Service Manual

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Service Manual for Pantum BM270、330、420 Series Mono Multi-Function Laser Printer



It is recommended to read this manual carefully before repairing

Version: V1.2

Service Manual for Pantum Mono Multi-Function Laser Printer

Suitable printer: BM27*/BM33*/BM42* (“*”stands for any number and letter)



Version change history

Version	Time	Modified contents
V1.0	May.10th.2023	New Service Manual
V1.1	Jun.28	Update the 5th Chapter
V1.2	Oct.14.2025	Update CE Mode password

This service manual covers the following models

BM270、BM330、BM420

Related Material

- Finisher A2
- Finisher B4/B5
- Controller FIP

Revision and Modification Information

When design changes or revisions relating to this service manual occur, the overseas technical information or overseas service bulletin may be issued as supplementary information until such changes are accommodated in the updated version of this service manual.

Preface

0 Preface

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0.1 Getting to know this Service Manual

This manual is used as the standard service manual for the BM270/BM330/BM420.

For more information on this product, please refer to the following manuals.

No	Supplementary Contents	Manual Name	Version
1	Finisher A2	Finisher A2 Supplementary Service Manual	Ver1 .0~
2	Finisher B4 / B5	Finisher B4 / B5 Supplementary Service Manual	Ver1 .0~
3	Cont related FIP	Controller FIP Common Supplementary Service Manual	Ver1 . 1~

NOTE

The Ver No. of the above supplementary manual is the information at the release of this manual. It will be updated to Ver 1. 1, Ver 1.2, and so on when manuals for other Device types are issued. Make sure to always update your manual to the latest version. The revised content consists of new IOT support information and updates to existing information. Please use an updated manual.

0.2 How to use this Service Manual

This manual describes the standard procedures for the servicing this product. Refer to Chapter 1 Service Call Procedure for efficient and effective servicing during maintenance calls. For more information on the options, refer to the options manual.

0.2.1 Contents of Manual

This manual is divided into 9 chapters as described below.

- Chapter 1 Service Call Procedure
  This chapter describes the general work and servicing procedures for the maintenance of this product.
- Chapter 2 Troubleshooting
  This chapter describes the troubleshooting procedures other than image quality troubleshooting for this product.
- Chapter 3 Image Quality Troubleshooting
  This chapter describes the image quality troubleshooting procedures for this product.
- Chapter 4 Disassembly/ Assembly and Adjustment
  This chapter describes the disassembly, assembly, adjustment and replacement procedures for components of this product.
- Chapter 5 Parts List
  This chapter contains the spare parts information for this product.
- Chapter 6 General
  This chapter contains the following information.
  - 6. 1 Specifications
  - 6.2 Tools/Service Supplies/Supplies/Modifications
  - 6.3 Service Data
  - 6.4 Service Mode
  - 6.5 Fax Related Information
- Chapter 7 Wiring Data
  This chapter contains the information about the Wiring Connector List/ Locations, the Wiring Data, and the BSD for this Device.
- Chapter 8 Accessories
  This chapter contains the information on accessories.
- Chapter 9 Installation/ Removal
  This chapter contains the installation and removal procedures for this product and the options that are specific to it.

0.2.2 Information on Updating

This manual will be sent to each Service Center as specified below. Revisions must be incorporated correctly to keep the manual up-to-date.

Revision Procedure

- When the manual is revised, the issue number "Ver. 1" will be changed to Ver. 1. 1, Ver. 1.2, and so on.

0.3 Terminology and Symbols

The terms and symbols used throughout this manual are explained here. The terms and symbols used at the beginning of a text are defined as follows:

DANGER
Indicates an imminently hazardous situation, such as death or serious injury if operators do not handle the machine correctly by disregarding the statement.

WARNING
Indicates a potentially hazardous situation, such as death or serious injury if operators do not handle the machine correctly by disregarding the statement.

! CAUTION
Indicates a potentially hazardous situation, such as injury or property damage if operators do not handle the machine correctly by disregarding the statement.

