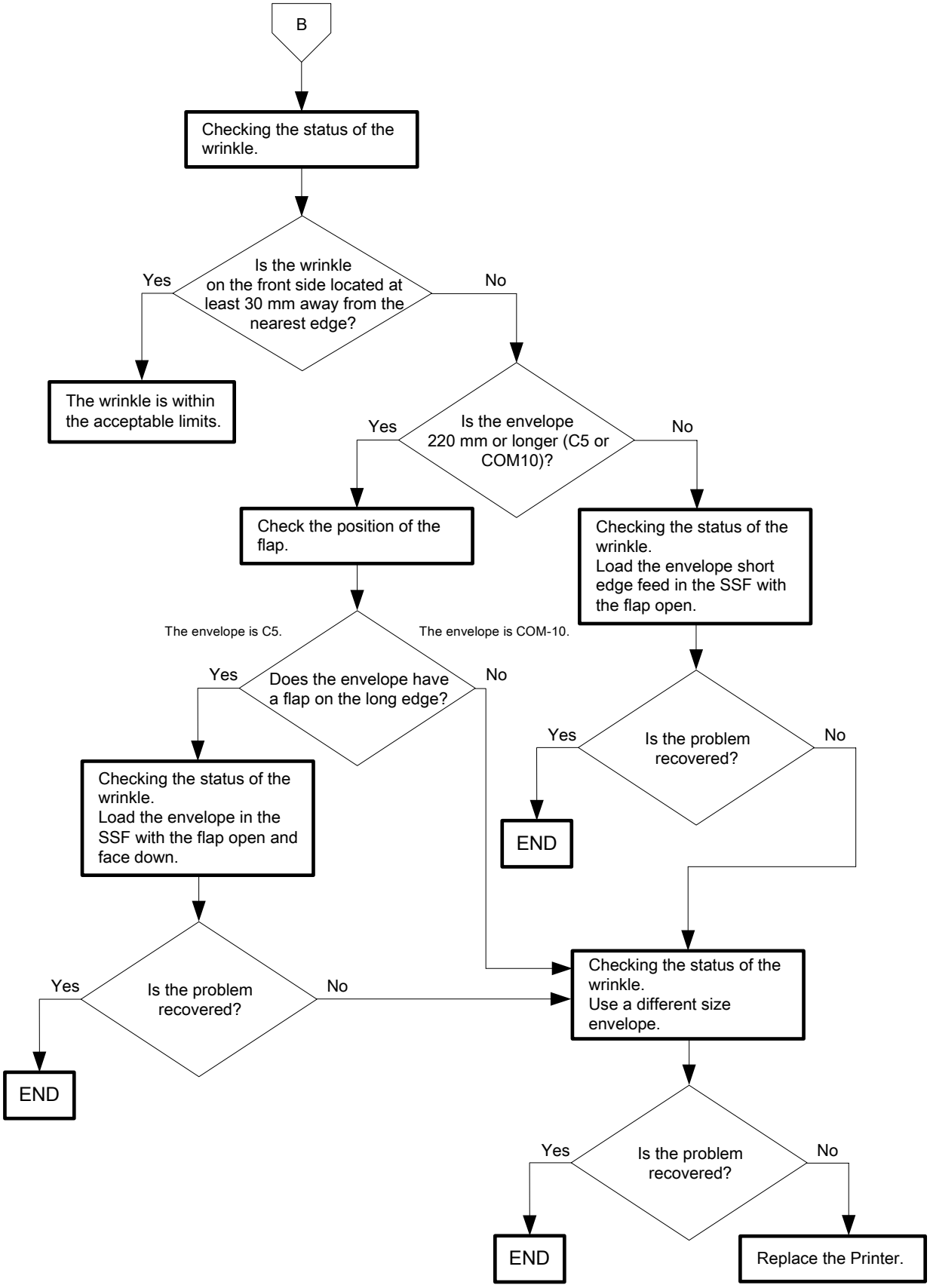
Flows 90 Wrinkled/Stained paper



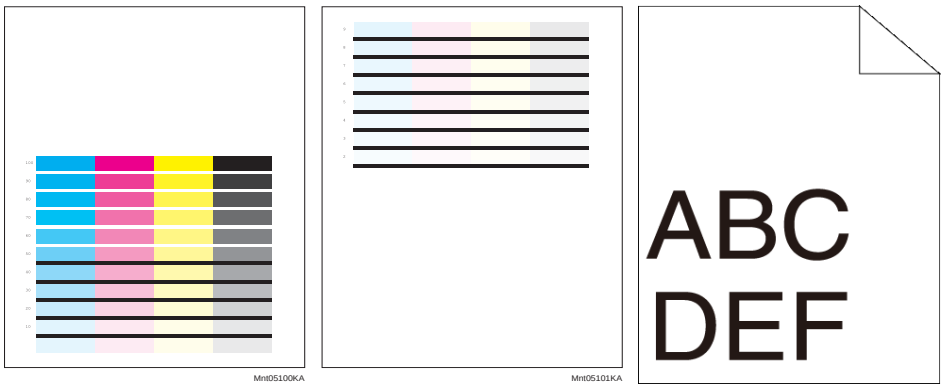
NOTE **When you have replaced the fuser, initialize the life counter of the Fuser. For details, refer to the supplied technical sheet.**

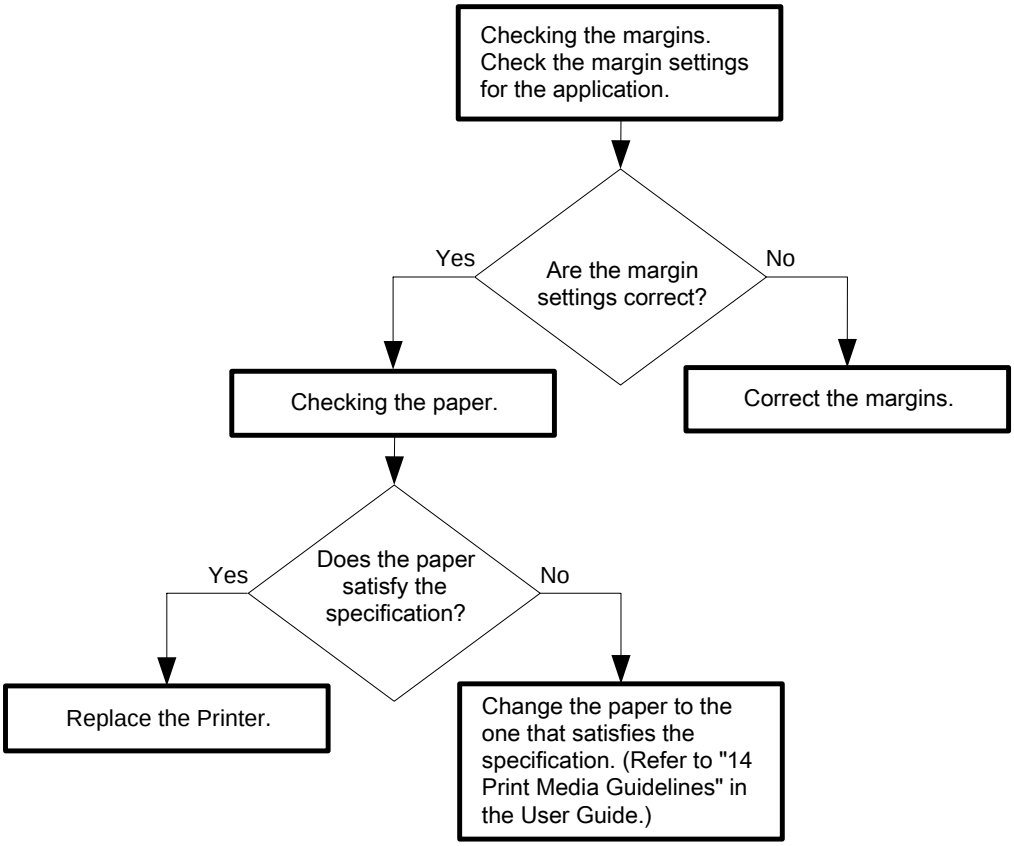



A
Checking the paper.
Does the paper satisfy the specification?
Yes
No
Checking the paper condition.
Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)
Is the paper in the Tray or SSF new and dry one?
Yes
No
Checking the status of the wrinkle.
Execute the Paper Wrinkle Check Mode.
- To execute "Paper Wrinkle Check Mode", click [Start] in [Paper Wrinkle Check Mode] on the diagnosis tab of Tool Box.
Replace the paper with a new and dry one.
Is the paper wrinkled?
Yes
No
Replace the Printer.
Replace the FUSER ASSY (Refer to Removal 5 / Replacement 49)

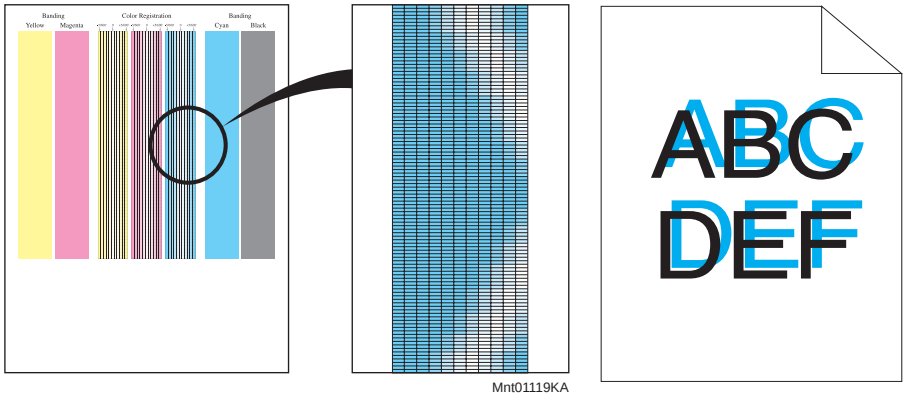

B
Checking the status of the wrinkle.
Is the wrinkle on the front side located at least 30 mm away from the nearest edge?
Yes
No
The wrinkle is within the acceptable limits.
Is the envelope 220 mm or longer (C5 or COM10)?
Yes
No
Check the position of the flap.
Checking the status of the wrinkle.
Load the envelope short edge feed in the SSF with the flap open.
The envelope is C5.
The envelope is COM-10.
Does the envelope have a flap on the long edge?
Yes
No
Checking the status of the wrinkle.
Load the envelope in the SSF with the flap open and face down.
Is the problem recovered?
Yes
No
END
Is the problem recovered?
Yes
No
END
Checking the status of the wrinkle.
Use a different size envelope.
Is the problem recovered?
Yes
No
END
Replace the Printer.

Flows 91 The top margin is incorrect / The side margin is incorrect



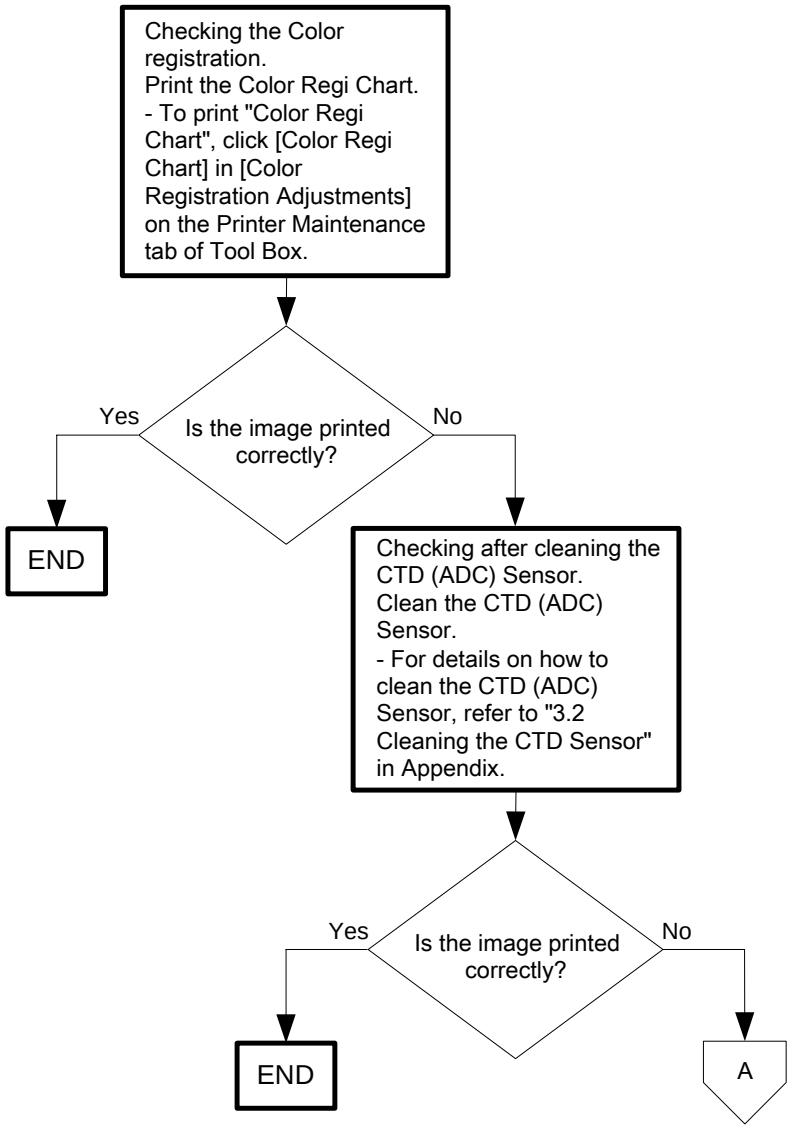


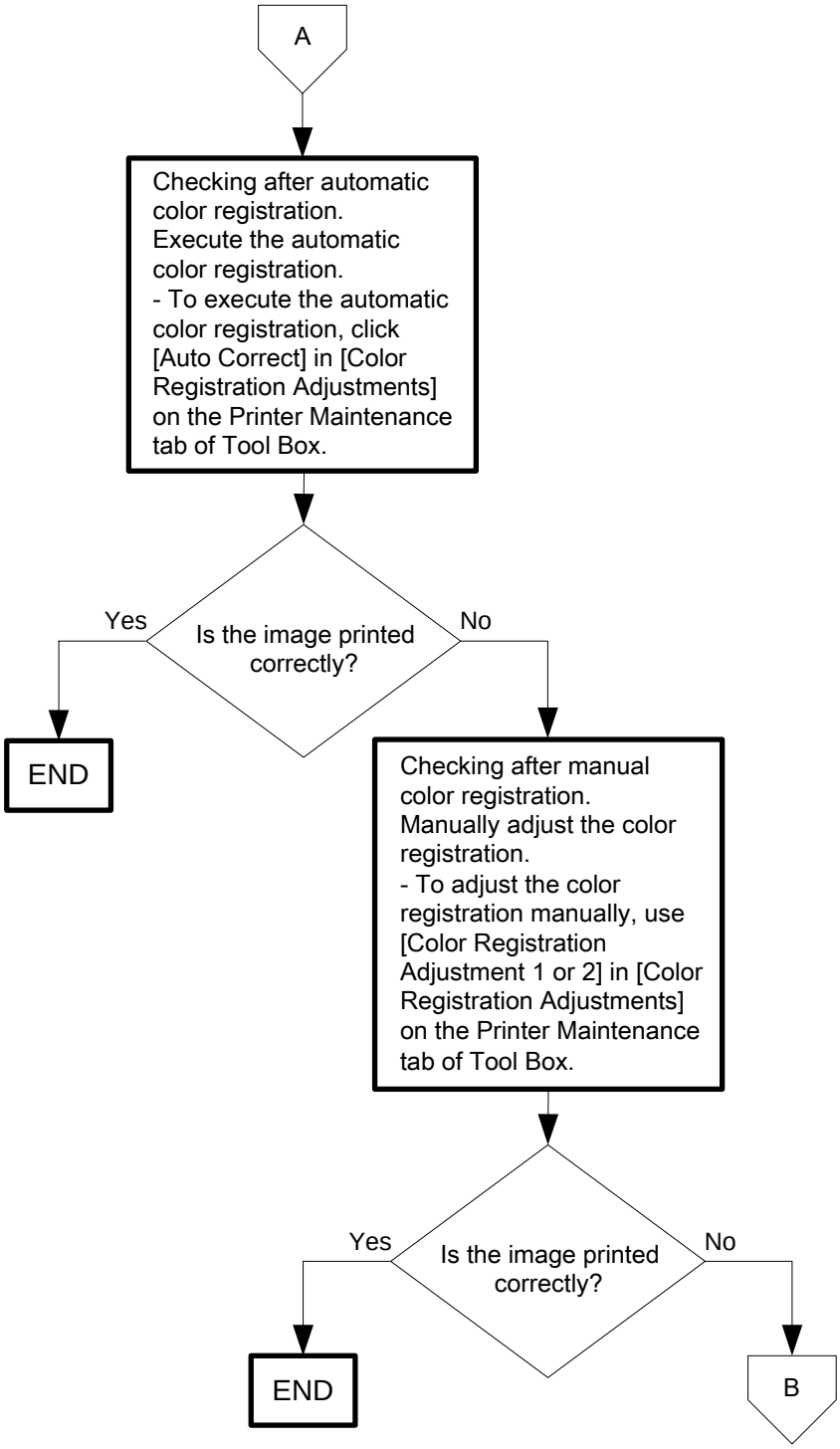
Flows 92 Color registration is out of alignment

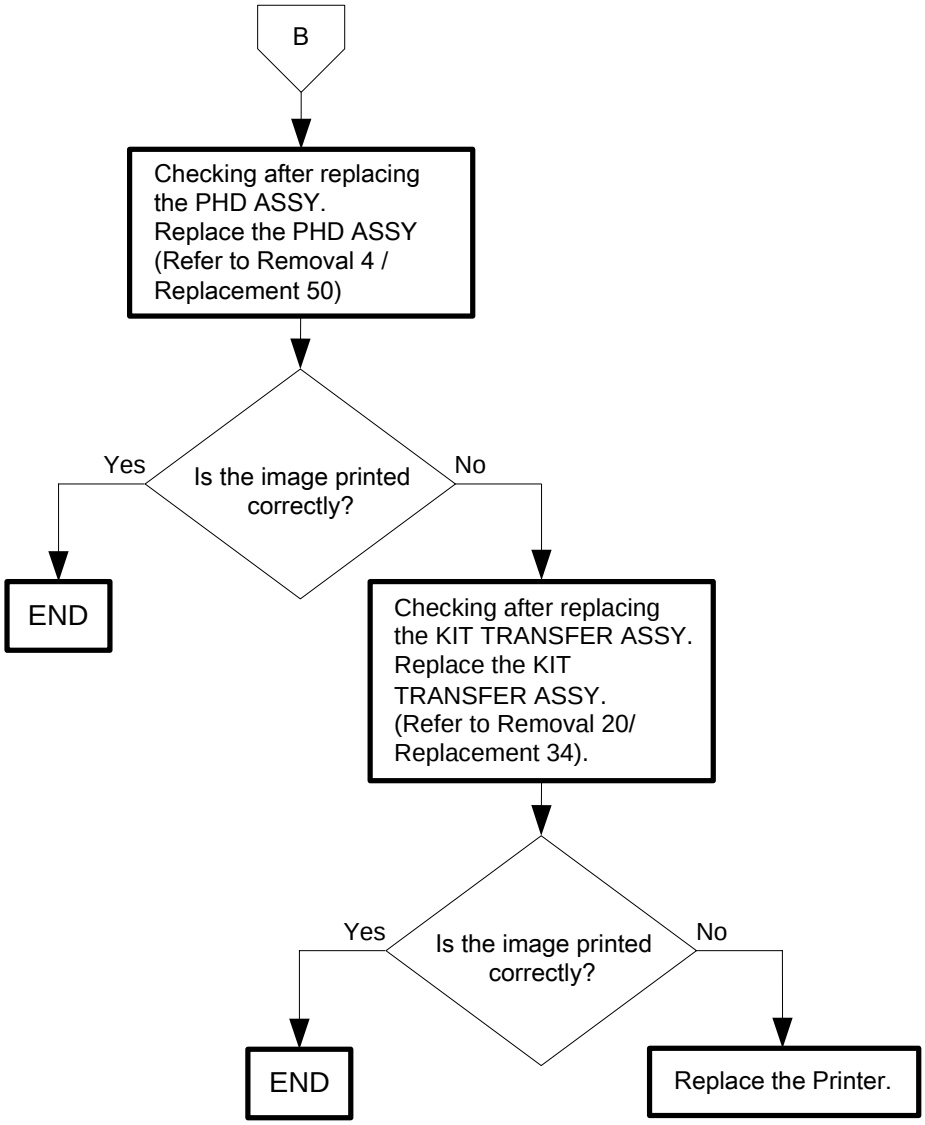


NOTE

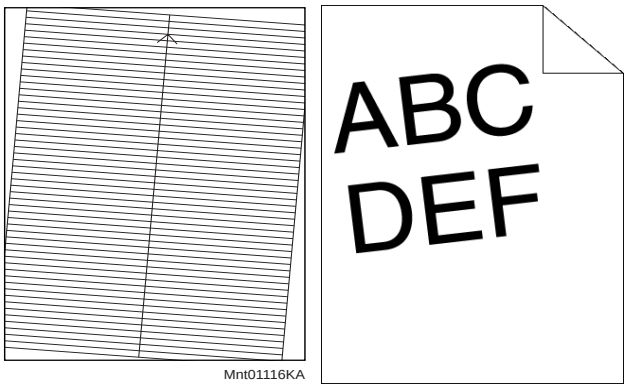
When the PHD Unit has been replaced, be sure to clean up the CTD (ADC) Sensor. Refer to "Appendix_3.2 Cleaning the CTD (ADC) Sensor" for how to clean up the CTD (ADC) Sensor.

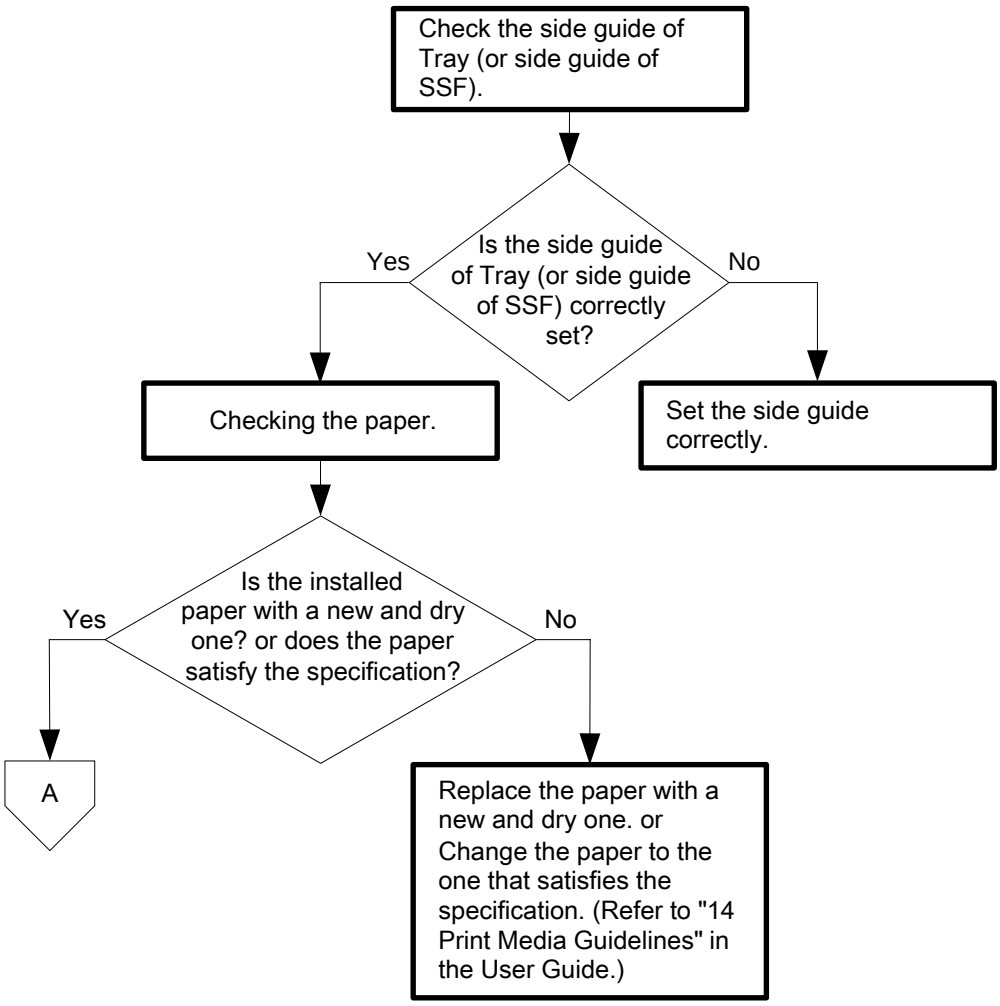


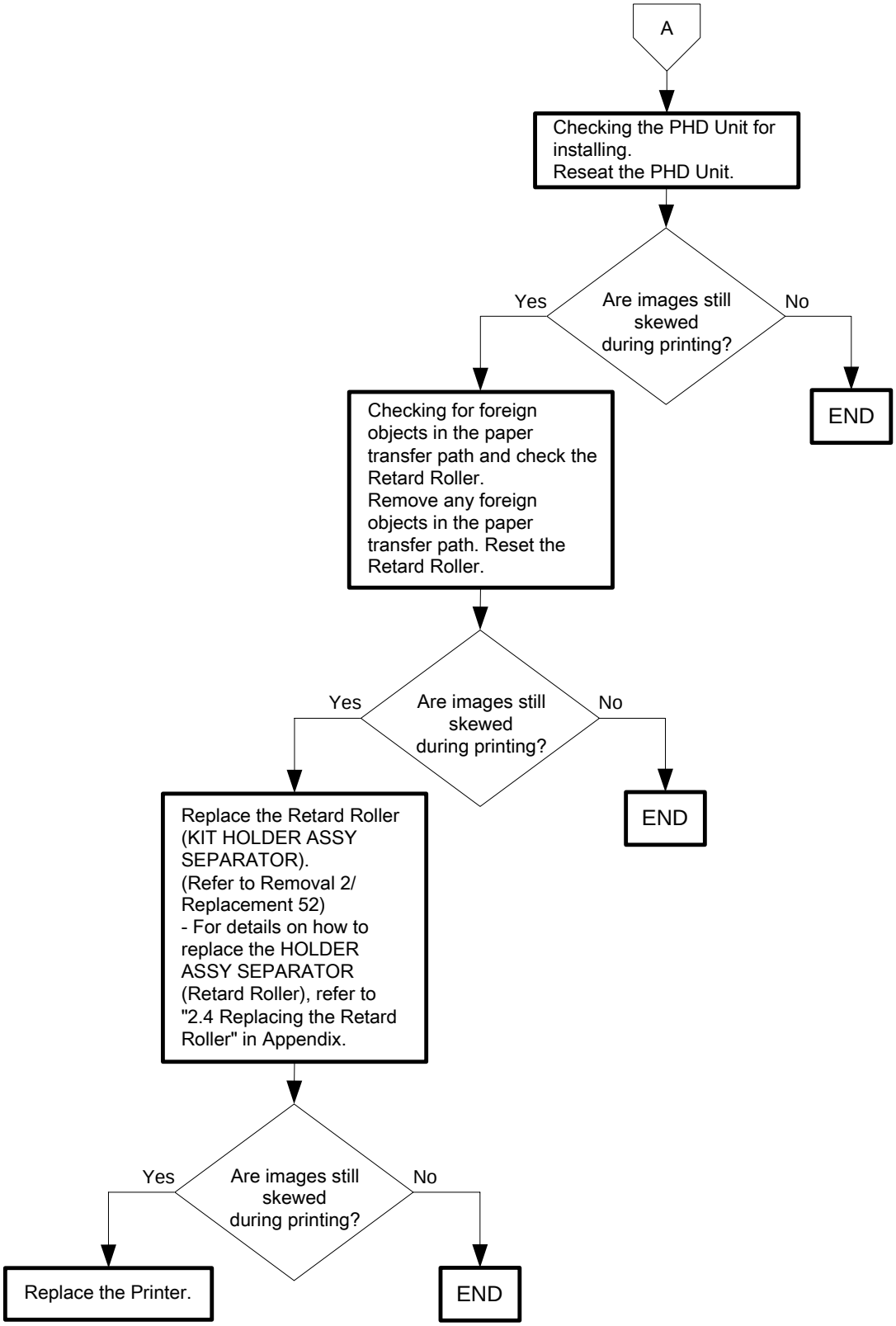

A
Checking after automatic color registration.
Execute the automatic color registration.
- To execute the automatic color registration, click [Auto Correct] in [Color Registration Adjustments] on the Printer Maintenance tab of Tool Box.
Is the image printed correctly?
Yes
No
END
Checking after manual color registration.
Manually adjust the color registration.
- To adjust the color registration manually, use [Color Registration Adjustment 1 or 2] in [Color Registration Adjustments] on the Printer Maintenance tab of Tool Box.
Is the image printed correctly?
Yes
No
END
B


B
Checking after replacing the PHD ASSY. Replace the PHD ASSY (Refer to Removal 4 / Replacement 50)
Is the image printed correctly?
Yes
No
END
Checking after replacing the KIT TRANSFER ASSY. Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34).
Is the image printed correctly?
Yes
No
END
Replace the Printer.

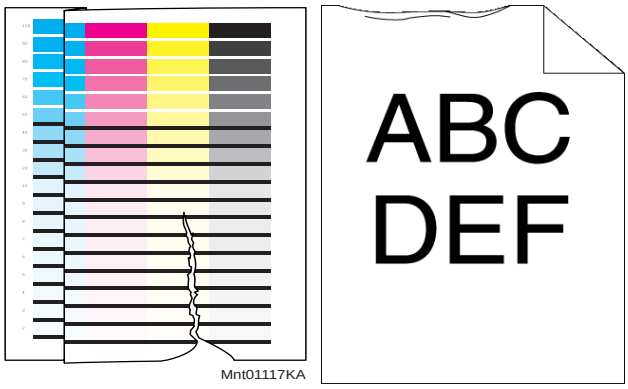
Flows 93 Images are skewed

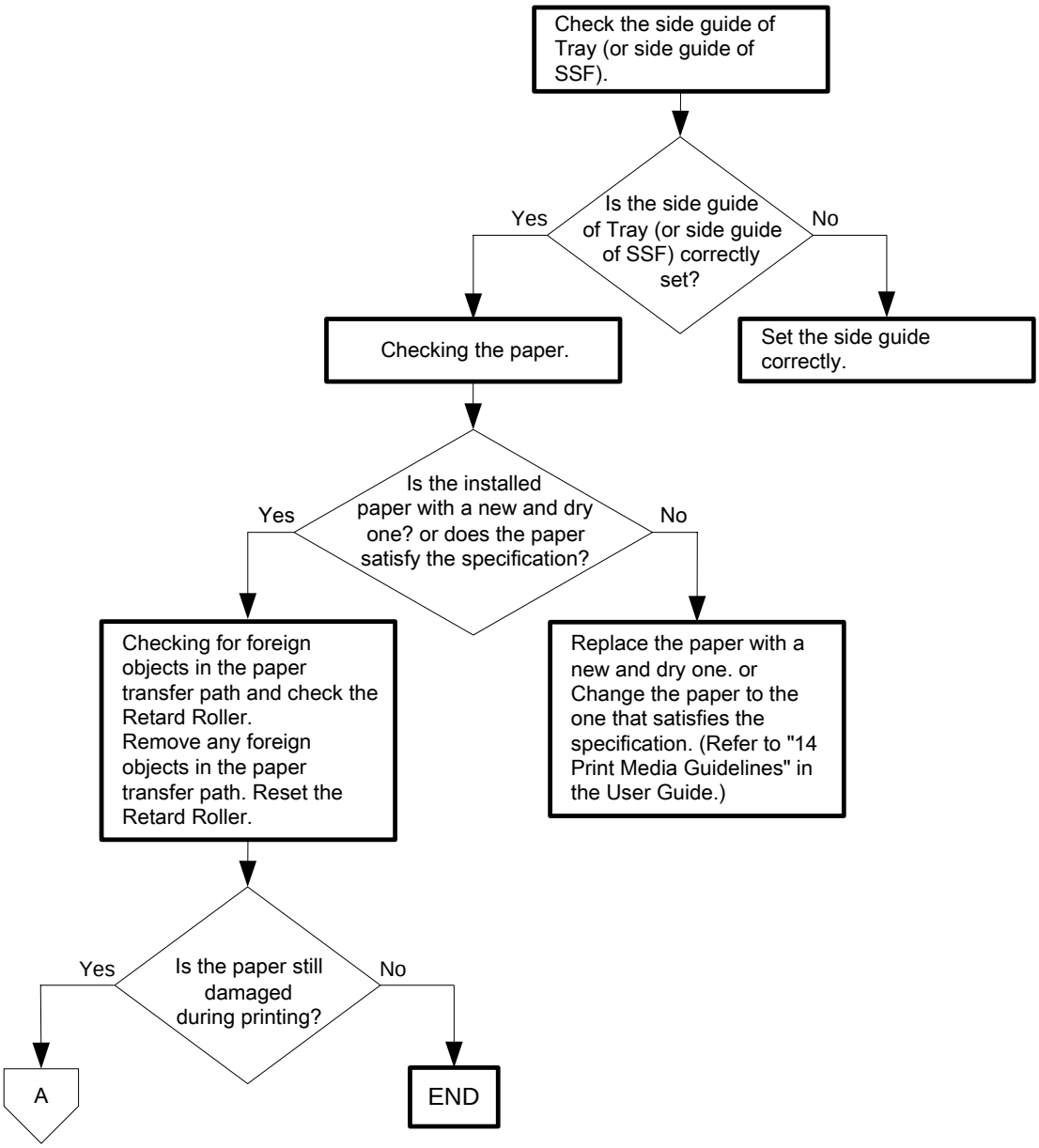


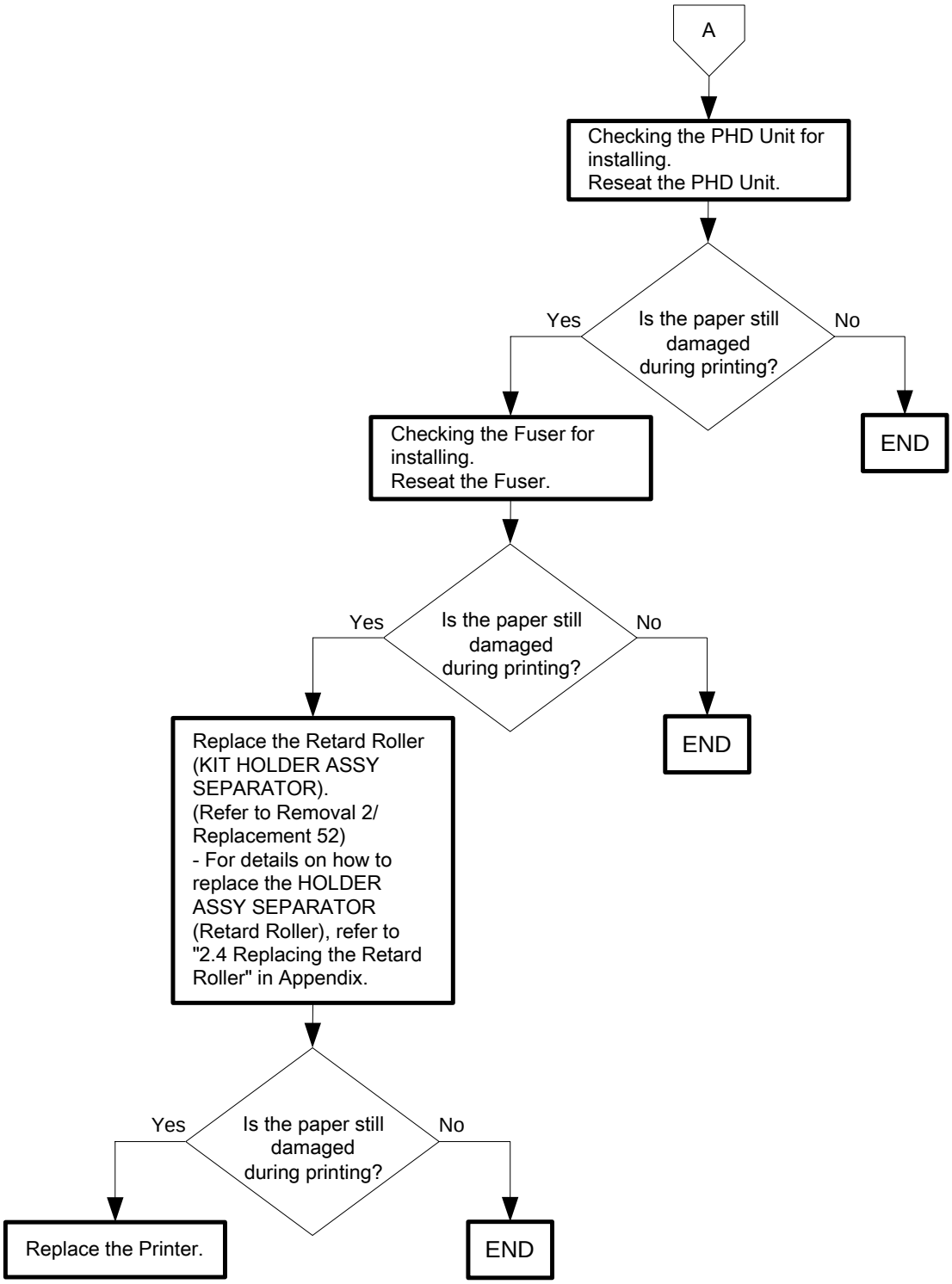



A
Checking the PHD Unit for installing.
Reseat the PHD Unit.
Are images still skewed during printing?
Yes
No
END
Checking for foreign objects in the paper transfer path and check the Retard Roller.
Remove any foreign objects in the paper transfer path. Reset the Retard Roller.
Are images still skewed during printing?
Yes
No
END
Replace the Retard Roller (KIT HOLDER ASSY SEPARATOR).
(Refer to Removal 2/ Replacement 52)
- For details on how to replace the HOLDER ASSY SEPARATOR (Retard Roller), refer to "2.4 Replacing the Retard Roller" in Appendix.
Are images still skewed during printing?
Yes
No
Replace the Printer.
END

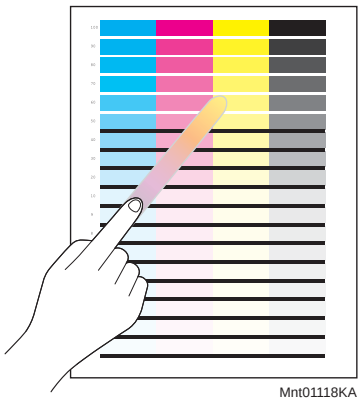
Flows 94 Page Damage





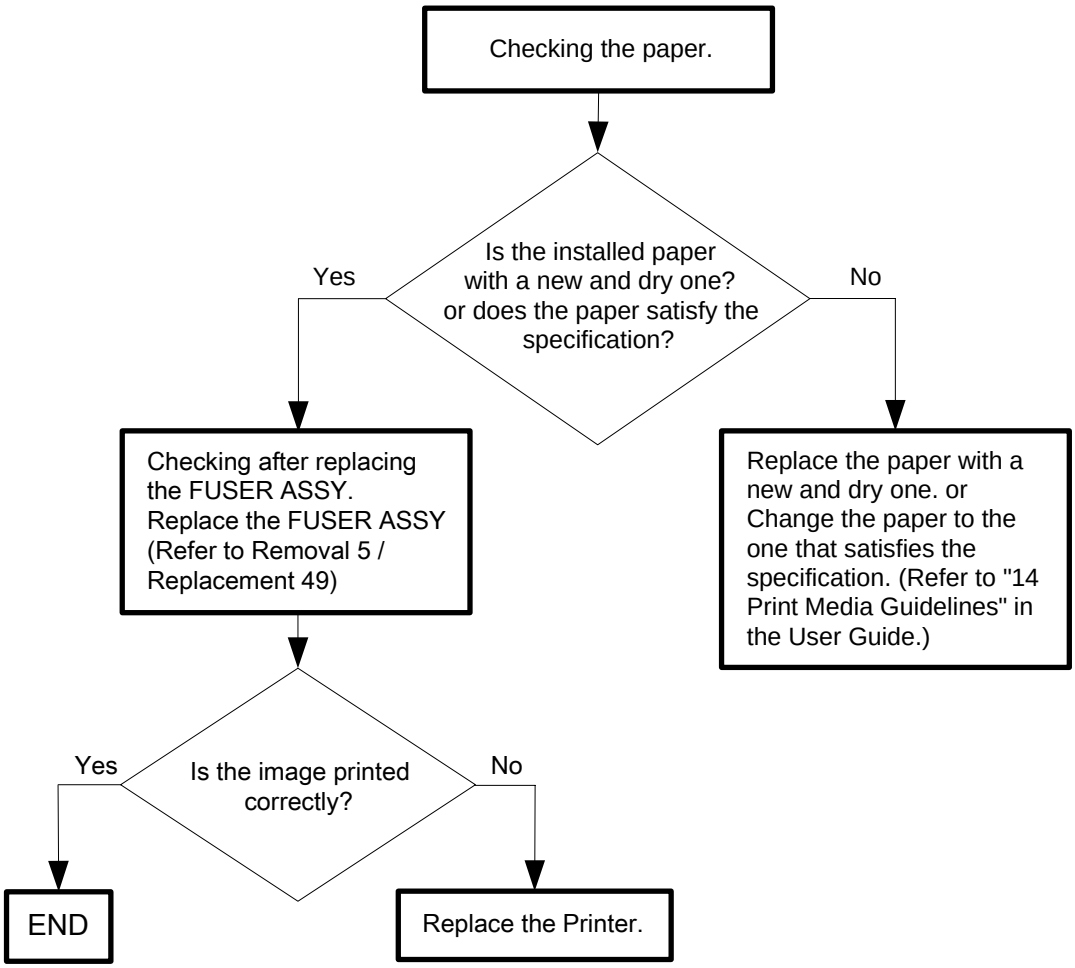

A
Checking the PHD Unit for installing.
Reseat the PHD Unit.
Is the paper still damaged during printing?
Yes
No
END
Checking the Fuser for installing.
Reseat the Fuser.
Is the paper still damaged during printing?
Yes
No
END
Replace the Retard Roller (KIT HOLDER ASSY SEPARATOR).
(Refer to Removal 2/ Replacement 52)
- For details on how to replace the HOLDER ASSY SEPARATOR (Retard Roller), refer to "2.4 Replacing the Retard Roller" in Appendix.
Is the paper still damaged during printing?
Yes
No
Replace the Printer.
END

Flows 95 Unfusing

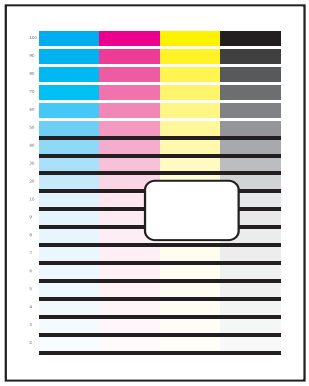


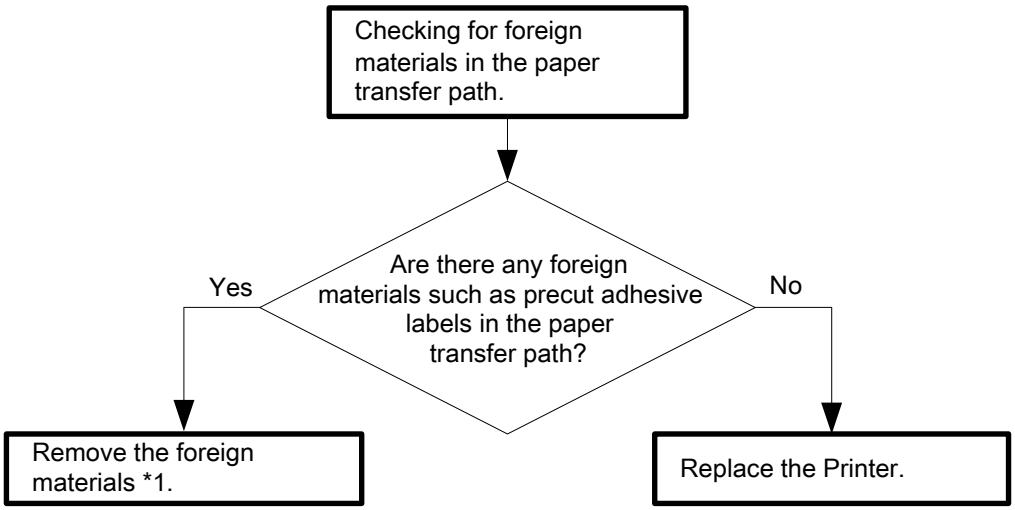
NOTE

When you have replaced the fuser, initialize the life counter of the Fuser. For details, refer to the supplied technical sheet.



Flows 96 Label Stuck



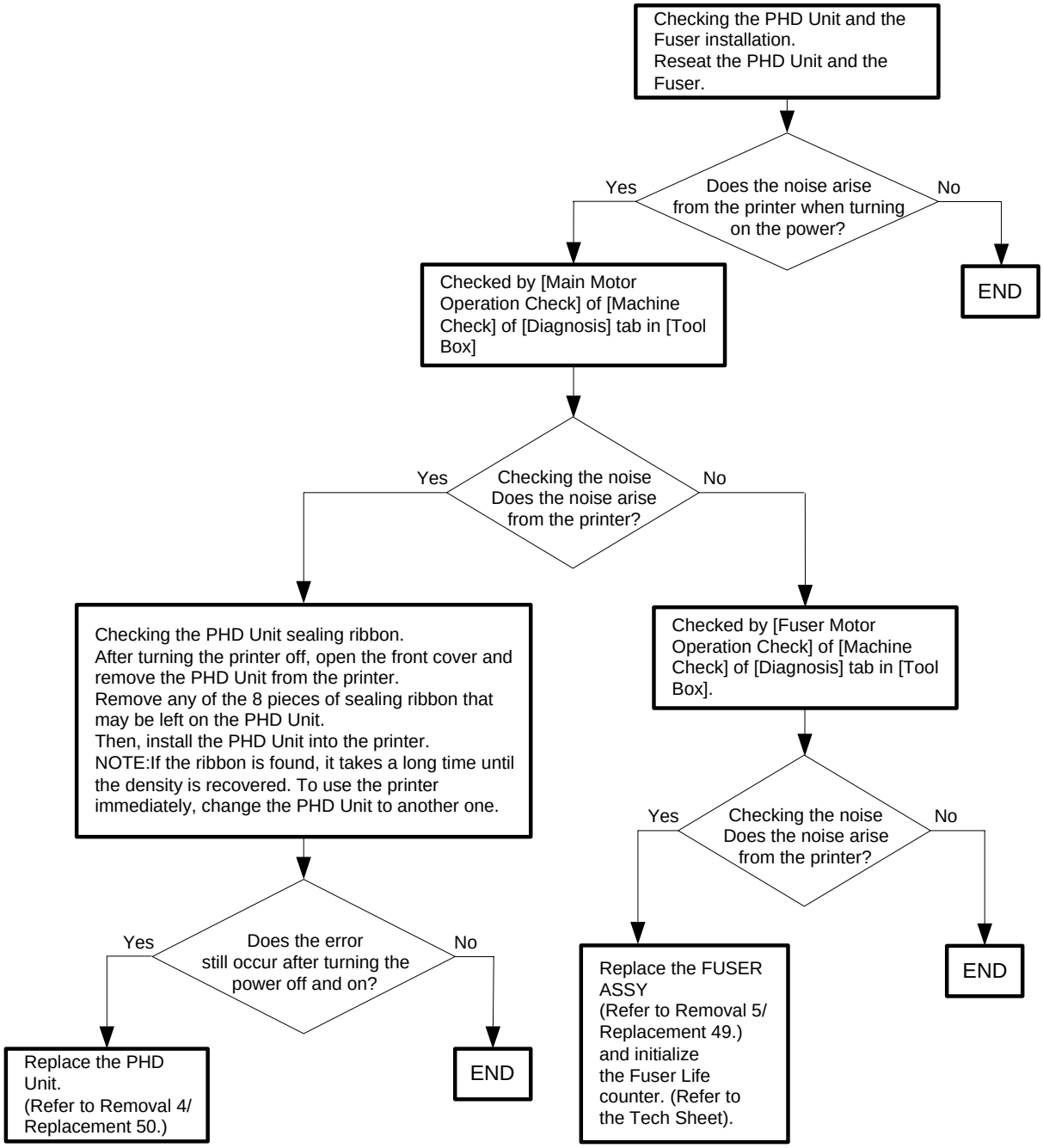


*1: If precut self-adhesive sheet labels are found, they may have been peeled off during printing. Since these self-adhesive labels remaining inside the printer may cause damages to the printer, check the label sheet for any portion that has peeled off or seems easy to peel off before loading it in the printer.
Never use any self-adhesive labels that have already been peeled off.