Instruction: Used to alert you to a procedure which, if not strictly observed, could result in damage to the Device or equipment.

NOTE
Used when work procedures and rules are emphasized.

REFERENCE
Used when other explanations are given.

Purpose

Used to describe the purposes of Adjustment and Troubleshooting.

- REP: Indicates the disassembly/assembly procedure for reference
- ADJ: Indicates the adjustment procedure for reference
- PL: Indicates the parts list for reference

Terminology

Table 1 Terminology

Terminology	Description
Assy	Means Assembly.
SLA	Means Selfoc Lens Assembly. (LED Printer exposure device)
IH	Means Induction Heating . The technology used for heating in the Fusing Unit.
TEC Value	Abbreviation of Typical Electricity Consumption, which means the standard power consumption. Read as " Tec" .
WSD	WSD stands for Web Services on Devices.

Table 1 Terminology

Terminology	Description
XPS	XPS stands for XML Paper Specification .

SCC (Safety Critical Component)

In relation to safety management, etc. of parts designated as safety critical components, it must be performed in accordance with the rules relating to wholly critical components stipulated by us.

As to replacement of any component designated SCC, the complete component unit must be replaced. It must never be disassembled or no individual internal parts of it must be replaced. However, even the parts specified as SCC can be disassembled if they include spare parts at the lower level.

Installation of any part other than the ones designated by our company shall be strictly prohibited because it cannot be guaranteed in quality and safety.

Important Information Stored Component (ISC)

This component stores all the important customer information that is input after the installation. When performing replacement, follow the procedures in "Chapter 4 Disassembly/ Assembly and Adjustment" to replace/discard. Make absolutely sure that no customer information gets leaked outside.

Chapter 1 Service Call Procedure

1 Service Call Procedure

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1.1 Before Starting the Servicing

1.1.1 Safety

Other than causing injury to the service personnel, damage to the equipment, etc., accidents during a service call may also erode our customer's trust. To prevent any accident, any warning or any caution regarding the servicing must be strictly observed. Do not perform any hazardous operation.

1. Secure Sufficient Space to Work Safely
   If the customer/customer's equipment is present in the work area and potentially exposed to personal/physical injury or damage, consult with the customer in advance and arrange for an environment where work can be done safely. Also, when the work area is extremely narrow, do not work by constraint and consult with the customer in advance to secure the required space before starting work.
2. Power Supply
   To prevent electrical shocks, burns, or injury, etc., be sure to switch OFF the Device and disconnect the plug before starting the maintenance service. If the Device has to be switched ON, such as when measuring the voltage, take extra care not to get an electric shock.
3. Drive Area
   Never inspect, clear or lubricate the drive area such as chain belts, chain wheel or gears during the machine operation.
4. Heavy Parts
   Always work in a pair when removing or installing heavy parts (15.8 kg or heavier).
   The upper limit value when one person holds up the product from the floor to his/her chest level is under 15.8 kg.
   When removing or installing heavy parts, take extra care of your working posture to prevent a possible backache.
5. Safety Device
   See that safety devices for preventing mechanical accidents, such as fuses, circuit breakers, interlock switches, etc., and those for protecting customers from injury, such as panels and covers, function properly. Modifications that hinder the function of any safety devices are strictly prohibited.
6. Installing and Removing Parts
   Take note of the following points when installing and removing parts that comes in the form of large assemblies.
   - If there are no specific locations that are designated as handles, hold parts at locations that are secured firmly.
   - Do not hold it at locations that are structurally weak.
   - Sections that are designed to open up, such as the baffle, should be secured in place by using ribbon tie, etc. before removal.

   The edge of parts and covers may be sharp, take care not to touch them. Be careful not to touch those parts, and wipe off any oil that may have adhered to your fingers or hands before servicing. When removing parts or cables, do not pull them out by force but remove them slowly.
7. Lithium Battery (Lithium-metal Battery)
   Never replace the lithium battery by itself.
   - The lithium battery may produce heat, blow out, or catch fire if the terminal comes in contact with the other metal and short-circuits. If the battery alone is to be collected, be sure to cover the terminal with an adhesive insulating tape, etc.
   - If the lithium battery is attached to the PWB or other part, put it in the packing materials (bag or box) for the part to be replaced for collection.
8. Specified Tools
   Follow the instruction when a tool is specified.
9. Cleaning the Toner and Developer
   As the toner can be explosive, sweep or brush the spilled toner into a container for collecting the sweepings.
   To clean away the remaining toner using a vacuum cleaner, always use our standard vacuum cleaner that is toner-tolerant. Never use the customer's vacuum cleaner.
   Do the same when cleaning the Developer because it also contains some toner.
10. Organic Solvents
    For the safety for service personnel, take note of the following points when using an organic solvent.
    - When using an organic solvent that mandates the usage of protective gear such as gloves/goggles, service personnel must comply.
    - Ensure good ventilation in the room to prevent too much inhalation of solvent fumes.
    - Do not use heated solvent.
    - Keep it away from fire.
    - Wash your hands thoroughly after use.
11. Earthquake Preparedness Measures
    If the customer requests for earthquake proofing, the Earthquake Preparedness Kit (ZB38) is available.
12. New Earthquake Preparedness Kit
    Details: Refer to the Technical Information ALL Pro-No3-450.
13. Modifications to the Machine
    Before altering the machine, submit the irregular use license application.
14. Harmful Laser
    The customer or service personnel would not be exposed to any harmful laser during the usual copying or scanning of documents. However, if a customer finds that the lamp that is used for exposing documents is too bright when performing platen copy or scan, it is possible to block the light from the platen glass by covering the portion of the platen document area that is usually not used for copying or scanning documents.
15. Other Safety Precautions

For safety, you should also pay attention to precautions other than items 1 to 14 above. Follow the instructions below to ensure greater safety during servicing.

- "Safe Working Practices for Engineers" issued by the After Sales Service Operation Headquarters, TS Operation G

1.1.2 Things to Take Note When Handling Customer Information

1. Handling of customer's electronic information - samples of copy/print/received fax (paper data), log files (Activity Report), and etc.
   Before you bring back any samples for the purpose of investigation/analysis, always obtain permission from the customer. Make sure to assure them that the data will not be used for any other purpose.
   When requesting for a retrieval application from the customer, either use our company's "Data Security Regulations: Annex 15 - Confidential Information/Entrusted Confidential Information/Personal Information Request Form (IS-040e)" or use a letterhead that has been specified by the customer after obtaining their agreement.
2. Handling of a PWB/SSD/HDD/eMMC, etc. that contains customer information.
   Data such as Fax Address Numbers and URLs that are registered in the customer's Devices are all important customer information. These types of information are stored in the PWB/SSD/HDD/eMMC etc. within the Device. Take extra care when handling them.
   (1) In case of replacements, transfer the data to the new PWB/SSD/HDD/eMMC and make sure that all data in the old components are thoroughly erased before disposing them. Make sure that no important customer information gets leaked. (For details, refer to the preface in Chapter 4 and 5)
   (2) If a component was replaced and it was not found to be the cause of the malfunction, return it to the Device it came from. (For components that were temporarily installed/removed for troubleshooting, etc. clear the data using Diag etc.)
   (3) When unable to electrically erase the data in the SSD/HDD and the customer has requested for it, destroy the SSD/HDD (charges apply).
3. Security related NVM values that were changed during maintenance.
   If any security related NVM values, such as polling, were set for test purposes, make sure you return them to their original values after the test. (E.g. For the details on polling that is common to all Device types, refer to FTO 2-202)
4. When connecting our company device to the customer's network during maintenance, make sure that you have gone through the person-in-charge to obtain permission from the customer's system administrator (or person-in-charge) before proceeding.
5. Other things to take note when handling customer data
   When handling customer data, you should also pay attention to precautions other than the above items 1 to 4.