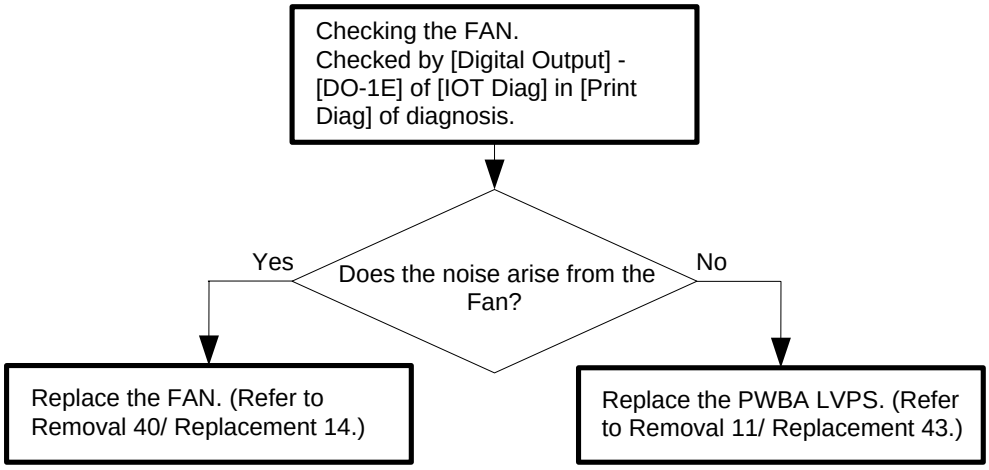
Flows 97 Noise: When Power is Turned On

NOTE

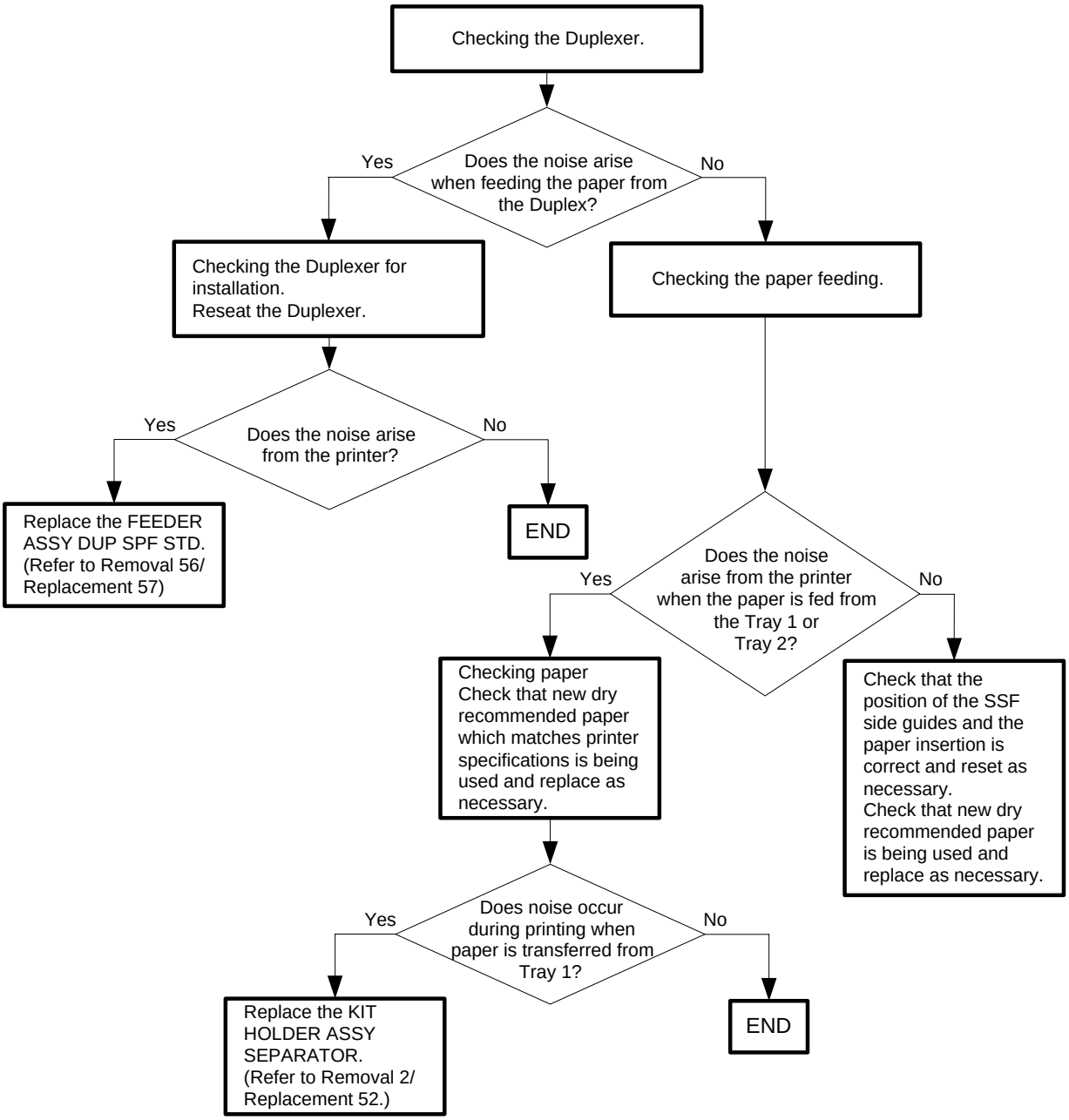
When you have replaced the fuser, initialize the life counter of the Fuser. For details, refer to the supplied technical sheet.



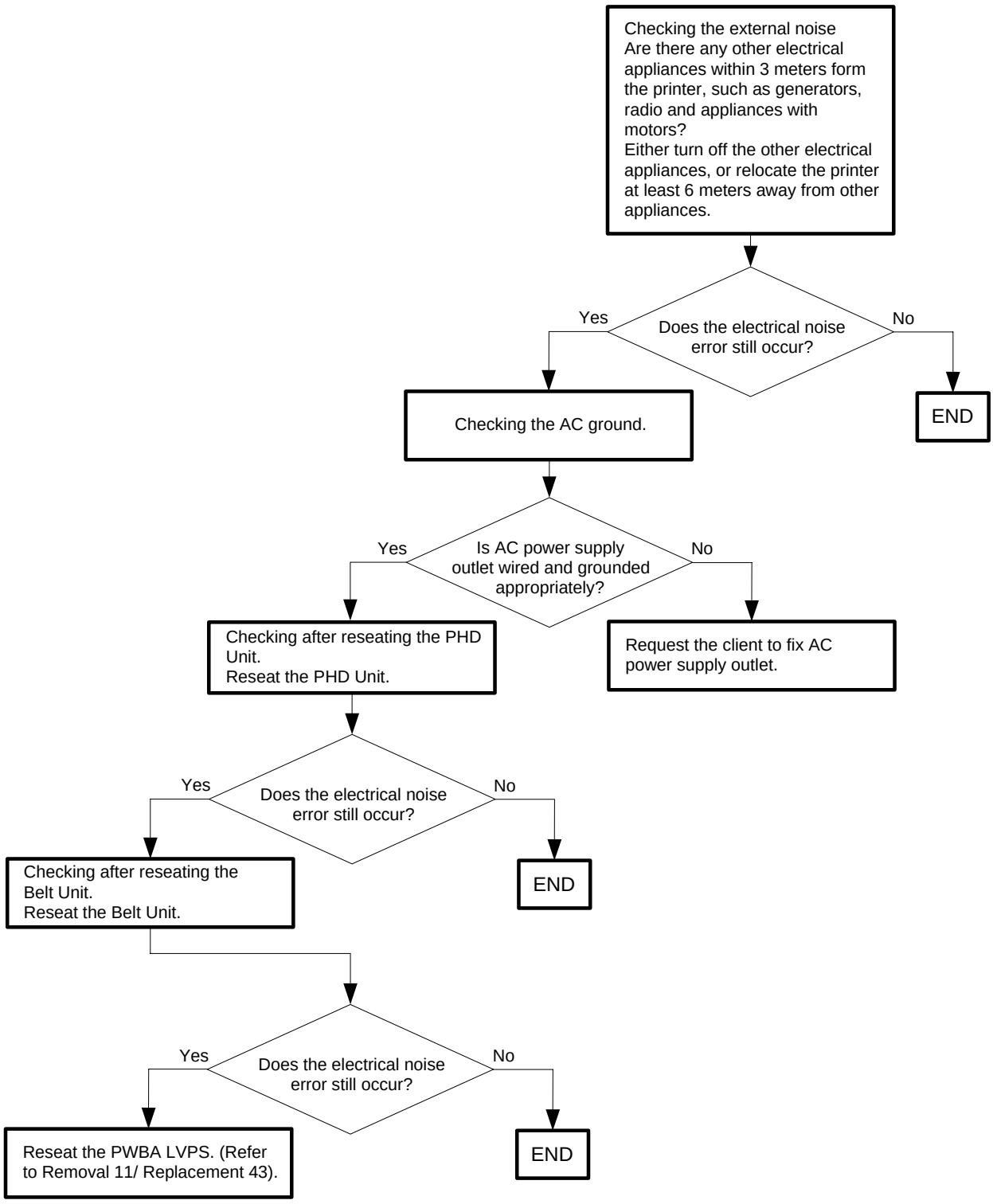
Flows 98 Noise: During Standby



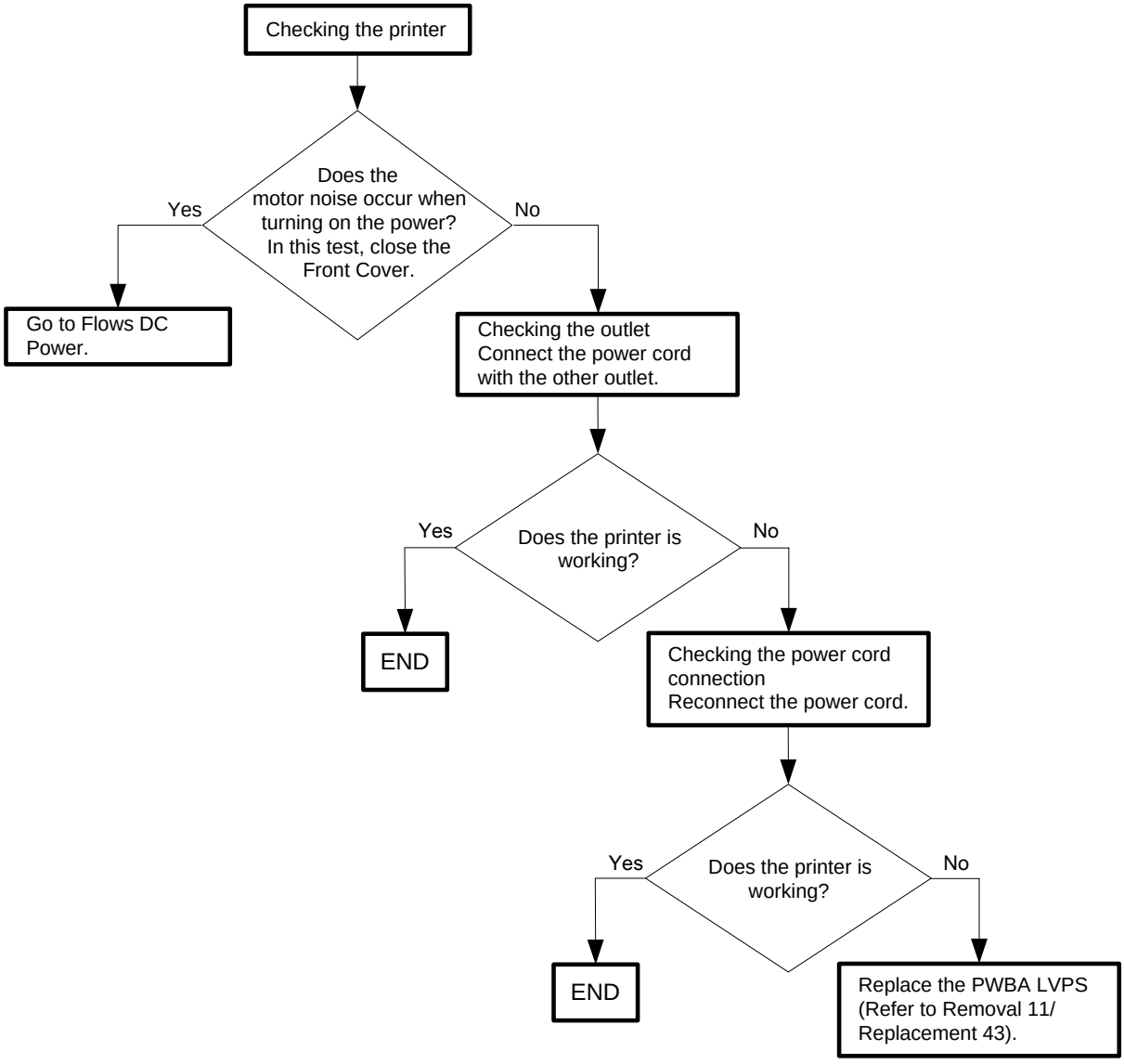
Flows 99 Noise: During Printing (Checking for other items than "power on mechanical noise")



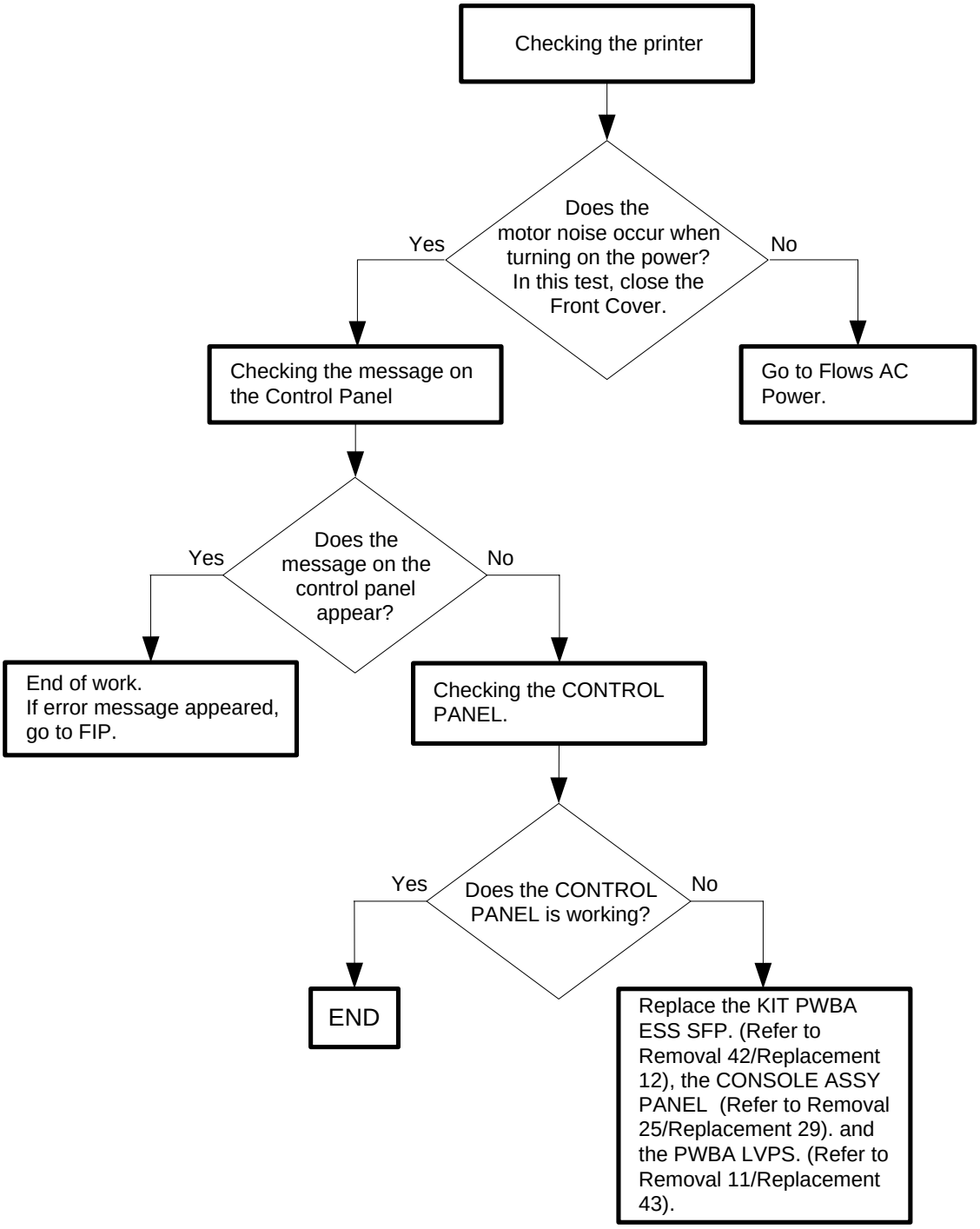
Flows 100 Electrical Noise



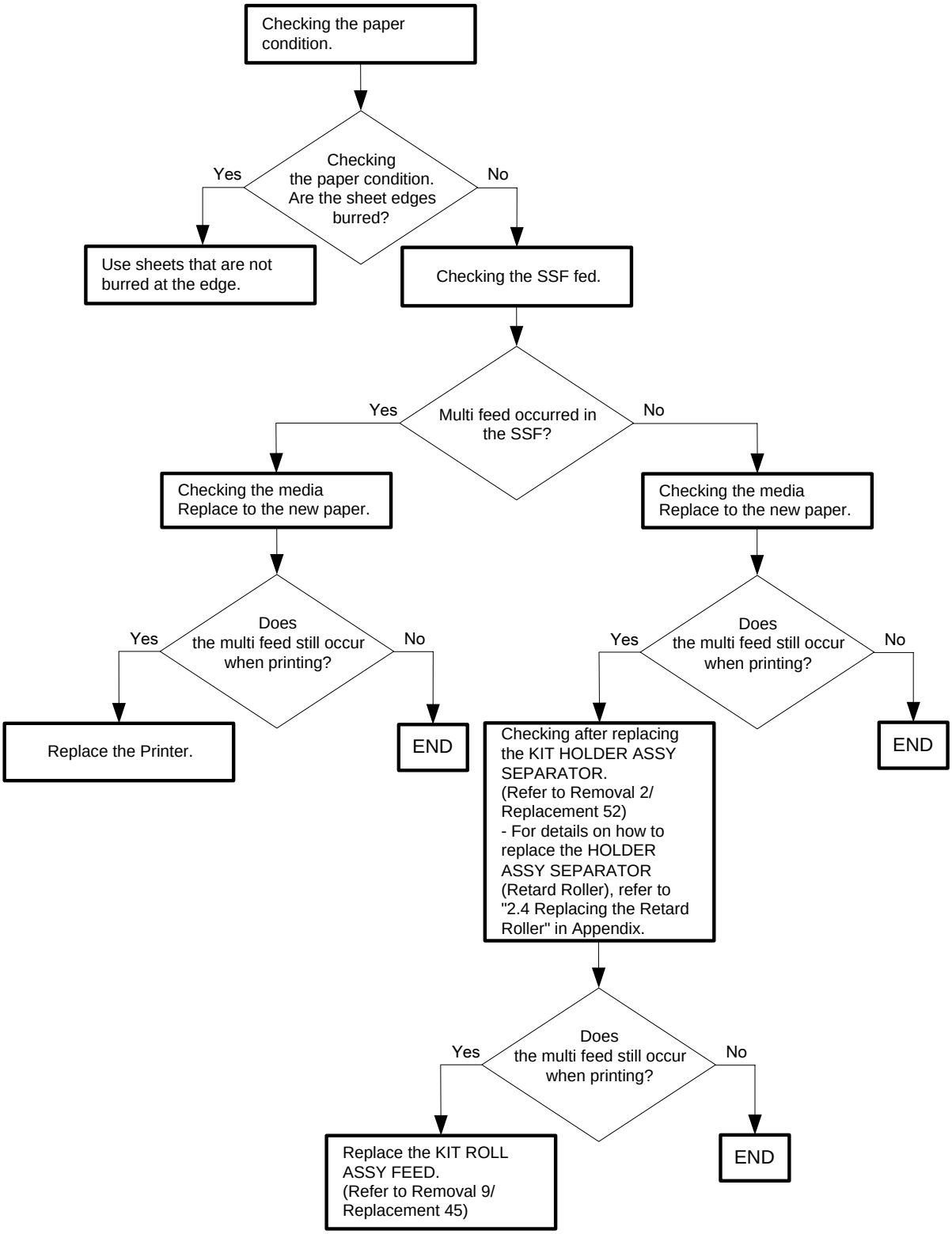
Flows 101 AC Power



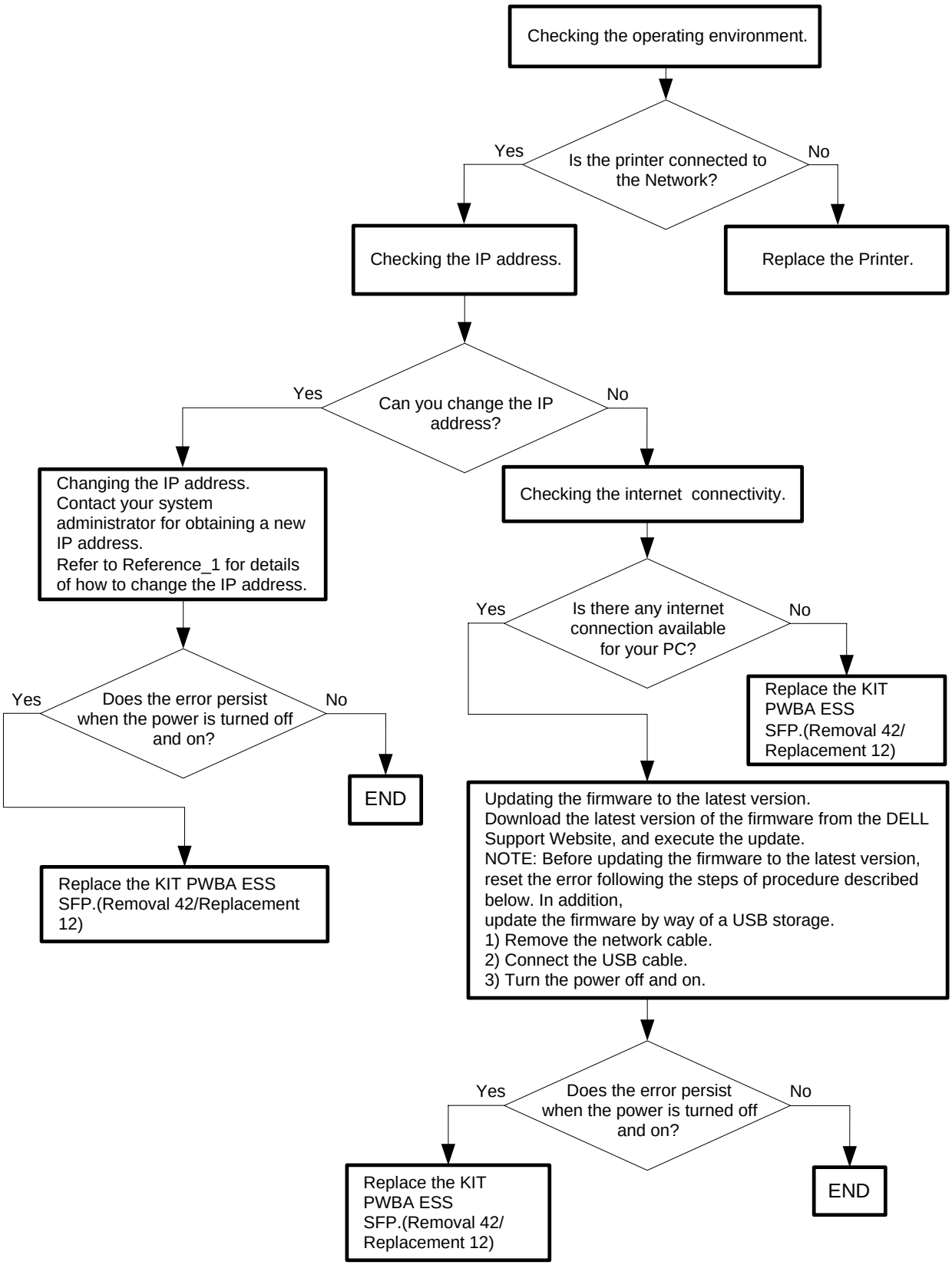
Flows 102 DC Power



Flows 103 Multiple feed



Flows 104 Control Panel Freezes



- Reference_1: Changing the IP address

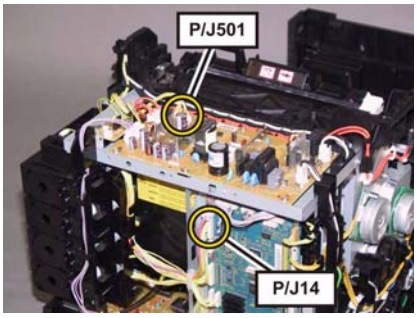
1) Remove the network cable, and power off the printer and then on.
2) Change the IP address on the Control Panel.
3) Plug the network cable back into the printer, and then turn the power on.
4) On the Control Panel, open [Admin] > [Network] > [TCP/IP], and confirm that the IP address has been changed.

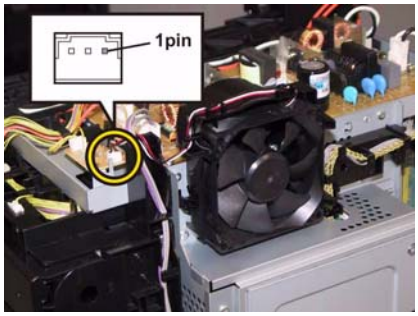
3.2 Troubleshooting for the repair center

NOTE

Refer to "3.1 Troubleshooting for the call center" for details of the error.

FIP-1.1 001-360: IOT Fan Motor Failure

Step	Check	Remedy	
		Yes	No
	Possible causative parts: FAN (PL8.1.1) PWBA LVPS (PL8.2.1) PWBA MCU (PL8.2.13) HARNESS ASSY LVPS MAIN MG SFP (PL9.1.3)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the FAN for rotation. Does the FAN function normally? Checked by [Digital Output] - [DO-1E or DO-1F] in [IOT Diag] of diagnosis. During this check, close the COVER ASSY FRONT MG.	Replace the PWBA MCU. (Refer to Removal 43 / Replacement 11.)	Go to step 3.
3	Check the connection between the FAN and the PWBA LVPS. Is P/J503 on the PWBA LVPS connected correctly?	Go to step 5.	Reconnect the connector P/J 503 correctly, then go to step 4.
4	Does the error still occur when the power is turned OFF and ON?	Go to step 5.	End of work.
5	Check the connections between the PWBA LVPS and PWBA MCU. Are P/J501 and P/J14 connected correctly? 	Go to step 7.	Reconnect the connector(s) P/J501 and P/J14 correctly, then go to step 6.
6	Does the error still occur when the power is turned OFF and ON?	Go to step 7.	End of work.
7	Checking the HARNESS ASSY LVPS MAIN MG SFP for continuity. Disconnect J501 from the PWBA LVPS. Disconnect J14 from the PWBA MCU. Is each cable of J501 <=> J14 continuous?	Go to step 8.	Replace the HARNESS ASSY LVPS MAIN MG SFP.

Step	Check	Remedy	
		Yes	No
8	Checking the power to the FAN. Disconnect J503 from the PWBA LVPS. Is the voltage across P503-1pin <=> ground on the PWBA LVPS, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed? 	Replace the FAN. (Refer to Removal 40/ Replacement 14.)	Go to step 9.
9	Checking after replacing the PWBA LVPS. Replace the PWBA LVPS. (Refer to Removal 11/ Replacement 43.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.2 003-340: IOT Firmware Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA MCU (PL8.2.13)		
1	Does the error still occur after several ON/OFF procedures of the power?	Go to step 2.	End of work. *1
2	Checking the firmware version. Is the firmware the latest version?	Go to step 3.	Upgrade the firmware, then go to step 3.
3	Checking after resetting the PWBA MCU. Reseat the PWBA MCU. Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work. *1
4	Checking after replacing the PWBA MCU. Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.) Does the error still occur when the power is turned OFF and ON?	Go to Electrical Noise.	End of work.

*1: Though some kind of foreign noise would be possible cause, go to FIP Electrical Noise in Other FIP and check, to make sure.

FIP-1.3 003-356: IOT NVRAM Error

NOTE

If the error occurred after replacing the PWBA MCU, transfer the internal data of the old PWBA MCU to a new one.

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PHD ASSY (PL4.1.21) PWBA MCU (PL8.2.13) PWBA EEPROM (XPRO) (PL8.2.16) HARN ASSY PHD XPRO (PL9.1.11)		
1	Does the error still occur after several ON/OFF procedures of the power?	Go to step 2.	End of work. *1
2	Checking after resetting the PHD ASSY and TONER CARTRIDGEs. Reseat the PHD ASSY and four TONER CARTRIDGEs. Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work. *1
3	Checking after resetting the PWBA MCU. Reseat the PWBA MCU. Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work. *1
4	Checking the connectors for connection. Check the connections between the PWBA EEPROM and PWBA MCU. Are P/J 144, and P/J 42 connected surely?	Go to step 6.	Reconnect the connector(s) P/J42 and P/J144 surely, then go to step 5.
5	Does the error still occur when the power is turned OFF and ON?	Go to step 6.	End of work.
6	Checking the HARN ASSY PHD XPRO for continuity. Disconnect J42 from the PWBA MCU. Disconnect J144 from the PWBA EEPROM (XPRO). Is each cable of J42 <=> J144 continuous?	Go to step 7.	Replace the HARN ASSY PHD XPRO.
7	Checking the power to the PWBA EEPROM (XPRO). Disconnect J42 from the PWBA MCU. Is the voltage across P42-3pin <=> ground on the PWBA MCU, about +3.3 VDC?	Replace the PWBA EEPROM (XPRO).	Go to step 8.
8	Checking after replacing the PWBA MCU. Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.) Does the error still occur when the power is turned OFF and ON?	Go to Electrical Noise.	End of work.

*1: Though some kind of foreign noise would be possible cause, go to FIP Electrical Noise in Other FIP and check, to make sure.

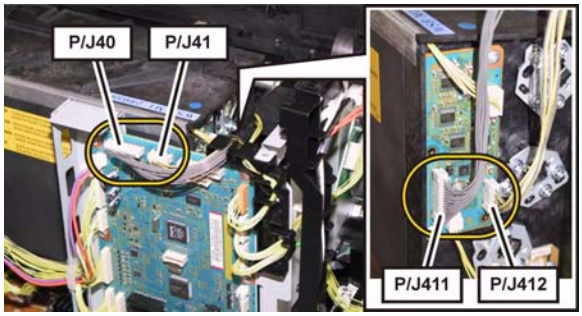
FIP-1.4 004-311: IOT Duplexer Failure (2150cdn only)

Step	Check	Remedy	
		Yes	No
	Possible causative parts: HARN ASSY DUP RELAY (PL1.2.13) PWBA MCU (PL8.2.13) HARNESS ASSY DUP (PL11.1.14) FEEDER ASSY DUP SFP STD (PL11.1.1) HARN ASSY OPTION (PL3.1.20)		
1	Checking the Option Duplex for installation. Is the Option Duplex installed correctly?	Go to step 3.	Reseat the Option Duplex, then go to step 2.
2	Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking the connectors for connection. Check the connections between the PWBA DUP and PWBA MCU. Are P/J27, P/J271,P/J272 and P/J 601 connected surely?	Go to step 5.	Reconnect the connector(s) P/J27, P/J271,P/J272 and/or P/J 601 surely, then go to step 4.
4	Does the error still occur when the power is turned OFF and ON?	Go to step 5.	End of work
5	Checking the HARNESS ASSY DUP for continuity. Disconnect P/J601 from the PWBA DUP. Disconnect P/J272 from the HARNE ASSY DUP. Is each cable of P/J601 <=> P/J272 continuous?	Go to step 6.	Replace the HARNESS ASSY DUP.
6	Checking the HARN ASSY DUP RELAY for continuity. Disconnect P/J271 from the HARNESS ASSY DUP. Disconnect P/J 272 from the HARN ASSY OPTION. Is each cable of P/J271<=> P/J272 continuous?	Go to step 7.	Replace the HARN ASSY DUP RELAY. (Refer to Removal 28/ Replacement 26.)
7	Checking the HARN ASSY OPTION for continuity. Disconnect P/J27 from the PWBA MCU. Disconnect P/J 271 from the HARN ASSY DUP RELAY. Is each cable of P/J27<=> P/J271 continuous?	Go to step 8.	Replace the HARN ASSY OPTION.
8	Checking after replacing the FEEDER ASSY DUP SFP STD. Replace the FEEDER ASSY DUP SFP STD.(Refer to Removal 56/ Replacement 57.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

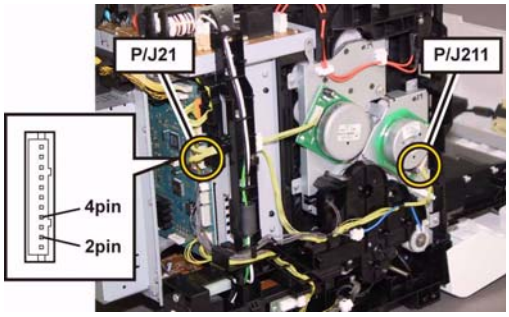
FIP-1.5 004-312: IOT Feeder Configuration Failure

Step	Check	Remedy	
		Yes	No
	Possible causative parts: HARN ASSY OPTION (PL3.1.20) PWBA MCU (PL8.2.13) KIT FEEDER ASSY OPT (PL12.1.99) HARN ASSY TRAY (PL12.3.23)		
1	Checking the Optional Feeder for installation. Is the Optional Feeder installed correctly?	Go to step 3.	Reseat the Optional Feeder, then go to step 2.
2	Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking the connectors for connection. Check the connections between the PWBA FEED H and PWBA MCU. Are P/J27, P/J273, and P/J419 connected surely?	Go to step 5.	Reconnect the connector(s) P/J27, P/J273 and/or P/J419 surely, then go to step 4.
4	Does the error still occur when the power is turned OFF and ON?	Go to step 5.	End of work.
5	Checking the HARN ASSY TRAY for continuity. Disconnect P/J419 from the PWBA FEED H. Disconnect P/J273 from the HARN ASSY OPTION. Is each cable of P/J419 <=> P/J273 continuous?	Go to step 6.	Replace the HARN ASSY TRAY.
6	Checking the HARN ASSY OPTION for continuity. Disconnect P/J27 from the PWBA MCU. Disconnect P/J273 from the HARN ASSY TRAY. Is each cable of P/J27 <=> P/J273 continuous?	Go to step 7.	Replace the HARN ASSY OPTION.
7	Checking after replacing the KIT FEEDER ASSY OPT. Replace the KIT FEEDER ASSY OPT. (Refer to Removal 58/ Replacement 59.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

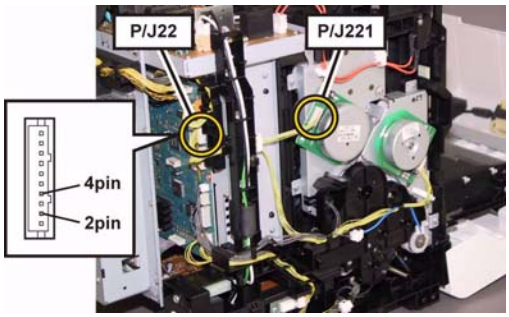
FIP-1.6 006-370: IOT ROS Failure

Step	Check	Remedy	
		Yes	No
	Possible causative parts: ROS ASSY (PL4.1.1) HARN ASSY ROS RE (PL4.1.22) HARN ASSY ROS VIDEO (PL4.1.23) PWBA MCU (PL8.2.13)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking after resetting the PWBA MCU. Reseat the PWBA MCU. Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking after resetting the ROS ASSY. Reseat the ROS ASSY. Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Check the connections between the ROS ASSY and PWBA MCU. Are P/J40, P/J41, P/J411 and P/J412 connected correctly? 	Go to step 6.	Reconnect the connector(s) P/J40, P/J41, P/J411 and/or P/J412 correctly, then go to step 5.
5	Does the error still occur when the power is turned OFF and ON?	Go to step 6.	End of work.
6	Checking the HARN ASSY ROS RE for continuity. Disconnect P/J40 from the PWBA MCU. Disconnect P/J411 from the ROS ASSY. Is each cable of J40 <=> J411 continuous?	Go to step 7.	Replace the HARN ASSY ROS RE.
7	Checking the HARN ASSY ROS VIDEO for continuity. Disconnect J41 from the PWBA MCU. Disconnect J412 from the ROS ASSY. Is each cable of J41 <=> J412 continuous?	Go to step 8.	Replace the HARN ASSY ROS VIDEO.
8	Checking after replacing the KIT ROS. Replace the KIT ROS. (Refer to Removal 45/Replacement 9.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.7 007-340: IOT Main Motor Failure

Step	Check	Remedy	
		Yes	No
	Possible causative parts: DRIVE ASSY MAIN (PL7.1.2) PWBA MCU (PL8.2.13) HARN ASSY MAIN MOT MG SFP (PL9.1.7)		
1	Does the error occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking the Main Motor for rotation. Does the Main Motor function normally? - PC Operation : Checked by [Main Motor Operation Check] of the [Machine Check] in Tool Box. - Panel Operation : Checked by [Digital Output]-[DO-0] of [IOT Diag] in diagnosis.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Go to step 4.
4	Checking the connectors of the MAIN MOTOR for connection. Check the connections between the PWBA MCU and DRIVE ASSY MAIN. Are P/J21 and P/J211 connected correctly? 	Go to step 6.	Reconnect the connector(s) P/J21 and/or P/J211 correctly, then go to step 5.
5	Does the error still occur when the power is turned OFF and ON?	Go to step 6.	End of work.
6	Checking the HARN ASSY MAIN MOT MG SFP for continuity. Disconnect J21 from the PWBA MCU. Disconnect J211 from the DRIVE ASSY MAIN. Is each cable of J21 <=> J211 continuous?	Go to step 7.	Replace the HARN ASSY MAIN MOT MG SFP.
7	Checking after resetting the DRIVE ASSY MAIN. Reseat the DRIVE ASSY MAIN. Does the error still occur when the power is turned OFF and ON?	Go to step 8.	End of work.
8	Checking the power to the DRIVE ASSY MAIN. Disconnect J21 from the PWBA MCU. Are the voltages across J21-2pin/J21-4pin <=> ground on the PWBA MCU, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed?	Replace the KIT DRIVE ASSY MAIN. (Refer to Removal 32/ Replacement 22.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

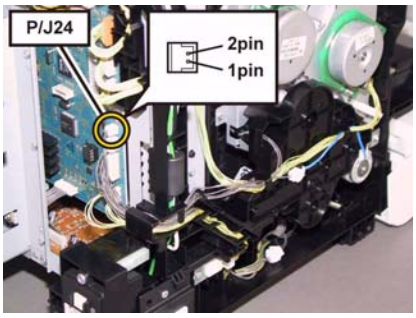
FIP-1.8 007-341: IOT Sub Motor Failure

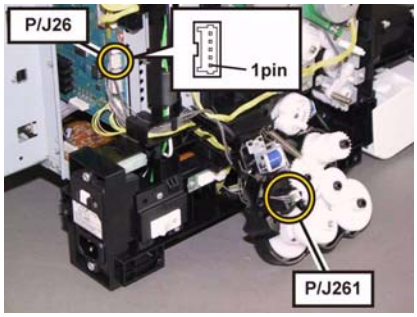
Step	Check	Remedy	
		Yes	No
	Possible causative parts: DRIVE ASSY SUB (PL7.1.1) PWBA MCU (PL8.2.13) HARN ASSY SUB MOT MG SFP (PL9.1.8)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking after resetting the FUSER ASSY and PHD ASSY Reseat the FUSER ASSY and PHD ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking the Sub Motor for rotation. Does the Sub Motor function normally? - PC Operation : Checked by [Fuser Motor Operation Check] of the [Machine Check] in Tool Box. - Panel Operation : Checked by [Digital Output]-[DO-5] of [IOT Diag] in diagnosis.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Go to step 4.
4	Checking the connectors of the SUB MOTOR for connection. Check the connections between the PWBA MCU and DRIVE ASSY SUB. Are P/J22 and P/J221 connected correctly? 	Go to step 6.	Reconnect the connector(s) P/J22 and/or P/J221 correctly, then go to step 5.
5	Does the error still occur when the power is turned OFF and ON?	Go to step 6.	End of work.
6	Checking the HARN ASSY SUB MOT MG SFP for continuity. Disconnect J22 from the PWBA MCU. Disconnect J221 from the DRIVE ASSY SUB. Is each cable of J22 <=> J221 continuous?	Go to step 7.	Replace the HARN ASSY SUB MOT MG SFP.
7	Checking after resetting the DRIVE ASSY SUB. Reseat the DRIVE ASSY SUB. Does the error still occur when the power is turned OFF and ON?	Go to step 8.	End of work.
8	Checking the power to the DRIVE ASSY SUB. Disconnect J22 from the PWBA MCU. Are the voltages across J22-2pin/J22-4pin <=> ground on the PWBA MCU, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed?	Replace the DRIVE ASSY SUB. (Refer to Removal 33/ Replacement 21.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

FIP-1.9 007-344: 250 FEEDER Motor Failure

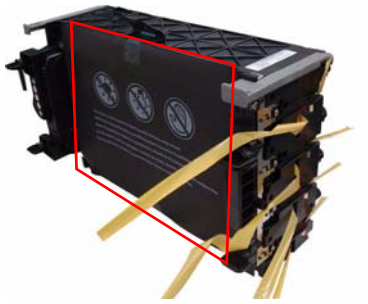
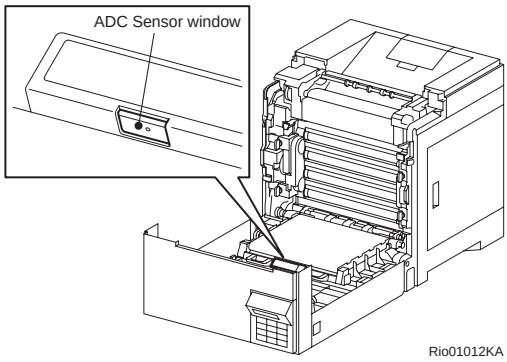
Step	Check	Remedy	
		Yes	No
	Possible causative parts: MOTOR ASSY SUB (PL12.2.16) PWBA FEED H (PL12.2.1) HARNESS ASSY TRAY MOT (PL12.2.2) KIT FEEDER ASSY OPT (PL12.1.99)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the connectors of the MOTOR ASSY SUB for connection. Check the connections between the PWBA FEED H and MOTOR ASSY SUB. Are P/J422 and P/J4221 connected correctly?	Go to step 4.	Reconnect the connector(s) P/J422 and/or P/J4221 correctly, then go to step 3.
3	Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking the HARNESS ASSY TRAY MOT for continuity. Disconnect J422 from the PWBA FEED H. Disconnect J4221 from the MOTOR ASSY SUB. Is each cable of J422 <=> J4221 continuous?	Go to step 5.	Replace the HARNESS ASSY TRAY MOT.
5	Checking after resetting the MOTOR ASSY SUB. Reseat the MOTOR ASSY SUB. Does the error still occur when the power is turned OFF and ON?	Replace the KIT FEEDER ASSY OPT. (Refer to Removal 58/ Replacement 59.)	End of work.

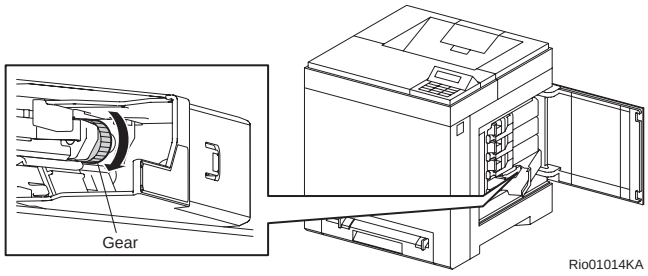
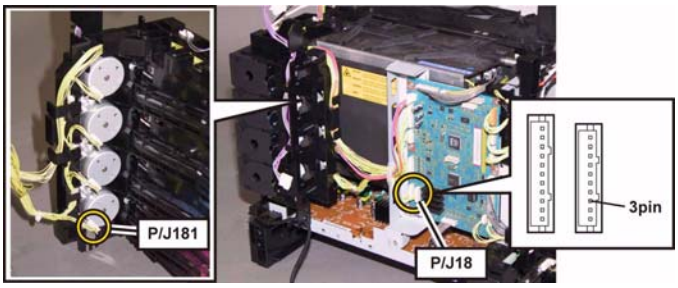
FIP-1.10 007-371 / 007-372: IOT K Mode Solenoid Error 1/2

Step	Check	Remedy	
		Yes	No
	Possible causative parts: DRIVE ASSY PH (PL7.1.4) PWBA MCU (PL8.2.13) HARN ASSY KSNR REGCL (PL9.1.9)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the K Mode Solenoid (Color Mode Switching Solenoid) for operation. Does the K Mode Solenoid function normally? Checked by [Digital Output] - [DO-a] in [IOT Diag] of diagnosis. During this check, close the COVER ASSY FRONT MG. Does the K Mode Solenoid click sound arise from the DRIVE ASSY PH, when the K Mode Solenoid check is performed?	Go to step 3.	Go to step 4.
3	Checking after resetting the DRIVE ASSY PH. Reseat the DRIVE ASSY PH. Does the error still occur when the power is turned OFF and ON?	Go to step 8.	End of work.
4	Checking the connector of the K Mode Solenoid in the DRIVE ASSY PH for connection. Check the connection between the PWBA MCU and K Mode Solenoid. Is P/J24 connected correctly? 	Go to step 6.	Reconnect the connector P/J24 correctly, then go to step 5.
5	Does the error still occur when the power is turned OFF and ON?	Go to step 6.	End of work.
6	Checking the power to the K Mode Solenoid. Disconnect J24 from the PWBA MCU. Is the voltage across P24-1pin <=> ground on the PWBA MCU, about +24 VDC when the Interlock Switch (HARN ASSY INTERLOCK) is pushed?	Go to step 7.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
7	Checking the K Mode Solenoid for resistance. Disconnect P/J24 from the PWBA MCU. Is the resistance across J24-1 and J24-2 about 80 to 110-ohm?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the KIT DRIVE ASSY PH. (Refer to Removal 31/ Replacement 23.)

Step	Check	Remedy	
		Yes	No
8	Checking the connectors of the K Mode Sensor in the DRIVE ASSY PH for connection Check the connections between the PWBA MCU and K Mode Sensor. Are P/J26 and P/J261 connected correctly? 	Go to step 10.	Reconnect the connector(s) P/J26 and/or P/J261correctly, then go to step 9.
9	Does the error still occur when the power is turned OFF and ON?	Go to step 10.	End of work.
10	Checking the HARN ASSY KSNR REGCL for continuity. Disconnect J26 from the PWBA MCU. Disconnect J261 from the K Mode Sensor. Is each cable of J26 <=> J261 continuous?	Go to step 11.	Replace the HARN ASSY KSNR REGCL.
11	Checking the power to the K Mode Sensor. Disconnect J26 from the PWBA MCU. Is the voltage across P26-1pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 12.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
12	Checking the K Mode Sensor for operation. Remove the DRIVE ASSY PH from the printer once, but P/J261 and P/J24 should be connected. Checked by [Digital Input]-[DI-04] in [IOT Diag] of diagnosis. During this check, close the COVER ASSY FRONT MG. Does the status (L or H) change, when a piece of paper is inserted into the gap of the K Mode Sensor?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the KIT DRIVE ASSY PH. (Refer to Removal 31/ Replacement 23.)

FIP-1.11 009-340: IOT CTD (ACD) Sensor Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PHD ASSY (PL4.1.21) DISPENSER ASSY (PL5.1.1) FRAME ASSY MOT (PL5.1.2) MOTOR ASSY DISP (PL5.1.3) TONER CARTRIDGE (Y) (PL5.1.24) TONER CARTRIDGE (M) (PL5.1.23) TONER CARTRIDGE (C) (PL5.1.22) TONER CARTRIDGE (K) (PL5.1.21) HARN ASSY TNR MOT (PL5.1.25) TRANSFER ASSY (PL6.1.7) PWBA MCU (PL8.2.13)		
1	Checking the protection sheet staying. Is there the protection sheet on the PHD ASSY? 	Remove the protection sheet.	Go to step 2.
2	Checking the CTD (ADC) Sensor Window. Open the COVER ASSY FRONT MG. Is the CTD (ADC) Sensor window dirty? 	Go to step 3.	Go to step 4.
3	Turn off the power, and gently wipe the CTD (ADC) Sensor window with a clean dry cloth or cotton swab. After wiping the window, close the COVER ASSY FRONT MG. Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking after resetting the TONER CARTRIDGE (Y, M, C and K). Reseat the TONER CARTRIDGE (Y, M, C and K), and check that the lock key is in the lock position. Does the error still occur when the power is turned OFF and ON?	Go to step 5.	End of work.

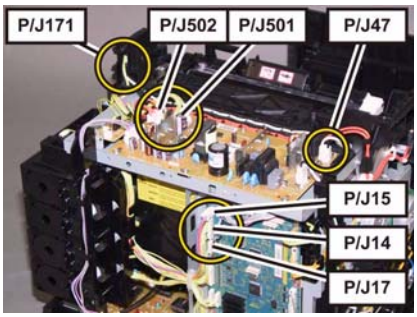
Step	Check	Remedy	
		Yes	No
5	Checking the DISPENSE MOTOR (Y, M, C and K) for rotation. Does the DISPENSE MOTOR (Y, M, C and K) function normally? Checked by [Digital Output] - [DO-21(Y),DO-23(M),DO-25(C),DO-27(K)] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 6.	Go to step 7.
6	Checking the gears of the DISPENSER ASSY for shape and operation. Are the shape and operation of the gears of the DISPENSER ASSY normal? Example: For Yellow 	Go to step 11.	Replace the defective gear(s) or DISPENSER ASSY. (Refer to Removal 44/ Replacement 10.)
7	Checking the connector for connection. Check the connectors between the PWBA MCU and DISPENSE MOTOR (Y, M, C and K). Are P/J18 and P/J181(Y)/P/J182(M) connected correctly? Are P/J19 and P/J191(C)/P/J192(K) connected correctly? Example: For Yellow 	Go to step 9.	Reconnect the connector(s) P/J18 and P/J181 surly, then go to step 8. or reconnect the connector(s) P/J19 and P/J191 surly, then go to step 8.
8	Does the error still occur when the power is turned OFF and ON?	Go to step 9.	End of work.
9	Checking the HARN ASSY TNR MOT for continuity. Disconnect J18 from the PWBA MCU. Disconnect J181(Y)/J182(M)/J191(C)/J192(K) from the DISPENSE MOTOR (YMCK) MOT. Is each cable of J18 <=> J181/182 continuous? or Is each cable of J19 <=> J191/192 continuous?	Go to step 10.	Replace the HARN ASSY TNR MOT.
10	Checking the power to TNR (Y) MOT (MOTOR ASSY DISP). Disconnect J18 from the PWBA MCU. Is the voltage across P18-3pin <= > ground on PWBA MCU, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed.	Replace the MOTOR ASSY DISP or FRAME ASSY MOT.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
11	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Does the error still occur when the power is turned OFF and ON?	Go to step 12.	End of work.

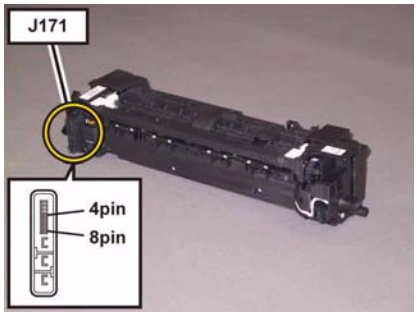
Step	Check	Remedy	
		Yes	No
12	Checking after replacing the TONER CARTRIDGE (Y, M, C or K). Replace the TONER CARTRIDGE (Y, M, C or K), and check that the lock key is in the lock position. (Refer to Removal 6/ Replacement 48.) Does the error still occur when the power is turned OFF and ON?	Go to step 13.	End of work.
13	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Does the error still occur when the power is turned OFF and ON?	Go to step 14.	End of work.
14	Checking after resetting the TRANSFER ASSY. Reseat the TRANSFER ASSY. Does the error still occur when the power is turned OFF and ON?	Replace the TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.)	End of work.

FIP-1.12 009-360 / 009-361 / 009-362 / 009-363: IOT Toner (YMCK) CRUM Comm Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: TONER CARTRIDGE (Y) (PL5.1.24) TONER CARTRIDGE (M) (PL5.1.23) TONER CARTRIDGE (C) (PL5.1.22) TONER CARTRIDGE (K) (PL5.1.21) CONNECTOR CRUM (PL5.1.14) PWBA MCU (PL8.2.13) HARN ASSY TONER CRUM (PL5.1.26)		
1	Checking the TONER CARTRIDGE (Y, M, C or K) for installing. Reseat the TONER CARTRIDGE (Y, M, C or K). Does the error still occur when the power is turned off and on?	Go to step 2.	End of work.
2	Checking the connectors for connection. Check the connections between the PWBA MCU and CONNECTOR CRUM (Y, M, C or K). Are P/J31 and P/J311(Y) / P/J312 (M) / P/J313(C) / P/J314 (K) connected surely?	Go to step 4.	Reconnect the connector(s) surely, then go to step 3.
3	Does the error still occur when the power is turned off and on?	Go to step 4.	End of work.
4	Checking the HARN ASSY TONER CRUM for continuity. Disconnect P/J31 from the PWBA MCU. Disconnect P/J311(Y) / P/J312 (M) / P/J313(C) / P/J314 (K) from the CONNECTOR CRUM (YMCK). Is each cable of P/J31 <=> P/J311(Y) / P/J312 (M) / P/J313(C) / P/J314 (K) continuous?	Go to step 5.	Replace the HARN ASSY TONER CRUM.
5	Checking the output power of CONNECTOR CRUM (Y, M, C or K). Disconnect P/J31 on the PWBA MCU. Is the voltage across ground <=> J31-3(Y)/7(M)/11(C)/ 15(K) pin on the PWBA MCU, about +3.3VDC?	Replace the DISPENSER ASSY. (Refer to Removal 44/ Replacement 10)	Go to step 6.
6	Checking after the TONER CARTRIDGE (Y, M, C or K). Replace the TONER CARTRIDGE (Y, M, C or K). Does the error still occur when the power is turned off and on?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11)	End of work.

FIP-1.13 010-317: IOT Fuser Detached

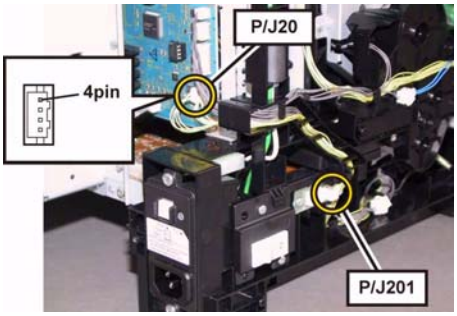
Step	Check	Remedy	
		Yes	No
	Possible causative parts: FUSER ASSY (PL6.1.1) HARNESS ASSY FUSER MG SFP (PL6.1.2) PWBA MCU (PL8.2.13) PWBA LVPS (PL8.2.1)		
1	Checking after resetting the FUSER ASSY. Reseat the FUSER ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the connectors for connection. Remove the FUSER ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Check the connections between the PWBA MCU (P/J17) and FUSER ASSY (P/J171). Check the connections between the FUSER ASSY (P/J171) and PWBA LVPS (P/J47). Check the connections between the PWBA LVPS (P/J501 and P/J502) and PWBA MCU (P/J14 and P/J15). Are these connectors connected correctly? 	Go to step 4.	"Reconnect the connector(s) P/J17, P/J47, P/J171, P/J501, P/J502, P/J14 and/or P/J15 correctly, then go to step 3."
3	Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking the HARNESS ASSY FUSER MG SFP for continuity. Disconnect J17 from the PWBA MCU. Disconnect J47 from the PWBA LVPS. Is each cable of J17 and J47 <=> P171 continuous? **NOTE: P171 is attached to the frame.**	Go to step 5.	Replace the HARNESS ASSY FUSER MG SFP.

Step	Check	Remedy	
		Yes	No
5	Checking the resistances of Temp. Sensor in the FUSER ASSY. Remove the FUSER ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Check the resistances across the following pins of the removed FUSER ASSY. J171-5pin <=> J171-4pin J171-6pin <=> J171-8pin J171-6pin <=> J171-7pin Can the resistances be measured? (The resistances are 7 k-ohm at 180 degrees C). 	Go to step 6.	Warning: Start the operation after the FUSER ASSY has cooled down. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49) After replacement, be sure to clear the life counter value.
6	Checking after the PWBA LVPS. Replace the PWBA LVPS.(Refer to Removal 11/ Replacement 43) Does the error still occur when the power is turned off and on?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11)	End of work.

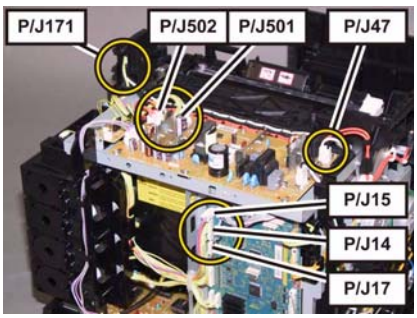
FIP-1.14 010-351: IOT Fuser Life Over

Step	Check	Remedy	
		Yes	No
	Possible causative parts: FUSER ASSY (PL6.1.1) PWBA MCU (PL8.2.13)		
1	Checking the life counter value of the FUSER ASSY. Does the life counter value show the near of the end?	Warning: Start the operation after the FUSER ASSY has cooled down. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) After replacement, be sure to clear the life counter value.	Go to step 2.
2	Checking after resetting the FUSER ASSY. Reseat the FUSER ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking after replacing the FUSER ASSY. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) **Warning: Start the operation after the FUSER ASSY has cooled down.** Does the error still occur when the power is turned OFF and ON? **NOTE: After replacement, be sure to clear the life counter value.**	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.15 010-354: IOT Environment Sensor Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: SENSOR HUM (PL8.2.7) PWBA MCU (PL8.2.13) HARN ASSY HUM (PL9.1.6)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking after resetting the SENSOR HUM. Reseat the SENSOR HUM. Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking the HARN ASSY HUM for continuity. Disconnect J20 from the PWBA MCU. Disconnect J201 from the SENSOR HUM. Is each cable of J20 <=> J201 continuous? 	Go to step 4.	Replace the HARN ASSY HUM.
4	Checking the power to SENSOR HUM. Disconnect the connector of J20 from the PWBA MCU. Is the voltage across P20-4pin <=> ground on the PWBA MCU, about +5 VDC?	Replace the SENSOR HUM. (Refer to Removal 18/ Replacement 36.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

FIP-1.16 010-377: IOT Fuser Failure

Step	Check	Remedy	
		Yes	No
	Possible causative parts: FUSER ASSY (PL6.1.1) HARNESS ASSY FUSER MG SFP (PL6.1.2) PWBA LVPS (PL8.2.1) PWBA MCU (PL8.2.13) HARNESS ASSY LVPS MAIN MG SFP (PL9.1.3)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking after resetting the FUSER ASSY. Reseat the FUSER ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking the connectors for connection. Remove the FUSER ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Check the connections between the PWBA MCU (P/J17) and FUSER ASSY (P/J171). Check the connections between the FUSER ASSY (P/J171) and PWBA LVPS (P/J47). Check the connections between the PWBA LVPS (P/J501 and P/J502) and PWBA MCU (P/J14 and P/J15). Are these connectors connected correctly? 	Go to step 5.	"Reconnect the connector(s) P/J17, P/J47, P/J171, P/J501, P/J502, P/J14 and/or P/J15 correctly, then go to step 4."
4	Does the error still occur when the power is turned OFF and ON?	Go to step 5.	End of work.
5	Checking the HARNESS ASSY FUSER MG SFP for continuity. Disconnect J17 from the PWBA MCU. Disconnect J47 from the PWBA LVPS. Is each cable of J17 and J47 <=> P171 continuous? **NOTE: P171 is attached to the frame.**	Go to step 6.	Replace the HARNESS ASSY FUSER MG SFP.
6	Checking the HARNESS ASSY LVPS MAIN MG SFP for continuity. Disconnect J14 from the PWBA MCU. Disconnect J501 from the PWBA LVPS. Is each cable of J14 <=> J501 continuous?	Go to step 7.	Replace the HARNESS ASSY LVPS MAIN MG SFP.

Step	Check	Remedy	
		Yes	No
7	Checking after replacing the FUSER ASSY Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) **Warning: Start the operation after the FUSER ASSY has cooled down.** Does the error still occur when the power is turned OFF and ON? **NOTE: After replacement, be sure to clear the life counter value.**	Go to step 8.	End of work.
8	Checking after the PWBA LVPS. Replace the PWBA LVPS.(Refer to Removal 11/ Replacement 43) Does the error still occur when the power is turned off and on?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11)	End of work.

FIP-1.17 010-421: IOT Fuser Near Life

Step	Check	Remedy	
		Yes	No
	Possible causative parts: FUSER ASSY (PL6.1.1) PWBA MCU (PL8.2.13)		
1	Checking the FUSER ASSY for installation. Is the FUSER ASSY installed correctly? Warning: Start the operation after the FUSER ASSY has cooled down.	Go to step 3.	Reseat the FUSER ASSY, then go step 2.
2	Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking after replacing the FUSER ASSY. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) **Warning: Start the operation after the FUSER ASSY has cooled down.** Does the error still occur when the power is turned OFF and ON? **NOTE: After replacement, be sure to clear the life counter value.**	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work

FIP-1.18 016-300 / 016-301 / 016-302 / 016-310 / 016-313 / 016-315 / 016-317 / 016-323 / 016-324 / 016-327 / 016-340 / 016-392 / 016-393 / 016-394: ESS Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Does the error still occur when the power is turned OFF and ON?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.19 016-316 / 016-318: ESS DIMM Slot RAM R/W Check Fail / ESS DIMM Slot RAM Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7) MEMORY CARD (OPTION) (PL8.1.15)		
1	Is the customer using the recommended memory card?	Go to step 3.	Replace to the recommended memory card,then go step 2.
2	Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking the MEMORY CARD (OPTION) installation. Reseat the MEMORY CARD (OPTION). Does the error still occur when turning on the power?	Go to step 4.	End of work.
4	Checking after resetting the MEMORY CARD (OPTION). Replace the MEMORY CARD.(Refer to Removal 55/ Replacement 55.) Does the error still occur when turning on the power?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.20 016-338: Optional Wireless Adapter Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7) WIRELESS ADAPTER (OPTION) (PL8.1.16)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the WIRELESS ADAPTER (OPTION) installation. Reseat the WIRELESS ADAPTER (OPTION). Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking after replacing the WIRELESS ADAPTER (OPTION). Replace the WIRELESS ADAPTER (OPTION).(Refer to Removal 54/ Replacement 54.) Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking after resetting the PWBA ESS SFP. Reseat the PWBA ESS SFP. Does the error still occur when the power is turned OFF and ON?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.21 016-347: On Board Network Fatal Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking after removing the ethernet cable. Does the error still occur when the power is turned off and on?	Go to step 2.	Initialize the Network settings and configutre of the Network settings.
2	Does the error still occur when the power is turned OFF and ON?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

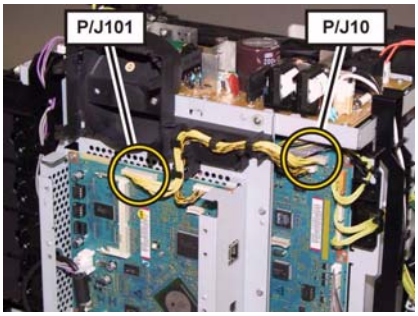
FIP-1.22 016-362 / 016-363 / 016-364 / 016-366 / 016-367 / 016-368: PCI Bus# (0 / 1) Host Bridge Controller Error / PCI Bus# (0 / 1) Error Detected / PCI Error Messages received from Bus#0-Device# (0 / 1)

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the error. Does the error still occur when the power is turned OFF and ON?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.23 016-369: Operator Panel - ESS Communication Fail

Step	Check	Remedy	
		Yes	No
	Possible causative parts: CONSOLE ASSY PANEL (PL1.2.3) HARNESS ASSY PNL A (PL1.2.12) HARNESS ASSY B (PL9.1.12) PWBA ESS SFP (PL8.1.7)		
1	Checking the CONSOLE ASSY PANEL for installation. Is the CONSOLE ASSY PANEL installed correctly?	Go to step 3.	Reseat the CONSOLE ASSY PANEL, then go to step 2.
2	Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking the connectors for connection. Check the connections between the CONSOLE ASSY PANEL and PWBA ESS SFP. Are P/J202, P/J5301and P/J 403 connected surely?	Go to step 5.	Reconnect the connector(s) P/J202, P/J5301and P/J 4031 surely, then go to step 4.
4	Does the error still occur when the power is turned OFF and ON?	Go to step 5.	End of work
5	Checking the HARNESS ASSY PNL A for continuity. Disconnect P/J202 from the CONSOLE ASSY PANEL. Disconnect P/J5301 from the HARNESS ASSY B. Is each cable of P/J202 <=> P/J5301 continuous?	Go to step 6.	Replace the HARNESS ASSY PNL A.(Refer to Removal 27/ Replacement 27.)
6	Checking the HARNESS ASSY B for continuity. Disconnect P/J5301 from the HARNESS ASSY PNL A. Disconnect P/J403 from the PWBA ESS SFP. Is each cable of P/J5301<=> P/J403 continuous?	Go to step 7.	Replace the HARNESS ASSY B.
7	Checking after replacing the CONSOLE ASSY PANEL. Replace the CONSOLE ASSY PANEL.(Refer to Removal 25/ Replacement 29.) Does the error still occur when the power is turned OFF and ON?	Go to step 8.	End of work.
8	Checking the firmware version Is the firmware the latest version?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	Upgrade the firmware.

FIP-1.24 016-370: MCU-ESS Communication Fail

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7) PWBA MCU (PL8.2.13) HARNESS ASSY ESS MG SFP (PL9.1.1)		
1	Checking after resetting the PWBA ESS SFP and PWBA MCU. Reseat the PWBA ESS SFP and PWBA MCU. Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the connectors for connection. Check the connections between the PWBA MCU and PWBA ESS SFP. Are P/J10 and P/J101 connected correctly? 	Go to step 4.	Reconnect the connector(s) P/J10 and/or P/J101 correctly, then go to step 3.
3	Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking the HARNESS ASSY ESS MG SFP for continuity. Disconnect J10 from the PWBA MCU. Disconnect J101 from the PWBA ESS SFP. Is each cable of J10 <=> J101 continuous?	Go to step 5.	Replace the HARNESS ASSY ESS MG SFP.
5	Checking the firmware version Is the firmware the latest version?	Go to step 6.	Upgrade the firmware.
6	Checking after replacing the PWBA MCU. Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.) Does the error still occur when the power is turned OFF and ON?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.25 016-383 / 016-384 / 016-385 / 016-386 / 016-387/ 016-388 / 016-391: Download ID Error / Download Range Error / Download header Error / Download Check Sum Error / Download Format Error / Download Initial Error / Download Protect Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the download file. Was the file for 2150cn/cdn downloaded?	Go to step 2.	Re-download the correct file.
2	Checking the connection between PC and printer. Are your PC and the printer correctly connected by USB or LAN? Disconnect and reconnect the USB or network cable. Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking after reseating the PWBA ESS SFP. Reseat the PWBA ESS SFP. Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking re-downloading the correct file for 2150cn/cdn. Re-download the correct file from Dell web site. Does the error still occur when the power is turned OFF and ON?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.26 016-520: Ipsec Certificate Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7) PWBA MCU (PL8.2.13)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking after replacing the PWBA ESS SFP. Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.) Does the error still occur when the power is turned off and on?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.27 016-700: Memory Over flow

Step	Check	Remedy	
		Yes	No
	Possible causative parts: MEMORY CARD (OPTION) (PL8.1.15)		
1	Checking for memory expansion. Is additional memory installed? Is the additional memory installed properly?	Go to step 2.	Install additional memory.Or, re-install it properly.
2	Checking after setting the Print Mode to "Standard" via the printer driver Set the Print Mode of the printer driver to "Standard". Does the error persist during printing?	Go to step 3.	End of work.
3	Deleting the data by executing Clear Storage.Execute "Clear Storage"under [Maintenance] in the Control Panel. Does the error persist during printing?	The current printing job process cannot be continued because the memory capacity is exceeded.	End of work.

FIP-1.28 016-720: PDL Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking cable plug/unplug. Plug and unplug the cable. (USB cable or I/F cable) Does the error still occur when printing?	Go to step 2.	End of work.
2	Checking after replacing the Cable. Replace the cable. (USB cable or I/F cable) Does the error still occur when the power is turned off and on?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.29 016-753 / 016-755: PDF password error / PDF print disabled error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: -		
1	Checking the PDF data. -Enter the correct PDF document password again. -Change the PDF document security setting. Does the error still occur when printing?	End of work.	Upgrade the firmware.

FIP-1.30 016-756: Auditron -Print Prohibited time

Step	Check	Remedy	
		Yes	No
	Possible causative parts: -		
1	Checking the “Available Time” setting. Set the correct “Available Time” again. Does the error still occur when printing?	End of work.	Upgrade the firmware.

FIP-1.31 016-757: Auditron - Invalid User

Step	Check	Remedy	
		Yes	No
	Possible causative parts: -		
1	Checking the user‘s account setting. Set the correct user‘s account (user name and password). Does the error still occur when printing?	End of work.	Upgrade the firmware.

FIP-1.32 016-758: Auditron - Disabled Function

Step	Check	Remedy	
		Yes	No
	Possible causative parts: -		
1	Checking the “Black&White” setting. Set the [Color Mode] to the [Color]. Does the error still occur when printing?	End of work.	Upgrade the firmware.

FIP-1.33 016-759: Auditron - Reached Limit

Step	Check	Remedy	
		Yes	No
	Possible causative parts: -		
1	Checking the “Dell Color Track” setting. Set the correct value of [User Registration] exceed the limitation. Does the error still occur when printing?	End of work.	Upgrade the firmware.

FIP-1.34 016-799: Job Environment Violation

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the paper size. Does the paper size in use meet the specifications?	Go to step 3.	Use the paper that meets the specifications, then go to step 2.
2	Does the error still occur when printing?	Go to step 3.	End of work.
3	Checking the paper size setup. Does the using paper size match the printer setup value?	Go to step 5.	Go to step 4.
4	Setup the paper size through your PC. Does the error still occur when printing?	Go to step 5.	End of work.
5	Checking the printing job. Does the error still occur when printing the Windows test print?	Go to step 6.	End of work.
6	Checking the firmware version. Is the firmware the latest version?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	Upgrade the firmware.

FIP-1.35 016-920: Wireless Setting Error Time-out Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the wireless LAN access point (Registrar). Try connecting again. Does the error still occur when the power is turned off and on?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.36 016-921: Wireless Setting Error Download Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the wireless LAN access point (Registrar) in WPS mode. Try connecting again. Does the error still occur when the power is turned off and on?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.37 016-922: Wireless Setting Error Session Overlap Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the wireless LAN access point (Registrar) in the WPS-PBC mode. Set only one wireless access point (Registrar) to operate in the WPS-PBC mode, and execute the process again according to the procedure. Does the error still occur when the power is turned off and on?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.38 016-980: Disc Full

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7) MEMORY CARD (OPTION) (PL8.1.15)		
1	Checking the file data in the printer. Print or clear the stored files and data at the printer memory. Does the error still occur when printing?	Go to step 2.	End of work.
2	Checking the memory capacity for print. Print the small size file (like a Windows test page). Does the error still occur when printing?	Go to step 3.	Add the MEMORY CARD or divide the printing job.
3	Is the customer using the recommended memory card?	Go to step 4.	Replace to the recommended memory card.
4	Checking the MEMORY CARD (OPTION) installation. Reseat the MEMORY CARD (OPTION). Does the error still occur when turning on the power?	Go to step 5.	End of work.
5	Checking after resetting the MEMORY CARD (OPTION). Replace the MEMORY CARD.(Refer to Removal 55/ Replacement 55.) Does the error still occur when turning on the power?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	End of work.

FIP-1.39 016-981: Collate Full

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the error. Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking RAM Disk size settings. Does the error occur when printing after reducing the size setting of the RAM Disk?	Split the document into blocks to decrease the number of pages to be collated.	End of work.

FIP-1.40 024-360: MCU DownLoad Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA MCU (PL8.2.13)		
1	Checking the firmware version. Is the firmware the latest version?	Go to step 2.	Upgrade the firmware,then go step 2.
2	Checking the error. Does the error still occur when printing?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.41 024-362: IOT Start Image Marking Time-out

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the firmware version. Is the firmware the latest version?	Go to step 2.	Upgrade the firmware,then go step 2.
2	Checking the error. Does the error still occur when printing?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/Replacement 12)	End of work.

FIP-1.42 024-985: Waiting for "Continue" key to be pressed after reloading paper to the SSF

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the firmware version. Is the firmware the latest version?	Replace the KIT PWBA ESS SFP. (Refer to Removal 42/ Replacement 12.)	Upgrade the firmware.

FIP-1.43 027-446 / 027-452: IPv6 duplicate / IPv4 duplicate

Step	Check	Remedy	
		Yes	No
	Possible causative parts: -		
1	Checking the IP addresses. Remove the duplicate IP addresses. Does the error still occur when the power is turned off and on?	End of work.	Upgrade the firmware.

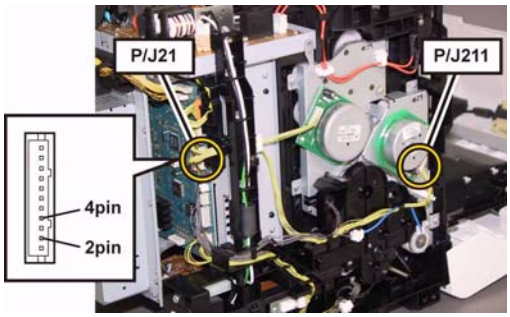
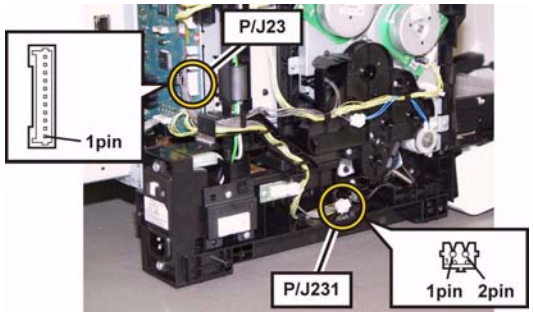
FIP-1.44 042-700:IOT Over Heat Stop

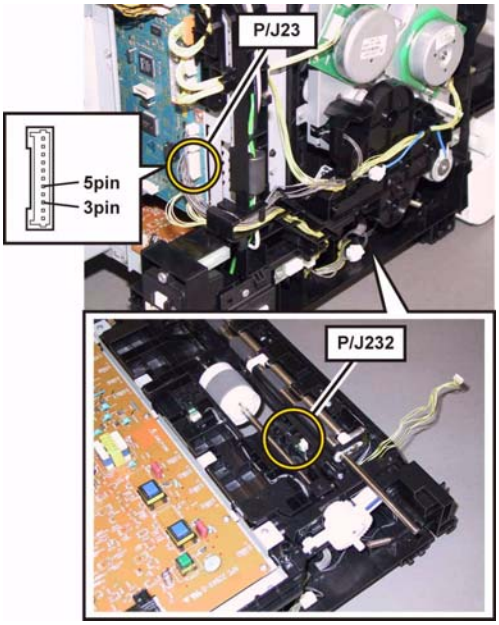
Step	Check	Remedy	
		Yes	No
	Possible causative parts: SENSOR HUM (PL8.2.7) PWBA MCU (PL8.2.13) HARN ASSY HUM (PL9.1.6)		
1	Checking the connectors for connection. Check the connections between the PWBA MCU and SENSOR HUM. Are P/J20 and P/J201 connected surely?	Go to step 3.	Reconnect the connector(s) P/J20 and/or P/J201 surely, then go to step 2
2	Does the error still occur when the power is turned off and on?	Go to step 3.	End of work.
3	Checking the HARN ASSY HUM for continuity. Disconnect P/J20 from the PWBA MCU. Disconnect P/J201 from the SENSOR HUM. Is each cable of P/J20 <=> P/J201 continuous?	Go to step 4.	Replace the HARN ASSY HUM.
4	Checking the output power of SENSOR HUM. Disconnect P/J20 on the PWBA MCU. Is the voltage across ground <=> J20-4pin on the PWBA MCU, about +5VDC?	Replace the SENSOR HUM.(Refer to Removal 18/ Replacement 36)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11)

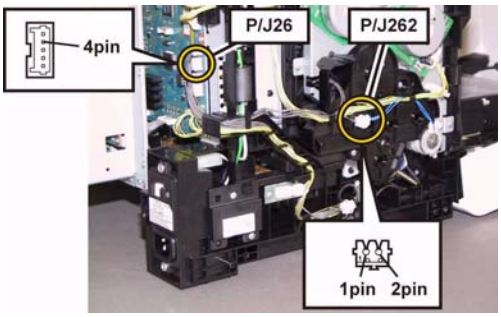
FIP-1.45 071-100: IOT Tray1 Misfeed JAM

Step	Check	Remedy	
		Yes	No
	Possible causative parts: CASSETTE ASSY 250 (PL2.1.1) HOLDER ASSY SEPARATOR (PL2.1.5) CLUTCH ASSY DRV (PL3.1.1) SOLENOID FEED MSI (PL3.1.11) HARN ASSY L SIDE (PL3.1.18) ROLL ASSY FEED (PL3.2.4) ACTUATOR REGI ROLL M (PL3.2.8) ACTUATOR REGI IN (PL3.2.11) SENSOR PHOTO (PL3.2.13) DRIVE ASSY MAIN (PL7.1.2) DRIVE ASSY PH (PL7.1.4) PWBA MCU (PL8.2.13) HARN ASSY MAIN MOT MG SFP (PL9.1.7) HARN ASSY KSNR REGCL (PL9.1.9)		
1	Checking the paper condition. Is the paper in the Tray 1 wrinkled or damaged?	Replace the paper with a new and dry one, then go to step 2.	Go to step 3.
2	Does the error still occur when printing?	Go to step 3.	End of work.
3	Checking after reloading a new paper. Reload a new paper in the Tray 1. Does the error still occur when printing?	Go to step 4.	End of work.
4	Checking the COVER ASSY FRONT MG for latching. Open and close the COVER ASSY FRONT MG, and then latch correctly. Does the error still occur when printing?	Go to step 5.	End of work.
5	Checking the Main Motor (DRIVE ASSY MAIN) for operation. Does the Main Motor (DRIVE ASSY MAIN) operate properly? Checked by [Digital Output] - [DO-0] in [IOT Diag] of diagnosis. During this check, close the COVER ASSY FRONT MG.	Go to step 6.	Go to step 19.
6	Checking the DRIVE ASSY PH for operation. Does the ROLL ASSY FEED, ROLL ASSY REGI and ROLL REGI METAL rotate properly? Checked by [Digital Output] - [DO-29] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 7.	Reseat or replace the KIT DRIVE ASSY PH. (Refer to Removal 31/ Replacement 23.)
7	Checking the paper feeding position. Is the paper not fed from the Tray 1?	Go to step 8.	Go to step 12.
8	Checking after resetting the Guide Sides and End Guide on the Tray 1. Reset the Guide Sides and End Guide, and reseat the Tray 1 to the printer correctly. Does the error still occur when printing?	Go to step 9.	End of work.

Step	Check	Remedy	
		Yes	No
9	Checking the HOLDER ASSY SEPARATOR on the Tray 1 for shape and rotation. Pull the Tray 1 out from the printer. Is the HOLDER ASSY SEPARATOR not contaminated and/ or damaged, and rotated smoothly?	Go to step 10.	Replace the KIT HOLDER ASSY SEPARATOR. (Refer to Removal 2/ Replacement 52.)
10	Checking the ROLL ASSY FEED for shape and rotation. Pull the Tray 1 out from the printer. Is the ROLL ASSY FEED not contaminated and/or damaged, and rotated smoothly?	Go to step 11.	Replace the KIT ROLL ASSY FEED. (Refer to Removal 9/ Replacement 45.)
11	Checking the Tray 1 Feed Solenoid (SOLENOID FEED MSI) for operation. Does the Tray 1 Feed Solenoid (SOLENOID FEED MSI) operate properly? Check by [Digital Output] - [DO-b] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Replace the CASSETTE ASSY 250. (Refer to Removal 1/ Replacement 53.)	Go to step 22.
12	Checking the paper lead edge staying position. Does the paper lead edge stay before the ROLL ASSY REGI and ROLL REGI METAL?	Go to step 13.	The paper lead edge stay after the ROLL ASSY REGI and ROLL REGI METAL, then go to step 16.
13	Checking the paper transfer path between the ROLL ASSY FEED and ROLL ASSY REGI. Are there any obstacles on the paper transfer path?	Remove the obstacles or stains from the paper transfer path.	Go to step 14.
14	Checking the ACTUATOR REGI IN for shape and operation. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the shape and operation. Are the shape and operation of the ACTUATOR REGI IN normal?	Go to step 15.	Reseat the ACTUATOR REGI IN. If broken or deformed, replace it.
15	Checking the Regi. Sensor (SENSOR PHOTO) for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR REGI IN) is operated? Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Checked by [Digital Input] - [DI-2] in [IOT Diag] of diagnosis.	Go to step 16.	Go to step 26.
16	Checking the Regi. Clutch (CLUTCH ASSY DRV) for operation, and ROLL ASSY REGI and ROLL REGI METAL for rotation. Checked by [Digital Output] - [DO-29] in [IOT Diag] of diagnosis. Does the Regi. Clutch (CLUTCH ASSY DRV) operate properly, and the ROLL ASSY REGI and ROLL REGI METAL rotate? During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 17.	Go to step 30.

Step	Check	Remedy	
		Yes	No
17	Checking the ACTUATOR REGI ROLL M for shape and operation. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the shape and operation. Are the shape and operation of the ACTUATOR REGI ROLL M normal?	Go to step 18.	Reseat the ACTUATOR REGI ROLL M. If broken or deformed, replace it with a new one.
18	Checking the Regi. Sensor (SENSOR PHOTO) for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR REGI IN) is operated? Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Checked by [Digital Input] - [DI-2] in [IOT Diag] of diagnosis.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Go to step 26.
19	Checking the connectors for connection. Check the connections between the PWBA MCU and DRIVE ASSY MAIN (Main Motor). Are P/J21 and P/J211 connected correctly? 	Go to step 20.	Reconnect the connector(s) P/J21 and/or P/J211 correctly.
20	Checking the HARN ASSY MAIN MOT MG SFP for continuity. Disconnect J21 from the PWBA MCU. Disconnect J211 from the DRIVE ASSY MAIN. Is each cable of J21 <=> J211 continuous?	Go to step 21.	Replace the HARN ASSY MAIN MOT MG SFP.
21	Checking the power to the DRIVE ASSY MAIN. Disconnect J21 from the PWBA MCU. Are the voltages across J21-2pin/J21-4pin <=> ground on the PWBA MCU, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed?	Replace the KIT DRIVE ASSY MAIN. (Refer to Removal 32/ Replacement 22.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
22	Checking the connectors of the SOLENOID FEED MSI (Tray 1 Feed Solenoid) for connection. Check the connections between the PWBA MCU and SOLENOID FEED MSI. Are P/J23 and P/J231 connected correctly? 	Go to step 23.	Reconnect the connector(s) P/J23 and/or P/J231 correctly.

Step	Check	Remedy	
		Yes	No
23	Checking the HARN ASSY L SIDE for continuity Disconnect J23 from the PWBA MCU. Disconnect P231 from the SOLENOID FEED MSI. Is each cable of J23 <=> P231 continuous?	Go to step 24.	Replace the HARN ASSY L SIDE.
24	Checking the power to the SOLENOID FEED MSI. Disconnect J23 from the PWBA MCU. Is the voltage across P23-1pin <=> ground on the PWBA MCU, about +24 VDC when the Interlock Switch (HARN ASSY INTERLOCK) is pushed?	Go to step 25.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
25	Checking the SOLENOID FEED MSI for resistance. Disconnect P/J231 of the SOLENOID FEED MSI. Is the resistance across J231-1 and J231-2 about 96 ohm?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the KIT FEED ROLL/SOL/ CLUTCH. (Refer to Removal 35/ Replacement 19.)
26	Checking the connectors of the SENSOR PHOTO (Regi Sensor) for connection. Check the connections between the PWBA MCU and SENSOR PHOTO. Are P/J23 and P/J232 connected correctly? 	Go to step 27.	Reconnect the connector(s) P/ J23 and/or P/J232 correctly.
27	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect J232 from the SENSOR PHOTO. Is each cable of J23 <=> J232 continuous?	Go to step 28.	Replace the HARN ASSY L SIDE.
28	Checking the power to the SENSOR PHOTO. Disconnect J23 from the PWBA MCU. Is the voltage across P23-3pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 29.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
29	Checking the SENSOR PHOTO for operation. Check the voltage across J23-5pin <=> ground on the PWBA MCU. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Does the voltage change, when the actuator (ACTUATOR REGI IN) is operated?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the SENSOR PHOTO:REGI. (Refer to Removal 49/ Replacement 5.)

Step	Check	Remedy	
		Yes	No
30	Checking the connectors of the CLUTCH ASSY DRV (Regi Clutch) for connection. Check the connections between the PWBA MCU and CLUTCH ASSY DRV. Are P/J26 and P/J262 connected correctly? 	Go to step 31.	Reconnect the connector(s) P/J26 and/or P/J262 correctly.
31	Checking the HARN ASSY KSNR REGCL for continuity. Disconnect J26 from the PWBA MCU. Disconnect P262 from the CLUTCH ASSY DRV. Is each cable of J26 <=> P262 continuous?	Go to step 32.	Replace the HARN ASSY KSNR REGCL.
32	Checking the power to the CLUTCH ASSY DRV. Disconnect J26 from the PWBA MCU. Is the voltage across P26-4pin <=> ground on the PWBA MCU, about +24 VDC when the Interlock Switch (HARN ASSY INTERLOCK) is pushed?	Go to step 33.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
33	Checking the CLUTCH ASSY DRV for resistance. Disconnect P/J262 of the CLUTCH ASSY DRV. Is the resistance across J262-1 and J262-2 approximately 280-ohm?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the CLUTCH ASSY DRV. (Refer to Removal 30/ Replacement 24.)

FIP-1.46 072-100: IOT Tray2 Misfeed JAM

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA MCU (PL8.2.13) HARNESS ASSY TEAY MOT (PL12.2.2) HARNESS ASSY TEAY COMP (PL12.2.20) PWBA FEED H (PL12.2.1) SOLENOID FEED MSI (PL12.2.15) CLUTCH ASSY DRV (PL12.2.6) MOTOR ASSY SUB (PL12.2.16) ROLL ASSY FFED (PL12.4.4) SENSOR PHOTO (12.4.13) CASSETTE ASSY 250 OPT (PL12.5.1) HOLDER ASSY SEPARATOR (12.5.5)		
1	Checking the paper condition. Is the paper in the Tray 2 wrinkled or damaged?	Replace the paper with a new and dry one, then go to step 2.	Go to step 3.
2	Does the error still occur when printing?	Go to step 3.	End of work.
3	Checking after reloading a new paper. Reload a new paper in the Tray 2. Does the error still occur when printing?	Go to step 4.	End of work.
4	Checking the COVER ASSY FRONT MG for latching. Open and close the COVER ASSY FRONT MG, and then latch correctly. Does the error still occur when printing?	Go to step 5.	End of work.
5	Checking the Paper Path Sensor (SENSOR PHOTO) for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR REGI IN) is operated? Checked by [Digital Input] - [DI-a] in [IOT Diag] of diagnosis.	Go to step 6.	Go to step 15.
6	Checking the MOTOR ASSY SUB for operation. Does the MOTOR ASSY SUB operate properly? Checked by [Digital Output]-[DO-5] on [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 7.	Go to step 19.
7	Checking the paper feeding. Is the paper fed from the Tray 2?	Go to step 12.	Go to step 8.
8	Checking after resetting the Guide Sides and End Guide on the Tray 2. Reset the Guide Sides and End Guide, and reseat the Tray2 to the printer correctly. Does the error still occur when printing?	Go to step 9.	End of work.
9	Checking the HOLDER ASSY SEPARATOR on the Tray 2 for shape and rotation. Pull the Tray 2 out from the printer. Is the HOLDER ASSY SEPARATOR not contaminated and/ or damaged, and rotated smoothly?	Go to step 10.	Replace the KIT HOLDER ASSY SEPARATOR. (Refer to Removal 2/ Replacement 52.)

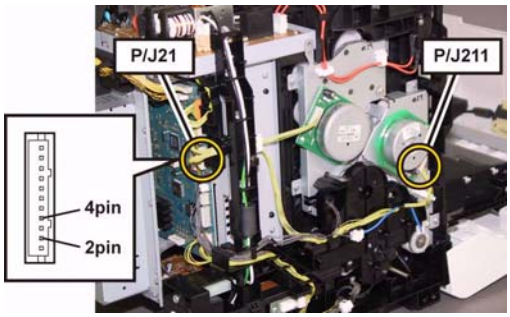
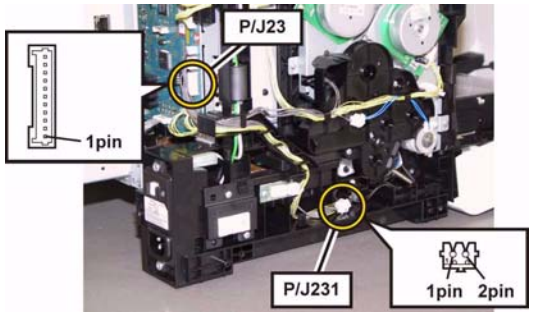
Step	Check	Remedy	
		Yes	No
10	Checking the ROLL ASSY FEED for shape and rotation Pull the Tray 2 out from the printer. Is the ROLL ASSY FEED not contaminated and/or damaged, and rotated smoothly?	Go to step 11.	Replace the ROLL ASSY FEED. (Refer to Removal 59/ Replacement 58.)
11	Checking the Tray 2 Feed Solenoid (SOLENOID FEED MSI) for operation. Does the Tray 2 Feed Solenoid (SOLENOID FEED MSI) operate properly? Checked by [Digital Output] - [DO-31] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Replace the CASSETTE ASSY 250 OPT.	Go to step 22.
12	Checking the Tray 2 Turn Clutch (CLUTCH ASSY DRV) for operation. Does the Tray 2 Turn Clutch (CLUTCH ASSY DRV) operate properly? Checked by [Digital Output] - [DO-33] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 13.	Go to step 26.
13	Checking the paper lead edge staying position. Does the paper lead edge stay before the ROLL ASSY REGI and ROLL REGI METAL?	Go to step 14.	Replace the KIT FEEDER ASSY OPT.(Refer to Removal 58/ Replacement 59.)
14	Checking the paper path. Remove the Tray 1 and Tray 2 paper cassettes. Are there any obstacles on the paper transfer path between the Tray 2 and the Regi Assy?	Remove the obstacles or stains from the paper transfer path.	Replace the KIT FEEDER ASSY OPT.(Refer to Removal 58/ Replacement 59.)
15	Checking the connectors of the SENSOR PHOTO (Paper Path Sensor) for connection. Check the connections between the PWBA FFE D and SENSOR PHOTO. Are P/J420 and P/J4200 connected correctly?	Go to step 16.	Reconnect the connector(s) P/J420 and/or P/J4200 correctly.
16	Checking the HARNESS ASSY TRAY COMP for continuity. Disconnect J420 from the PWBA FEED H. Disconnect J4200 from the SENSOR PHOTO. Is each cable of J420 <=> J4200 continuous?	Go to step 17.	Replace the HARNESS ASSY TRAY COMP
17	Checking the power to the SENSOR PHOTO. Disconnect J420 from the PWBA FEED H. Is the voltage across P420-6pin <=> ground on the PWBA FEED H, about +3.3 VDC?	Go to step 18.	Replace the PWBA FEED H.
18	Checking the SENSOR PHOTO for operation. Check the voltage across J420-5pin <=> ground on the PWBA FEED H. Does the voltage change, when the actuator (ACTUATOR REGI IN) is operated?	Replace the PWBA FEED H.	Replace the SENSOR PHOTO (Paper Path Sensor).
19	Checking the connectors for connection. Check the connections between the PWBA FEED H and MOTOR ASSY SUB. Are P/J422 and P/J4211 connected correctly?	Go to step 20.	Reconnect the connector(s) P/J422 and/or P/J4211 correctly.

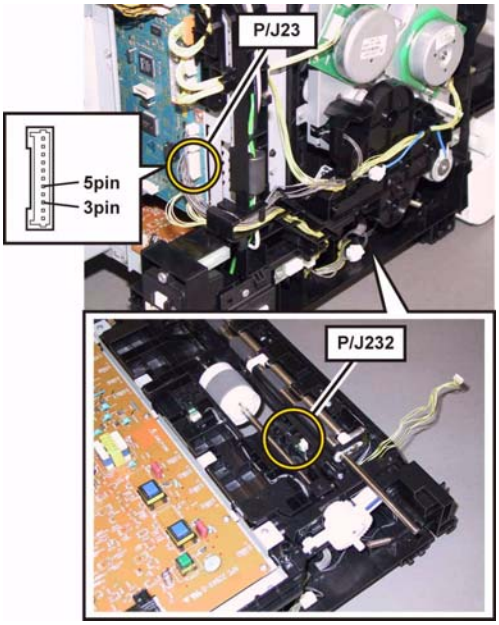
Step	Check	Remedy	
		Yes	No
20	Checking the HARNESS ASSY TEAY MOT for continuity. Disconnect J422 from the PWBA FEED H. Disconnect J4211 from the MOTOR ASSY SUB. Is each cable of J422 <=> J4211 continuous?	Go to step 21.	Replace the HARNESS ASSY TRAY MOT.
21	Checking the power to the MOTOR. Disconnect J422 from the PWBA FEED H. Are the voltages across J422-6pin <=> ground on the PWBA FEED H, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed?	Replace the MOTOR ASSY SUB.	Replace the PWBA FEED H.
22	Checking the connectors of the SOLENOID FEED for connection. Check the connections between the PWBA FEED H and SOLENOID FEED. Are P/J421 and P/J4211 connected correctly?	Go to step 23.	Reconnect the connector(s) P/J421 and/or P/J4211 correctly.
23	Checking the HARNESS ASSY TRAY COMP for continuity. Disconnect J421 from the PWBA FEED H. Disconnect P4211 from the SOLENOID FEED. Is each cable of J421 <=> P4211 continuous?	Go to step 24.	Replace the HARNESS ASSY TRAY COMP.
24	Checking the power to the SOLENOID FEED MSI. Disconnect J421 from the PWBA FEED H. Is the voltage across P421-1pin <=> ground on the PWBA FEED H, about +24 VDC when the Interlock Switch (HARN ASSY INTERLOCK) is pushed?	Go to step 25.	Replace the PWBA FEED H.
25	Checking the SOLENOID FEED MSI for resistance. Disconnect P/J4211 of the SOLENOID FEED MSI. Is the resistance across J4211-1 and J4211-2 approximately 96 ohm?	Replace the PWBA FEED H.	Replace the SOLENOID FEED MSI.
26	Checking the connectors of the Feed Clutch (CLUTCH ASSY DRV) for connection. Check the connections between the PWBA FEDD H and Feed Clutch. Are P/J420 and P/J4201 connected correctly?	Go to step 27.	Reconnect the connector(s) P/J420 and/or P/J4201 correctly.
27	Checking the HARNESS ASSY TRAY COMP for continuity. Disconnect J420 from the PWBA FEED H. Disconnect P4201 from the Feed Clutch. Is each cable of J420 <=> P4201 continuous?	Go to step 28.	Replace the HARNESS ASSY TRAY COMP.
28	Checking the power to the Feed Clutch. Disconnect J420 from the PWBA FEED H. Is the voltage across P420-1pin <=> ground on the PWBA FEED H, about +24 VDC when the Interlock Switch (HARN ASSY INTERLOCK) is pushed?	Go to step 29.	Replace the PWBA FEED H.
29	Checking the Feed Clutch for resistance. Disconnect P/J4201 of the Feed Clutch. Is the resistance across J4201-1 and J4201-2 approximately 280-ohm?	Replace the PWBA FEED H.	Replace the Feed Clutch (CLUTCH ASSY DRV).

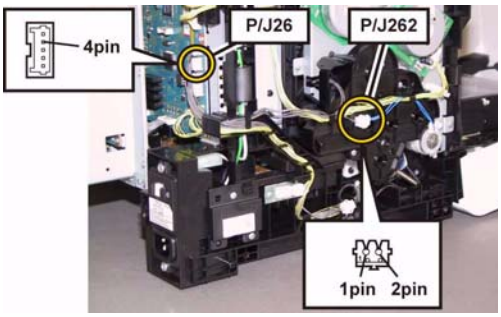
FIP-1.47 072-101: IOT Feeder 2 JAM

Step	Check	Remedy	
		Yes	No
	Possible causative parts: CASSETTE ASSY 250 (PL2.1.1) HOLDER ASSY SEPARATOR (PL2.1.5) CLUTCH ASSY DRV (PL3.1.1) SOLENOID FEED MSI (PL3.1.11) HARN ASSY L SIDE (PL3.1.18) ROLL ASSY FEED (PL3.2.4) ACTUATOR REGI ROLL M (PL3.2.8) ACTUATOR REGI IN (PL3.2.11) SENSOR PHOTO (PL3.2.13) DRIVE ASSY MAIN (PL7.1.2) DRIVE ASSY PH (PL7.1.4) PWBA MCU (PL8.2.13) HARN ASSY MAIN MOT MG SFP (PL9.1.7) HARN ASSY KSNR REGCL (PL9.1.9)		
1	Checking the paper condition. Is the paper in the Tray 1 or Tray 2 wrinkled or damaged?	Replace the paper with a new and dry one, then go to step 2.	Go to step 3.
2	Does the error still occur when printing?	Go to step 3.	End of work.
3	Checking after reloading a new paper. Reload a new paper in the Tray 1 or Tray 2. Does the error still occur when printing?	Go to step 4.	End of work.
4	Checking the COVER ASSY FRONT MG for latching. Open and close the COVER ASSY FRONT MG, and then latch correctly. Does the error still occur when printing?	Go to step 5.	End of work.
5	Checking the Main Motor (DRIVE ASSY MAIN) for operation. Does the Main Motor (DRIVE ASSY MAIN) operate properly? Checked by [Digital Output] - [DO-0] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 6.	Go to step 19.
6	Checking the DRIVE ASSY PH for operation. Does the ROLL ASSY FEED, ROLL ASSY REGI and ROLL REGI METAL rotate properly? Checked by [Digital Output] - [DO-29] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 7.	Reseat or replace the KIT DRIVE ASSY PH. (Refer to Removal 31/ Replacement 23.)
7	Checking the paper feeding position Is the paper not fed from the Tray 1 or Tray 2?	Go to step 8.	Go to step 12.
8	Checking after resetting the Guide Sides and End Guide on the Tray 1 or Tray 2. Reset the Guide Sides and End Guide, and reseat the Tray 1 or Tray 2 to the printer correctly. Does the error still occur when printing?	Go to step 9.	End of work.

Step	Check	Remedy	
		Yes	No
9	Checking the HOLDER ASSY SEPARATOR on the Tray 1 or Tray 2 for shape and rotation. Pull the Tray 1 or Tray 2 out from the printer. Is the HOLDER ASSY SEPARATOR not contaminated and/or damaged, and rotated smoothly?	Go to step 10.	Replace the KIT HOLDER ASSY SEPARATOR.(Refer to Removal 2/ Replacement 52.)
10	Checking the ROLL ASSY FEED for shape and rotation. Pull the Tray 1 or Tray 2 out from the printer. Is the ROLL ASSY FEED not contaminated and/or damaged, and rotated smoothly?	Go to step 11.	Replace the KIT ROLL ASSY FEED.(Refer to Removal 9/ Replacement 45.)
11	Checking the Cassette Feed Solenoid (SOLENOID FEED MSI) for operation. Does the Cassette Feed Solenoid (SOLENOID FEED MSI) operate properly? Checked by [Digital Output] - [DO-b] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Replace the CASSETTE ASSY 250. (Refer to Removal 1/ Replacement 53.)	Go to step 22.
12	Checking the paper lead edge staying position. Does the paper lead edge stay before the ROLL ASSY REGI and ROLL REGI METAL?	Go to step 13.	The paper lead edge stay after the ROLL ASSY REGI and ROLL REGI METAL, then go to step 16.
13	Checking the paper transfer path between the ROLL ASSY. FEED and ROLL ASSY REGI. Are there any obstacles on the paper transfer path?	Remove the obstacles or stains from the paper transfer path.	Go to step 14.
14	Checking the ACTUATOR REGI IN for shape and operation. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the shape and operation. Are the shape and operation of the ACTUATOR REGI IN normal?	Go to step 15.	Reseat the ACTUATOR REGI IN. If broken or deformed, replace it.
15	Checking the Regi. Sensor (SENSOR PHOTO) for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR REGI IN) is operated? Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Checked by [Digital Output] - [DO-29] in [IOT Diag] of diagnosis.	Go to step 16.	Go to step 26.
16	Checking the Regi. Clutch (CLUTCH ASSY DRV) for operation, and ROLL ASSY REGI and ROLL REGI METAL for rotation. Checked by [Digital Input] - [DI-2] in [IOT Diag] of diagnosis. Does the Regi. Clutch (CLUTCH ASSY DRV) operate properly, and the ROLL ASSY REGI and ROLL REGI METAL rotate? During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 17.	Go to step 30.

Step	Check	Remedy	
		Yes	No
17	Checking the ACTUATOR REGI ROLL M for shape and operation. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the shape and operation. Are the shape and operation of the ACTUATOR REGI ROLL M normal?	Go to step 18.	Reseat the ACTUATOR REGI ROLL M. If broken or deformed, replace it with a new one.
18	Checking the Regi. Sensor (SENSOR PHOTO) for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR REGI IN) is operated? Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Checked by [Digital Input] - [DI-2] in [IOT Diag] of diagnosis.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Go to step 26.
19	Checking the connectors for connection Check the connections between the PWBA MCU and DRIVE ASSY MAIN (Main Motor). Are P/J21 and P/J211 connected correctly? 	Go to step 20.	Reconnect the connector(s) P/J21 and/or P/J211 correctly.
20	Checking the HARN ASSY MAIN MOT MG SFP for continuity Disconnect J21 from the PWBA MCU. Disconnect J211 from the DRIVE ASSY MAIN. Is each cable of J21 <=> J211 continuous?	Go to step 21.	Replace the HARN ASSY MAIN MOT MG SFP.
21	Checking the power to the DRIVE ASSY MAIN Disconnect J21 from the PWBA MCU. Are the voltages across J21-2pin/J21-4pin <=> ground on the PWBA MCU, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed?	Replace the KIT DRIVE ASSY MAIN. (Refer to Removal 32/ Replacement 22.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
22	Checking the connectors of the SOLENOID FEED MSI (Cassette Feed Solenoid) for connection Check the connections between the PWBA MCU and SOLENOID FEED MSI. Are P/J23 and P/J231 connected correctly? 	Go to step 23.	Reconnect the connector(s) P/J23 and/or P/J231 correctly.

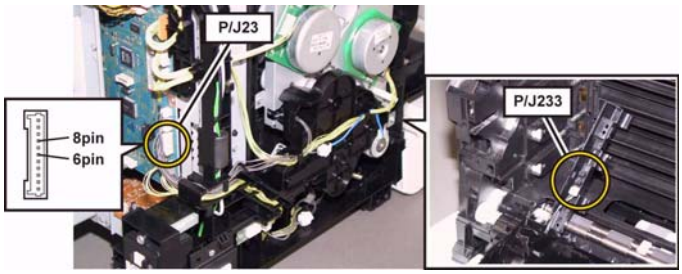
Step	Check	Remedy	
		Yes	No
23	Checking the HARN ASSY L SIDE for continuity Disconnect J23 from the PWBA MCU. Disconnect P231 from the SOLENOID FEED MSI. Is each cable of J23 <=> P231 continuous?	Go to step 24.	Replace the HARN ASSY L SIDE.
24	Checking the power to the SOLENOID FEED MSI Disconnect J23 from the PWBA MCU. Is the voltage across P23-1pin <=> ground on the PWBA MCU, about +24 VDC when the Interlock Switch (HARN ASSY INTERLOCK) is pushed?	Go to step 25.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
25	Checking the SOLENOID FEED MSI for resistance. Disconnect P/J231 of the SOLENOID FEED MSI. Is the resistance across J231-1 and J231-2 about 96 ohm?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the KIT FEED ROLL/SOL/ CLUTCH. (Refer to Removal 35/ Replacement 19.)
26	Checking the connectors of the SENSOR PHOTO (Regi Sensor) for connection. Check the connections between the PWBA MCU and SENSOR PHOTO. Are P/J23 and P/J232 connected correctly? 	Go to step 27.	Reconnect the connector(s) P/ J23 and/or P/J232 correctly.
27	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect J232 from the SENSOR PHOTO. Is each cable of J23 <=> J232 continuous?	Go to step 28.	Replace the HARN ASSY L SIDE.
28	Checking the power to the SENSOR PHOTO. Disconnect J23 from the PWBA MCU. Is the voltage across P23-3pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 29.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
29	Checking the SENSOR PHOTO for operation. Check the voltage across J23-5pin <=> ground on the PWBA MCU. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Does the voltage change, when the actuator (ACTUATOR REGI IN) is operated?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the SENSOR PHOTO:REGI.(Re fer to Removal 49/ Replacement 5.)

Step	Check	Remedy	
		Yes	No
30	Checking the connectors of the CLUTCH ASSY DRV (Regi Clutch) for connection. Check the connections between the PWBA MCU and CLUTCH ASSY DRV. Are P/J26 and P/J262 connected correctly? 	Go to step 31.	Reconnect the connector(s) P/J26 and/or P/J262 correctly.
31	Checking the HARN ASSY KSNR REGCL for continuity. Disconnect J26 from the PWBA MCU. Disconnect P262 from the CLUTCH ASSY DRV. Is each cable of J26 <=> P262 continuous?	Go to step 32.	Replace the HARN ASSY KSNR REGCL.
32	Checking the power to the CLUTCH ASSY DRV. Disconnect J26 from the PWBA MCU. Is the voltage across P26-4pin <=> ground on the PWBA MCU, about +24 VDC when the Interlock Switch (HARN ASSY INTERLOCK) is pushed?	Go to step 33.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
33	Checking the CLUTCH ASSY DRV for resistance. Disconnect P/J262 of the CLUTCH ASSY DRV. Is the resistance across J262-1 and J262-2 approximately 280-ohm?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the CLUTCH ASSY DRV. (Refer to Removal 30/ Replacement 24.)

FIP-1.48 072-908: IOT Remain Option Feeder JAM

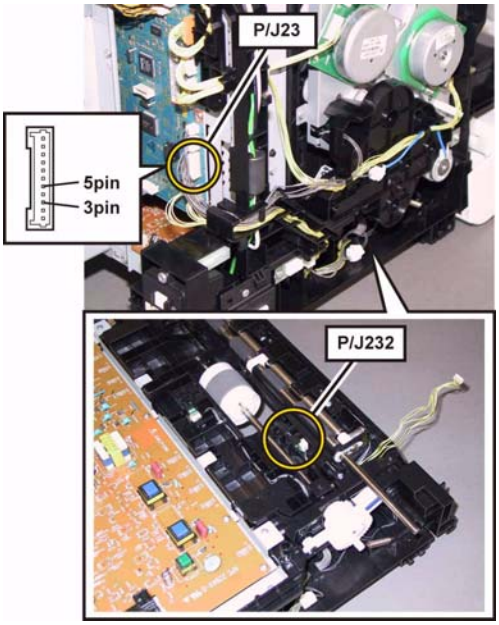
Step	Check	Remedy	
		Yes	No
	Possible causative parts: SENSOR PHOTO (PL12.4.13) PWBA MCU (PL8.2.13) HARNESS ASSY TRAY COMP (PL12.2.20)		
1	Checking the Paper Path Sensor (SENSOR PHOTO) for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR REGI IN) is operated? Checked by [Digital Input] - [DI-a] in [IOT Diag] of diagnosis.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Go to step 2.
2	Checking the connectors for connection. Check the connections between the PWBA FEED H and Paper Path Sensor. Are P/J420 and P/J4200 connected correctly?	Go to step 3.	Reconnect the connector(s) P/J420 and/or P/J4200 correctly.
3	Checking the HARNESS ASSY TRAY COMP for continuity. Disconnect J420 from the PWBA FEED H. Disconnect J4200 from the Paper Path Sensor. Is each cable of J420 <=> J4200 continuous?	Go to step 4.	Replace the HARNESS ASSY TRAY COMP.
4	Checking the power to the SENSOR PHOTO. Disconnect J420 from the PWBA FEED H. Is the voltage across P420-6pin <=> ground on the PWBA FEED H, about +3.3 VDC?	Replace the KIT FEEDER ASSY OPT.(Refer to Removal 58/ Replacement 59)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11)

FIP-1.49 075-101 / 075-102 / 075-923: IOT SSF Insert JAM / IOT SSF Paper Pullout JAM / Waiting for reseat paper of SSF

Step	Check	Remedy	
		Yes	No
	Possible causative parts: HARNESS ASSY L SIDE (PL3.1.18) SENSOR PHOTO (PL3.2.13) PWBA MCU (PL8.2.13)		
1	Checking the customer operation. Did the customer insert the paper to the SSF during print?	After print completion, insert the paper to the SSF.	Go to step 2.
2	Checking the SSF No Paper Sensor for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR SSF) is operated by paper. Checked by [Digital Input] - [DO-0] in [IOT Diag] of diagnosis.	Go to step 3.	Go to step 4.
3	Checking the error. Does the error still occur when printing?	Replace the PWBA MCU. (Refer to Removal 43/Replacement 11)	End of work.
4	Checking the connectors of the SENSOR PHOTO (SSF No Paper Sensor) for connection. Check the connections between the PWBA MCU and SENSOR PHOTO. Are P/J23 and P/J233 connected correctly? 	Go to step 6.	Reconnect the connector(s) P/J23 and/or P/J233 correctly, then go to step 5.
5	Does the error still occur when printing?	Go to step 6.	End of work.
6	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect J233 from the SENSOR PHOTO. Is each cable of J23 <=> J233 continuous?	Go to step 7.	Replace the HARN ASSY L SIDE.
7	Checking the power to the SENSOR PHOTO. Disconnect J23 from the PWBA MCU. Is the voltage across P23-6pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 8.	Replace the PWBA MCU. (Refer to Removal 43/Replacement 11)
8	Checking the SENSOR PHOTO for operation. Check the voltage across J23-8pin <=> ground on the PWBA MCU. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Does the voltage change, when the ACTUATOR SSF is operated?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the SENSOR PHOTO.

FIP-1.50 077-100: IOT Reg On early JAM

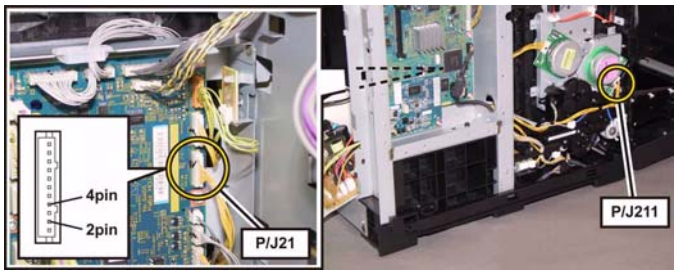
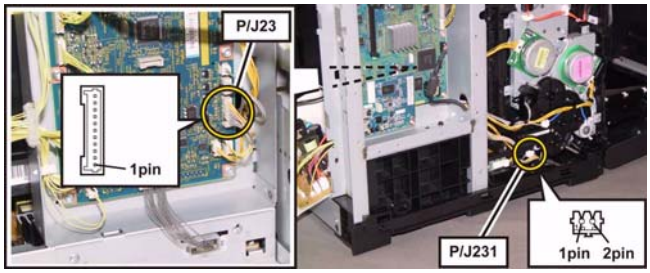
Step	Check	Remedy	
		Yes	No
	Possible causative parts: HARN ASSY L SIDE (PL3.1.18) ACTUATOR REGI IN (PL3.2.11) SENSOR PHOTO (PL3.2.13) PWBA MCU(PL8.2.13)		
1	Checking the error. Replace to known good paper. Does the error still occur when printing?	Go to step 2.	End of work.
2	Checking the Regi Rolls installation. Open the Front Cover and check the Regi Rolls installation. Is the ROLL REGI METAL pressed against the ROLL ASSY REGI by the spring pressure?	Go to step 3.	Replace the printer.
3	Checking the Regi Clutch. Does the clutch noise occur? Checked by [Digital Output]-[DO-29] in [IOT Diag] of diagnosis.	Go to step 4.	Replace the printer.
4	Checking the Regi Sensor for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR REGI IN) is operated? Checked by [Digital Input]-[DI-2] on [IOT Diag] of diagnosis.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Go to step 5.
5	Checking the ACTUATOR REGI IN for shape and operation. Remove the CHUTE LOW CST (PL3.2.35) once to check the shape and operation. Are the shape and operation of the ACTUATOR REGI IN normal?	Go to step 6.	Reseat the ACTUATOR REGI IN. (Refer to Removal 51/ Replacement 3) If broken or deformed, replace it.

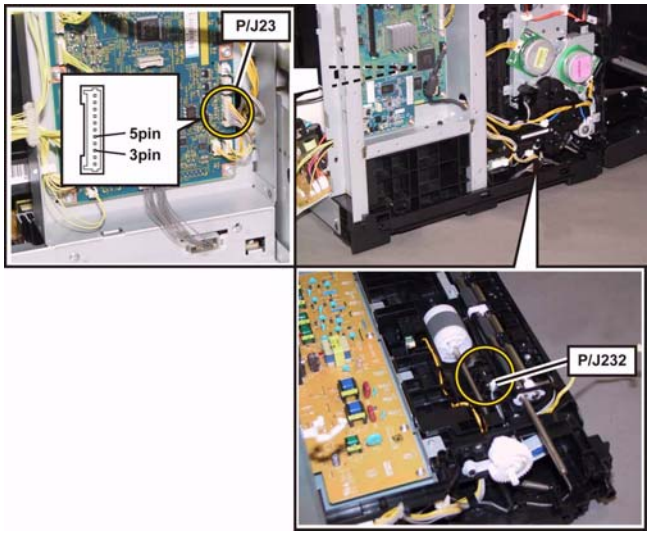
Step	Check	Remedy	
		Yes	No
6	Checking the connectors of the SENSOR PHOTO (Regi Sensor) for connection. Check the connections between the PWBA MCU and SENSOR PHOTO. Are P/J23 and P/J232 connected correctly? 	Go to step 7.	Reconnect the connector(s) P/J23 and/or P/J232 correctly.
7	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect J232 from the SENSOR PHOTO. Is each cable of J23 <=> J232 continuous?	Go to step 8.	Replace the HARN ASSY L SIDE.
8	Checking the power to the SENSOR PHOTO. Disconnect J23 from the PWBA MCU. Is the voltage across P23-3pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 9.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
9	Checking the SENSOR PHOTO for operation. Check the voltage across J23-5pin <=> ground on the PWBA MCU. Remove the CHUTE LOW CST (PL3.2.35) once to check the operation. Does the voltage change, when the actuator (ACTUATOR REGI IN) is operated?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the SENSOR PHOTO:REGI. (Refer to Removal 49/ Replacement 5.)

FIP-1.51 077-101: IOT Reg OFF Jam

Step	Check	Remedy	
		Yes	No
	Possible causative parts: CASSETTE ASSY 250 (PL2.1.1) HOLDER ASSY SEPARATOR (PL2.1.5) CLUTCH ASSY DRV (PL3.1.1) SOLENOID FEED MSI (PL3.1.11) HARN ASSY L SIDE (PL3.1.18) ROLL ASSY FEED (PL3.2.4) ACTUATOR REGI ROLL M (PL3.2.8) ACTUATOR REGI IN (PL3.2.11) SENSOR PHOTO (PL3.2.13) DRIVE ASSY MAIN (PL7.1.2) DRIVE ASSY PH (PL7.1.4) PWBA MCU (PL8.2.13) HARN ASSY MAIN MOT MG SFP (PL9.1.7) HARN ASSY KSNR REGCL (PL9.1.9)		
1	Checking the paper condition. Is the paper in the Tray 1 wrinkled or damaged?	Replace the paper with a new and dry one, then go to step 2.	Go to step 3.
2	Does the error still occur when printing?	Go to step 3.	End of work.
3	Checking after reloading a new paper. Reload a new paper in the Tray 1. Does the error still occur when printing?	Go to step 4.	End of work.
4	Checking the COVER ASSY FRONT MG for latching. Open and close the COVER ASSY FRONT MG, and then latch correctly. Does the error still occur when printing?	Go to step 5.	End of work.
5	Checking the Main Motor (DRIVE ASSY MAIN) for operation. Does the Main Motor (DRIVE ASSY MAIN) operate properly? Checked by [Digital Output]-[DO-0] on [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 6.	Go to step 18.
6	Checking the DRIVE ASSY PH for operation. Does the ROLL ASSY FEED, ROLL ASSY REGI and ROLL REGI METAL rotate properly? Checked by [Digital Output]-[DO-29] on [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 7.	Reseat or replace the KIT DRIVE ASSY PH. (Refer to Removal 31/ Replacement 23.)
7	Checking the paper feeding position. Is the paper not fed from the Tray 1?	Go to step 8.	Go to step 12.
8	Checking after resetting the Guide Sides and End Guide on the Tray 1. Reset the Guide Sides and End Guide, and reseat the Tray 1 to the printer correctly. Does the error still occur when printing?	Go to step 9.	End of work.

Step	Check	Remedy	
		Yes	No
9	Checking the HOLDER ASSY SEPARATOR on the Tray 1 for shape and rotation. Pull the Tray 1 out from the printer. Is the HOLDER ASSY SEPARATOR not contaminated and/ or damaged, and rotated smoothly?	Go to step 10.	Replace the KIT HOLDER ASSY SEPARATOR. (Refer to Removal 2/ Replacement 52.)
10	Checking the ROLL ASSY FEED for shape and rotation. Pull the Tray 1 out from the printer. Is the ROLL ASSY FEED not contaminated and/or damaged, and rotated smoothly?	Go to step 11.	Replace the KIT ROLL ASSY FEED. (Refer to Removal 9/ Replacement 45.)
11	Checking the Cassette Feed Solenoid (SOLENOID FEED) for operation. Does the Cassette Feed Solenoid (SOLENOID FEED) operate properly? Checked by [Digital Output] - [DO-b] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Replace the CASSETTE ASSY 250. (Refer to Removal 1/ Replacement 53.)	Go to step 21.
12	Checking the paper lead edge staying position. Does the paper lead edge stay before the ROLL ASSY REGI and ROLL REGI METAL?	Go to step 13.	The paper lead edge stay after the ROLL ASSY REGI and ROLL REGI METAL, then go to step 16.
13	Checking the paper transfer path between the ROLL ASSY FEED and ROLL ASSY REGI. Are there any obstacles on the paper transfer path?	Remove the obstacles or stains from the paper transfer path.	Go to step 14.
14	Checking the ACTUATOR REGI IN for shape and operation. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the shape and operation. Are the shape and operation of the ACTUATOR REGI IN normal?	Go to step 15.	Reseat the ACTUATOR REGI IN.(Refer to Removal 51/ Replacement 3) If broken or deformed, replace it.
15	Checking the Regi. Sensor (SENSOR PHOTO) for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR REGI IN) is operated? Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Checked by [Digital Input] - [DI-2] in [IOT Diag] of diagnosis.	Go to step 16.	Go to step 25.
16	Checking the Regi. Clutch (CLUTCH ASSY DRV) for operation, and ROLL ASSY REGI and ROLL REGI METAL for rotation. Checked by [Digital Output] - [DO-29] in [IOT Diag] of diagnosis. Does the Regi. Clutch (CLUTCH ASSY DRV) operate properly, and the ROLL ASSY REGI and ROLL REGI METAL rotate? During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 17.	Go to step 29.

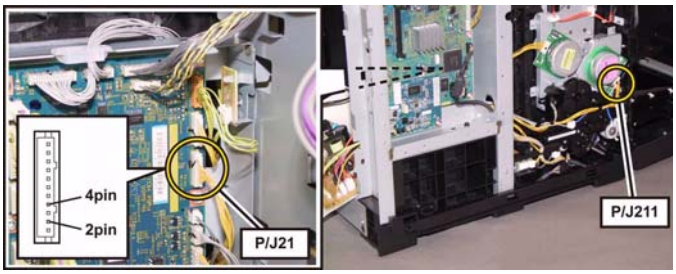
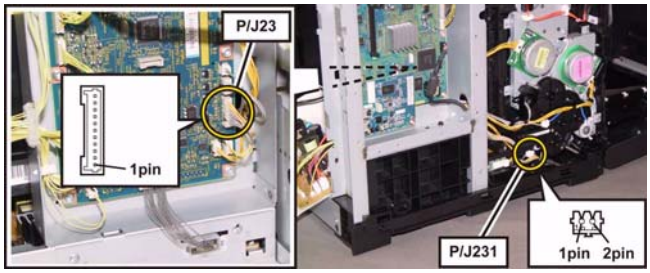
Step	Check	Remedy	
		Yes	No
17	Checking the ACTUATOR REGI ROLL M for shape and operation. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the shape and operation. Are the shape and operation of the ACTUATOR REGI ROLL M normal?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Reseat the ACTUATOR REGI ROLL M. If broken or deformed, replace it with a new one.
18	Checking the connectors for connection. Check the connections between the PWBA MCU and DRIVE ASSY MAIN (Main Motor). Are P/J21 and P/J211 connected correctly? 	Go to step 19.	Reconnect the connector(s) P/J21 and/or P/J211 correctly.
19	Checking the HARN ASSY MAIN MOT MG SFP for continuity. Disconnect J21 from the PWBA MCU. Disconnect J211 from the DRIVE ASSY MAIN. Is each cable of J21 <=> J211 continuous?	Go to step 20.	Replace the HARN ASSY MAIN MOT MG SFP.
20	Checking the power to the DRIVE ASSY MAIN. Disconnect J21 from the PWBA MCU. Are the voltages across J21-2pin/J21-4pin <=> ground on the PWBA MCU, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed?	Replace the KIT DRIVE ASSY MAIN. (Refer to Removal 32/ Replacement 22.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
21	Checking the connectors of the SOLENOID FEED (Cassette Feed Solenoid) for connection. Check the connections between the PWBA MCU and SOLENOID FEED. Are P/J23 and P/J231 connected correctly? 	Go to step 22.	Reconnect the connector(s) P/J23 and/or P/J231 correctly.
22	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect P231 from the SOLENOID FEED. Is each cable of J23 <=> P231 continuous?	Go to step 23.	Replace the HARN ASSY L SIDE.
23	Checking the power to the SOLENOID FEED. Disconnect J23 from the PWBA MCU. Is the voltage across P23-1pin <=> ground on the PWBA MCU, about +24 VDC when the Interlock Switch (HARN ASSY INTERLOCK) is pushed?	Go to step 24.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

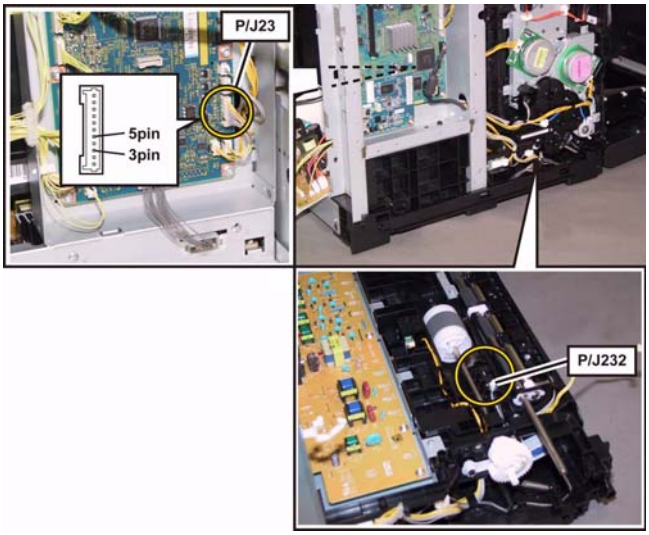
Step	Check	Remedy	
		Yes	No
24	Checking the SOLENOID FEED for resistance. Disconnect P/J231 of the SOLENOID FEED. Is the resistance across J231-1 and J231-2 about 96 ohm?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the KIT FEED ROLL/SOL/ CLUTCH. (Refer to Removal 35/ Replacement 19.)
25	Checking the connectors of the SENSOR PHOTO (Regi Sensor) for connection. Check the connections between the PWBA MCU and SENSOR PHOTO. Are P/J23 and P/J232 connected correctly? 	Go to step 26.	Reconnect the connector(s) P/ J23 and/or P/J232 correctly.
26	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect J232 from the SENSOR PHOTO. Is each cable of J23 <=> J232 continuous?	Go to step 27.	Replace the HARN ASSY L SIDE.
27	Checking the power to the SENSOR PHOTO. Disconnect J23 from the PWBA MCU. Is the voltage across P23-3pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 28.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
28	Checking the SENSOR PHOTO for operation. Check the voltage across J23-5pin <=> ground on the PWBA MCU. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Does the voltage change, when the actuator (ACTUATOR REGI IN) is operated?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the SENSOR PHOTO:REGI. (Refer to Removal 49/ Replacement 5)

FIP-1.52 077-102 / 077-103 / 077-106: IOT Exit On JAM / IOT Exit On early JAM / IOT Stop Reservation JAM

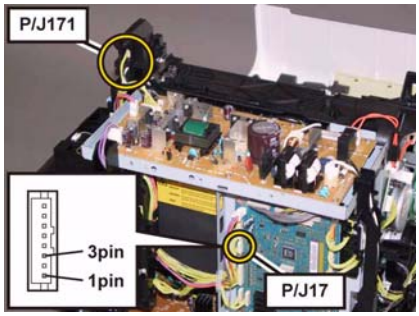
Step	Check	Remedy	
		Yes	No
	Possible causative parts: CASSETTE ASSY 250 (PL2.1.1) HOLDER ASSY SEPARATOR (PL2.1.5) CLUTCH ASSY DRV (PL3.1.1) SOLENOID FEED MSI (PL3.1.11) HARN ASSY L SIDE (PL3.1.18) ROLL ASSY FEED (PL3.2.4) ACTUATOR REGI ROLL M (PL3.2.8) ACTUATOR REGI IN (PL3.2.11) SENSOR PHOTO (PL3.2.13) DRIVE ASSY MAIN (PL7.1.2) DRIVE ASSY PH (PL7.1.4) PWBA MCU (PL8.2.13) HARN ASSY MAIN MOT MG SFP (PL9.1.7) HARN ASSY KSNR REGCL (PL9.1.9)		
1	Checking the paper condition. Is the paper in the Tray 1 wrinkled or damaged?	Replace the paper with a new and dry one, then go to step 2.	Go to step 3.
2	Does the error still occur when printing?	Go to step 3.	End of work.
3	Checking after reloading a new paper. Reload a new paper in the Tray 1. Does the error still occur when printing?	Go to step 4.	End of work.
4	Checking the COVER ASSY FRONT MG for latching. Open and close the COVER ASSY FRONT MG, and then latch correctly. Does the error still occur when printing?	Go to step 5.	End of work.
5	Checking the Main Motor (DRIVE ASSY MAIN) for operation. Does the Main Motor (DRIVE ASSY MAIN) operate properly? Checked by [Digital Output]-[DO-0] on [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 6.	Go to step 18.
6	Checking the DRIVE ASSY PH for operation. Does the ROLL ASSY FEED, ROLL ASSY REGI and ROLL REGI METAL rotate properly? Checked by [Digital Output]-[DO-29] on [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 7.	Reseat or replace the KIT DRIVE ASSY PH. (Refer to Removal 31/ Replacement 23.)
7	Checking the paper feeding position. Is the paper not fed from the Tray 1?	Go to step 8.	Go to step 12.
8	Checking after resetting the Guide Sides and End Guide on the Tray 1. Reset the Guide Sides and End Guide, and reseat the Tray 1 to the printer correctly. Does the error still occur when printing?	Go to step 9.	End of work.

Step	Check	Remedy	
		Yes	No
9	Checking the HOLDER ASSY SEPARATOR on the Tray 1 for shape and rotation. Pull the Tray 1 out from the printer. Is the HOLDER ASSY SEPARATOR not contaminated and/ or damaged, and rotated smoothly?	Go to step 10.	Replace the KIT HOLDER ASSY SEPARATOR. (Refer to Removal 2/ Replacement 52.)
10	Checking the ROLL ASSY FEED for shape and rotation. Pull the Tray 1 out from the printer. Is the ROLL ASSY FEED not contaminated and/or damaged, and rotated smoothly?	Go to step 11.	Replace the KIT ROLL ASSY FEED. (Refer to Removal 9/ Replacement 45.)
11	Checking the Cassette Feed Solenoid (SOLENOID FEED) for operation. Does the Cassette Feed Solenoid (SOLENOID FEED) operate properly? Checked by [Digital Output] - [DO-b] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Replace the CASSETTE ASSY 250. (Refer to Removal 1/ Replacement 53.)	Go to step 21.
12	Checking the paper lead edge staying position. Does the paper lead edge stay before the ROLL ASSY REGI and ROLL REGI METAL?	Go to step 13.	The paper lead edge stay after the ROLL ASSY REGI and ROLL REGI METAL, then go to step 16.
13	Checking the paper transfer path between the ROLL ASSY FEED and ROLL ASSY REGI. Are there any obstacles on the paper transfer path?	Remove the obstacles or stains from the paper transfer path.	Go to step 14.
14	Checking the ACTUATOR REGI IN for shape and operation. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the shape and operation. Are the shape and operation of the ACTUATOR REGI IN normal?	Go to step 15.	Reseat the ACTUATOR REGI IN.(Refer to Removal 51/ Replacement 3) If broken or deformed, replace it.
15	Checking the Regi. Sensor (SENSOR PHOTO) for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR REGI IN) is operated? Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Checked by [Digital Input] - [DI-2] in [IOT Diag] of diagnosis.	Go to step 16.	Go to step 25.
16	Checking the Regi. Clutch (CLUTCH ASSY DRV) for operation, and ROLL ASSY REGI and ROLL REGI METAL for rotation. Checked by [Digital Output] - [DO-29] in [IOT Diag] of diagnosis. Does the Regi. Clutch (CLUTCH ASSY DRV) operate properly, and the ROLL ASSY REGI and ROLL REGI METAL rotate? During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 17.	Go to step 29.

Step	Check	Remedy	
		Yes	No
17	Checking the ACTUATOR REGI ROLL M for shape and operation. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the shape and operation. Are the shape and operation of the ACTUATOR REGI ROLL M normal?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Reseat the ACTUATOR REGI ROLL M. If broken or deformed, replace it with a new one.
18	Checking the connectors for connection. Check the connections between the PWBA MCU and DRIVE ASSY MAIN (Main Motor). Are P/J21 and P/J211 connected correctly? 	Go to step 19.	Reconnect the connector(s) P/J21 and/or P/J211 correctly.
19	Checking the HARN ASSY MAIN MOT MG SFP for continuity. Disconnect J21 from the PWBA MCU. Disconnect J211 from the DRIVE ASSY MAIN. Is each cable of J21 <=> J211 continuous?	Go to step 20.	Replace the HARN ASSY MAIN MOT MG SFP.
20	Checking the power to the DRIVE ASSY MAIN. Disconnect J21 from the PWBA MCU. Are the voltages across J21-2pin/J21-4pin <=> ground on the PWBA MCU, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed?	Replace the KIT DRIVE ASSY MAIN. (Refer to Removal 32/ Replacement 22.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
21	Checking the connectors of the SOLENOID FEED (Cassette Feed Solenoid) for connection. Check the connections between the PWBA MCU and SOLENOID FEED. Are P/J23 and P/J231 connected correctly? 	Go to step 22.	Reconnect the connector(s) P/J23 and/or P/J231 correctly.
22	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect P231 from the SOLENOID FEED. Is each cable of J23 <=> P231 continuous?	Go to step 23.	Replace the HARN ASSY L SIDE.
23	Checking the power to the SOLENOID FEED. Disconnect J23 from the PWBA MCU. Is the voltage across P23-1pin <=> ground on the PWBA MCU, about +24 VDC when the Interlock Switch (HARN ASSY INTERLOCK) is pushed?	Go to step 24.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

Step	Check	Remedy	
		Yes	No
24	Checking the SOLENOID FEED for resistance. Disconnect P/J231 of the SOLENOID FEED. Is the resistance across J231-1 and J231-2 about 96 ohm?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the KIT FEED ROLL/SOL/ CLUTCH. (Refer to Removal 35/ Replacement 19.)
25	Checking the connectors of the SENSOR PHOTO (Regi Sensor) for connection. Check the connections between the PWBA MCU and SENSOR PHOTO. Are P/J23 and P/J232 connected correctly? 	Go to step 26.	Reconnect the connector(s) P/ J23 and/or P/J232 correctly.
26	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect J232 from the SENSOR PHOTO. Is each cable of J23 <=> J232 continuous?	Go to step 27.	Replace the HARN ASSY L SIDE.
27	Checking the power to the SENSOR PHOTO. Disconnect J23 from the PWBA MCU. Is the voltage across P23-3pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 28.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
28	Checking the SENSOR PHOTO for operation. Check the voltage across J23-5pin <=> ground on the PWBA MCU. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Does the voltage change, when the actuator (ACTUATOR REGI IN) is operated?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the SENSOR PHOTO:REGI. (Refer to Removal 49/ Replacement 5)

FIP-1.53 077-104 / 077-105: IOT Exit Off JAM / IOT Exit Off early JAM

Step	Check	Remedy	
		Yes	No
	Possible causative parts: FUSER ASSY (PL6.1.1) PWBA MCU (PL8.2.13) HARNESS ASSY FUSER MG SFP (PL6.1.2)		
1	Checking the error. Replace to known good paper. Does the error still occur when printing?	Go to step 2.	End of work.
2	Checking the Exit Sensor for operation. Does the number on the screen increase by one, when the actuator of the Exit Sensor in the FUSER ASSY is operated? Checked by [Digital Input]-[DI-3] on [IOT Diag] of diagnosis. Warning: Start the operation after the FUSER ASSY has cooled down.	Go to step 7.	Go to step 3.
3	Checking the connectors of the Exit Sensor in the FUSER ASSY for connection. Check the connections between the PWBA MCU and FUSER ASSY. Are P/J17 and P/J171 connected correctly? 	Go to step 4.	Reconnect the connector(s) P/J17 and/or P/J171 correctly.
4	Checking the HARNESS ASSY FUSER MG SFP for continuity. Remove the FUSER ASSY. Disconnect J17 from the PWBA MCU. Is each cable of J17 <=> P171 continuous? NOTE: P171 is attached to the frame.	Go to step 5.	Replace the HARNESS ASSY FUSER MG SFP.
5	Checking the power to the Exit Sensor in the FUSER ASSY. Disconnect the connector of J17 on the PWBA MCU. Is the voltage across J17-1pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 6.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
6	Checking the Exit Sensor for operation. Check the voltage across J17-3pin <=> ground on the PWBA MCU. Does the voltage change, when the actuator of the Exit Sensor is operated?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Warning: Start the operation after the FUSER ASSY has cooled down. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) After replacement, be sure to clear the life counter value.

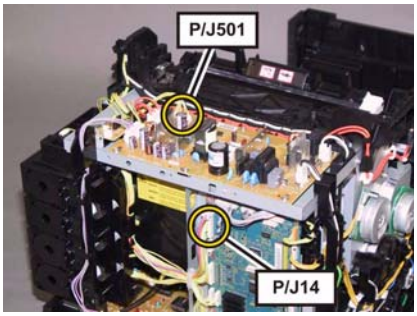
Step	Check	Remedy	
		Yes	No
7	Checking the Regi Rolls installation. Open the Front Cover and check the Regi Rolls installation. Is the ROLL REGI METAL pressed against the ROLL ASSY REGI by the spring pressure?	Go to step 8.	Replace the printer.
8	Checking the Regi Clutch. Does the clutch noise occur? Checked by [Digital Output] - [DO-29] in [IOT Diag] of diagnosis.	Replace the printer.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

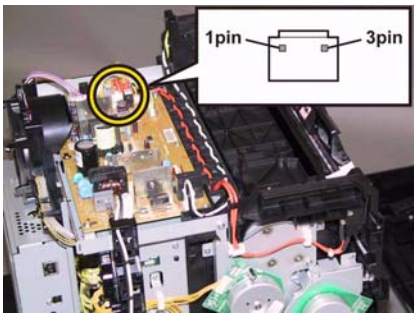
FIP-1.54 077-107 / 077-108: IOT Duplex Misfeed JAM / IOT Duplex JAM (2150cdn only)

Step	Check	Remedy	
		Yes	No
	Possible causative parts: HARN ASSY DUP RELAY (PL1.2.13) HARN ASSY L SIDE (PL3.1.18) HARN ASSY OPTION (PL3.1.20) ROLL ASSY REGI (PL3.2.9) ROLL REGI METAL (PL3.2.10) ROLLER ASSY DUP (PL11.2.9) SENSOR PHOTO(Regi Sensor) (PL3.2.13) FUSER ASSY (PL6.1.1) PWBA MCU (PL8.2.13) FEEDER ASSY DUP SFP STD (PL11.1.1)		
1	Checking the COVER ASSY FRONT MG for latching. Open and close the COVER ASSY FRONT MG, then check the latching. Does the error still occur when printing?	Go to step 2.	End of work.
2	Checking after resetting the FUSER ASSY. Reseat the FUSER ASSY. Warning: Start the operation after the FUSER ASSY has cooled down. Does the error still occur when printing?	Go to step 3.	End of work.
3	Checking after resetting the Duplex. Reseat the Duplex. Does the error still occur when printing?	Go to step 4.	End of work.
4	Checking the DRIVE ASSY EXIT for operation. Does the DRIVE ASSY EXIT operate properly? Checked by [Digital Output]-[DO-D] on [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 5.	Replace FEEDER ASSY DUP SFP STD (Refer to Removal 56/ Replacement 57).
5	Checking the DRIVE ASSY DUP for operation. Does the DRIVE ASSY DUP operate properly? Checked by [Digital Output]-[DO-12] on [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 6.	Replace FEEDER ASSY DUP SFP STD (Refer to Removal 56/ Replacement 57).
6	Checking the Duplex Clutch for operation. Does the Duplex Clutch operate properly? Checked by [Digital Output]-[DO-35] on [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 7.	Replace FEEDER ASSY DUP SFP STD (Refer to Removal 56/ Replacement 57).
7	Checking the SENSOR PHOTO (REGI SENSOR) for operation. Does the number on the screen increase by one, every time the actuator of the SENSOR PHOTO (REGI SENSOR) is operated? Checked by [Digital Input]-[DI-2] in [IOT Diagnosis] of diagnosis.	Go to step 8.	Go to step 10.
8	Checking the ROLLER ASSY DUP for shape and operation. Are ROLLER ASSY DUP seated correctly? Also, are they not contaminated and/or damaged, and rotated smoothly? Check these items by turning with your finger.	Go to step 9.	Replace ROLLER ASSY DUP (Refer to Removal 57/ Replacement 56).

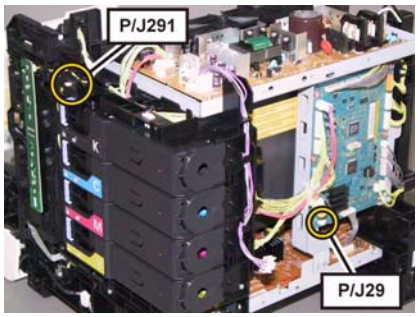
Step	Check	Remedy	
		Yes	No
9	Checking the HARN ASSY DUP RELAY for continuity Disconnect J27 from PWBA MCU. Disconnect P272 from HARN ASSY DUP RELAY. Is each cable of J27 <=> P272 continuous?	Go to step 14.	Replace HARN ASSY DUP RELAY(Refer to Removal 28/ Replacement 26).
10	Checking the connectors of the SENSOR PHOTO (Regi Sensor) for connection. Check the connections between the PWBA MCU and SENSOR PHOTO. Are P/J23 and P/J232 connected correctly?	Go to step 11.	Reconnect the connector(s) P/J23 and/or P/J232 correctly.
11	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect J232 from the SENSOR PHOTO. Is each cable of J23 <=> J232 continuous?	Go to step 12.	Replace the HARN ASSY L SIDE.
12	Checking the power to the SENSOR PHOTO. Disconnect J23 from the PWBA MCU. Is the voltage across P23-3pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 13.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
13	Checking the SENSOR PHOTO for operation. Check the voltage across 23-5pin <=> ground on the PWBA MCU. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Does the voltage change, when the actuator of the SENSOR PHOTO is operated?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the Regi Sensor.
14	Checking after replacing FEEDER ASSY DUP SFP STD. Replace FEEDER ASSY DUP SFP STD. Does the error still occur when printing?	Go to step 15.	End of work.
15	Checking after replacing FUSER ASSY. Replace FUSER ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Does the error still occur when printing? NOTE: After replacement, be sure to clear life counter value.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.55 077-300: IOT Cover Front Open

Step	Check	Remedy	
		Yes	No
	Possible causative parts: COVER ASSY FRONT MG (PL1.2.1) PWBA LVPS (PL8.2.1) HARN ASSY INTERLOCK (PL8.2.5) PWBA MCU (PL8.2.13) HARNESS ASSY LVPS MAIN MG SFP (PL9.1.3)		
1	Checking the COVER ASSY FRONT MG (Front Cover) for shape. Are there any damages on the COVER ASSY FRONT MG?	Replace the COVER ASSY FRONT MG. (Refer to Removal 24/ Replacement 30.)	Go to step 2.
2	Checking the COVER ASSY FRONT MG for latching. Open and close the COVER ASSY FRONT MG. Is the COVER ASSY FRONT MG latched correctly?	Go to step 3.	Reseat or replace the COVER ASSY FRONT MG. (Refer to Removal 24/ Replacement 30.)
3	Checking the interlock switch for operation. Does the number on the screen increase by one, when the COVER ASSY FRONT MG is closed and opened? Checked by [Digital Input] - [DI-7] in [IOT Diag] of diagnosis.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Go to step 4.
4	Checking the connectors for connection. Check the connections between PWBA MCU and PWBA LVPS. Are P/J14 and P/J501 connected correctly? 	Go to step 6.	Reconnect the connector(s) P/J14 and/or P/J501 correctly, then go to step 5.
5	Does the error still occur when the power is turned OFF and ON?	Go to step 6.	End of work.
6	Checking the HARNESS ASSY LVPS MAIN MG SFP for continuity. Disconnect J14 from the PWBA MCU. Disconnect J501 from the PWBA LVPS. Is each cable of J14 <=> J501 continuous?	Go to step 7.	Replace the HARNESS ASSY LVPS MAIN MG SFP.

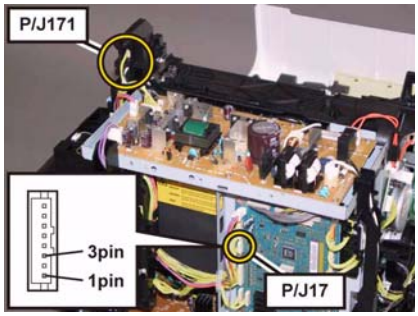
Step	Check	Remedy	
		Yes	No
7	Checking the power to the Interlock Switch Disconnect the connector of J44 on the PWBA LVPS. Is the voltage across P44-1 <=> ground on the PWBA LVPS, about +24 VDC? 	Go to step 8.	Replace the PWBA LVPS. (Refer to Removal 11/ Replacement 43.)
8	Checking the Interlock Switch for operation Check the voltage across P44-3pin <=> ground on the PWBA LVPS. Does the voltage change, when the Interlock Switch is turned ON/OFF?	Replace the PWBA LVPS. (Refer to Removal 11/ Replacement 43.)	Replace the HARN ASSY INTERLOCK. (Refer to Removal 17/ Replacement 37.)

FIP-1.56 077-301: IOT Side Cover Open

Step	Check	Remedy	
		Yes	No
	Possible causative parts: COVER ASSY WINDOW TNR (PL1.1.7) SWITCH (PL5.1.9) HARN ASSY SIDE SW (PL5.1.27) PWBA MCU (PL8.2.13)		
1	Checking the COVER ASSY WINDOW TNR (Side Cover) for shape. Are there any damages on the COVER ASSY WINDOW TNR?	Replace the KIT COVER ASSY WINDOW TNR. (Refer to Removal 8/ Replacement 46.)	Go to step 2.
2	Checking the COVER ASSY WINDOW TNR for latching. Open and close the COVER ASSY WINDOW TRN. Is the COVER ASSY WINDOW TNR latched correctly?	Go to step 3.	Reseat or replace the KIT COVER ASSY WINDOW TNR. (Refer to Removal 8/ Replacement 46.)
3	Checking the Side R Switch (SWITCH) for operation. Does the number on the screen increase by one, when the COVER ASSY WINDOW TRN is closed and opened? Checked by [Digital Input] - [DI-6] in [IOT Diag] of diagnosis.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Go to step 4.
4	Checking the HARN ASSY SIDE SW for continuity. Disconnect J29 from the PWBA MCU. Disconnect J291 from the SIDE R SWITCH. Is each cable of J29 <=> J291 continuous? 	Go to step 5.	Replace the HARN ASSY SIDE SW.
5	Checking after replacing the Side R Switch (SWITCH). Replace the Side R Switch (SWITCH). (Refer to Removal 13/ Replacement 41.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

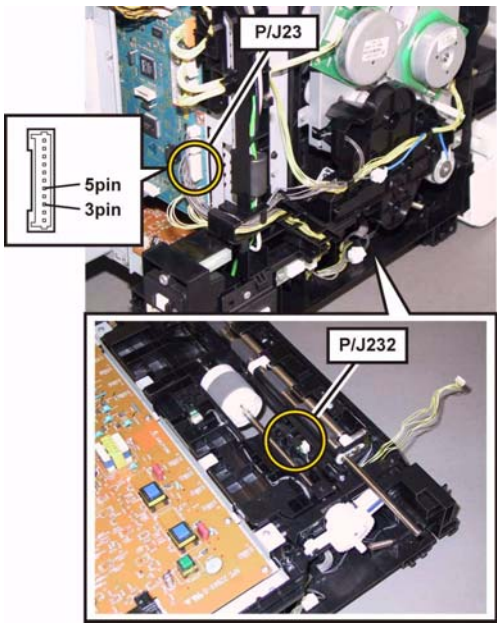
FIP-1.57 077-900: IOT Exit JAM

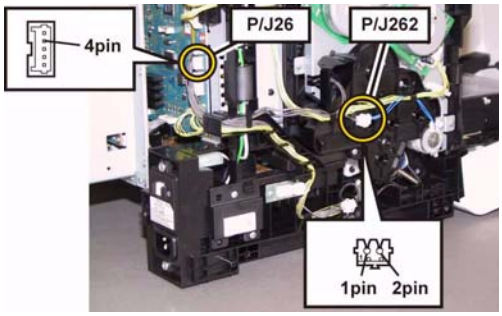
Step	Check	Remedy	
		Yes	No
	Possible causative parts: FUSER ASSY (PL6.1.1) HARNESS ASSY FUSER MG SFP (PL6.1.2) PWBA MCU (PL8.2.13)		
1	Checking the paper feeding Was a paper fed from SSF?	Go to step 2.	Go to step 4.
2	Checking the paper setting Was the paper correctly set to SSF without slant?	Go to step 4.	Set the paper to SSF correctly, and go to step 3.
3	Does the error still occur when printing?	Go to step 4.	End of work.
4	Checking the paper condition Is the paper wrinkled or damaged?	Replace the paper with a new and dry one, then go to step 5.	Go to step 6.
5	Does the error still occur when printing?	Go to step 7.	End of work.
6	Checking after reloading a new paper Reload a new paper. Does the error still occur when printing?	Go to step 7.	End of work.
7	Checking the COVER ASSY FRONT MG for latching Open and close the COVER ASSY FRONT MG, and then latch correctly. Does the error still occur when printing?	Go to step 8.	End of work.
8	Checking the FUSER ASSY Are there any remaining paper and/or foreign substance in the FUSER ASSY? **Warning: Start the operation after the FUSER ASSY has cooled down.**	Remove the paper and/or substance, then go to step 9.	Go to step 9.
9	Checking after resetting the FUSER ASSY Reseat the FUSER ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Does the error still occur when printing?	Go to step 10.	End of work.
10	Checking the Exit Sensor for operation Does the number on the screen increase by one, when the actuator of the Exit Sensor in the FUSER ASSY is operated? Checked by [Digital Input] - [DI-3] in [IOT Diag] of diagnosis. **Warning: Start the operation after the FUSER ASSY has cooled down.**	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Go to step 11.

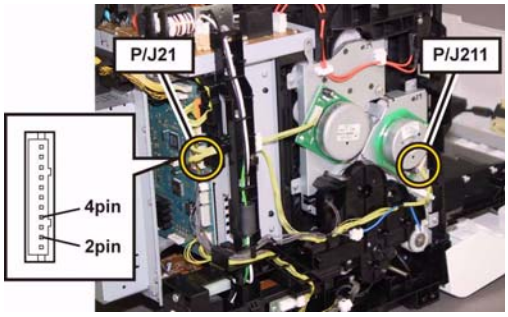
Step	Check	Remedy	
		Yes	No
11	Checking the connectors of the Exit Sensor in the FUSER ASSY for connection. Check the connections between the PWBA MCU and FUSER ASSY. Are P/J17 and P/J171 connected correctly? 	Go to step 12.	Reconnect the connector(s) P/J17 and/or P/J171 correctly.
12	Checking the HARNESS ASSY FUSER MG SFP for continuity. Remove the FUSER ASSY. Disconnect J17 from the PWBA MCU. Is each cable of J17 <=> P171 continuous? **NOTE: P171 is attached to the frame.**	Go to step 13.	Replace the HARNESS ASSY FUSER MG SFP.
13	Checking the power to the Exit Sensor in the FUSER ASSY. Disconnect the connector of J17 on the PWBA MCU. Is the voltage across J17-1pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 14.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
14	Checking the Exit Sensor for operation. Check the voltage across J17-3pin <=> ground on the PWBA MCU. Does the voltage change, when the actuator of the Exit Sensor is operated?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Warning: Start the operation after the FUSER ASSY has cooled down. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) After replacement, be sure to clear the life counter value.

FIP-1.58 077-901: IOT Remain Registration JAM

Step	Check	Remedy	
		Yes	No
	Possible causative parts: CLUTCH ASSY DRV (PL3.1.1) HARN ASSY L SIDE (PL3.1.18) ACTUATOR REGI ROLL M (PL3.2.8) ROLL ASSY REGI (PL3.2.9) ROLL REGI METAL (PL3.2.10) ACTUATOR REGI IN (PL3.2.11) SENSOR PHOTO (PL3.2.13) TRANSFER ASSY (PL6.1.7) DRIVE ASSY MAIN (PL7.1.2) PWBA MCU (PL8.2.13) HARN ASSY MAIN MOT MG SFP (PL9.1.7) HARN ASSY KSNR REGCL (PL9.1.9)		
1	Checking the paper size. Does the using paper size meet the specification?	Go to step 3.	Use the paper that meets the specifications, then go to step 2.
2	Does the error still occur when printing?	Go to step 3.	End of work.
3	Checking the paper condition. Is the paper wrinkled or damaged?	Replace the paper with a new and dry one, then go to step 4.	Go to step 5.
4	Does the error still occur when printing?	Go to step 6.	End of work.
5	Checking after reloading a new paper. Reload a new paper. Does the error still occur when printing?	Go to step 6.	End of work.
6	Checking the COVER ASSY FRONT MG for latching. Open and close the COVER ASSY FRONT MG, and then latch correctly. Does the error still occur when printing?	Go to step 7.	End of work.
7	Checking around the Regi Sensor. Are there any remaining paper and/or foreign substance around the Regi Sensor?	Remove the paper and/or substance, then go to step 8.	Go to step 9.
8	Does the error still occur when printing?	Go to step 9.	End of work.
9	Checking the TRANSFER ASSY. Are there any remaining paper and/or damage on the belt of the TRANSFER ASSY?	Remove the remaining paper. If the belt is damaged, replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.)	Go to step 10.
10	Checking the ROLL ASSY REGI and ROLL REGI METAL for shape and operation. Remove the PHD ASSY once to check the followings. Are ROLL ASSY REGI and ROLL REGI METAL seated correctly? Also, are they not contaminated and/or damaged, and rotated smoothly? Check these items by turning with your finger.	Go to step 11.	Clean or replace the defective ROLL(s).

Step	Check	Remedy	
		Yes	No
11	Checking the ACTUATOR REGI IN and ACTUATOR REGI ROLL M for shape and operation. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the following. Are the shape and operation of the ACTUATOR REGI IN and ACTUATOR REGI ROLL M normal?	Go to step 12.	Reseat the ACTUATOR REGI IN and/or ACTUATOR REGI ROLL M. If broken or deformed, replace it or they.
12	Checking the Regi. Sensor (SENSOR PHOTO) for operation. Does the number on the screen increase by one, when the actuator (ACTUATOR REGI IN) of the Regi. Sensor (SENSOR PHOTO) is operated? Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Checked by [Digital Input] - [D-2] in [IOT Diag] of diagnosis.	Go to step 13.	Go to step 16.
13	Checking the Regi. Clutch (CLUTCH ASSY DRV) for operation, and ROLL ASSY REGI and ROLL REGI METAL for rotation. Checked by [Digital Output] - [DO-29] in [IOT Diag] of diagnosis. Does the Regi. Clutch (CLUTCH ASSY DRV) operate properly, and the ROLL ASSY REGI and ROLL REGI METAL rotate? During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 14.	Go to step 20.
14	Checking the Main Motor (DRIVE ASSY MAIN) for operation. Does the Main Motor (DRIVE ASSY MAIN) operate properly? Checked by [Digital Output] - [DO-0] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 15.	Go to step 24.
15	Checking after resetting the TRANSFER ASSY Reseat the TRANSFER ASSY. Does the error still occur when printing? 	Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34)	End of work.

Step	Check	Remedy	
		Yes	No
16	Checking the connectors of the SENSOR PHOTO (Regi Sensor) for connection. Check the connections between the PWBA MCU and SENSOR PHOTO. Are P/J23 and P/J232 connected correctly?	Go to step 17.	Reconnect the connector(s) P/J23 and/or P/J232 correctly.
17	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect J232 from the SENSOR PHOTO. Is each cable of J23 <=> J232 continuous?	Go to step 18.	Replace the HARN ASSY L SIDE.
18	Checking the power to the SENSOR PHOTO. Disconnect J23 from the PWBA MCU. Is the voltage across P23-3pin <=> ground on the PWBA MCU, about +3.3 VDC?	Go to step 19.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
19	Checking the SENSOR PHOTO for operation. Check the voltage across 23-5pin <=> ground on the PWBA MCU. Remove the CHUTE ASSY LOW (PL3.2.27) once to check the operation. Does the voltage change, when the actuator of the SENSOR PHOTO is operated?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the SENSOR PHOTO.
20	Checking the connectors of the CLUTCH ASSY DRV (Regi Clutch) for connection. Check the connections between the PWBA MCU and CLUTCH ASSY DRV (Regi Clutch). Are P/J26 and P/J262 connected correctly? 	Go to step 21.	Reconnect the connector(s) P/J26 and/or P/J262 correctly.
21	Checking the HARN ASSY KSNR REGCL for continuity. Disconnect J26 from the PWBA MCU. Disconnect P262 from the CLUTCH ASSY DRV. Is each cable of J26 <=> P262 continuous?	Go to step 22.	Replace the HARN ASSY KSNR REGCL.
22	Checking the power to the CLUTCH ASSY DRV. Disconnect J26 from the PWBA MCU. Is the voltage across P26-4pin <=> ground on the PWBA MCU, about +24 VDC when the Interlock Switch (HARN ASSY INTERLOCK) is pushed?	Go to step 23.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
23	Checking the CLUTCH ASSY DRV for resistance. Disconnect P/J262 of the CLUTCH ASSY DRV. Is the resistance across J262-1 and J262-2 approximately 280-ohm?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Replace the CLUTCH ASSY DRV. (Refer to Removal 30/ Replacement 24.)

Step	Check	Remedy	
		Yes	No
24	Checking the connectors for connection. Check the connections between the PWBA MCU and DRIVE ASSY MAIN (Main Motor). Are P/J21 and P/J211 connected correctly? 	Go to step 25.	Reconnect the connector(s) P/J21 and/or P/J211 correctly.
25	Checking the HARN ASSY MAIN MOT MG SFP for continuity. Disconnect J21 from the PWBA MCU. Disconnect J211 from the DRIVE ASSY MAIN. Is each cable of J21 <=> J211 continuous?	Go to step 26.	Replace the HARN ASSY MAIN MOT MG SFP.
26	Checking the power to the DRIVE ASSY MAIN. Disconnect J21 from the PWBA MCU. Are the voltages across J21-2pin/J21-4pin <=> ground on the PWBA MCU, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed?	Replace the KIT DRIVE ASSY MAIN. (Refer to Removal 32/ Replacement 22.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

FIP-1.59 077-907: IOT Remain Duplex JAM (2150cdn only)

Step	Check	Remedy	
		Yes	No
	Possible causative parts: HARN ASSY L SIDE (PL3.1.18) SENSOR PHOT (SSF No Paper Sensor) (PL3.2.13) PWBA MCU (PL8.2.13)		
1	Checking the SENSOR PHOTO (SSF No Paper Sensor) for operation. Does the number on the screen increase by one, every time the actuator of the SENSOR PHOTO (SSF No Paper Sensor) is operated? Checked by [Digital Input]-[DI-0] in [IOT Diagnosis] of diagnosis.	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	Go to step 2.
2	Checking the connectors of the SENSOR PHOTO (SSF No Paper Sensor) for connection. Check the connections between the PWBA MCU and SENSOR PHOTO. Are P/J23 and P/J233 connected correctly?	Go to step 3.	Reconnect the connector(s) P/J23 and/or P/J233 correctly.
3	Checking the connectors of the SENSOR PHOTO (SSF No Paper Sensor) for connection. Check the connections between the PWBA MCU and SENSOR PHOTO. Are P/J23 and P/J233 connected correctly?	Go to step 4.	Reconnect the connector(s) P/J23 and/or P/J233 correctly.
4	Checking the HARN ASSY L SIDE for continuity. Disconnect J23 from the PWBA MCU. Disconnect J233 from the SENSOR PHOTO. Is each cable of J23 <=> J233 continuous?	Go to step 5.	Replace the HARN ASSY L SIDE.
5	Checking the power to the SENSOR PHOTO. Disconnect J23 from the PWBA MCU. Is the voltage across P23-6pin <=> ground on the PWBA MCU, about +3.3 VDC?	Replace the SENSOR PHOTO(SSF No Paper Sensor)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

FIP-1.60 091-402: IOT PHD Life Pre Warning

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PHD ASSY (PL4.1.21) PWBA MCU (PL8.2.13)		
1	Checking the life counter value of the PHD ASSY. Does the life count value show the near of the end?	Replace the PHD ASSY. (Refer to Removal 4/ Replacement 50.)	Go to step 2.
2	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) **CAUTION: Be sure to pull eight sealing tapes out from a new PHD ASSY before installation.** Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

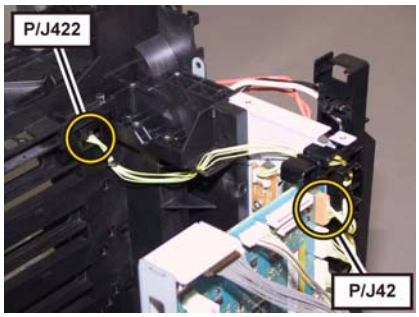
FIP-1.61 091-912: PHD Tape Staying

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PHD ASSY (PL4.1.21) PWBA MCU (PL8.2.13)		
1	Checking the sealing tapes of the PHD ASSY staying. Turn off the power, and open the COVER ASSY FRONT MG. Remove the PHD ASSY. Has the sealing tapes (total eight sealing tapes) been pulled out? After checking, reseat the PHD ASSY correctly.	Go to step 3.	Pull the sealing tapes out, then go to step 2.
2	Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) **CAUTION: Be sure to pull eight sealing tapes out from a new PHD ASSY before installation.** Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

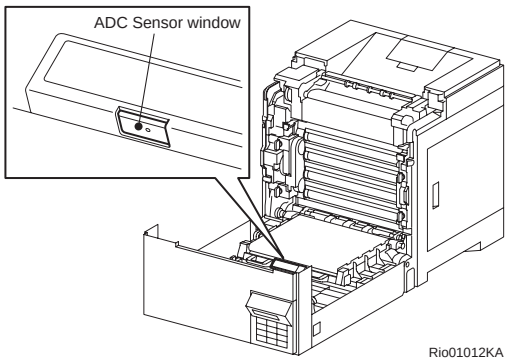
FIP-1.62 091-935: IOT PHD Life Over

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PHD ASSY (PL4.1.21) PWBA MCU (PL8.2.13)		
1	Checking the life counter value of the PHD ASSY. Does the life count value show the near of the end?	Replace the PHD ASSY. (Refer to Removal 4/ Replacement 50.)	Go to step 2.
2	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Does the error still occur when the power is turned OFF and ON?	Go to step 3.	End of work.
3	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) **CAUTION: Be sure to pull eight sealing tapes out from a new PHD ASSY before installation.** Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.63 091-972: IOT PHD Detached

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PHD ASSY (PL4.1.21) PWBA MCU (PL8.2.13) HARN ASSY PHD XPRO (PL9.1.11)		
1	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the connectors for connection. Check the connectors between the PWBA MCU and PHD ASSY. Are P/J42 and P/J422 connected correctly? 	Go to step 4.	Reconnect the connector(s) P/J42 and/or P/J422 surly, then go to step 3.
3	Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking the HARN ASSY PHD XPRO for continuity. Disconnect P422 from the PHD ASSY. Disconnect J42 from the PWBA MCU. Is each cable of P422 <=> J42 continuous?	Go to step 5.	Replace the HARN ASSY PHD XPRO.
5	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) **CAUTION: Be sure to pull eight sealing tapes out from a new PHD ASSY before installation.** Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.64 092-310 / 092-910: IOT CTD (ADC) Sensor Dustiness / CTD (ADC) Sensor Dustiness Warning

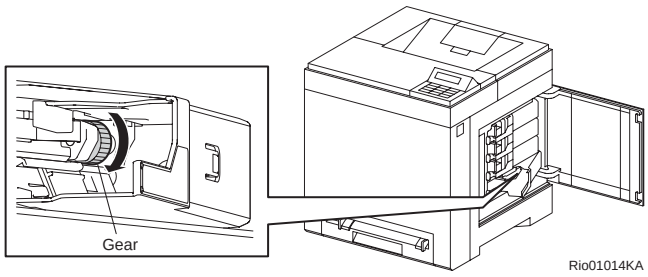
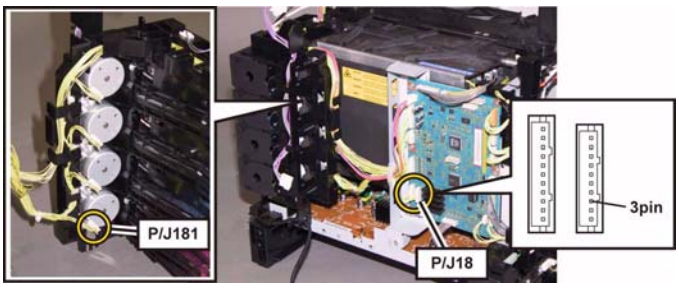
Step	Check	Remedy	
		Yes	No
	Possible causative parts: HARN ASSY L SIDE (PL3.1.18) TRANSFER ASSY (PL6.1.7) PWBA MCU (PL8.2.13)		
1	Turn OFF the power, and gently wipe the CTD (ADC) Sensor window with a clean dry cloth or cotton swab. After wiping the window, close the COVER ASSY FRONT MG. Does the error still occur when the power is turned OFF and ON? 	Go to step 2.	End of work.
2	Checking the connectors for connection. Check the connectors between the PWBA MCU and CTD (ADC) Sensor. Are P/J28 and P/J281connected correctly? 	Go to step 4.	Reconnect the connector(s) P/J28 and/or P/J281 correctly, then go to step 3.
3	Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking the HARN ASSY L SIDE for continuity. Disconnect J28 from the PWBA MCU. Disconnect J281 from the TRANSFER ASSY. Is each cable of J28 <=> J281 continuous?	Go to step 5.	Replace the HARN ASSY L SIDE.
5	Checking the surface of the belt on the TRANSFER ASSY. Is the belt dirty?	Clean the belt with a clean dry cloth, then go to step 6.	Go to step 7.
6	Does the error still occur when the power is turned OFF and ON?	Go to step 7.	End of work.
7	Checking after replacing the KIT TRANSFER ASSY. Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.65 093-423 / 093-424 / 093-425 / 093-426: IOT Toner Cartridge Near Life

Step	Check	Remedy	
		Yes	No
	Possible causative parts: TONER CARTRIDGE (Y) (PL5.1.24) TONER CARTRIDGE (M) (PL5.1.23) TONER CARTRIDGE (C) (PL5.1.22) TONER CARTRIDGE (K) (PL5.1.21) PWBA MCU (PL8.2.13)		
1	Checking after replacing the Dell-TONER CARTRIDGE (Y, M, C or K). Replace the Dell-TONER CARTRIDGE (Y, M, C or K). (Refer to Removal 6/Replacement 48.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.66 093-919 / 093-920 / 093-921 / 093-922: IOT YMCK Toner Low Density

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PHD ASSY (PL4.1.21) DISPENSER ASSY (PL5.1.1) FRAME ASSY MOT (PL5.1.2) MOTOR ASSY DISP (PL5.1.3) GEAR IDLER (PL5.1.6) GEAR IDLER AUG (PL5.1.7) GEAR IDLER AGI (PL5.1.8) TONER CARTRIDGE (Y) (PL5.1.24) TONER CARTRIDGE (M) (PL5.1.23) TONER CARTRIDGE (C) (PL5.1.22) TONER CARTRIDGE (K) (PL5.1.21) HARN ASSY TNR MOT (PL5.1.25) TRANSFER ASSY (PL6.1.7) PWBA MCU (PL8.2.13)		
1	Checking the Toner Type. Is the Dell Toner seated?	Go to step 2.	Go to step 5.
2	Checking the sealing tapes on the PHD UNIT staying. Are there sealing tapes on the PHD UNIT? 	Pull the tape out.	Go to step 3.
3	Checking the life count value of the TONER CARTRIDGE (Y, M, C or K). Check the life count value of the TONER CARTRIDGE (Y, M, C or K) in [Parameter] in [IOT Diag] of diagnosis. Does the remainder value shows the near of the end? (Refer to Chapter 2 for details of the life counter value.)	Replace the TONER CARTRIDGE (Y, M, C or K), then go to step 4. (Refer to Removal 6/ Replacement 48.)	Go to step 7.
4	Does the error still occur when the power is turned OFF and ON?	Go to step 7.	End of work.
5	Checking the toner remainder in the Non-Dell Toner Cartridge (Y, M, C or K). Is the toner that remains in the Non-Dell Toner Cartridge (Y, M, C or K) a little?	Replace the Non-Dell Toner Cartridge (Y, M, C or K), then go to step 6.	Go to step 7.
6	Does the error still occur when the power is turned OFF and ON?	Go to step 7.	End of work.

Step	Check	Remedy	
		Yes	No
7	Checking the sealing tapes for yellow toner of the PHD ASSY staying. Turn off the power, and open the COVER ASSY FRONT MG. Remove the PHD ASSY. Has the sealing tapes for yellow toner been pulled out? After checking, reseat the PHD ASSY.	Go to step 9.	Pull the sealing tapes out, then go to step 8.
8	Does the error still occur when the power is turned OFF and ON?	Go to step 9.	End of work.
9	Checking after resetting the TONER CARTRIDGE (Y, M, C or K). Remove the TONER CARTRIDGE (Y, M, C or K), and shake it from side to side. Reseat the TONER CARTRIDGE (Y, M, C or K), and check that the lock key is in the lock position. Does the error still occur when the power is turned OFF and ON?	Go to step 10.	End of work.
10	Checking the DISPENSE MOTOR (Y, M, C and K) for rotation. Does the DISPENSE MOTOR (Y, M, C and K) function normally? Checked by [Digital Output] - [DO-21(Y),DO-23(M),DO-25(C),DO-27(K)] in [IOT Diag] of diagnosis. During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	Go to step 11.	Go to step 12.
11	Checking the gears of the DISPENSER ASSY for shape and operation. Are the shape and operation of the gears of the DISPENSER ASSY normal? Example: For Yellow 	Go to step 16.	Replace the defective gear(s) or DISPENSER ASSY. (Refer to Removal 44/ Replacement 10.)
12	Checking the connector for connection. Check the connectors between the PWBA MCU and DISPENSE MOTOR (Y, M, C and K). Are P/J18 and P/J181(Y)/P/J182(M) connected correctly? Are P/J19 and P/J191(C)/P/J192(K) connected correctly? Example: For Yellow 	Go to step 14.	Reconnect the connector(s) P/J18 and P/J181 surly, then go to step 8. or reconnect the connector(s) P/J19 and P/J191 surly, then go to step 8.

Step	Check	Remedy	
		Yes	No
13	Does the error still occur when the power is turned OFF and ON?	Go to step 14.	End of work.
14	Checking the HARN ASSY TNR MOT for continuity. Disconnect J18 from the PWBA MCU. Disconnect J181(Y)/J182(M)/J191(C)/J192(K) from the DISPENSE MOTOR (YMCK) MOT. Is each cable of J18 <=> J181/182 continuous? or Is each cable of J19 <=> J191/192 continuous?	Go to step 15.	Replace the HARN ASSY TNR MOT.
15	Checking the power to TNR (Y) MOT (MOTOR ASSY DISP). Disconnect J18/J19 from the PWBA MCU. Is the voltage across P18P/19-3pin <= > ground on PWBA MCU, about +24 VDC when the interlock switch (HARN ASSY INTERLOCK) is pushed.	Replace the MOTOR ASSY DISP or FRAME ASSY MOT. (Refer to Removal 44/ Replacement 10.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)
16	Checking after replacing the TONER CARTRIDGE (Y, M, C or K). Replace the TONER CARTRIDGE (Y, M, C or K), and check that the lock key is in the lock position. (Refer to Removal 6/ Replacement 48.) Does the error still occur when the power is turned OFF and ON?	Go to step 17.	End of work.
17	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Does the error still occur when the power is turned OFF and ON?	Go to step 18.	End of work.
18	Checking after resetting the TRANSFER ASSY. Reseat the TRANSFER ASSY. Does the error still occur when the power is turned OFF and ON?	Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.)	End of work.

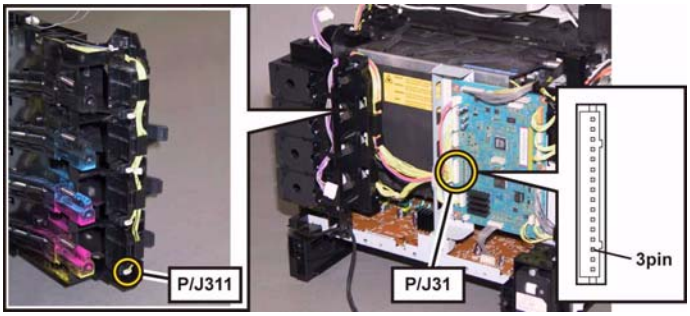
FIP-1.67 093-930 / 093-931 / 093-932 / 093-933: IOT Toner Cartridge Life Over

Step	Check	Remedy	
		Yes	No
	Possible causative parts: TONER CARTRIDGE (Y) (PL5.1.24) TONER CARTRIDGE (M) (PL5.1.23) TONER CARTRIDGE (C) (PL5.1.22) TONER CARTRIDGE (K) (PL5.1.21) PWBA MCU (PL8.2.13)		
1	Checking after replacing the Dell-TONER CARTRIDGE (Y, M, C or K). Replace the Dell-TONER CARTRIDGE (Y, M, C or K). (Refer to Removal 6/Replacement 48.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.68 093-934 / 093-935 / 093-936 / 093-937: IOT CRU Waste (YMCK) Full

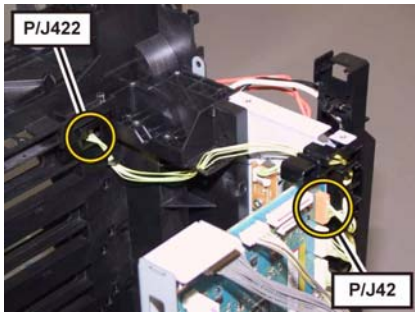
Step	Check	Remedy	
		Yes	No
	Possible causative parts: TONER CARTRIDGE (Y) (PL5.1.24) TONER CARTRIDGE (M) (PL5.1.23) TONER CARTRIDGE (C) (PL5.1.22) TONER CARTRIDGE (K) (PL5.1.21) PWBA MCU (PL8.2.13)		
1	Checking after replacing the Dell-TONER CARTRIDGE (Y, M, C or K). Replace the Dell-TONER CARTRIDGE (Y, M, C or K). (Refer to Removal 6/Replacement 48.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.69 093-960 / 093-961 / 093-962 / 093-963: IOT (YMCK) CRUM ID Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: CONNECTOR CRUM (PL5.1.14) TONER CARTRIDGE (Y) (PL5.1.24) TONER CARTRIDGE (M) (PL5.1.23) TONER CARTRIDGE (C) (PL5.1.22) TONER CARTRIDGE (K) (PL5.1.21) HARN ASSY TONER CRUM (PL5.1.26) PWBA MCU (PL8.2.13)		
1	Close the COVER ASSY WINDOW TNR correctly. Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the Toner Type. Is the Dell Toner seated?	Go to step 3.	Change the Toner Type setting to Non-Dell Toner.
3	Checking after resetting the TONER CARTRIDGE (Y, M, C or K). Reseat the TONER CARTRIDGE (Y, M, C or K), and check that the lock key is in the lock position. Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking after replacing the TONER CARTRIDGE (Y, M, C or K). Replace the TONER CARTRIDGE (Y, M, C or K), and check that the lock key is in the lock position. (Refer to Removal 6/ Replacement 48.) Does the error still occur when the power is turned OFF and ON?	Go to step 5.	End of work.
5	Checking the connector for connection. Check the connectors between the PWBA MCU and CONNECTOR CRUM. Are P/J31 and P/J311(Y),P/J312(M),P/J313(C),P/J314(K) connected correctly? Example: For Yellow  	Go to step 7.	Reconnect the connector(s) P/J31 and/or P/J311 (Y),P/J312 (M),P/J313 (C),P/J314 (K) surly, then go to step 6.
6	Does the error still occur when the power is turned OFF and ON?	Go to step 7.	End of work.
7	Checking the HARN ASSY TONER CRUM for continuity. Disconnect J31 from the PWBA MCU. Disconnect J311 from the CONNECTOR CRUM. Is each cable of J31 <=> J311/J312/J313/J314 continuous?	Go to step 8.	Replace the HARN ASSY TONER CRUM(Y, M, C or K).

Step	Check	Remedy	
		Yes	No
8	Checking the power to CONNECTOR CRUM. Disconnect J31 from the PWBA MCU. Is the voltage across P31-3pin(Y)/-7pin(M)/-11pin(C)/-15pin <=> ground on the PWBA MCU, about +3.3 VDC?	Replace the CONNECTOR CRUM(Y, M, C or K).	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

FIP-1.70 093-965: IOT PHD CRUM ID Error

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PHD ASSY (PL4.1.21) PWBA MCU (PL8.2.13) HARN ASSY PHD XPRO (PL9.1.11)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the PHD ASSY type. Is the seated PHD ASSY for 2150cn/cdn?	Go to step 4.	Replace the PHD ASY for 2150cn/ cdn, then go to step 3.
3	Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Does the error still occur when the power is turned OFF and ON?	Go to step 5.	End of work.
5	Checking the connectors for connection. Check the connectors between the PWBA MCU and PHD ASSY. Are P/J42 and P/J422 connected correctly?	Go to step 7.	Reconnect the connector(s) P/ J42 and/or P/J422 surly, then go to step 6.
6	Does the error still occur when the power is turned OFF and ON?	Go to step 7.	End of work.
7	Checking the HARN ASSY PHD XPRO for continuity. Disconnect P422 from the PHD ASSY. Disconnect J42 from the PWBA MCU. Is each cable of P422 <=> J42 continuous? 	Go to step 8.	Replace the HARN ASSY PHD XPRO.
8	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)	End of work.

FIP-1.71 093-970 / 093-971 / 093-972 / 093-973: IOT Print Cartridge Detached

Step	Check	Remedy	
		Yes	No
	Possible causative parts: TONER CARTRIDGE (Y) (PL5.1.24) TONER CARTRIDGE (M) (PL5.1.23) TONER CARTRIDGE (C) (PL5.1.22) TONER CARTRIDGE (K) (PL5.1.21) HARN ASSY TONER CRUM (PL5.1.26) PWBA MCU (PL8.2.13)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the Toner Type. Is the Dell Toner seated?	Go to step 3.	Change the Toner Type setting to Non-Dell Toner.
3	Checking after resetting the TONER CARTRIDGE (Y, M, C or K). Reseat the TONER CARTRIDGE (Y, M, C or K), and check that the lock key is in the lock position. Does the error still occur when the power is turned OFF and ON?	Go to step 4.	End of work.
4	Checking after replacing the TONER CARTRIDGE (Y, M, C or K). Replace the TONER CARTRIDGE (Y, M, C or K). (Refer to Removal 6/Replacement 48.) Does the error still occur when the power is turned OFF and ON?	Go to step 5.	End of work.
5	Checking the HARN ASSY TONER CRUM for continuity. Disconnect J31 from the PWBA MCU. Disconnect J311 (Y) from the connector CRUM. Are P/J31 and P/J311(Y),P/J312(M),P/J313(C),P/J314(K) connected correctly?	Go to step 6.	Replace the HARN ASSY TONER CRUM.
6	Checking after resetting the PWBA MCU. Reseat the PWBA MCU. (Refer to Removal 43/ Replacement 11.) Does the error still occur when the power is turned OFF and ON?	Replace the PWBA MCU. (Refer to Removal 43/Replacement 11.)	End of work.

FIP-1.72 094-422: IOT Belt Unit Near Life

Step	Check	Remedy	
		Yes	No
	Possible causative parts: TRANSFER ASSY (PL6.1.7) PWBA MCU (PL8.2.13)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the life counter value of the TRANSFER ASSY. Does the life counter value show the near of the end? (Refer to Chapter 2 for details of the life counter value.)	Initialize the life counter value at the Customer Diag, after replacing the TRANSFER ASSY. (Refer to Removal 20/ replacement 34.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

FIP-1.73 094-911: IOT Belt Unit Life Over

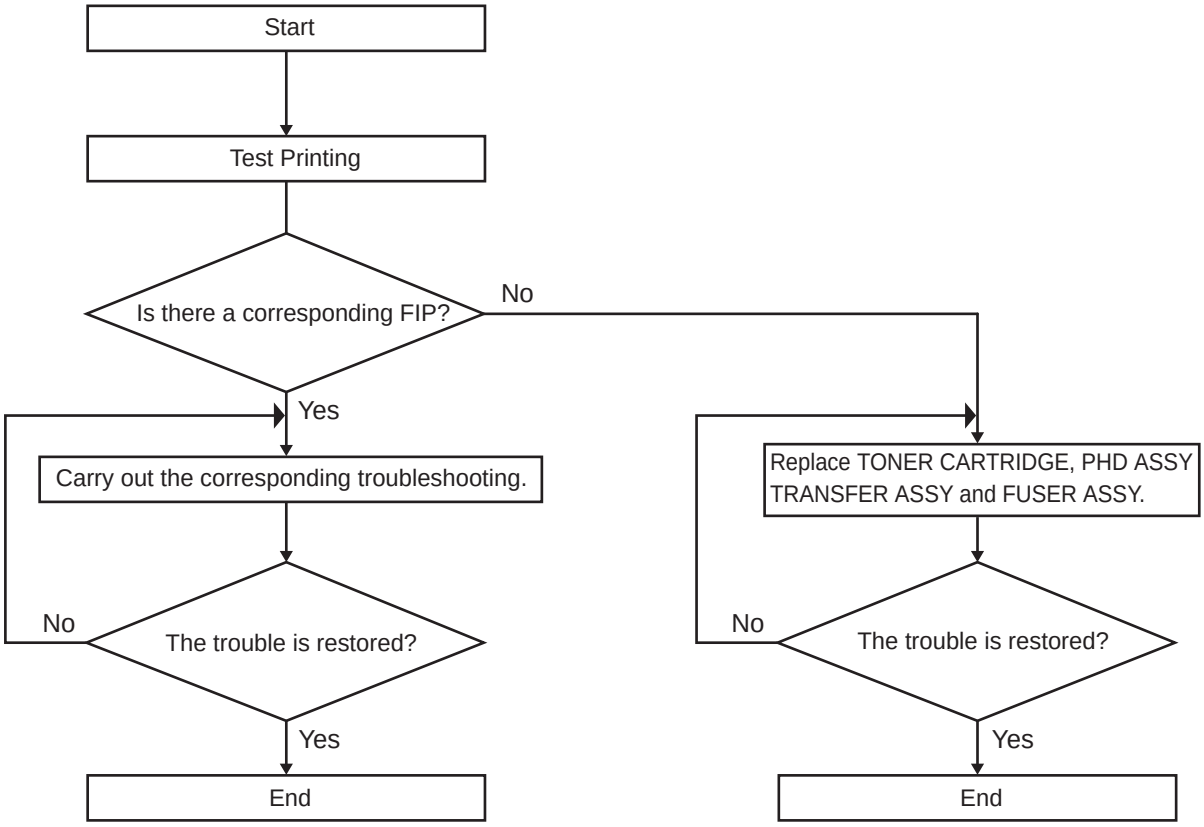
Step	Check	Remedy	
		Yes	No
	Possible causative parts: TRANSFER ASSY (PL6.1.7) PWBA MCU (PL8.2.13)		
1	Does the error still occur when the power is turned OFF and ON?	Go to step 2.	End of work.
2	Checking the life counter value of the TRANSFER ASSY. Does the life counter value show the near of the end? (Refer to Chapter 2 for details of the life counter value.)	Initialize the life counter value at the Customer Diag, after replacing the TRANSFER ASSY. (Refer to Removal 20/ replacement 34.)	Replace the PWBA MCU. (Refer to Removal 43/ Replacement 11.)

FIP-1.74 193-700: Custom Toner Mode

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the Toner Cartridge. Is the installed toner cartridge to the printer the DELL toner?	Go to step 2.	End of work.
2	Checking the printer setting. Is the [Non-Dell Toner] of the [Maintenance] on the [Admin Menu] of the [SET UP] the [On]?	Set to the [Off].	Go to step 3.
3	Checking the Toner Cartridge. Replace to the known good toner cartridges. Does the error still occur when turning on the power?	Replace the KIT PWBA ESS SFP.(Removal 42/ Replacement 12).	End of work.

4. Image Quality Trouble

4.1 Entry Chart for Image Quality Troubleshooting



Leg_Sec001_001FA

NOTE

It is stated as the ESS is normal. By operating test print with the Printer Engine only, if the trouble is on ESS side or the Printer Engine side can simply be diagnosed, except those phenomena that are not able to be diagnosed by test print.

- Test print result with the Printer Engine only is normal. --- >Malfunction on ESS side

- Test print result with the Printer Engine only is also abnormal. ---> Malfunction on the Printer Engine side

When it is the case of [Malfunction on ESS side], replace with normal ESS and normal Interface Cable, and check.

When the trouble still occurs after replacement, check the host computer side, and operate Troubleshooting efficiently, using the following image quality FIP according to each phenomenon.

When an image quality problem occurs, output a sample print to grasp the nature of the problem, and then perform troubleshooting using "Image Quality FIP List".
If the problem persists even after a troubleshooting with the Image Quality FIP, check using the FIP again, and then replace the Possible causative parts listed in the relevant FIP one by one.

Image Quality FIP List

-FIP-1.P1 The output is too light

-FIP-1.P2 The entire output is blank

-FIP-1.P3 Part or the entire output is black.

-FIP-1.P4 Toner smears

-FIP-1.P5 Random spots

-FIP-1.P6 Streaks appear on the output

-FIP-1.P7 Pitched color dots

-FIP-1.P8 Vertical blanks

-FIP-1.P9 Ghosting

-FIP-1.P10 Light-Induced Fatigue

-FIP-1.P11 Fog

-FIP-1.P12 Bead-Carry-Out (BCO)

-FIP-1.P13 Jagged characters

-FIP-1.P14 Banding/Horizontal band cross out

-FIP-1.P15 Auger mark

-FIP-1.P16 Wrinkled/Stained paper (Envelope Wrinkle)

-FIP-1.P17 The top margin is incorrect / The side margin is incorrect

-FIP-1.P18 Color registration is out of alignment

-FIP-1.P19 Images are skewed

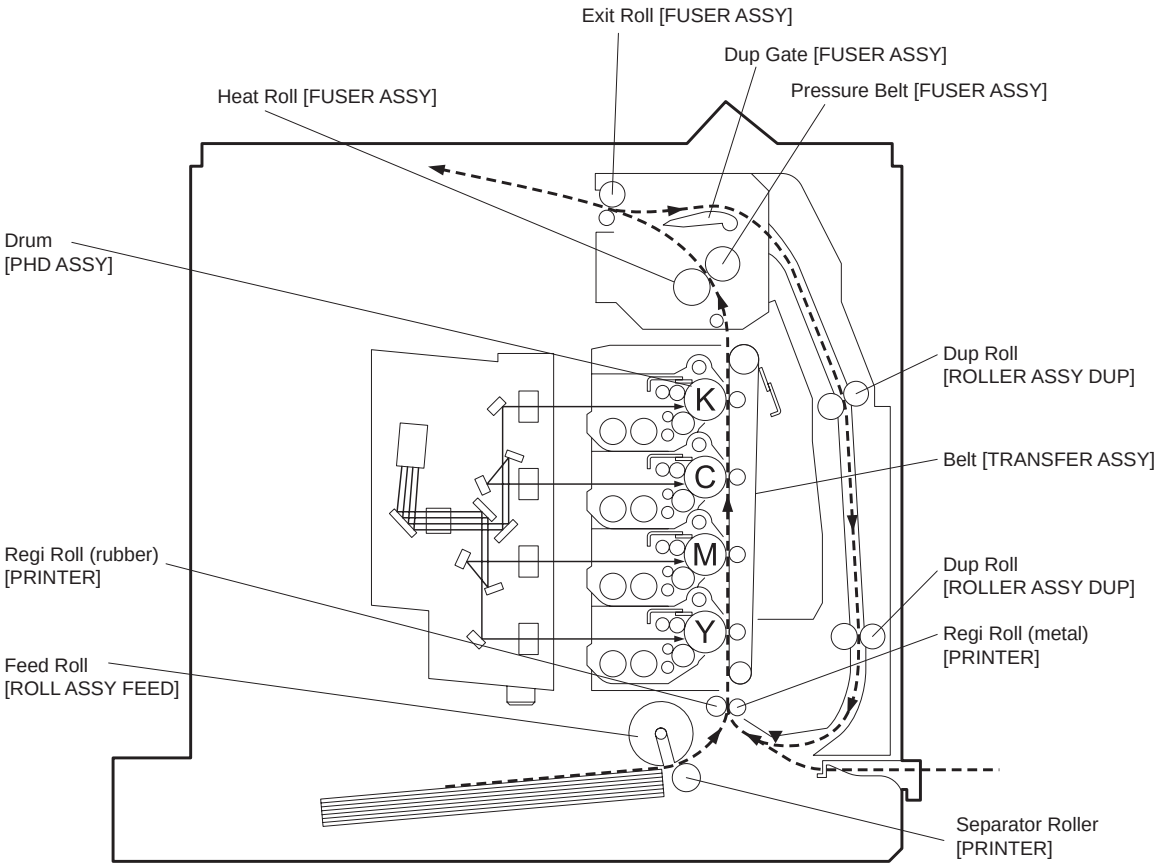
-FIP-1.P20 Paper Damage

-FIP-1.P21 Unfusing

-FIP-1.P22 Label Stuck

NOTE

When horizontal lines and/or spot occur periodically, it is possibly caused by the trouble of a particular roll. In this case, compare the trouble intervals on the test print with the Pitch Chart. The interval does not necessarily match circumference of the roll. The trouble may be solved easily by the check.

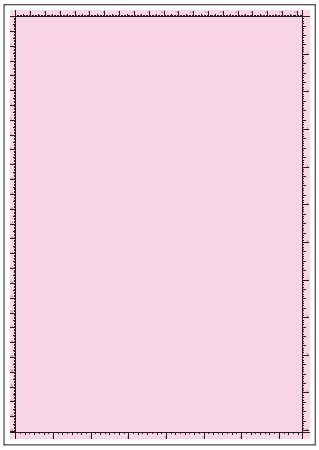


No	Roll Parts	Period (mm)	Replaceable parts
1	Heat Roll	67	FUSER ASSY
2	Pressure Belt	63	FUSER ASSY
3	Drum	76	PHD ASSY
4	Belt	410	TRANSFER ASSY
5	Regi Roll (rubber)	37	PRINTER

-Pitch Chart

The chart is printed [Contamination Check] in the [Test Print] of the [Diagnosis].

Page 1



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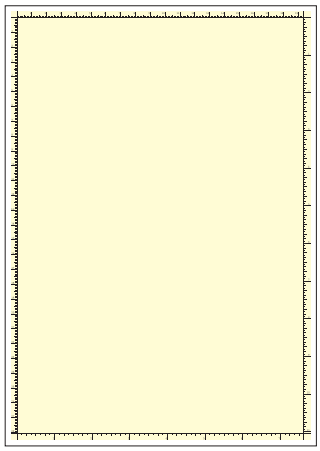
Page 2



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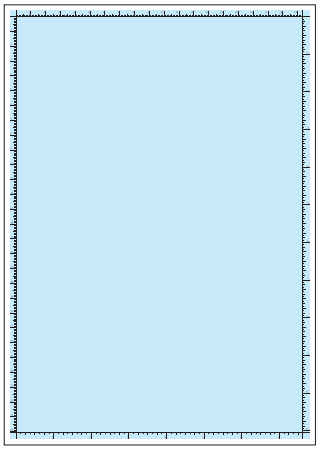
Page 3



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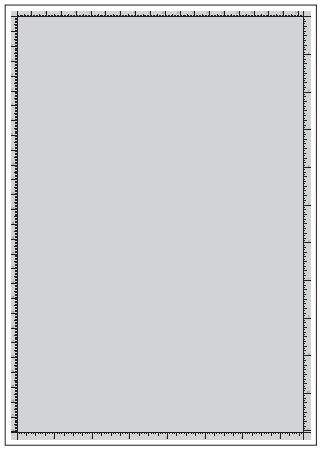
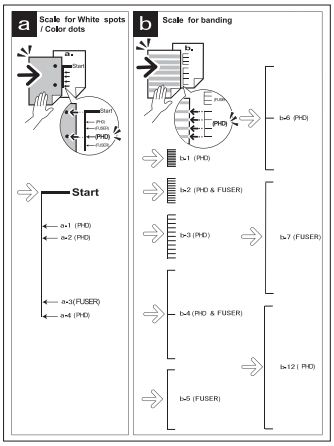
Page 4



Wsb02030KA

Page 5



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4.2 Print Image Quality Specifications

Image Quality Guarantee Conditions

The image quality is specified and guaranteed under the following conditions.

1) Environmental Condition

Temperature: 5°C - 32°C

Humidity:15% RH - 85% RH (85% RH at 28°C)

Note that defect may occur due to condensation after around 30 minutes if the printer is turned on in a critical environment.

2) Guaranteed Paper

The print image quality specified in this chapter should be guaranteed when the standard paper is fed from the cassette tray. The print image quality is evaluated on the maximum size of each standard paper.

Color print quality: X-Pression 24 lb paper

Black and White quality: 4200 paper

3) Paper condition

The paper used is flesh paper immediately after unpacked, which has been left in the operating environment for 12 hours before unpacking.

4) Printer condition

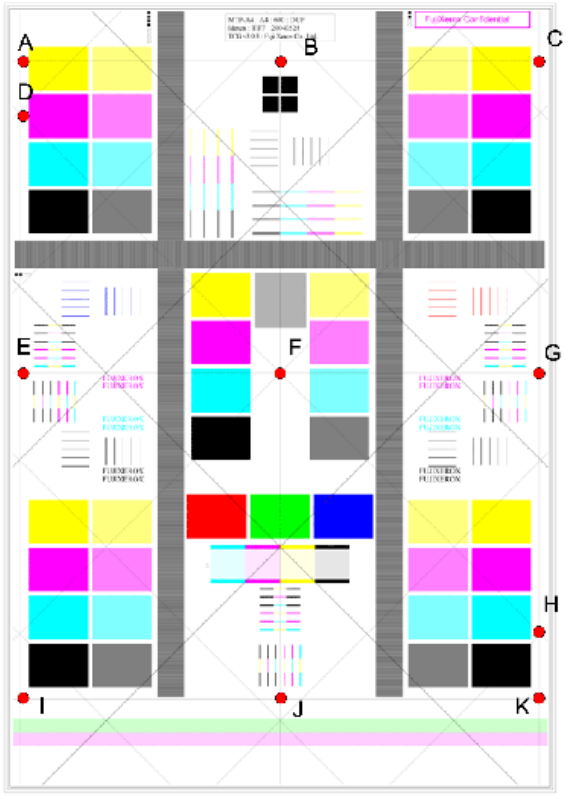
The print image quality specified in this chapter is guaranteed with the printer in normal condition.

5) Criterion for judgment

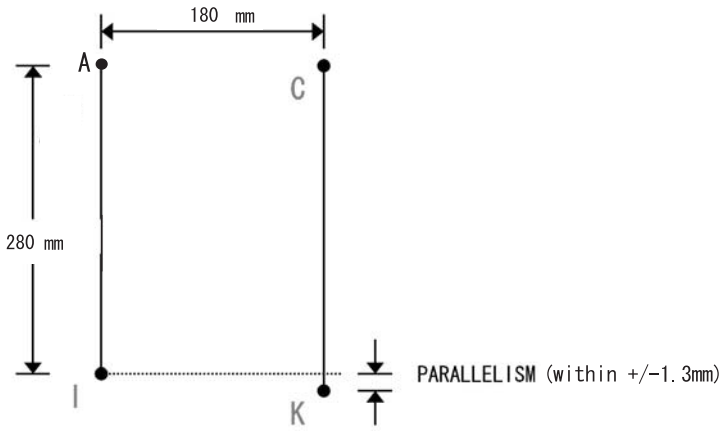
The print image quality is guaranteed with Spec. In rate = 90% (λ =90%).

6) For Color chart, Parallelism, Perpendicularity, Skew, Linearity, Magnification Error, Registration and Printed Guaranteed Area, refer to each chart below.

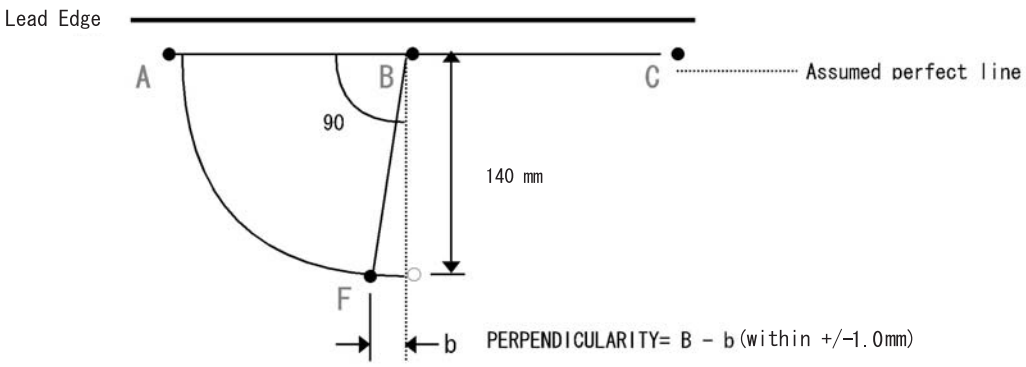
Chart



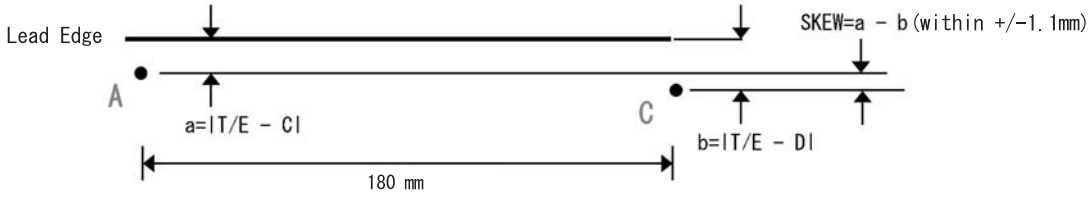
Parallelism



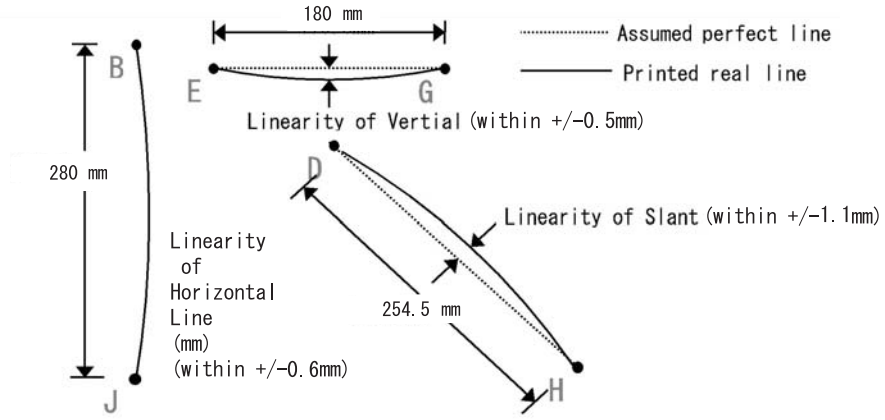
Perpendicularity



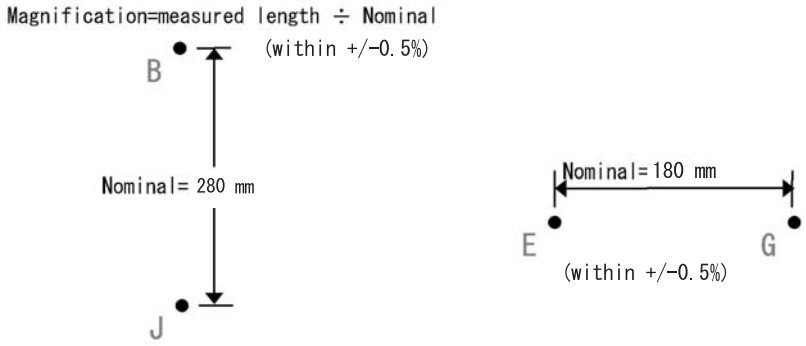
Skew



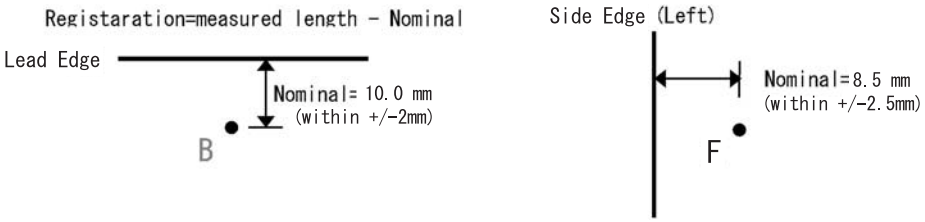
Linearity



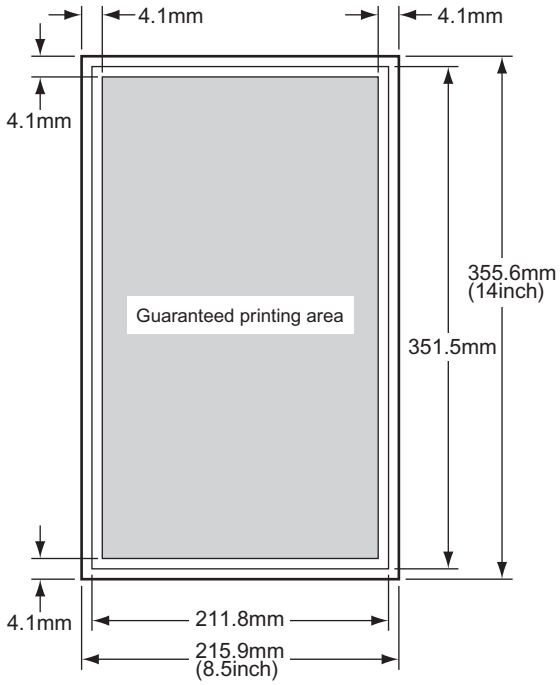
Magnification Error



Registration



Guaranteed Printing Area



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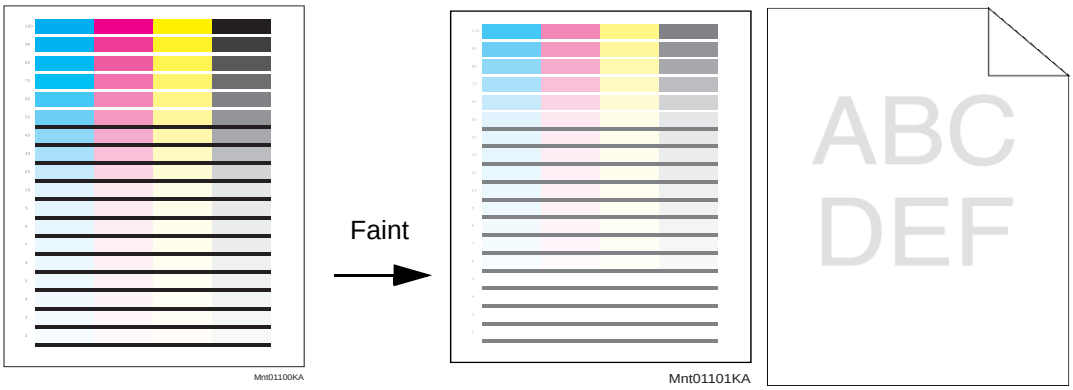
4.3 Image Quality FIP

FIP-1.P1 The output is too light

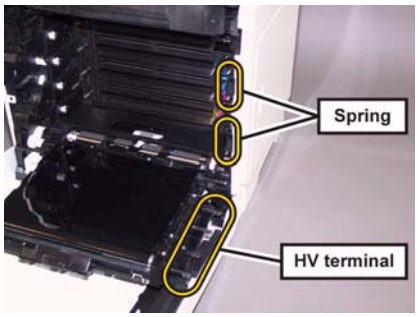


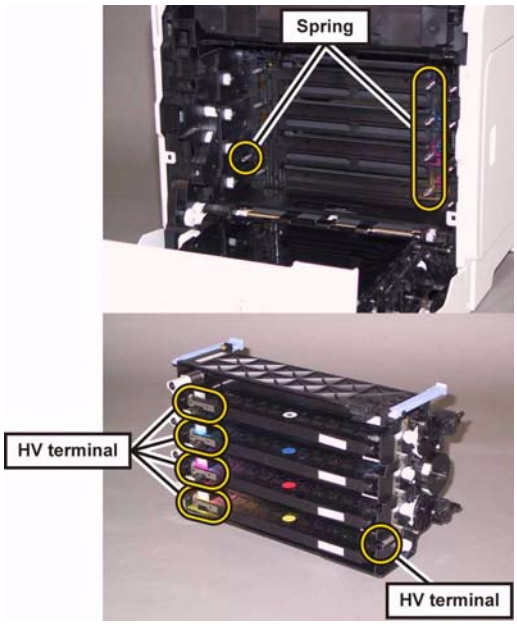
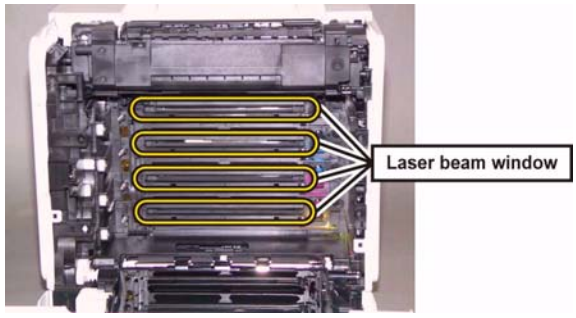
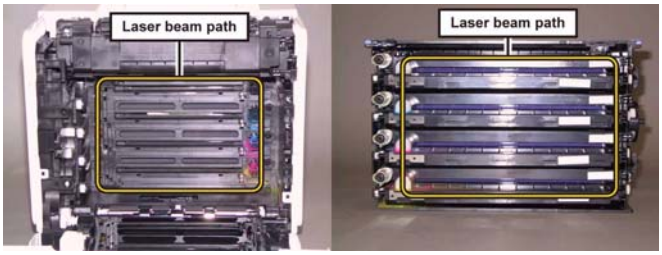
ESS and possible causative parts

- TRANSFER ASSY (PL6.1.7)
- PHD ASSY (PL4.1.21)
- DISPENSER ASSY (PL5.1.1)
- ROS ASSY (PL4.1.1)
- PWBA HVPS (PL4.1.19)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

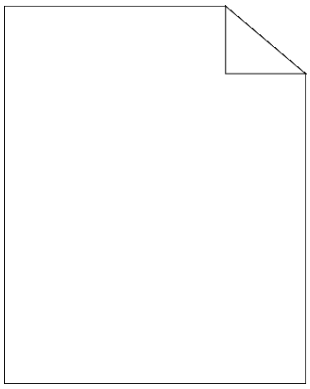
Step	Check	Remedy	
		Yes	No
1	Checking the printing. Checked by [Test Print]-[Gradation] in diagnosis. Is the image printed correctly?	Printing data is incorrect,then check the printing data which the problem generated.	Go to step 2.
2	Changing the printer driver setting. 1.Reset Image Settings (Brightness/Contrast) to defaults. - Click [Restore Defaults] in [Image Settings] on the [Graphics] tab. 2.Disable Toner Saving Mode. - Deselect the [Toner Saving Mode] check box on the [Advanced] tab. Is the image printed correctly?	End of work.	Go to step 3.
3	Checking the paper. Is the installed paper with a new and dry one? or does the paper satisfy the specification?	Go to step 4.	Replace the paper with a new and dry one. or Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)

Step	Check	Remedy	
		Yes	No
4	Checking the TONER CARTRIDGE (Y, M, C or K) for installation. Shake and reseat the suspected TONER CARTRIDGE (Y, M, C, or K). Is the image printed correctly?	End of work.	Go to step 5
5	Checking the TONER CARTRIDGE (Y,M,C or K). Is the toner cartridges installed to the printer the DELL toner?	Go to step 7	Go to step 6
6	Set the Non-Dell toner option to [Off]. (Refer to [Non-Dell Toner] in "18 Understanding the Tool Box Menus".) Is the image printed correctly?	End of work.	Go to step 7
7	Checking the PHD ASSY sealing ribbon. After turning the printer off, open the front cover and remove the PHD ASSY from the printer.Remove any of the 8 pieces of sealing ribbon that may be left on the PHD ASSY.Then, install the PHD ASSY into the printer.If the ribbon is found, it takes a long time until the density is recovered. To use the printer immediately, change the PHD ASSY to another one. Is the image printed correctly?	End of work.	Go to step 8
8	Checking the TRANSFER ASSY for connection. Open the COVER ASSY FRONT MG. Are four HV terminals on the right side of the TRANSFER ASSY, and four springs on the frame (PL4.1.11, 12, 13 and 14) dirty and/or deformed?  	Clean or replace the TRANSFER ASSY or SPRING(s), then go to step 9.	Go to step 9.

Step	Check	Remedy	
		Yes	No
9	Checking the PHD ASSY for connection. Remove the PHD ASSY. Are five HV terminals on the PHD ASSY, and five springs on the frame (PL4.1.10 and PL4.1.15 to 18) dirty and/or deformed? 	Clean and/or replace the PHD ASSY or SPRING(s),then go to step 5.	Go to step 10.
10	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Is the image printed correctly?	End of work.	Go to step 10.
11	Checking the laser beam windows of the ROS ASSY. Are the laser beam windows on the ROS ASSY clean? 	Go to step 12.	Clean the window(s) with soft cloth or cotton swab gently.
12	Checking the laser beam path. Are there any foreign substances between the ROS ASSY and PHD ASSY? 	Remove the foreign substances.	Go to step 13.

Step	Check	Remedy	
		Yes	No
13	Does the Toner Dispenser Motor function normally? Checked by [Digital Output] - [DO-21(Y), DO-23(M), DO-25(C), DO-27(K)] in [IOT Diag] of diagnosis.	Go to step 15.	Replace the DISPENSER ASSY (refer to Removal 44/ Replacement 10), then go to step 14.
14	Is the image printed correctly?	End of work.	Replace the printer.
15	Checking after resetting the PWBA MCU. Reseat the PWBA MCU. Is the image printed correctly?	End of work.	Go to step 16.
16	Checking after resetting the PWBA ESS SFP. Reseat the PWBA ESS SFP. Is the image printed correctly?	End of work.	Go to step 17.
17	Checking after resetting the TRANSFER ASSY. Reseat the TRANSFER ASSY. Is the image printed correctly?	End of work.	Go to step 18.
18	Checking after replacing the TRANSFER ASSY. Replace the TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.) Is the image printed correctly?	End of work.	Go to step 19.
19	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Go to step 20.
20	Checking after resetting the PWBA HVPS. Reseat the PWBA HVPS. Is the image printed correctly?	End of work.	Go to step 21.
21	Checking after replacing the DISPENSER ASSY. Replace the DISPENSER ASSY. (Refer to Removal 44/ Replacement 10.) Is the image printed correctly?	End of work.	Go to step 22.
22	Checking after replacing the KIT ROS. Replace the KIT ROS. (Refer to Removal 45/Replacement 9.) Is the image printed correctly?	End of work.	Replace the PWBA HVPS. (Refer to Removal 47/Replacement 7.)

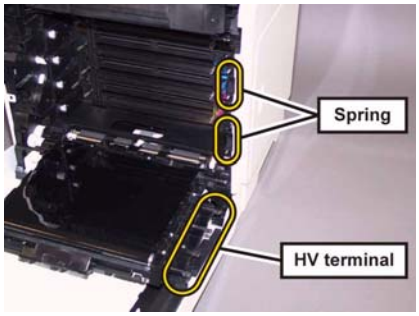
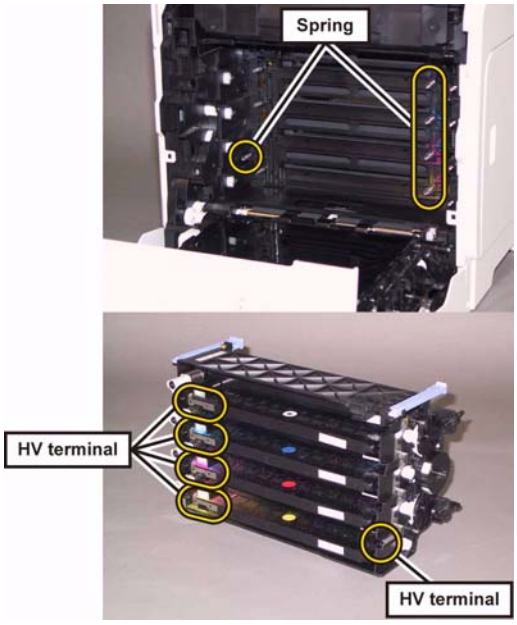
FIP-1.P2 The entire output is blank

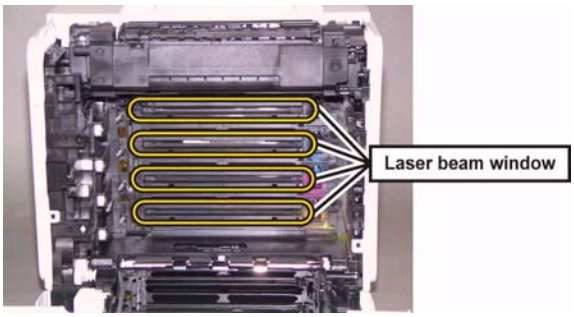
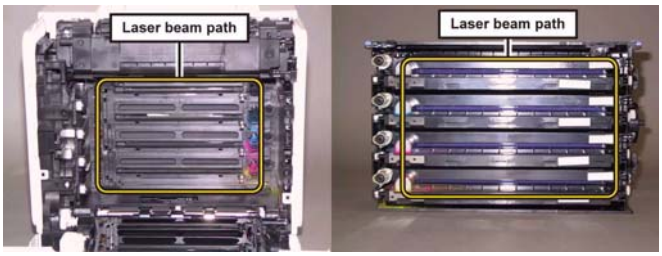


ESS and possible causative parts
- TRANSFER ASSY (PL6.1.7)
- PHD ASSY (PL4.1.21)
- DISPENSER ASSY (PL5.1.1)
- ROS ASSY (PL4.1.1)
- PWBA HVPS (PL4.1.19)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

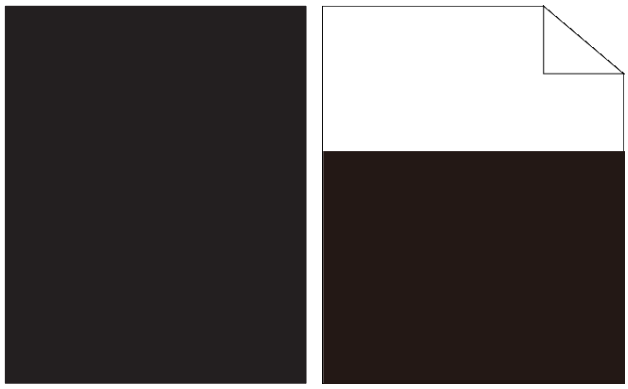
Step	Check	Remedy	
		Yes	No
1	Checking the blank print. Print the Windows test page. Is the image printed correctly?	Printing data form is not suitable for the printer, then check the printing data which the problem generated.	Go to step 2.
2	Checking the TONER CARTRIDGE (Y, M, C or K) for installation. Shake and reseat the suspected TONER CARTRIDGE (Y, M, C, or K). Is the image printed correctly?	End of work.	Go to step 3
3	Checking the TONER CARTRIDGE (Y,M,C or K). Is the toner cartridges installed to the printer the DELL toner?	Go to step 5	Go to step 4
4	Set the Non-Dell toner option to [Off]. (Refer to [Non-Dell Toner] in "18 Understanding the Tool Box Menus".) Is the image printed correctly?	End of work.	Go to step 5
5	Checking the paper. Is the installed paper with a new and dry one? or does the paper satisfy the specification?	Go to step 6.	Replace the paper with a new and dry one. or Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)

Step	Check	Remedy	
		Yes	No
6	Checking the PHD ASSY sealing ribbon. After turning the printer off, open the front cover and remove the PHD ASSY from the printer.Remove any of the 8 pieces of sealing ribbon that may be left on the PHD ASSY. Then, install the PHD ASSY into the printer.If the ribbon is found, it takes a long time until the density is recovered. To use the printer immediately, change the PHD ASSY to another one. Is the image printed correctly?	End of work.	Go to step 7
7	Checking the TRANSFER ASSY for connection. Open the COVER ASSY FRONT MG. Are four HV terminals on the right side of the TRANSFER ASSY, and four springs on the frame (PL4.1.11, 12, 13 and 14) dirty and/or deformed?  	Clean or replace the TRANSFER ASSY or SPRING(s), then go to step 8.	Go to step 8.
8	Checking the PHD ASSY for connection. Remove the PHD ASSY. Are five HV terminals on the PHD ASSY, and five springs on the frame (PL4.1.10 and PL4.1.15 to 18) dirty and/or deformed?  	Clean and/or replace the PHD ASSY or SPRING(s),then go to step 9.	Go to step 9.
9	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Is the image printed correctly?	End of work.	Go to step 10.

Step	Check	Remedy	
		Yes	No
10	Checking the laser beam windows of the ROS ASSY. Are the laser beam windows on the ROS ASSY clean? 	Go to step 11.	Clean the window(s) with soft cloth or cotton swab gently.
11	Checking the laser beam path. Are there any foreign substances between the ROS ASSY and PHD ASSY? 	Remove the foreign substances.	Go to step 12.
12	Does the Toner Dispenser Motor function normally? Checked by [Digital Output] - [DO-21(Y), DO-23(M), DO-25(C), DO-27(K)] in [IOT Diag] of diagnosis.	Go to step 14.	Replace the DISPENSER ASSY (refer to Removal 44/ Replacement 10), then go to step 13.
13	Is the image printed correctly?	End of work.	Replace the printer.
14	Checking after resetting the PWBA MCU. Reseat the PWBA MCU. Is the image printed correctly?	End of work.	Go to step 15.
15	Checking after resetting the PWBA ESS SFP. Reseat the PWBA ESS SFP. Is the image printed correctly?	End of work.	Go to step 16.
16	Checking after resetting the TRANSFER ASSY. Reseat the TRANSFER ASSY. Is the image printed correctly?	End of work.	Go to step 17.
17	Checking after replacing the TRANSFER ASSY. Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.) Is the image printed correctly?	End of work.	Go to step 18.
18	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Go to step 19.
19	Checking after resetting the PWBA HVPS. Reseat the PWBA HVPS. Is the image printed correctly?	End of work.	Go to step 20.

Step	Check	Remedy	
		Yes	No
20	Checking after replacing the DISPENSER ASSY. Replace the DISPENSER ASSY. (Refer to Removal 44/ Replacement 10.) Is the image printed correctly?	End of work.	Go to step 21.
21	Checking after replacing the KIT ROS. Replace the KIT ROS. (Refer to Removal 45/Replacement 9.) Is the image printed correctly?	End of work.	Replace the PWBA HVPS. (Refer to Removal 47/Replacement 7.)

FIP-1.P3 Part or the entire output is black.

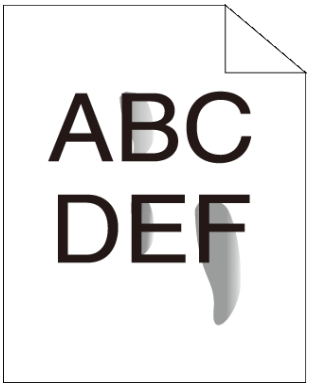


ESS and possible causative parts
- PWBA HVPS (PL4.1.19)
- PHD ASSY (PL4.1.21)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the solid black. Checked by [Test Print]-[Test Pattern 600] in diagnostic. Is the image printed correctly?	Printing data is incorrect, then check the printing data which the problem generated.	Go to step 2.
2	Checking the printer driver setting. Is the [Output Color] option under the [Graphics] tab set to "Color (Auto)"?	Go to step 3.	Set the option to "Color (Auto)".
3	Checking the Toner Type. Is the Dell Toner seated?	Go to step 4.	Replace the toner with the Dell toner.
4	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Is the image printed correctly?	End of work.	Go to step 5.
5	Checking after resetting the PWBA HVPS. Reseat the PWBA HVPS. Is the image printed correctly?	End of work.	Go to step 6.
6	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Replace the PWBA HVPS. (Refer to Removal 47/Replacement 7.)

FIP-1.P4 Toner smears

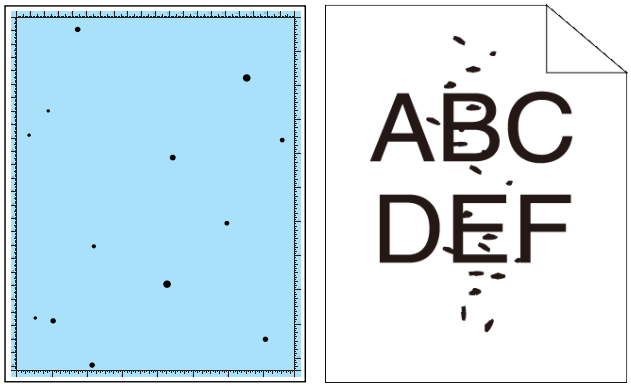


Possible causative parts
- PHD ASSY (PL4.1.21)
- TRANSFER ASSY (PL6.1.7)
- FUSER ASSY (PL6.1.1)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

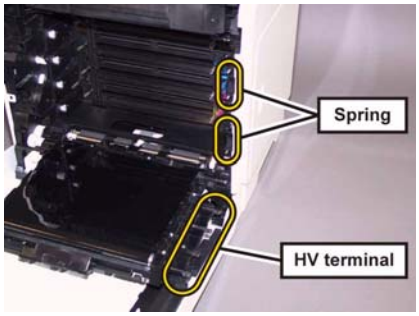
Step	Check	Remedy	
		Yes	No
1	Checking the printer environment. Check that the printer is in a room where air conditioner is operating. If the air conditioner is not operating, turn it on or move the printer to a room with an air conditioner. Are printouts still toner smears after turning on the air conditioner?	Go to step 2.	End of work.
2	Checking the paper. Is the installed paper with a new and dry one? or does the paper satisfy the specification?	Go to step 3.	Replace the paper with a new and dry one. or Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)
3	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/ Replacement 50.) Is the image printed correctly?	End of work.	Go to step 4.
4	Checking after replacing the FUSER ASSY. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49) Is the image printed correctly? **Warning: Start the operation after the FUSER ASSY has cooled down.** **NOTE: After replacement, be sure to clear the life counter value.**	End of work.	Replace the TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.)

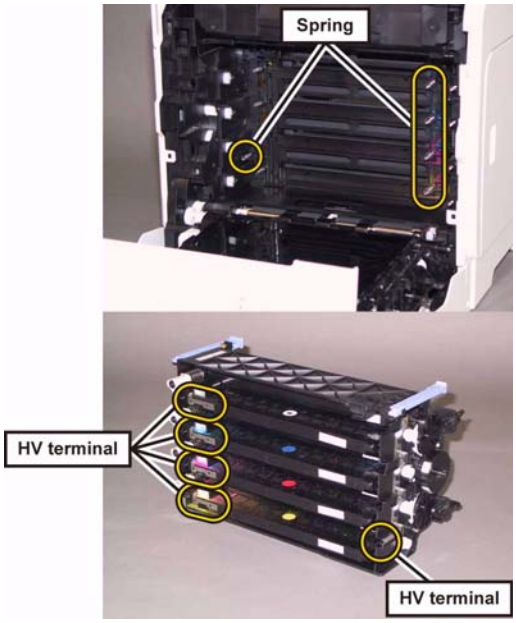
FIP-1.P5 Random spots



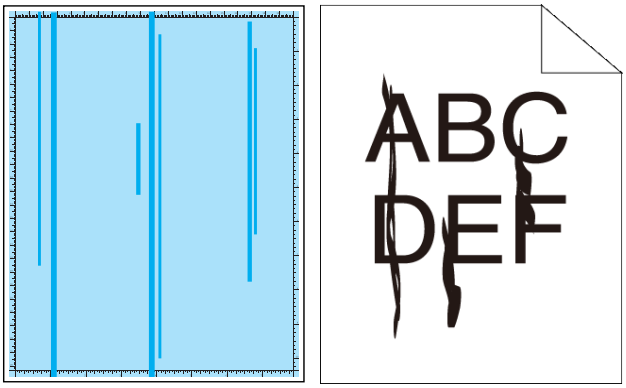
ESS and possible causative parts
- TRANSFER ASSY (PL6.1.7)
- PHD ASSY (PL4.1.21)
- FUSER ASSY (PL6.1.1)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the Print. Checked by [Test-Print]-[Contamination check] in diagnosis. Is the image printed correctly?	Printing data is incorrect,then check the printing data which the problem generated.	Go to step 2
2	Checking after cleaning Inside the Printer. Is the image printed correctly?	End of work.	Go to step 3.
3	Shake and reseat the suspected TONER CARTRIDGE (Y, M, C, or K) Is the image printed correctly?	End of work.	Go to step 4.
4	Checking the belt surface of the TRANSFER ASSY. Are there any damages on the belt surface of the TRANSFER ASSY?	Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.)	Go to step 5.
5	Checking the TRANSFER ASSY for connection. Open the COVER ASSY FRONT MG. Are four HV terminals on the TRANSFER ASSY, and four springs on the frame (PL4.1.11, 12, 13 and 14) dirty and/or deformed? 	Clean or replace the TRANSFER ASSY or SPRING(s).	Go to step 6.

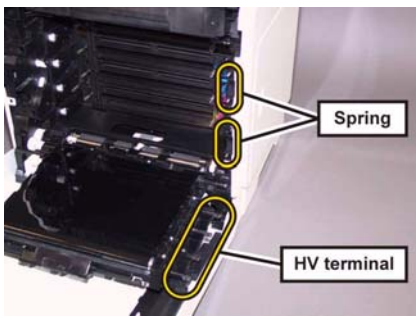
Step	Check	Remedy	
		Yes	No
6	Checking the PHD ASSY for connection. Remove the PHD ASSY. Are five HV terminals on the PHD ASSY, and five springs on the frame (PL4.1.10 and PL4.1.15 to 18) dirty and/or deformed? 	Clean and/or replace the PHD ASSY or SPRING(s).	Go to step 7.
7	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Warning: Start the operation after the FUSER ASSY has cooled down. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) After replacement, be sure to clear the life counter value.

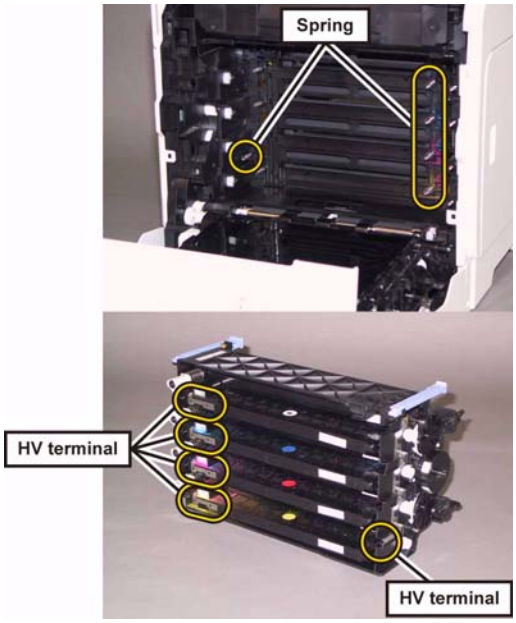
FIP-1.P6 Streaks appear on the output



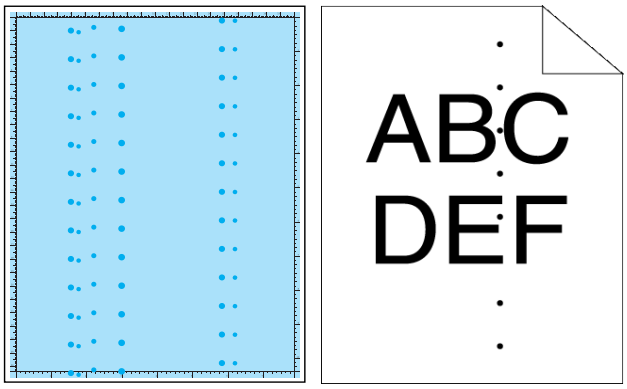
ESS and possible causative parts
- TRANSFER ASSY (PL6.1.7)
- PHD ASSY (PL4.1.21)
- FUSER ASSY (PL6.1.1)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the Print. Checked by [Test-Print]-[Contamination check] in diagnosis. Is the image printed correctly?	Printing data is incorrect,then check the printing data which the problem generated.	Go to step 2
2	Checking after cleaning Inside the Printer. Is the image printed correctly?	End of work.	Go to step 3.
3	Shake and reseat the suspected TONER CARTRIDGE (Y, M, C, or K) Is the image printed correctly?	End of work.	Go to step 4.
4	Checking the belt surface of the TRANSFER ASSY. Are there any damages on the belt surface of the TRANSFER ASSY?	Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.)	Go to step 5.
5	Checking the TRANSFER ASSY for connection. Open the COVER ASSY FRONT MG. Are four HV terminals on the TRANSFER ASSY, and four springs on the frame (PL4.1.11, 12, 13 and 14) dirty and/or deformed? 	Clean or replace the TRANSFER ASSY or SPRING(s).	Go to step 6.

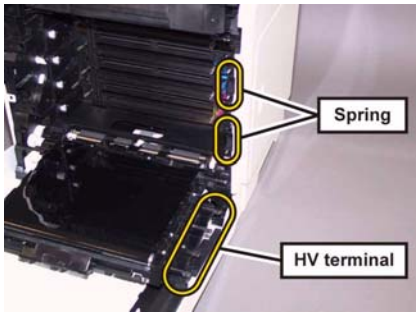
Step	Check	Remedy	
		Yes	No
6	Checking the PHD ASSY for connection. Remove the PHD ASSY. Are five HV terminals on the PHD ASSY, and five springs on the frame (PL4.1.10 and PL4.1.15 to 18) dirty and/or deformed? 	Clean and/or replace the PHD ASSY or SPRING(s).	Go to step 7.
7	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Warning: Start the operation after the FUSER ASSY has cooled down. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) After replacement, be sure to clear the life counter value.

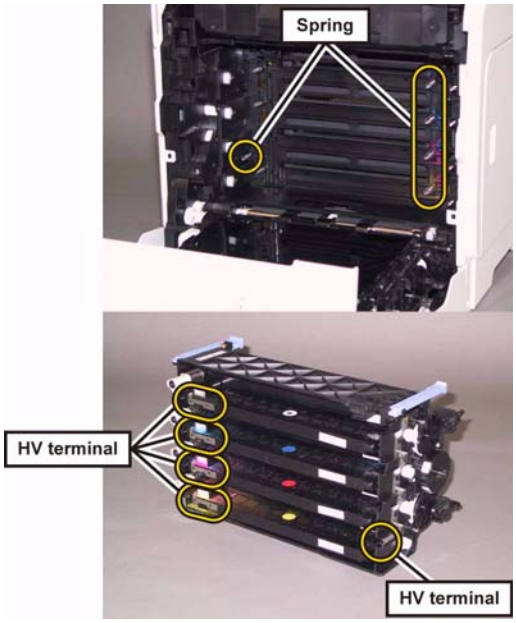
FIP-1.P7 Pitched color dots



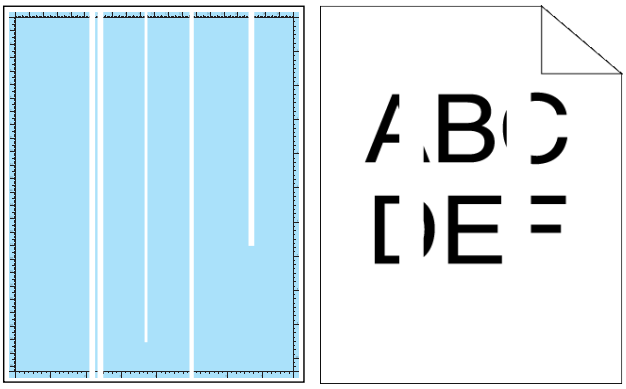
ESS and possible causative parts
- TRANSFER ASSY (PL6.1.7)
- PHD ASSY (PL4.1.21)
- FUSER ASSY (PL6.1.1)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the defective parts. Print the [Pitch Configuration Chart] in [Chart Print] in [Diagnosis] tab of [Tool Box]. When the partial lacks of periodicity are observed, check the defective parts by comparing the printed partial lacks with the Pitch Chart. Are there any partial lackes matching the chart?	Replace the corresponding parts.	Go to step 2.
2	Checking after cleaning Inside the Printer. Is the image printed correctly?	End of work.	Go to step 3.
3	Shake and reseat the suspected TONER CARTRIDGE (Y, M, C, or K) Is the image printed correctly?	End of work.	Go to step 4.
4	Checking the belt surface of the TRANSFER ASSY. Are there any damages on the belt surface of the TRANSFER ASSY?	Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.)	Go to step 5.
5	Checking the TRANSFER ASSY for connection. Open the COVER ASSY FRONT MG. Are four HV terminals on the TRANSFER ASSY, and four springs on the frame (PL4.1.11, 12, 13 and 14) dirty and/or deformed? 	Clean or replace the TRANSFER ASSY or SPRING(s).	Go to step 6.

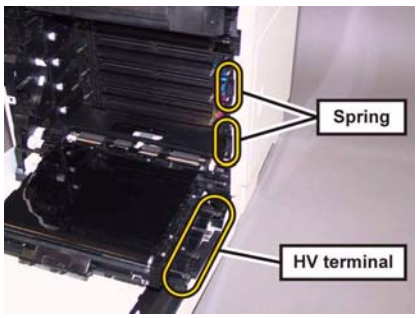
Step	Check	Remedy	
		Yes	No
6	Checking the PHD ASSY for connection. Remove the PHD ASSY. Are five HV terminals on the PHD ASSY, and five springs on the frame (PL4.1.10 and PL4.1.15 to 18) dirty and/or deformed? 	Clean and/or replace the PHD ASSY or SPRING(s).	Go to step 7.
7	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Warning: Start the operation after the FUSER ASSY has cooled down. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) After replacement, be sure to clear the life counter value.

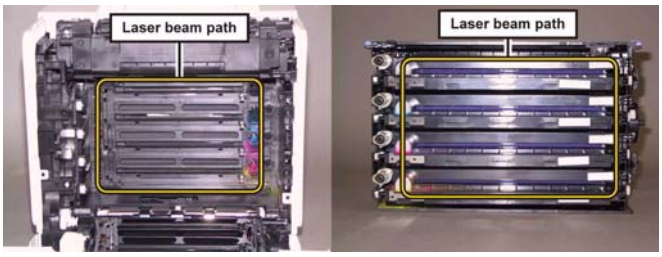
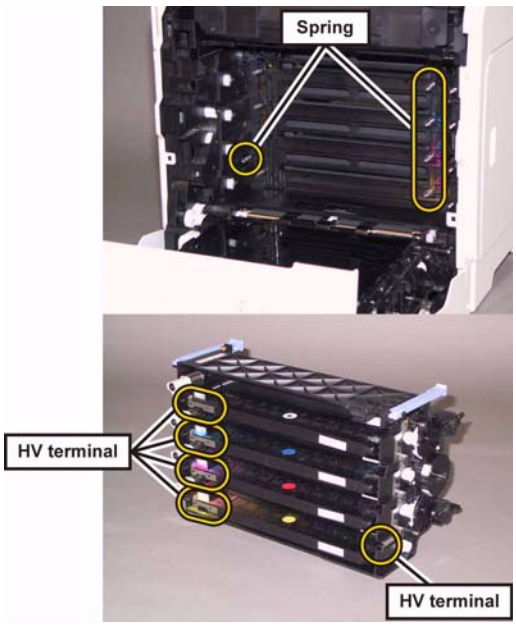
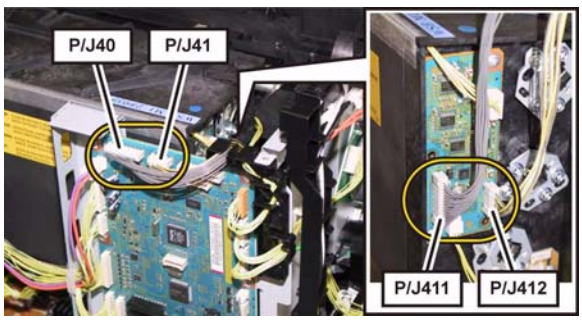
FIP-1.P8 Vertical blanks



ESS and possible causative parts
- PHD ASSY (PL4.1.21)
- TRANSFER ASSY (PL6.1.7)
- ROS ASSY (PL4.1.1)
- FUSER ASSY (PL6.1.1)

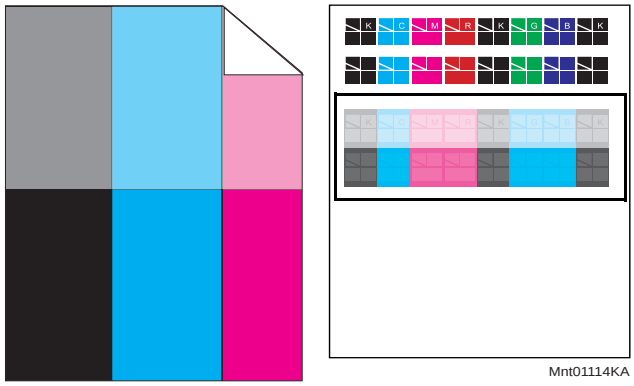
Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the Print. Checked by [Test-Print]-[Contamination check] in diagnosis. Is the image printed correctly?	Printing data is incorrect,then check the printing data which the problem generated.	Go to step 2
2	Checking the belt surfaces of the TRANSFER ASSY. Are there any damages on the belt surface of the TRANSFER ASSY?	Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.)	Go to step 3.
3	Checking the TRANSFER ASSY for connection. Open the COVER ASSY FRONT MG. Are four HV terminals on the TRANSFER ASSY, and four springs on the frame (PL4.1.11, 12, 13 and 14) dirty and/or deformed? 	Clean or replace the TRANSFER ASSY or SPRING(s).	Go to step 4.

Step	Check	Remedy	
		Yes	No
4	Checking the laser beam path. Are there any foreign substances between the ROS ASSY and PHD ASSY? 	Remove the foreign substances.	Go to step 5.
5	Checking the PHD ASSY for connection. Remove the PHD ASSY. Are five HV terminals on the PHD ASSY, and five springs on the frame (PL4.1.10 and PL4.1.15 to 18) dirty and/or deformed? 	Clean and/or replace the PHD ASSY or SPRING(s).	Go to step 6.
6	Checking the ROS ASSY for connection. Check the connections between the ROS ASSY and PWBA MCU. Are P/J40, P/J 41, P/J411 and P/J 412 connected correctly? 	Go to step 8.	Reconnect the connector(s) P/J40, P/J41, P/J411 and/or P/J412 surely, then go to step 7.
7	Is the image printed correctly?	End of work.	Go to step 8.
8	Checking after replacing the KIT ROS. Replace the KIT ROS. (Refer to Removal 45/Replacement 9.) Is the image printed correctly?	End of work.	Go to step 9.

Step	Check	Remedy	
		Yes	No
9	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Warning: Start the operation after the FUSER ASSY has cooled down. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) After replacement, be sure to clear the life counter value.

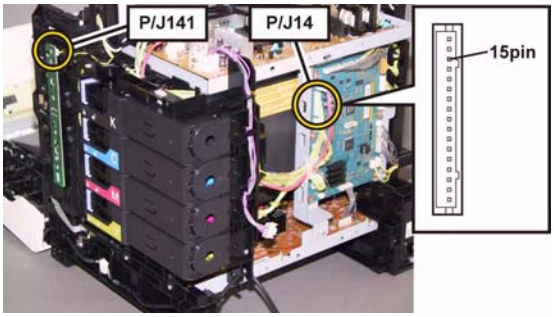
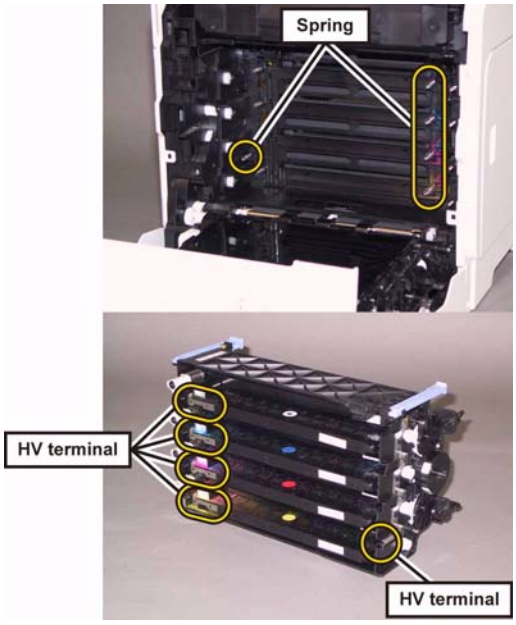
FIP-1.P9 Ghosting

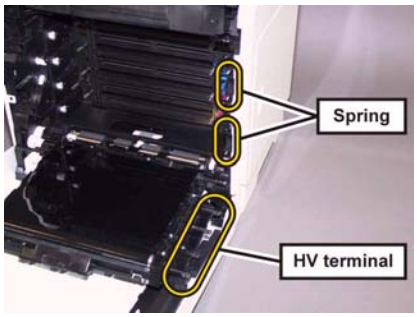


ESS and possible causative parts
- LED ASSY ERASE (PL4.1.8)
- HARNESS ASSY LVPS MAIN MG SFP (PL9.1.3)
- PHD ASSY (PL4.1.21)
- TRANSFER ASSY (PL6.1.7)

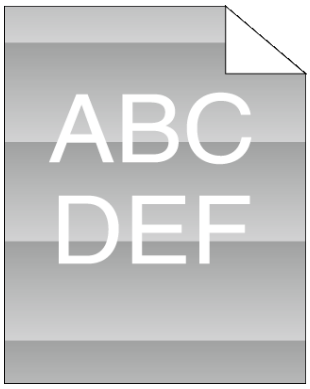
Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the Afterimage (Ghost). Print the Ghost Configuration Chart Page. - To print "Ghost Configuration Chart", click [Ghost Configuration Chart] in [Chart Print] on the diagnosis tab of Tool Box. Is the image printed correctly?	End of work.	Go to step 2.
2	Checking the paper. Does the paper satisfy the specification?	Go to step 3.	Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)
3	Adjusting the transfer bias. Adjust the voltage value of the BTR. - To adjust the voltage value of the BTR, use [Adjust BTR] on the Printer Maintenance tab of Web Tool. Is the image printed correctly?	End of work.	Go to step 4.
4	Checking after "Drum Refresh Mode". Execute the "Drum Refresh Mode". - To execute the "Drum Refresh Mode", click [Drum Refresh Mode] in [Refresh Mode] on the diagnosis tab of Tool Box. Is the image printed correctly?	End of work.	Go to step 5.
5	Checking the erase lamps. Open the COVER ASSY FRONT, and remove the PHD ASSY. Cheat the safety interlock switch. Does the four erase LEDs light correctly?	Go to step 8.	Go to step 6.

Step	Check	Remedy	
		Yes	No
6	Checking the connectors for connection. Check the connections between the PWBA MCU and LED ASSY ERASE. Are P/J141 and P/J14 connected correctly? 	Go to step 7.	Reconnect the connector(s) P/J141 and/or P/J14 surely, then go to step 7.
7	Checking the HARNESS ASSY LVPS MAIN MG SFP for continuity. Disconnect J14 from the PWBA MCU. Disconnect J141 from the LED ASSY ERASE. Is each cable of J14 <=> J141 continuous?	Replace the LED ASSY ERASE (Refer to Removal 14/ Replacement 40.),then go to step 8.	Replace the HARNESS ASSY LVPS MAIN MG SFP.
8	Checking the PHD ASSY for connection Remove the PHD ASSY. Are five HV terminals on the PHD ASSY, and five springs on the frame (PL4.1.10 and PL4.1.15 to 18) dirty and/or deformed? 	Clean and/or replace the PHD ASSY or SPRING(s).	Go to step 9.
9	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Is the image printed correctly?	End of work.	Go to step 10.

Step	Check	Remedy	
		Yes	No
10	Checking the TRANSFER ASSY for connection.Open the COVER ASSY FRONT. Are four HV terminals on the TRANSFER ASSY, and four springs on the frame (PL4.1.11, 12, 13 and 14) dirty and/or deformed?  	Clean or replace the TRANSFER ASSY or SPRING(s).	Replace the PHD ASSY. (Refer to Removal 4/ Replacement 50.)

FIP-1.P10 Light-Induced Fatigue

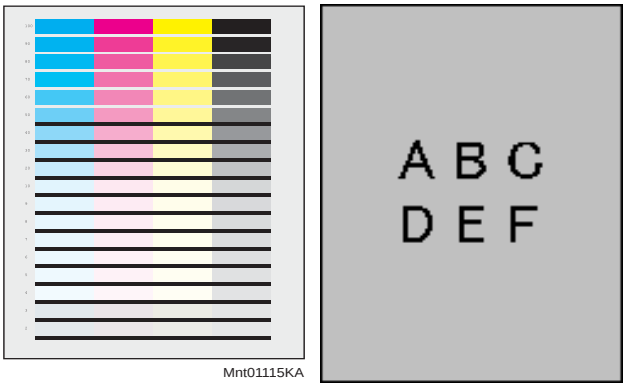


Possible causative parts
- PHD ASSY (PL4.1.21)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking after "Drum Refresh Mode". Execute the "Drum Refresh Mode". - To execute the "Drum Refresh Mode", click [Drum Refresh Mode] in [Refresh Mode] on the diagnosis tab of Tool Box. Is the image printed correctly?	End of work.	Go to step 2.
2	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/ Replacement 50.) Does the error still occur when printing?	Replace the Printer.	End of work.

FIP-1.P11 Fog



Mnt01115KA

ESS and possible causative parts
- PWBA HVPS (PL4.1.19)

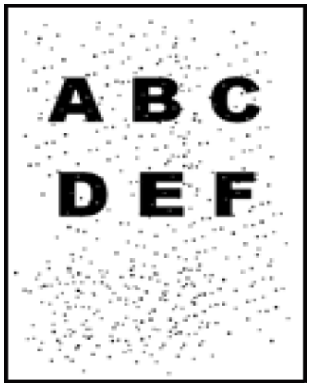
- PHD ASSY (PL4.1.21)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the printing. Checked by [Test Print]-[Gradation] in diagnosis. Is the image printed correctly?	Printing data is incorrect,then check the printing data which the problem generated.	Go to step 2.
2	Changing the printer driver setting. Reset Image Settings (Brightness/Contrast) to defaults. - Click [Restore Defaults] in [Image Settings] on the [Graphics] tab. Is the image printed correctly?	End of work.	Go to step 3.
3	Checking the paper. Is the installed paper with a new and dry one? or does the paper satisfy the specification?	Go to step 4.	Replace the paper with a new and dry one. or Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)
4	Checking after "Drum Refresh Mode". Execute the "Drum Refresh Mode". - To execute the "Drum Refresh Mode", click [Drum Refresh Mode] in [Refresh Mode] on the diagnosis tab of Tool Box. Is the image printed correctly?	End of work.	Go to step 5.
5	Checking the Toner Type Is the Dell Toner seated?	Go to step 6.	Replace the toner with the Dell toner.
6	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Is the image printed correctly?	End of work.	Go to step 7.
7	Checking after resetting the PWBA HVPS. Reseat the PWBA HVPS. Is the image printed correctly?	End of work.	Go to step 8.

Step	Check	Remedy	
		Yes	No
8	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Replace the PWBA HVPS. (Refer to Removal 47/Replacement 7.)

FIP-1.P12 Bead-Carry-Out (BCO)



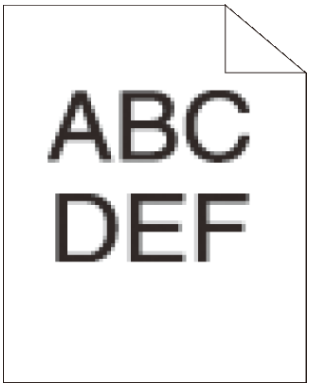
ESS and possible causative parts
- PWBA HVPS (PL4.1.19)

- PHD ASSY (PL4.1.21)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Setting the altitude. Set the altitude. - To set the altitude, use [Adjust Altitude] on the Printer Maintenance tab of Tool Box. Is the image printed correctly?	End of work.	Go to step 2.
2	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Is the image printed correctly?	End of work.	Go to step 3.
3	Checking after resetting the PWBA HVPS. Reseat the PWBA HVPS. Is the image printed correctly?	End of work.	Go to step 4.
4	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Replace the PWBA HVPS. (Refer to Removal 47/Replacement 7.)

FIP-1.P13 Jagged characters



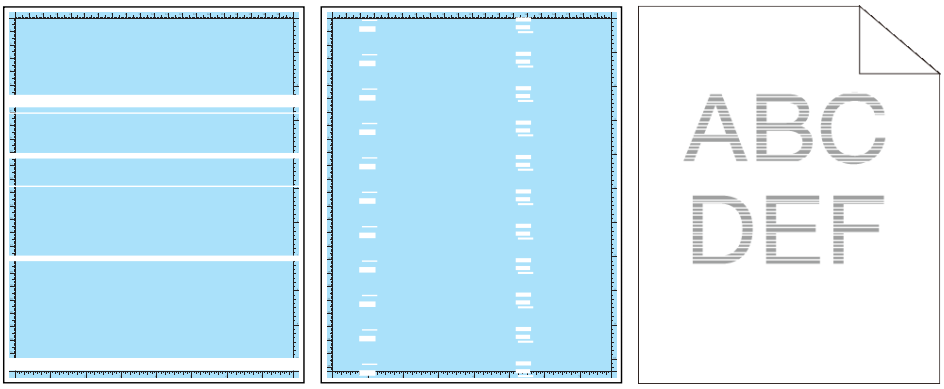
Possible causative parts
- ROS ASSY (PL4.1.1)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the paper. Is the installed paper with a new and dry one? or does the paper satisfy the specification?	Go to step 2.	Replace the paper with a new and dry one. or Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)
2	Checking the printer setting. Change the Screen setting to "Fineness" via the printer driver. - To change the Screen settings, use [Screen] on the Advanced Property tab of the printer driver. NOTE: If using a downloaded font, ensure that the font is recommended for the printer, operating system, and the application being used. Is the image printed correctly?	End of work.	Go to step 3.
3	Checking the printer setting. Change the Print Mode setting to "High Quality" via the printer driver. - To change the Print Mode settings, use [Print Mode] on the Graphics Property tab of the printer driver. Is the image printed correctly?	End of work.	Go to step 4.
4	Checking the printer setting. Change the Bitmap Smoothing setting to On via the printer driver. - To change the Bitmap Smoothing setting,use [Bitmap Smoothing] on the Advanced Property tab of the printer driver. Is the image printed correctly?	End of work.	Go to step 5.

Step	Check	Remedy	
		Yes	No
5	Checking the Toner Type Is the Dell Toner seated?	Go to step 6.	Replace the toner with the Dell toner.
6	Checking after resetting the KIT ROS ASSY. Reseat the KIT ROS ASSY. Is the image printed correctly?	End of work.	Replace the KIT ROS. (Refer to Removal 45/ Replacement 9.)

FIP-1.P14 Banding/Horizontal band cross out

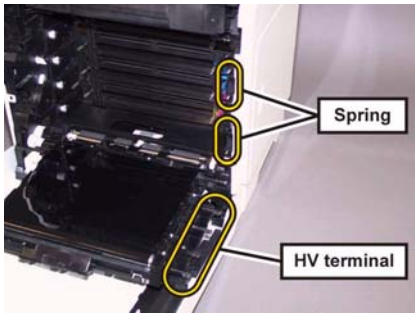
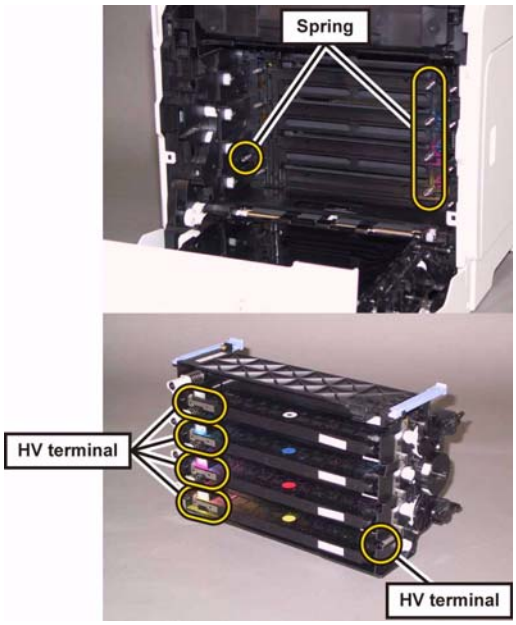


Possible causative parts

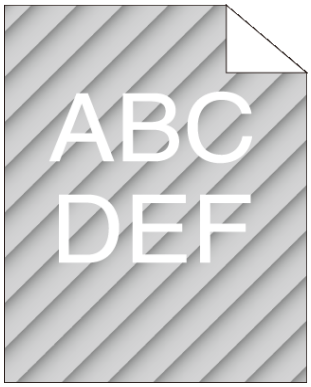
- ROS ASSY (PL4.1.1)
- PHD ASSY (PL4.1.21)
- TRANSFER ASSY (PL6.1.7)
- PWBA HVPS (PL4.1.19)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the Print. Checked by [Test-Print]-[Contamination check] in diagnosis. Is the image printed correctly?	Printing data is incorrect,then check the printing data which the problem generated.	Go to step 2
2	Checking the paper. Is the installed paper with a new and dry one? or does the paper satisfy the specification?	Go to step 3.	Replace the paper with a new and dry one. or Change the paper to the one that satisfies the specification. (Refer to "14 Print Media Guidelines" in the User Guide.)
3	Checking for foreign objects in the paper transfer path. Remove any foreign objects in the paper transfer path between the KIT TRANSFER ASSY and the FUSER ASSY. Does the printout have Banding/Horizontal band cross out?	Go to step 4.	End of work.
4	Checking the defective parts. Print the [Pitch Configuration Chart] in [Chart Print] in [Diagnosis] tab of [Tool Box]. When the vertical stripes of periodicity are observed, check the defective parts by comparing the printed vertical stripes with the Pitch Chart. Are there any vertical stripes matching the chart?	Replace the corresponding parts.	Go to step 5.

Step	Check	Remedy	
		Yes	No
5	Checking the TRANSFER ASSY for connection. Open the COVER ASSY FRONT. Are four HV terminals on the TRANSFER ASSY, and four springs on the frame (PL4.1.11, 12, 13 and 14) dirty and/or deformed? 	Clean or replace the TRANSFER ASSY or SPRING(s).	Go to step 6.
6	Checking the PHD ASSY for connection. Remove the PHD ASSY. Are five HV terminals on the PHD ASSY, and five springs on the frame (PL4.1.10 and PL4.1.15 to 18) dirty and/or deformed? 	Clean and/or replace the PHD ASSY or SPRING(s).	Go to step 7.
7	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Go to step 8.
8	Checking after replacing the TRANSFER ASSY. Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.) Is the image printed correctly?	End of work.	Go to step 9.
9	Checking after replacing the ROS ASSY. Replace the ROS ASSY. (Refer to Removal 45/ Replacement 9.) Is the image printed correctly?	End of work.	Replace the PWBA HVPS. (Refer to Removal 47/Replacement 7.)

FIP-1.P15 Auger mark

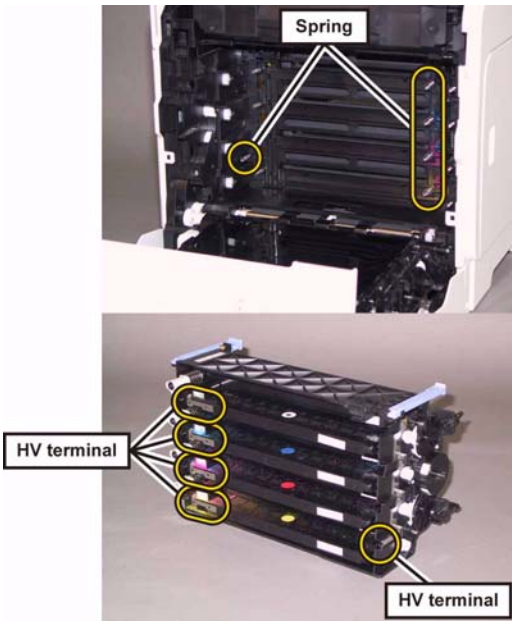


Possible causative parts
- PHD ASSY (PL4.1.21)

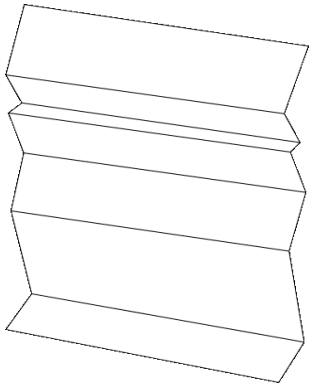
- DISPENSER ASSY (PL5.1.1)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the TONER CARTRIDGE (Y, M, C or K) for installation. Shake and reseat the suspected TONER CARTRIDGE (Y, M, C, or K) Is the image printed correctly?	End of work.	Go to step 2
2	Checking the Toner Type Is the Dell Toner seated?	Go to step 3.	Replace the toner with the Dell toner.
3	Checking Dispense Motor (Y, M, C or K) for operation. Operate the Dispense Motor (Y, M, C or K) for the color in which the problem lies. - To check the operation of the Dispense Motor (Y, M, C or K), click [Dispense Motor (Y, M, C or K)] in [Machine Check] on the diagnosis tab of Tool Box. Is the image printed correctly?	End of work.	Go to step 4
4	Execute the "Clean Developer" - To execute the "Clean Developer", click Start in [Clean Developer] on the diagnosis tab of Tool Box. Is the image printed correctly?	End of work.	Go to step 5

Step	Check	Remedy	
		Yes	No
5	Checking the PHD ASSY for connection. Remove the PHD ASSY. Are five HV terminals on the PHD ASSY, and five springs on the frame (PL4.1.10 and PL4.1.15 to 18) dirty and/or deformed? 	Clean and/or replace the PHD ASSY or SPRING(s).	Go to step 6.
6	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Is the image printed correctly?	End of work.	Go to step 7.
7	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Is the image printed correctly?	End of work.	Replace the DISPENSER ASSY (refer to Removal 44/ Replacement 10)

FIP-1.P16 Wrinkled/Stained paper (Envelope Wrinkle)



.Possible causative parts
- HOLDER ASSY SEPARATOR (PL2.1.5)
- ROLL ASSY FEED (PL3.2.4)
- ROLL ASSY REGI (PL3.2.9)
- ROLL REGI METAL (PL3.2.10)

NOTE

Tray is recommended for paper feeding because sheets fed via SSF is prone to skew depending on how the sheet is placed on SSF.

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the paper feeding tray. Is the skewed paper fed from the SSF?	Go to step 2.	Go to step 6.
2	Checking the side guides setting of SSF. Reset the side guides. Is the image printed correctly?	End of work.	Go to step 3.
3	Checking the paper path. Are there any foreign substances on the paper path?	Remove the foreign substances, then go to step 4.	Go to step 5.
4	Is the image printed correctly?	End of work.	Go to step 5.
5	Checking the ROLL ASSY REGI and ROLL ASSY METAL for rotation. Checked by [Digital Output] - [DO-0] in [IOT Diag], and then enter the [Digital Output] - [DO-29] in [IOT Diag]. Does the Roll Assy Regi and Roll Regi Metal rotate? During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	End of work.	Replace the ROLL ASSY REGI and/ or ROLL REGI METAL.
6	Checking after resetting the Paper Cassette. Reseat the Paper Cassette. Is the image printed correctly?	End of work.	Go to step 7.
7	Checking after resetting the paper. Reseat the paper in the Paper Cassette. Is the image printed correctly?	End of work.	Go to step 8.
8	Checking the side guides of the Paper Cassette. Reset the side guides. Is the image printed correctly?	End of work.	Go to step 9.

Step	Check	Remedy	
		Yes	No
9	Checking the paper path. Are there any foreign substances on the paper path?	Remove the foreign substances, then go to step 10.	Go to step 11.
10	Is the image printed correctly?	End of work.	Go to step 11.
11	Checking after resetting the HOLDER ASSY SEPARATOR. Reseat the HOLDER ASSY SEPARATOR. Is the image printed correctly?	End of work.	Go to step 12.
12	Checking after replacing the HOLDER ASSY SEPARATOR. Replace the HOLDER ASSY SEPARATOR. (Refer to Removal 2/Replacement 52.) Is the image printed correctly?	End of work.	Go to step 13.
13	Checking after resetting the ROLL ASSY FEED. Reseat the ROLL ASSY FEED. Is the image printed correctly?	End of work.	Replace the KIT ROLL ASSY FEED. (Refer to Removal 9/ Replacement 45.)

FIP-1.P17 The top margin is incorrect / The side margin is incorrect

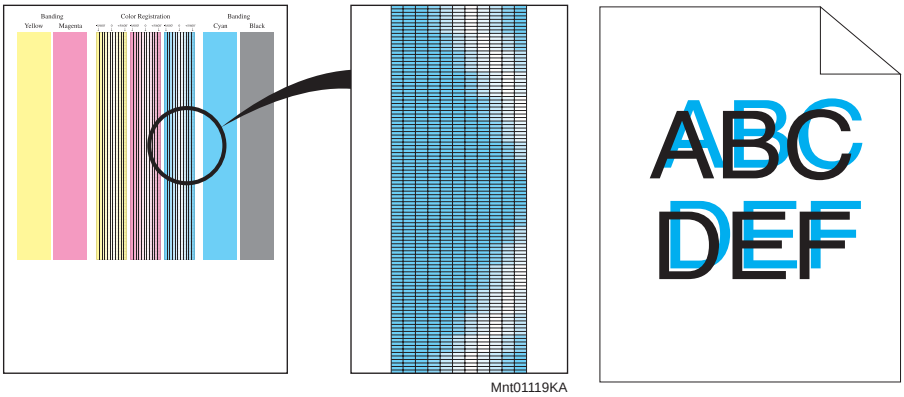
ESS and possible causative parts

- PHD UNIT (PL4.1.21)
- TRANSFER ASSY (PL6.1.7)
- ROS ASSY (PL4.1.1)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the printing. Checked by [Test Print]-[Gradation] in diagnosis. Is the image printed correctly?	Printing data is incorrect,then check the printing data which the problem generated.	Go to step 2.
2	Checking after replacing the PHD ASSY. Replace the PHD ASSY. (Refer to Removal 4/Replacement 50.) Does the error appear on the printed material when printing?	Go to step 3.	End of work.
3	Checking after replacing the TRANSFER ASSY. Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.) Does the error appear on the printed material when printing?	Go to step 4.	Replace the KIT ROS ASSY. (Refer to Removal 45/ Replacement 9.)

FIP-1.P18 Color registration is out of alignment



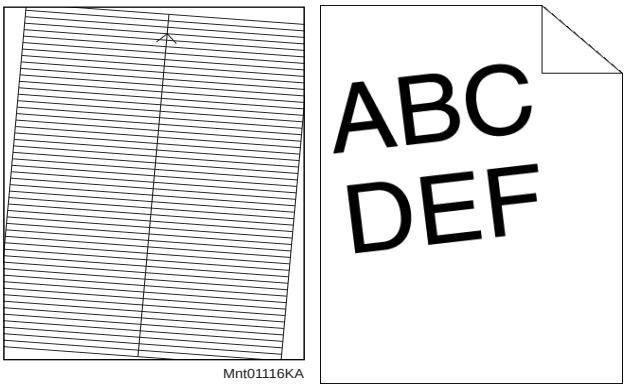
Possible causative parts
- TRANSFER ASSY (PL6.1.7)

- PHD UNIT (PL4.1.21)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the Color registration. Print the Color Regi Chart. - To print "Color Regi Chart", click [Color Regi Chart] in [Color Registration Adjustments] on the Printer Maintenance tab of Tool Box. Is the image printed correctly?	End of work.	Go to step 2.
2	Checking after cleaning the CTD (ADC) Sensor. Clean the CTD (ADC) Sensor, and print the Color Regi Chart. - For details on how to clean the CTD (ADC) Sensor, refer to "Appendix_3.2 Cleaning the CTD (ADC) Sensor". Is the image printed correctly?	End of work.	Go to step 3.
3	Checking after automatic color registration. Execute the automatic color registration. - To execute the automatic color registration, click [Auto Correct] in [Color Registration Adjustments] on the Printer Maintenance tab of Tool Box. Is the image printed correctly?	End of work.	Go to step 4.
4	Checking after manual color registration. Manually adjust the color registration. - To adjust the color registration manually, use [Color Registration Adjustment 1 or 2] in [Color Registration Adjustments] on the Printer Maintenance tab of Tool Box. Is the image printed correctly?	End of work.	Go to step 5.
5	Checking after Replacing the TRANSFER ASSY. Replace the KIT TRANSFER ASSY. (Refer to Removal 20/ Replacement 34.) Does the color registration appear on the printed material when printing?	Replace the PHD ASSY. (Refer to Removal 4/ Replacement 50.)	End of work.

FIP-1.P19 Images are skewed



ESS and possible causative parts
- HOLDER ASSY SEPARATOR (PL2.1.5)
- ROLL ASSY FEED (PL3.2.4)
- ROLL ASSY REGI (PL3.2.9)
- ROLL REGI METAL (PL3.2.10)

NOTE

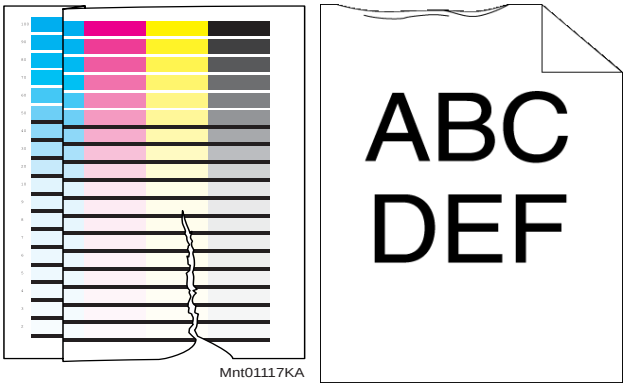
Tray is recommended for paper feeding because sheets fed via SSF is prone to skew depending on how the sheet is placed on SSF.

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the paper feeding tray. Is the skewed paper fed from the SSF?	Go to step 2.	Go to step 6.
2	Checking the side guides setting of SSF. Reset the side guides. Is the image printed correctly?	End of work.	Go to step 3.
3	Checking the paper path. Are there any foreign substances on the paper path?	Remove the foreign substances, then go to step 4.	Go to step 5.
4	Is the image printed correctly?	End of work.	Go to step 5.
5	Checking the ROLL ASSY REGI and ROLL ASSY METAL for rotation. Checked by [Digital Output] - [DO-0] in [IOT Diag], and then enter the [Digital Output] - [DO-29] in [IOT Diag]. Does the Roll Assy Regi and Roll Regi Metal rotate? During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	End of work.	Replace the ROLL ASSY REGI and/ or ROLL REGI METAL.
6	Checking after resetting the Paper Cassette. Reseat the Paper Cassette. Is the image printed correctly?	End of work.	Go to step 7.
7	Checking after resetting the paper. Reseat the paper in the Paper Cassette. Is the image printed correctly?	End of work.	Go to step 8.
8	Checking the side guides of the Paper Cassette. Reset the side guides. Is the image printed correctly?	End of work.	Go to step 9.
9	Checking the paper path. Are there any foreign substances on the paper path?	Remove the foreign substances, then go to step 10.	Go to step 11.
10	Is the image printed correctly?	End of work.	Go to step 11.

Step	Check	Remedy	
		Yes	No
11	Checking after resetting the HOLDER ASSY SEPARATOR. Reseat the HOLDER ASSY SEPARATOR. Is the image printed correctly?	End of work.	Go to step 12.
12	Checking after replacing the HOLDER ASSY SEPARATOR. Replace the HOLDER ASSY SEPARATOR. (Refer to Removal 2/Replacement 52.) Is the image printed correctly?	End of work.	Go to step 13.
13	Checking after resetting the ROLL ASSY FEED. Reseat the ROLL ASSY FEED. Is the image printed correctly?	End of work.	Replace the KIT ROLL ASSY FEED. (Refer to Removal 9/ Replacement 45.)

FIP-1.P20 Paper Damage



.Possible causative parts
- HOLDER ASSY SEPARATOR (PL2.1.5)
- ROLL ASSY FEED (PL3.2.4)
- ROLL ASSY REGI (PL3.2.9)
- ROLL REGI METAL (PL3.2.10)

NOTE

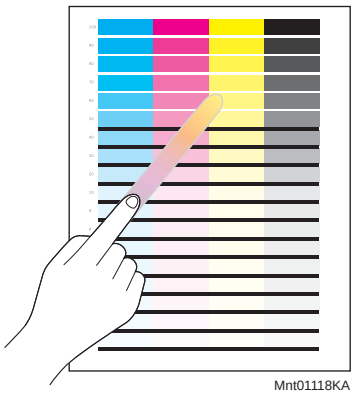
Tray is recommended for paper feeding because sheets fed via SSF is prone to skew depending on how the sheet is placed on SSF.

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the paper feeding tray. Is the skewed paper fed from the SSF?	Go to step 2.	Go to step 6.
2	Checking the side guides setting of SSF. Reset the side guides. Is the image printed correctly?	End of work.	Go to step 3.
3	Checking the paper path. Are there any foreign substances on the paper path?	Remove the foreign substances, then go to step 4.	Go to step 5.
4	Is the image printed correctly?	End of work.	Go to step 5.
5	Checking the ROLL ASSY REGI and ROLL ASSY METAL for rotation. Checked by [Digital Output] - [DO-0] in [IOT Diag], and then enter the [Digital Output] - [DO-29] in [IOT Diag]. Does the Roll Assy Regi and Roll Regi Metal rotate? During this check, cheat the interlock switch (HARN ASSY INTERLOCK).	End of work.	Replace the ROLL ASSY REGI and/ or ROLL REGI METAL.
6	Checking after resetting the Paper Cassette. Reseat the Paper Cassette. Is the image printed correctly?	End of work.	Go to step 7.
7	Checking after resetting the paper. Reseat the paper in the Paper Cassette. Is the image printed correctly?	End of work.	Go to step 8.
8	Checking the side guides of the Paper Cassette. Reset the side guides. Is the image printed correctly?	End of work.	Go to step 9.
9	Checking the paper path. Are there any foreign substances on the paper path?	Remove the foreign substances, then go to step 10.	Go to step 11.

Step	Check	Remedy	
		Yes	No
10	Is the image printed correctly?	End of work.	Go to step 11.
11	Checking after resetting the HOLDER ASSY SEPARATOR. Reseat the HOLDER ASSY SEPARATOR. Is the image printed correctly?	End of work.	Go to step 12.
12	Checking after replacing the HOLDER ASSY SEPARATOR. Replace the HOLDER ASSY SEPARATOR. (Refer to Removal 2/Replacement 52.) Is the image printed correctly?	End of work.	Go to step 13.
13	Checking after resetting the ROLL ASSY FEED. Reseat the ROLL ASSY FEED. Is the image printed correctly?	End of work.	Replace the KIT ROLL ASSY FEED. (Refer to Removal 9/ Replacement 45.)

FIP-1.P21 Unfusing

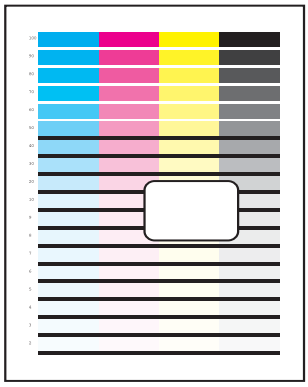


Possible causative parts
- FUSER ASSY (PL6.1.1)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking the using paper Does the using paper meet the specifications?	Go to step 3.	Use the paper that meets the specifications,then go to step 2.
2	Is the image printed correctly?	End of work.	Go to step 3.
3	Checking after resetting the FUSER ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Reseat the FUSER ASSY. Is the image printed correctly?	End of work.	Warning: Start the operation after the FUSER ASSY has cooled down. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) After replacement, be sure to clear the life counter value.

FIP-1.P22 Label Stuck



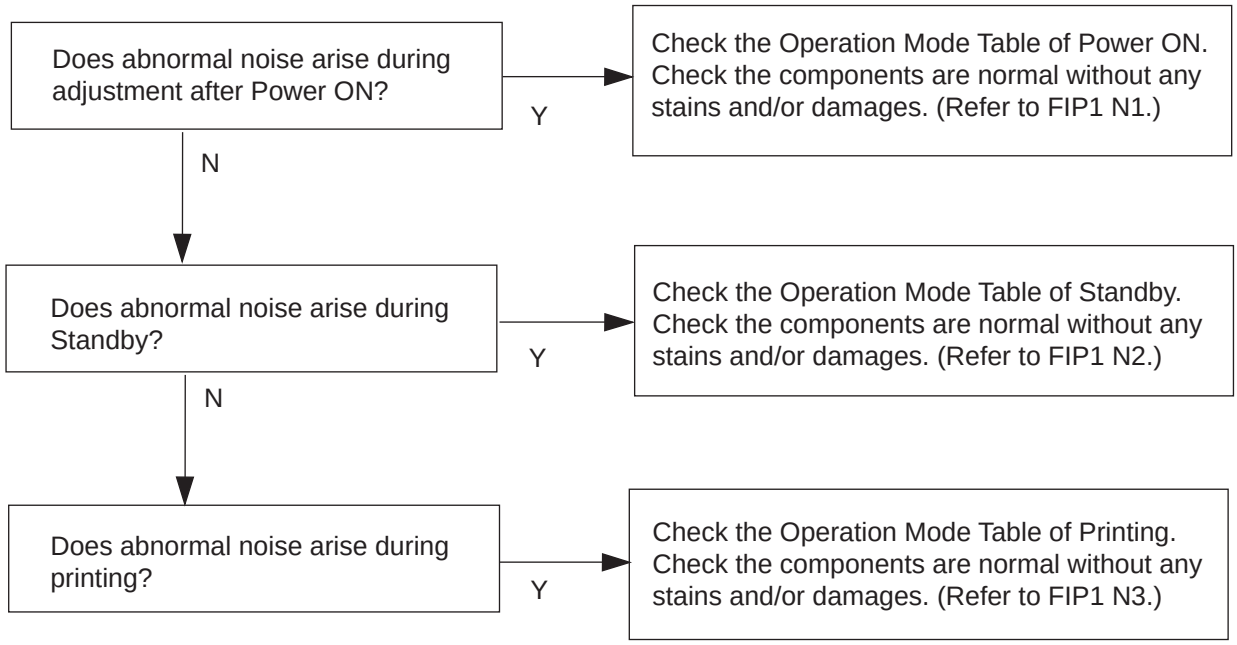
.Possible causative parts
- FUSER ASSY (PL6.1.1)

Before commencing troubleshooting, check the paper transfer path. Make sure there is no foreign materials on the transfer path, such as staples, paper clips, scraps of paper and so on.

Step	Check	Remedy	
		Yes	No
1	Checking for foreign materials around the paper transfer path. Are there any foreign materials such as precut adhesive labels in the paper transfer path?	Remove the foreign materials.	Warning: Start the operation after the FUSER ASSY has cooled down. Replace the FUSER ASSY. (Refer to Removal 5/ Replacement 49.) After replacement, be sure to clear the life counter value.

5. Abnormal Noise Trouble

5.1 Entry Chart for Abnormal Noise Troubleshooting



5.2 Operation Mode Table

FIP-1.N1 Noise: When Power is Turned On

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PHD ASSY (PL4.1.21) FUSER ASSY (PL6.1.1) TRANSFER ASSY (PL6.1.7) DRIVE ASSY SUB (PL7.1.1) DRIVE ASSY MAIN (PL7.1.2)		
1	Checking the Main Motor. Does the noise arise from the printer? Checked by [Digital Output] - [DO-0] in [CE Diag] tab of [CE Diag].	Go to step 2.	Go to step 5.
2	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Does the noise arise from the printer? Checked by [Digital Output] - [DO-0] in [IOT Diag] of diagnosis.	Go to step 3.	End of work.
3	Checking after resetting the TRANSFER ASSY. Reseat the TRANSFER ASSY. Does the noise arise from the printer? Checked by [Digital Output] - [DO-0] in [IOT Diag] of diagnosis.	Go to step 4.	End of work.
4	Checking after resetting the DRIVE ASSY MAIN. Reseat the DRIVE ASSY MAIN. Does the noise arise from the printer? Checked by [Digital Output] - [DO-0] in [IOT Diag] of diagnosis.	Try replacing the PHD ASSY (refer to Removal 4/ Replacement 50), KIT TRANSFER ASSY (refer to Removal 20/ Replacement 34) and KIT DRIVE ASSY MAIN (refer to Removal 32/ Replacement 22) one after another.	End of work.
5	Checking the Sub Motor. Does the noise arise from the printer? Checked by [Digital Output] - [DO-5] in [IOT Diag] of diagnosis.	Go to step 6.	Check the installation situation of printer.
6	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Does the noise arise from the printer? Checked by [Digital Output] - [DO-5] in [IOT Diag] of diagnosis.	Go to step 7.	End of work.
7	Checking after resetting the FUSER ASSY. Reseat the FUSER ASSY. **Warning: Start the operation after the FUSER ASSY has cooled down.** Does the noise arise from the printer? Checked by [Digital Output] - [DO-5] in [IOT Diag] of diagnosis.	Go to step 8.	End of work.

Step	Check	Remedy	
		Yes	No
8	Checking after resetting the DRIVE ASSY SUB. Reseat the DRIVE ASSY SUB. Does the noise arise from the printer? Checked by [Digital Output] - [DO-5] in [IOT Diag] of diagnosis.	Try replacing the PHD UNIT (refer to Removal 4/ Replacement 50), FUSER ASSY (refer to Removal 5/ Replacement 49) after replacement, be sure to clear the life counter value, and DRIVE ASSY SUB (refer to Removal 33/ Replacement 21) one after another.	End of work.

FIP-1.N2 Noise: During Standby

Step	Check	Remedy	
		Yes	No
	Possible causative parts: FAN (PL8.1.1) PWBA LVPS (PL8.2.1)		
1	Checking the FAN. Does the noise arise from the Fan? Checked by [Digital Output] - [DO-1e] in [IOT Diag] of diagnosis.	Replace the FAN. (Refer to Removal 40/ Replacement 14.)	Replace the PWBA LVPS. (Refer to Removal 11/ Replacement 43.)

FIP-1.N3 Noise: During Printing (Checking for other items than "power on noise")

Step	Check	Remedy	
		Yes	No
	Possible causative parts: HOLDER ASSY SEPARATOR (PL2.1.5) ROLL ASSY FEED (PL3.2.4) ROLL ASSY REGI (PL3.2.9) ROLL REGI METAL (PL3.2.10) PHD ASSY (PL4.1.21) FUSER ASSY (PL6.1.1) TRANSFER ASSY (PL6.1.7) DRIVE ASSY SUB (PL7.1.1) DRIVE ASSY MAIN (PL7.1.2) FAN (PL8.1.1) FEEDER ASSY DUP SFP STD (PL11.1.1)		
1	Checking the paper feeding. Does the noise arise from the printer when the paper is fed from the Tray 1?	Go to step 2.	Go to step 6.
2	Checking the paper condition in the Paper Cassette. Is the paper dry and recommended paper?	Go to step 4.	Replace the paper with a new dry and recommended one, then go to step 3.
3	Checking noise when the paper is fed from the Tray 1. Does the noise arise from the printer?	Go to step 4.	End of work.
4	Checking the HOLDER ASSY SEPARATOR in the Paper Cassette for rotation. Remove the Paper Cassette from the printer. Does the SEPARATOR ROLLER rotate smoothly? Turning it with your finger.	Go to step 5.	Replace the KIT HOLDER ASSY SEPARATOR. (Refer to Removal 2/ Replacement 52.)
5	Checking the ROLL ASSY FEED for rotation. Remove the Paper Cassette from the printer. Checked by [Digital Output] - [DO-0] in [IOT Diag] and then enter the [Digital Output] - [DO-b] in [IOT Diag] of diagnosis. Does the noise arise from this Roller?	Replace the ROLL ASSY FEED. (Refer to Removal 9/ Replacement 45.)	Go to step 9.
6	Checking the paper guide sides setting and paper setting of SSF. Were the paper guide sides of SSF correctly set, and was the paper correctly inserted into SSF?	Go to step 7.	Reset the paper guide sides, and correctly insert the paper to SSF, then go to step 7.
7	Checking the paper condition. Is the paper dry and recommended paper?	Go to step 9.	Replace the paper with a new dry and recommended one, then go to step 8.
8	Checking noise when the paper is fed from the SSF. Does the noise arise from the printer?	Go to step 9.	End of work.
9	Checking the Duplex. Does the noise arise when feeding the paper from the Duplex?	Go to step 10.	Go to step 12.

Step	Check	Remedy	
		Yes	No
10	Checking the FEEDER ASSY DUP SFP STD for installation. Reseat the FEEDER ASSY DUP SFP STD. Does the noise arise from the printer?	Go to step 11.	End of work.
11	Checking the Duplex Motor (MOTOR ASSY DUP). Does the noise arise from the printer? Checked by [Digital Output] - [DO-12] in [IOT Diag] of diagnosis.	Replace FEEDER ASSY DUP SFP STD (Refer to Removal 56/ Replacement 57).	End of work.
12	Checking the Main Motor. Does the noise arise from the printer? Checked by [Digital Output] - [DO-0] in [IOT Diag] of diagnosis.	Go to step 13.	Go to step 19.
13	Checking after resetting the PHD UNIT. Reseat the PHD UNIT. Does the noise arise from the printer? Checked by [Digital Output] - [DO-0] in [IOT Diag] of diagnosis.	Go to step 14.	End of work.
14	Checking after resetting the TRANSFER ASSY. Reseat the TRANSFER ASSY. Does the noise arise from the printer? Checked by [Digital Output] - [DO-0] in [IOT Diag] of diagnosis.	Go to step 15.	End of work.
15	Checking the foreign substances on the surfaces of the ROLL ASSY REGI and ROLL REGI METAL. Are there any foreign substances on the surfaces of these parts?	Remove the foreign substances, then go to step 16.	Go to step 17.
16	Checking noise when printing. Does the noise arise from the printer?	Go to step 17.	End of work.
17	Checking the ROLL ASSY REGI and ROLL REGI METAL for rotation. Checked by [Digital Output] - [DO-0] in [IOT Diag] and then enter the [Digital Output] - [DO-29] in [IOT Diag] of diagnosis. Does the noise arise from the Roller(s)?	Replace the ROLL ASSY REGI and/ or ROLL REGI METAL.	Go to step 18.
18	Checking the DRIVE ASSY MAIN for installation. Reseat the DRIVE ASSY MAIN. Does the noise arise from the printer? Checked by [Digital Output] - [DO-0] in [IOT Diag] of diagnosis.	Try replacing the PHD ASSY (refer to Removal 4/ Replacement 50), KIT TRANSFER ASSY (refer to Removal 20/ Replacement 34) and KIT DRIVE ASSY MAIN (refer to Removal 32/ Replacement 22) one after another.	End of work.
19	Checking the Sub Motor. Does the noise arise from the printer? Checked by [Digital Output] - [DO-5] in [IOT Diag] of diagnosis.	Go to step 20.	Check the installation situation of the printer.

Step	Check	Remedy	
		Yes	No
20	Checking the PHD ASSY for installation. Reseat the PHD ASSY. Does the noise arise from the printer? Checked by [Digital Output] - [DO-5] in [IOT Diag] of diagnosis.	Go to step 21.	End of work.
21	Checking the FUSER ASSY for installation. Reseat the FUSER ASSY. Does the noise arise from the printer? Checked by [Digital Output] - [DO-5] in [IOT Diag] of diagnosis.	Go to step 22.	End of work.
22	Checking the DRIVE ASSY SUB for installation. Reseat the DRIVE ASSY SUB. Does the noise arise from the printer? Checked by [Digital Output] - [DO-5] in [IOT Diag] of diagnosis.	Try replacing the PHD UNIT (refer to Removal 4/ Replacement 50), FUSER ASSY (refer to Removal 5/ Replacement 49) after replacement, be sure to clear the life counter value, and DRIVE ASSY SUB (refer to Removal 33/ Replacement 21) one after another.	End of work.

6. Other FIP

Other FIP covers the Electrical Noise FIP, Power Supply FIP and Multiple Feed FIP, except Error Code FIP, Abnormal Noise FIP and Image Quality FIP.

FIP-Electrical Noise

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PHD ASSY (PL4.1.21) TRANSFER ASSY (PL6.1.7) PWBA HVPS (PL4.1.19)		
1	Checking the external noise. Are there any other electrical appliances within 3 meters form the printer, such as generators, radio and appliances with motors? Either turn off the other electrical appliances, or relocate the printer at least 6 meters away from other appliances. Does the electrical noise error still occur?	Go to step 2.	End of work.
2	Checking the AC ground. Is AC power supply outlet wired and grounded appropriately?	Go to step 3.	Request the client to fix AC power supply outlet.
3	Checking the TRANSFER ASSY for connection. Open the COVER ASSY FRONT MG. Are four HV terminals on the TRANSFER ASSY, and four springs on the frame (PL4.1.11, 12, 13 and 14) dirty and/or deformed?	Clean or replace the TRANSFER ASSY (refer to Removal 20/ Replacement 34) or SPRING(s).	Go to step 4.
4	Checking the PHD ASSY for connection. Remove the PHD ASSY. Are five HV terminals on the PHD ASSY, and five springs on the frame (PL4.1.10 and PL4.1.15 to 18) dirty and/or deformed?	Clean or replace the PHD ASSY (refer to Removal 4/ Replacement 50) or SPRING(s).	Go to step 5.
5	Checking after resetting the PHD ASSY. Reseat the PHD ASSY. Does the electrical noise error still occur?	Go to step 6.	End of work.
6	Checking after resetting the TRANSFER ASSY. Reseat the TRANSFER ASSY. Does the electrical noise error still occur?	Reseat the PWBA HVPS.(refer to Removal 47/ Replacement 7)	End of work.

FIP-AC Power

Step	Check	Remedy	
		Yes	No
	Possible causative parts: SWITCH ASSY INLET MG SFP (PL8.2.9) PWBA LVPS (PL8.2.1)		
1	Checking the printer. Does the motor noise arise when turning on the power? During this test, close the COVER ASSY FRONT MG.	Go to FIP-DC.	Go to step 2.
2	Checking the power supply on wall outlet. Connect the power cord with other wall outlet. Does the printer operate normally?	End of work.	Go to step 3.
3	Checking the power code for connection. Reconnect the power cord. Does the printer operate normally?	End of work.	Go to step 4.
4	Checking the connector of SWITCH ASSY INLET MG SFP for connection. Disconnect the power cord and wait for one minute. Reconnect the connector of SWITCH ASSY INLET MG SFP. Does the printer operate normally?	End of work.	Replace the SWITCH ASSY INLET MG SFP ,then go to step 5.
5	Checking the connector of PWBA LVPS for connection. Disconnect the power cord and wait for one minute. Reconnect the all connectors of PWBA LVPS. Does the printer operate normally?	End of work.	Replace the PWBA LVPS. (Refer to Removal 11/ Replacement 43.)

FIP-DC Power

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA LVPS (PL8.2.1) PWBA MCU (PL8.2.13) PWBA ESS SFP (PL8.1.17)		
1	Checking the connector of the PWBA LVPS for connection. Disconnect the power cord and wait for one minute. Reconnect the all connectors of the PWBA LVPS. Does the printer operate normally?	End of work.	Go to step 2.
2	Checking the connector of the CONSOLE ASSY PANEL for connection. Reconnect the connector (P/J202) of the CONSOLE ASSY PANEL. Does the CONSOLE ASSY PANEL operate normally?	End of work.	Go to step 3.
3	Checking after resetting the PWBA MCU and PWBA ESS SFP. Reseat the PWBA MCU and PWBA ESS SFP. Does the printer operate normally?	End of work.	Replace the PWBA LVPS. (Refer to Removal 11/ Replacement 43.)

FIP-Multiple Feed

NOTE **This multiple feed trouble occurs only when the paper is fed from the Paper Cassette.**

Step	Check	Remedy	
		Yes	No
	Possible causative parts: HOLDER ASSY SEPARATOR (PL2.1.5) ROLL ASSY FEED (PL3.2.4) ROLL ASSY REGI (PL3.2.9) ROLL REGI METAL (PL3.2.10)		
1	Checking the using paper. Does the using paper meet the specifications?	Go to step 3.	Use the paper that meets the specifications, then go to step 2.
2	Does the multi feed still occur when printing?	Go to step 3.	End of work.
3	Checking paper condition. Is the paper dry and recommended paper?	Go to step 5.	Replace the paper with a new dry and recommended one, then go to step 4.
4	Does the multi feed still occur when printing?	Go to step 5.	End of work.
5	Checking the ROLL ASSY FEED and HOLDER ASSY SEPARATOR for rotation. Does the ROLL ASSY FEED and HOLDER ASSY SEPARATOR rotate smoothly and operate correctly?	End of work.	Replace the KIT ROLL ASSY FEED (refer to Removal 9/ Replacement 45) or KIT HOLDER ASSY SEPARATOR (refer to Removal 2/ Replacement 52).

FIP-Control Panel Freezes

Step	Check	Remedy	
		Yes	No
	Possible causative parts: PWBA ESS SFP (PL8.1.7)		
1	Checking the operating environment. Is the printer connected to the Network?	Go to step 2.	Replace the Printer.
2	Checking the IP address. Can you change the IP address?	Go to step 5.	Go to step 3.
3	Checking the internet connectivity. Is there any internet connection available for your PC?	Go to step 4.	Replace the KIT PWBA ESS SFP. (Removal 42/ Replacement 12)
4	Updating the firmware to the latest version. Download the latest version of the firmware from the DELL Support Web site, and execute the update. **NOTE: Before updating the firmware to the latest version, reset the error following the steps of procedure described below. In addition, update the firmware by way of a USB storage.** **1) Remove the network cable.** **2) Connect the USB cable.** **3) Turn the power off and on.** Does the error persist when the power is turned off and on?	Replace the KIT PWBA ESS SFP. (Removal 42/ Replacement 12)	End of work.
5	Changing the IP address. Contact your system administrator for obtaining a new IP address. Refer to Reference_1 for details of how to change the IP address. Does the error persist when the power is turned off and on?	Replace the KIT PWBA ESS SFP. (Removal 42/ Replacement 12)	End of work.

Reference_1:Changing the IP address

1) Remove the network cable, and power off the printer and then on
2) Change the IP address on the Control Panel.
3) Plug the network cable back into the printer, and then turn the power on.
4) On the Control Panel, open [Admin] > [Network] > [TCP/IP], and confirm that the IP address has been changed.

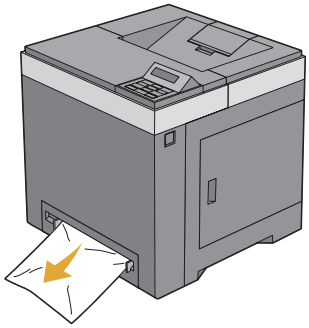
Appendix

This section describes procedure of clearing paper jams, procedure of replacing the main parts, and procedure of cleaning the printer.

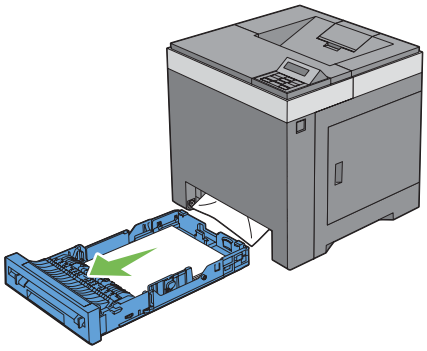
Appendix_1 Clearing Jams

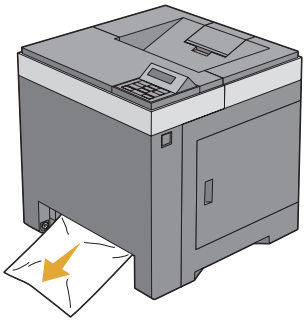
1.1 Clearing Paper Jams From the SSF

1) Pull the jammed paper out of the single sheet feeder. If no jammed paper can be found or you are unable to remove the paper, go to the next step to remove the jammed paper from the inside of the printer.

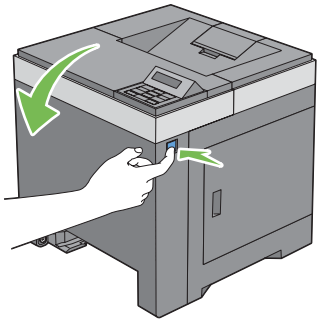


2) Remove the standard 250-sheet tray from the printer, and then pull out the jammed paper remaining inside the printer. If no jammed paper can be found or you are unable to remove the paper, go to the next step to remove the jammed paper from the inside of the printer.

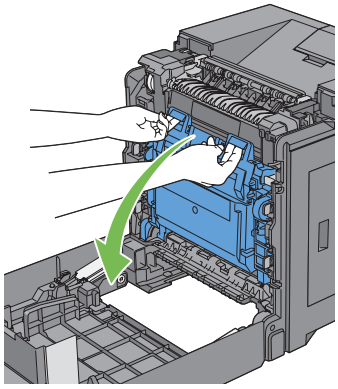


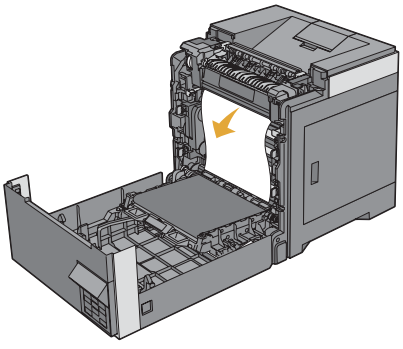


3) Push the side button to open the front cover.

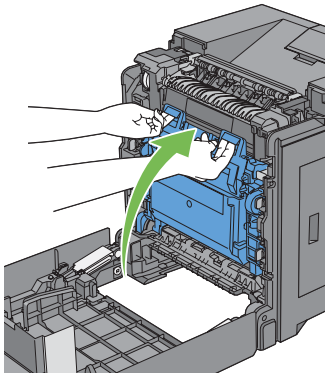


4) Open the belt unit until it stops and remove the jammed paper. Confirm that there are no scraps of paper remaining inside the printer.

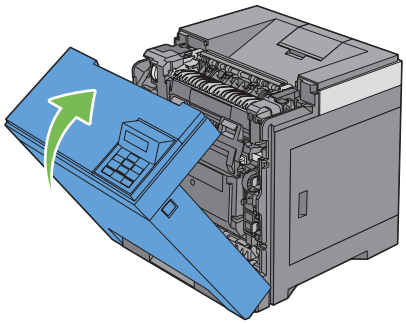




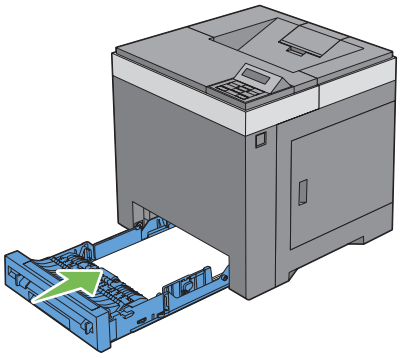
5) Close the belt unit, and push at the top of the unit until it clicks.



6) Close the front cover.

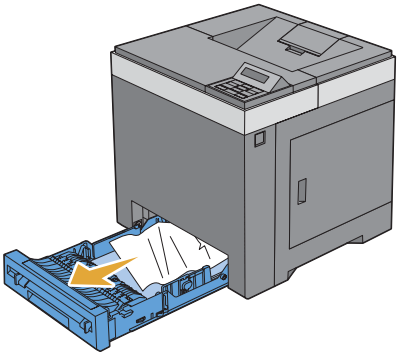


7) Insert the standard 250-sheet tray into the printer, and push until it stops.

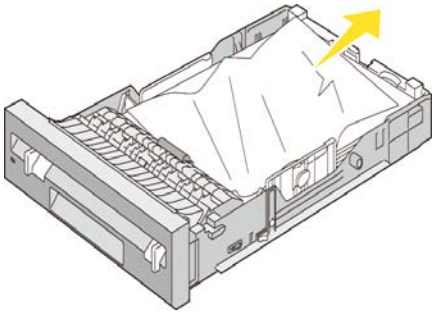


1.2 Clearing Paper Jams From the Standard 250-Sheet Tray

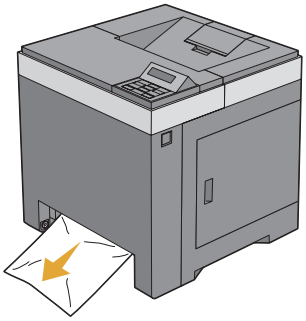
1) Pull the standard 250-sheet tray out of the printer carefully. Hold the tray with both hands, lift the front slightly, and remove it from the printer.



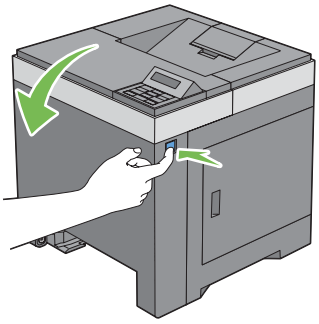
2) Remove all the jammed and/or creased paper from the tray.



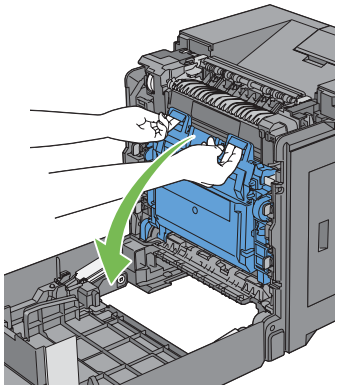
3) Pull the jammed paper out carefully to avoid tearing it. If you are still unable to remove the paper, go to the next step to remove the jammed paper from the inside of the printer.

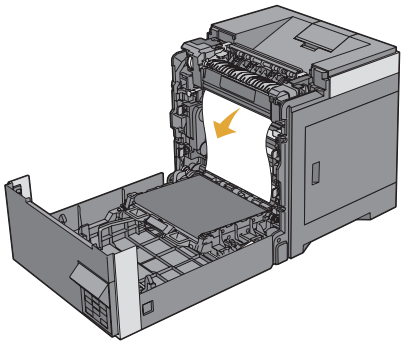


4) Push the side button to open the front cover.

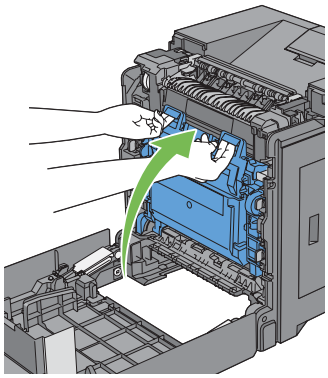


5) Open the belt unit until it stops and remove the jammed paper. Confirm that there are no scraps of paper remaining inside the printer.

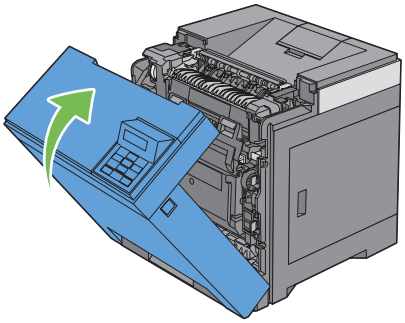




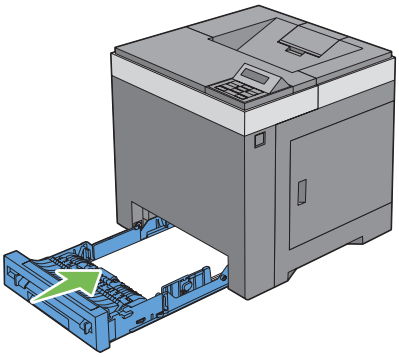
6) Close the belt unit, and push at the top of the unit until it clicks.



7) Close the front cover.



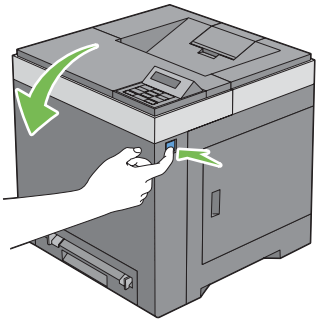
8) Insert the standard 250-sheet tray into the printer, and push until it stops.



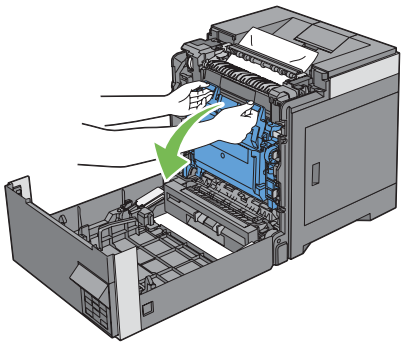
1.3 Clearing Paper Jams From the Fuser

1) Turn off the printer and wait for 30 minutes.

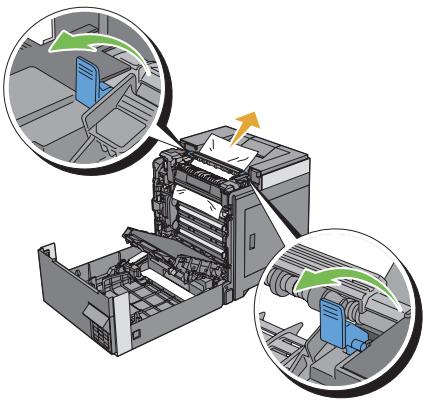
2) Push the side button to open the front cover.



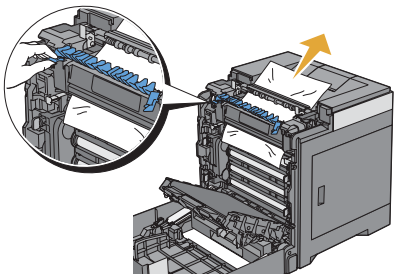
3) Open the belt unit.



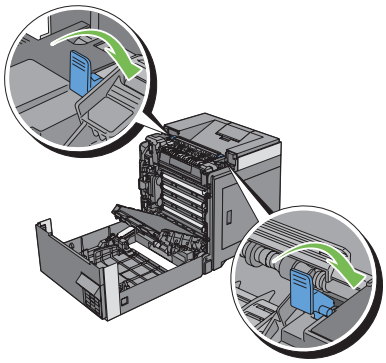
4) Lift the levers at both ends of the fuser, and remove the jammed paper. If you are still unable to remove the paper, go to the next step.



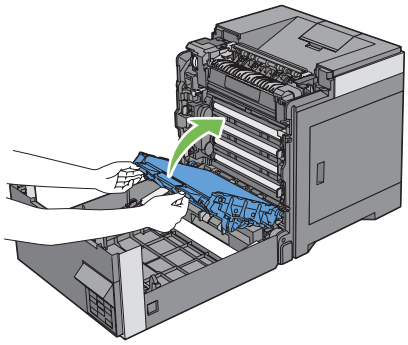
5) Open the cover of the fuser and remove the jammed paper.



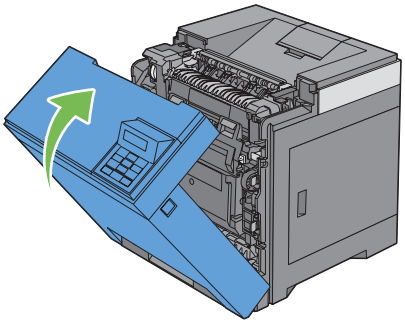
6) Close the cover of the fuser and press down the levers at both ends of the fuser.



7) Confirm that there are no scraps of paper remaining inside the printer, and then close the belt unit.

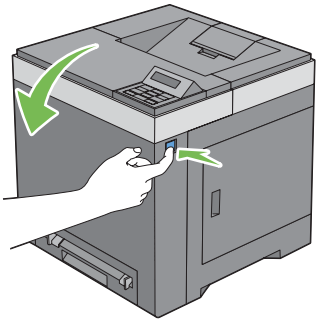


8) Close the front cover.

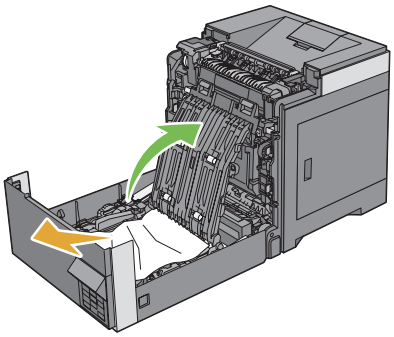


1.4 Clearing Paper Jams From the Duplexer

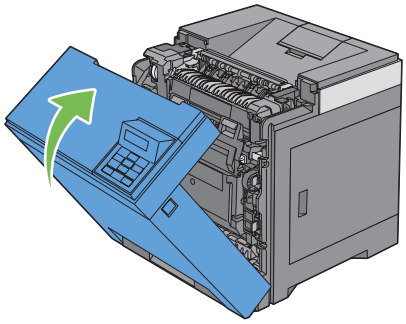
1) Push the side button to open the front cover.



2) Open the cover of the duplexer.
3) Remove the jammed paper from the duplexer.

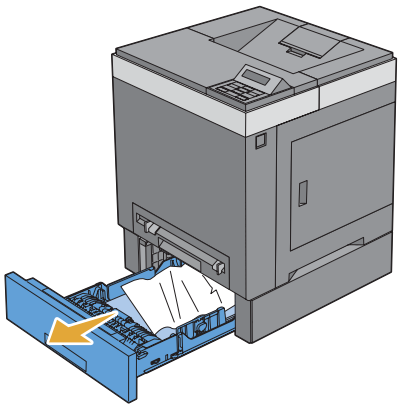


4) Close the cover of the duplexer.
5) Close the front cover.

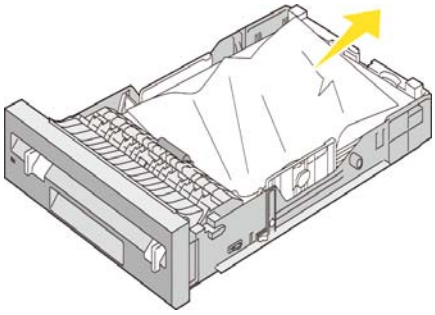


1.5 Clearing Paper Jams From the Optional 250-Sheet Feeder

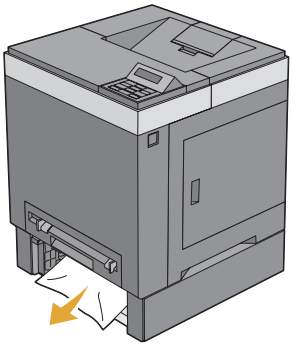
1) Pull the optional 250-sheet feeder out of the printer carefully. Hold the feeder with both hands, and remove it from the printer.



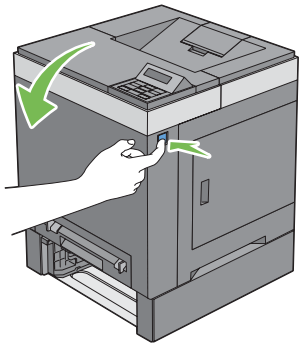
2) Remove all jammed and/or creased paper from the feeder.



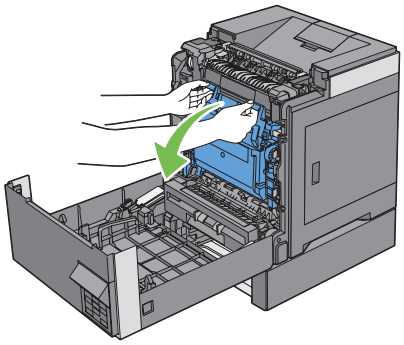
3) Pull the jammed paper out carefully to avoid tearing it. If you are still unable to remove the paper, go to the next step to remove the jammed paper from the inside of the printer.

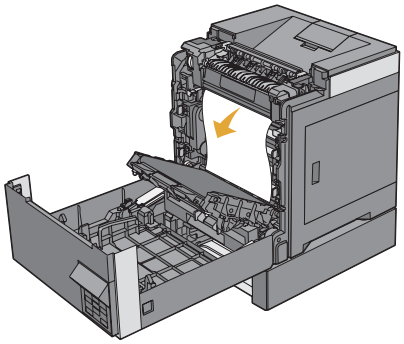


4) Push the side button to open the front cover.

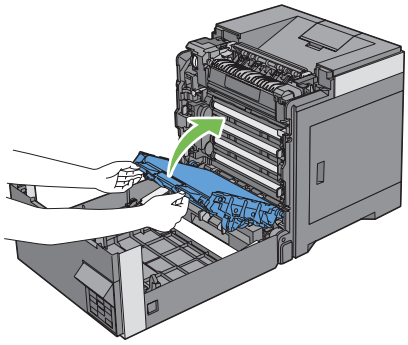


5) Open the belt unit until it stops and remove the jammed paper. Confirm that there are no scraps of paper remaining inside the printer.

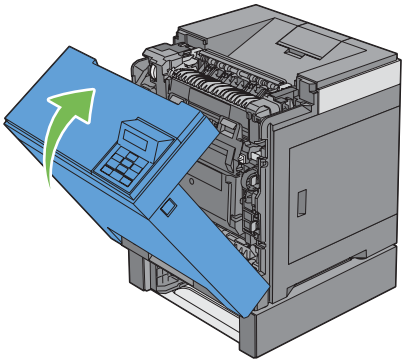




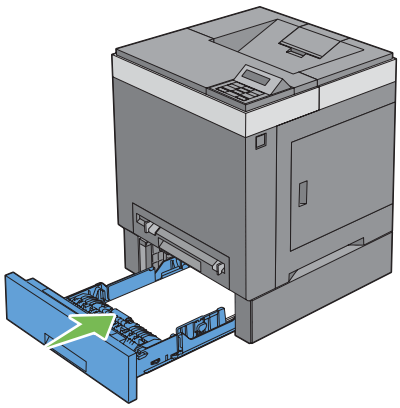
6) Close the belt unit, and push at the top of the unit until it clicks.



7) Close the front cover.



8) Insert the optional 250-sheet feeder into the printer, and push until it stops.



Appendix_2 Replacing the Main Parts

2.1 Consumables and Periodic Replacement Parts Life

2.1.1 Replacement Timing of Consumables and Periodic Replacement Parts

(1) Types of Consumables and Periodic Replacement Parts

Listed below are the consumables and periodic replacement parts for this printer (including options).

	Product Name	Life span (approximate)*1
Consumables	TONER CARTRIDGE (K) (Starter capacity)	1,200 pages
	TONER CARTRIDGE (YMC) (Starter capacity)	1,200 pages
	TONER CARTRIDGE (K) (Standard capacity)	3,000 pages
	TONER CARTRIDGE (YMC) (Standard capacity)	2,500 pages
Periodic Replacement Parts	FUSER	100,000 pages
	PHD ASSY	24,000 pages
	SEPARATOR ROLLERS (Retard Roller)	150,000 pages

*1: The page counts are for reference only.
The actual page count may vary greatly depending on conditions such as print settings, document contents, or power-on/off frequency.

(2) Replacement Timing of Consumables

When a consumable part is about to reach its replacement period, one of the following messages appears on the Operator Panel:

	Message	Meaning	Detection device
TONER CARTRIDGE (YMCK)	<Near Life> Ready to Print 093-XXX*1 ↕ Flip YYY*1 Cartridge Is close to life	The TONER CARTRIDGE (Y, M, C, or K) is near its replacement period. Have ready a new TONER CARTRIDGE (Y, M, C, or K). You can still print approximately another 900 pages (Standard capacity: 1,800 pages) in K, and 600 (Standard capacity: 1,200 pages) in Y, M, and C.	The TONER CRUM detects the replacement period from the remaining toner amount. The CTD (ADC) Sensor detects the life end.
	<Life Over> Replace Cart. 093-XXX*2 ↕ Flip Replace YYY*2 Cartridge	The TONER CARTRIDGE (Y, M, C, or K) has reached its replacement period. The printer stops operating. Immediately replace the TONER CARTRIDGE (Y, M, C, or K) with a new one.	

*1-*2: XXX/YYY in the message denotes the following.
*1: 423/Yellow, 424/Magenta, 425/Cyan, 426/Black
*2: 930/Yellow, 931/Magenta, 932/Cyan, 933/Black

(3) Replacement Timing of Periodic Replacement Parts

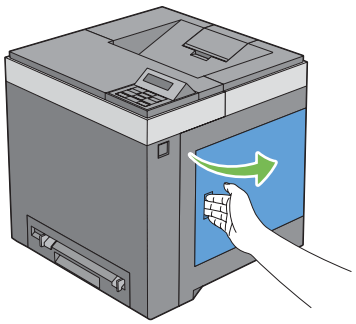
When a periodic replacement part is about to reach its replacement period, one of the following messages appears on the Operator Panel:

	Message	Meaning	Detection device
FUSER ASSY	<Near Life> Ready to Print 010-421 ↕ Flip Ready to Print Contact Support	The FUSER ASSY is near its replacement period. Have ready a new FUSER ASSY. You can still print approximately another 5,000 pages before the Life Over message appears.	The replacement period is detected with the operation counter of the FUSER ASSY.
	<Life Over> Replace FUSER 010- 351 ↕ Flip Replace FUSER Contact Support	The FUSER ASSY has reached its replacement period. You can still print some more pages, but the print quality will not be assured. It is recommended that you replace the FUSER ASSY with a new one immediately.	
PHD ASSY	<Near Life> Ready to Print 091-402 ↕ Flip Ready to Print Contact Support	The PHD ASSY is near its replacement period. Have ready a new PHD ASSY. You can still print approximately another 2,400 pages before the Life Over message appears.	The replacement period is detected with the operation counter of the PHD ASSY.
	<Life Over> Replace PHS 091-935 ↕ Flip Replace PHD Contact Support	The PHD ASSY has reached its replacement period. You can still print some more pages, but the print quality will not be assured. It is recommended that you replace the PHD ASSY with a new one immediately.	

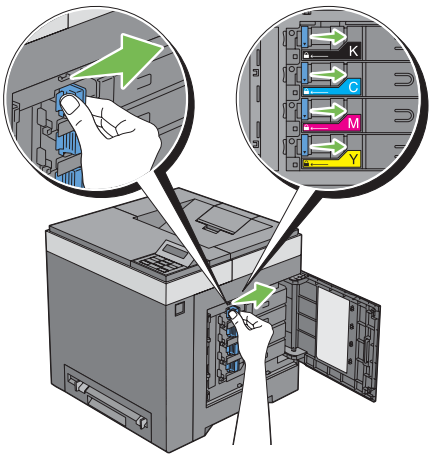
2.2 Replacing the Toner Cartridges

- Removing the Toner Cartridges

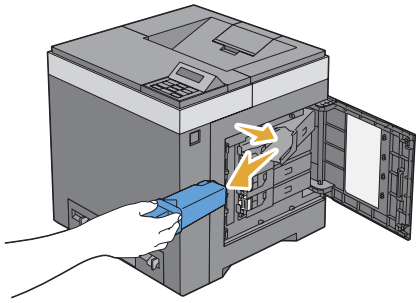
1) Open the toner access cover.



2) Push the latch(es) backwards to pop open the toner cartridge(s) that you want to replace.

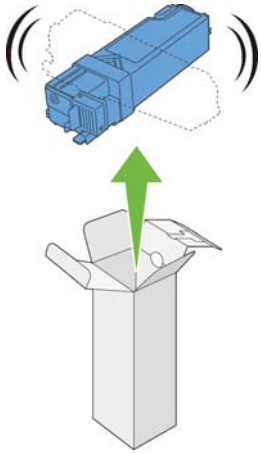


3) Pull the cartridge holder until it clicks, and then pull out the toner cartridge.

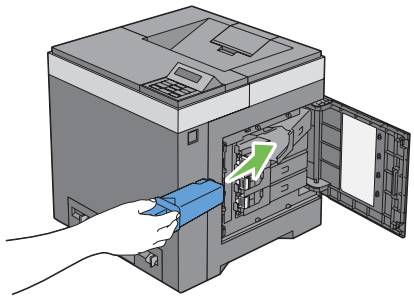


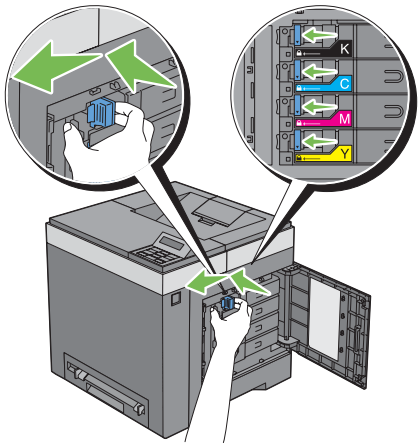
- Installing a Toner Cartridge

1) Ensure that the color of the new toner cartridge matches that on the handle before replacing it. Shake the new toner cartridge five or six times to distribute the toner evenly.

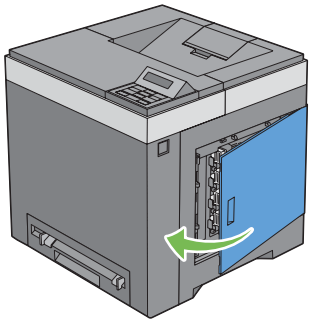


2) Insert the toner cartridge into the associated cartridge holder, and then slide the latch of the toner cartridge.





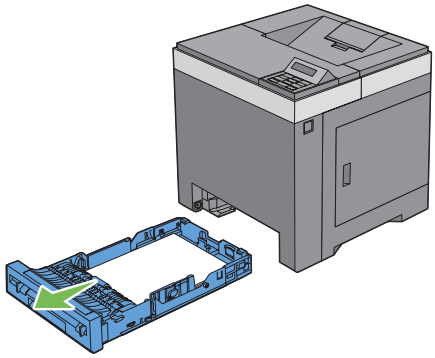
3) Close the toner access cover.



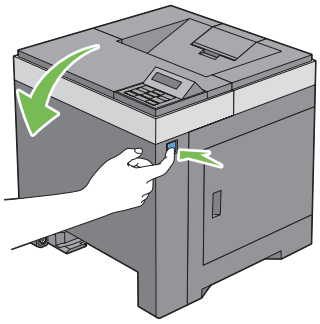
2.3 Replacing the Print Head Device (PHD) Unit

- Removing the PHD Unit

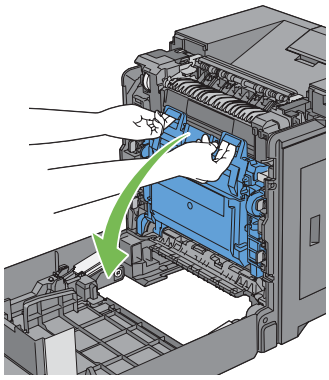
1) Ensure that the printer is turned off.
2) Pull the standard 250-sheet tray out of the printer about 200 mm. Hold the standard 250-sheet tray with both hands, and remove it from the printer.



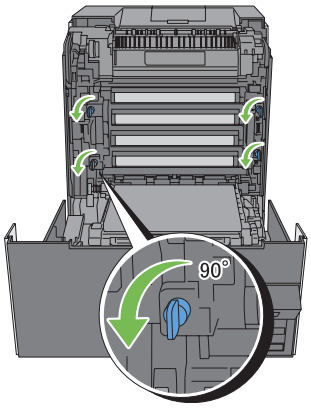
3) Push the side button to open the front cover.



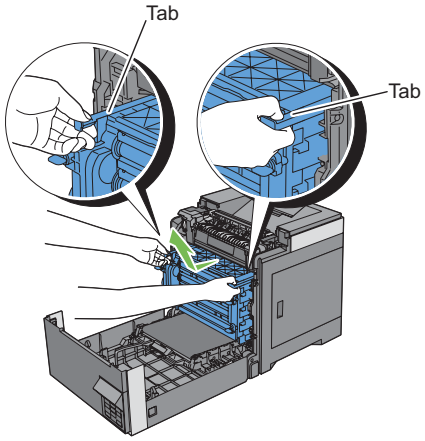
4) Open the belt unit.



5) Turn the four PHD lock levers 90-degrees counterclockwise.



6) Hold the gray tabs, and then pull the PHD unit out of the printer.

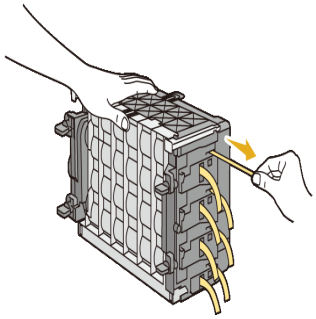


- Installing a PHD Unit

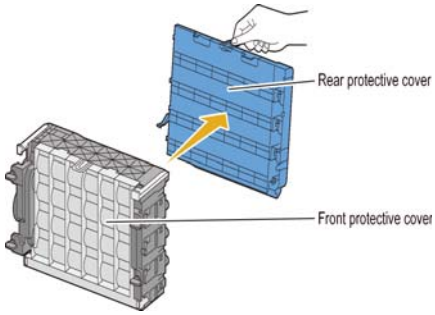
1) Open the PHD packaging.

2) Take out the PHD unit from the packaging.

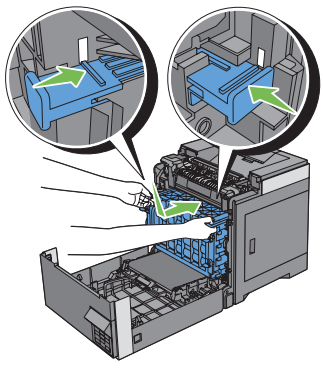
3) Completely pull out the eight yellow ribbons from the PHD unit.



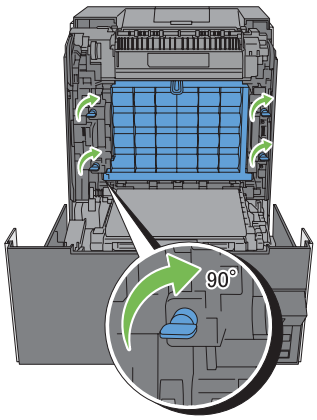
4) Remove the rear protective cover from the PHD unit.



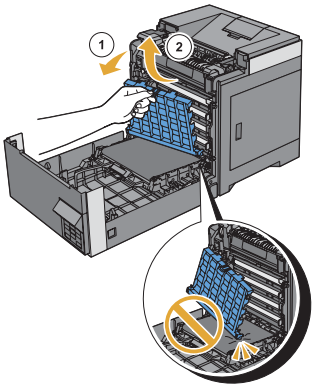
5) Insert the PHD unit until the line on the handle aligns with the white line on the printer.



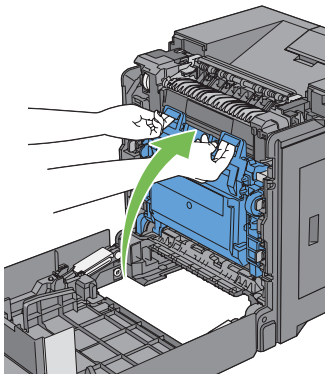
6) Turn the four PHD lock levers 90-degrees clockwise to lock the PHD unit.



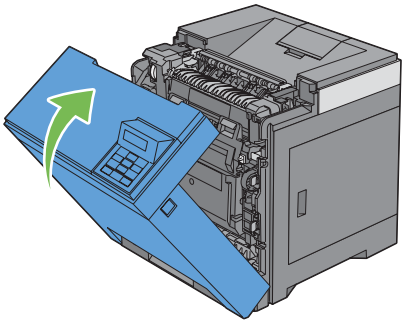
7) Remove the front protective cover from the PHD unit.



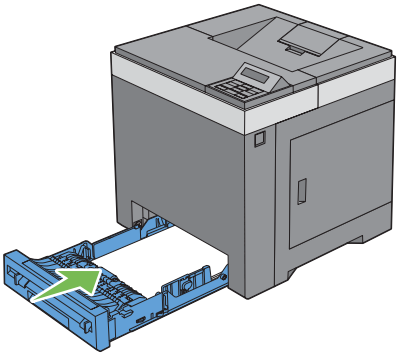
8) Close the belt unit, and push at the top of the unit until it clicks.



9) Close the front cover.



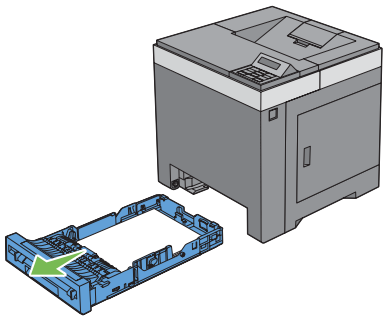
10) Insert the standard 250-sheet tray into the printer, and push until it stops.



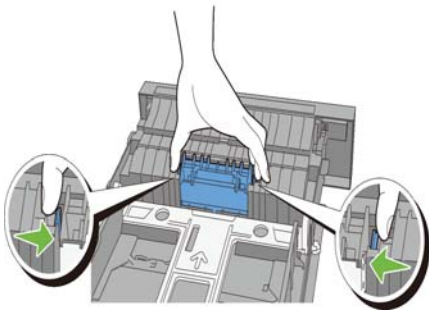
2.4 Replacing the Retard Roller

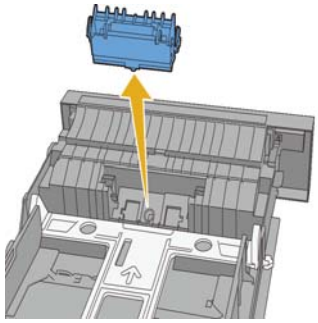
- Removing the Retard Roller in the Standard 250-Sheet Tray

1) Pull the standard 250-sheet tray out of the printer about 200 mm. Hold the standard 250-sheet tray with both hands, and remove it from the printer.



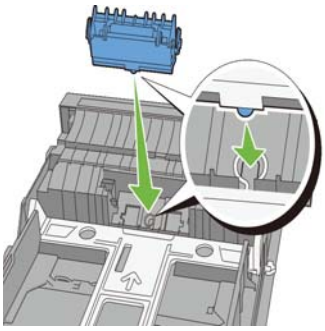
2) Holding the retard roller tabs with your fingers, pull the retard roller out of the groove in the axle.



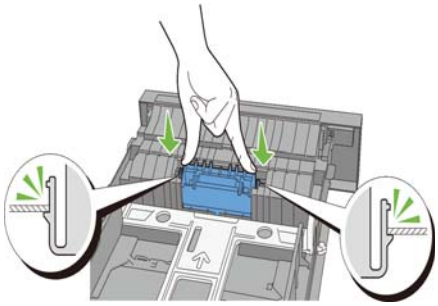


- Installing a Retard Roller in the Standard 250-Sheet Tray

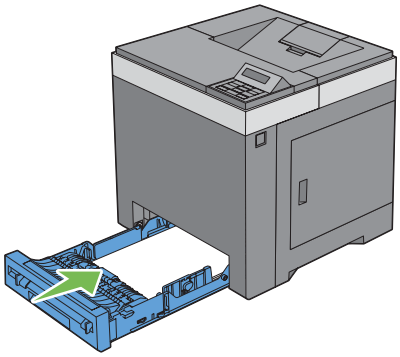
1) Align the new retard roller with the groove on the axle.



2) Insert the retard roller into the axle until it snaps. The protrusions fit completely into the slots and the roller hook reseats into the groove on the axle.



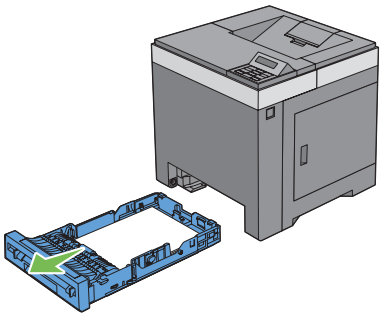
3) Load paper in the standard 250-sheet tray, and then insert the tray into the printer and push until it stops.



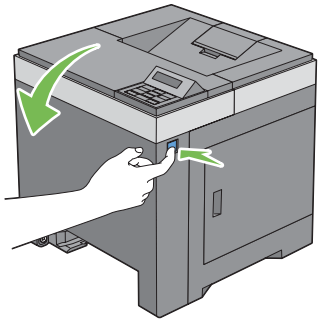
Appendix_3 Cleaning the Printer

3.1 Cleaning Inside the Printer

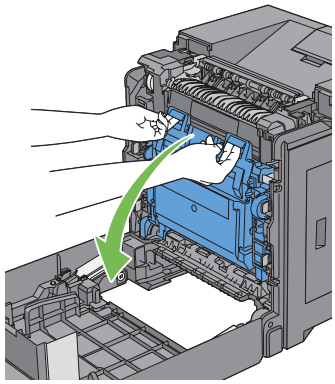
1) Ensure that the printer is turned off.
2) Pull the standard 250-sheet tray out of the printer about 200 mm. Hold the standard 250-sheet tray with both hands, and remove it from the printer.



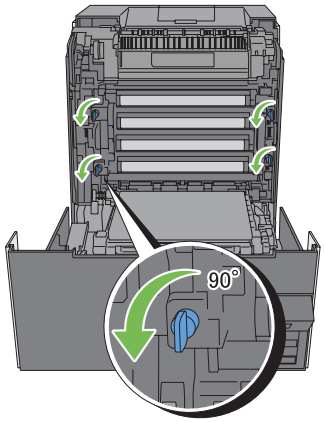
3) Push the side button to open the front cover.



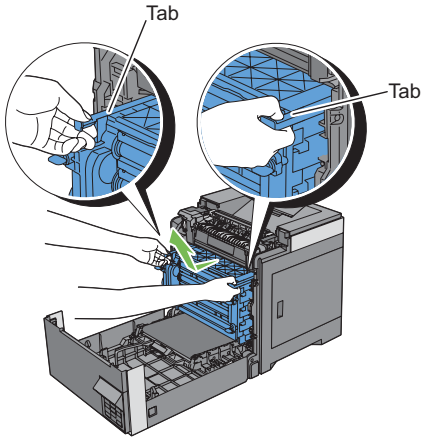
4) Open the belt unit.



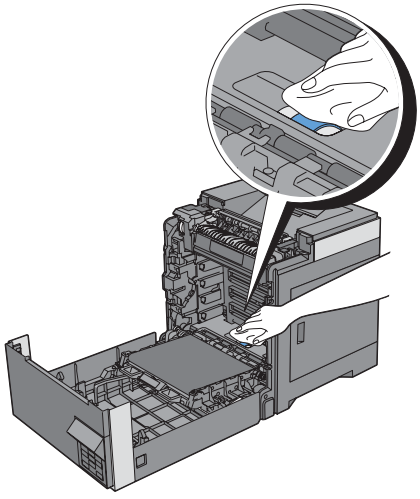
5) Turn the four PHD lock levers 90-degrees counterclockwise.



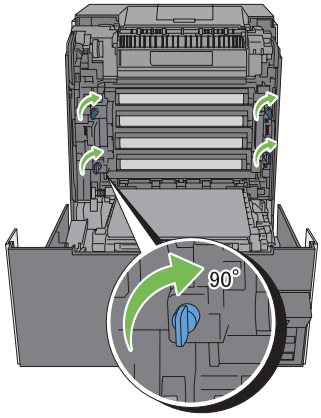
6) Hold the gray tabs, and then pull out the PHD unit.



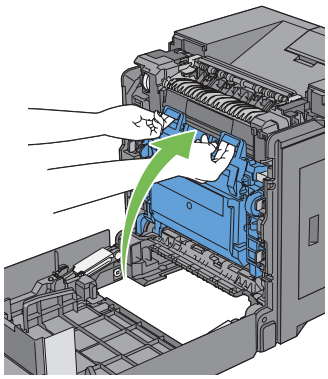
7) Clean the feed roller inside the printer with a dry cloth.



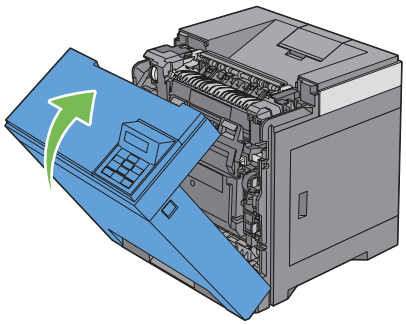
8) Insert the PHD unit until it stops, and then turn the four PHD lock levers 90-degrees clockwise to lock the PHD unit.



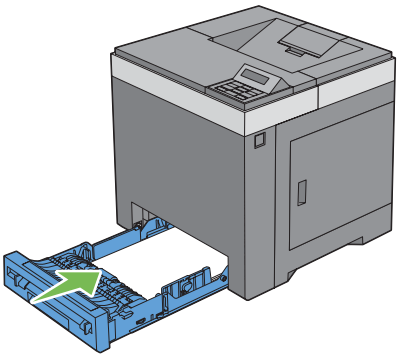
9) Close the belt unit, and push at the top of the unit until it clicks.



10) Close the front cover.

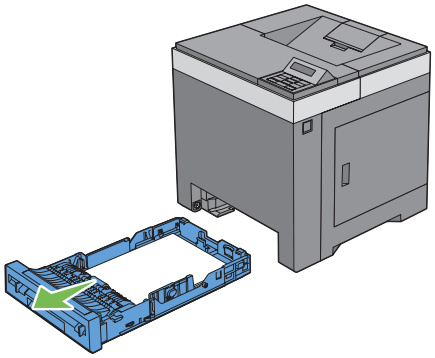


11) Insert the standard 250-sheet tray into the printer, and push until it stops.

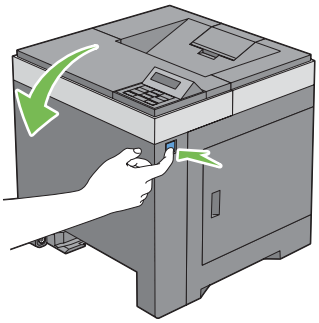


3.2 Cleaning the CTD (ADC) Sensor

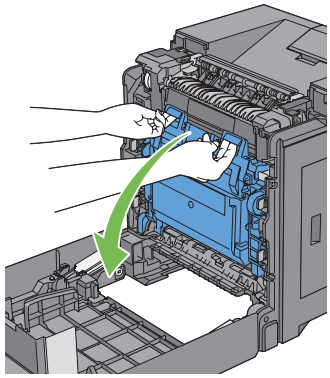
1) Ensure that the printer is turned off.
2) Pull the standard 250-sheet tray out of the printer about 200 mm. Hold the standard 250-sheet tray with both hands, and remove it from the printer.



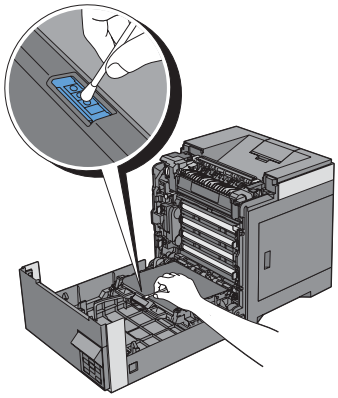
3) Push the side button to open the front cover.



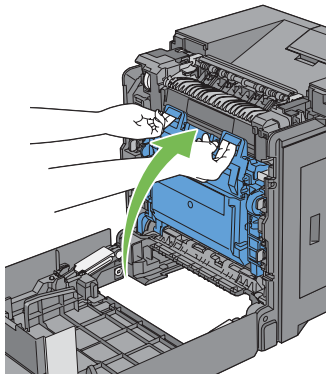
4) Open the belt unit.



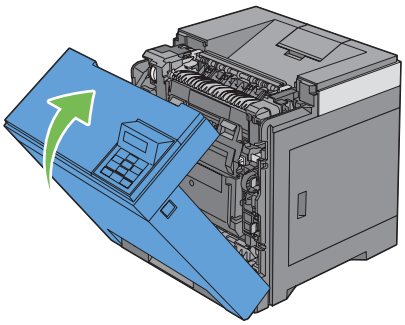
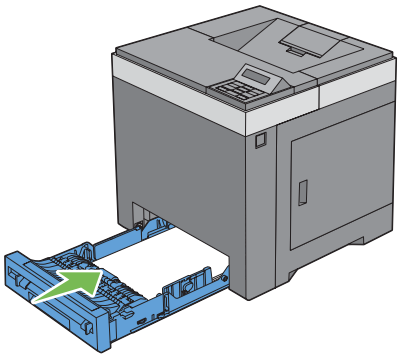
5) Clean the CTD (ADC) sensor inside the printer with a clean dry cotton swab.



6) Close the belt unit, and push at the top of the unit until it clicks.



7) Close the front cover.



8) Insert the standard 250-sheet tray into the printer, and push until it stops.