1.1.3 Other Precautions

Pay attention to the following when performing maintenance service to avoid wrong or redundant servicing:

1. Reference Materials
   Before performing maintenance servicing, read all relevant technical materials such as SB, FTI, or FTO to make a systematic approach.
2. Disassembling
   Make sure to check the assembled condition before removing parts or disassembling the machine.
3. Installation/ Adjustment
   After the installation or adjustment is complete, check that no parts or tools are left inside or on the assemblies before using the machine.
4. Handling of replaced parts/consumables
   Make sure that the replaced parts or consumables as well as their packaging materials are collected back to the Service Center.
   For the separation and processing methods of the collected items, refer to the Common Technical Information No. 2-027 for all models.
   - Drum Cleaner

     WARNING
     Never discard the Drum Cleaner into a fire. Always keep it away from open flames to prevent it from catching and causing a fire. Always dispose of the Drum Cleaner after it is completely used up. For recyclable parts, fill the necessary items in the "U-TAG" and perform collection.

5. General Precautions
   - Take care not to disturb the customer's daily work.
   - Place the drip cloth or newspapers at the servicing area to keep the site clean.
   - Throw any trash generated during the maintenance service into a trash bag and bring them back to the Service Center.
   - Record clearly the service details and the consumables and parts replaced at visit in the Machine Service Log.
6. Caller ID Usage Precautions
   Things to take note when using the Caller ID Sort Feature.
   Depending on the settings at the sender, there may be cases when the Caller ID Info cannot be recognized. In such cases, the Sort Feature will not work for the received document, and it will be printed as is.
   Furthermore, a similar outcome may also happen when using the Sort Feature with modem dial-in.

1.2 Service Call Procedure

1.2.1 Initial Actions

1. Ask the operator(s) about the Device condition.
2. Record the billing meter readings.
3. Inspect any error copies, then check the Device.
4. Check the Service Log.

1.2.2 Actions to Take During UM

1. Perform troubleshooting.
   If there are no applicable items, troubleshoot by referring to the BSD.
2. Make A3 copies using the Test Chart (Color Devices: 499T 00276, B/W Devices: 499T 00247) and check the copy quality.
   - Check each Drum, the IBT, the Fusing Belt, the Transfer Belt, and the Heat Roll for damage.
   - Check the copy image quality for color balance (Y, M, C, K), color shift, uneven (color) density, and low density reproduction failure. (Color Devices)
   - Check for poor copy image quality, uneven density, and poor low density reproducibility. (B/W Devices)
3. Enter the UI Diag and check the following counters.

Counter Names	Check Items
DC1 3 5 HFSI Counter (Note)	Replace the parts whose expiration date is near/ has passed.
DC1 1 8 Jam Counter	Check the items where paper jam occurs frequently.
DC1 2 0 Failure Counter	Check the items where failures occur frequently.

NOTE
When replacing parts that will incur cost to the customer, obtain the customer's agreement before performing the replacement.

4. Repair all the secondary problems.
5. Perform TRIM Service.

1.2.3 Actions to Take During SM

1. Make A3 copies using the Test Chart (Color Devices: 499T 00276, B/W Devices: 499T 00247) and check the copy quality.
   - Check each Drum, the IBT, the Fusing Belt, the Transfer Belt, and the Heat Roll for damage.
   - Check the copy image quality for color balance (Y, M, C, K), color shift, uneven (color) density, and low density reproduction failure. (Color Devices)

- Check for poor copy image quality, uneven density, and poor low density reproducibility. (B/W Devices)

2. Enter the PC Diag (or, UI Diag) and check the following counters.

Counter Names	Check Items
DC1 3 5 HFSI Counter (Note)	Replace the parts whose expiration date is near/ has passed.
DC1 1 8 Jam Counter	Check the items where paper jam occurs frequently.
DC1 2 0 Failure Counter	Check the items where failures occur frequently.

NOTE

When replacing parts that will incur cost to the customer, obtain the customer's agreement before performing the replacement.

3. Perform TRIM Service.

1.2.4 Final Actions

1. Check overall operation/features.
2. Check the Device exterior and supplies.
3. Train the operator as required.
4. Complete the Service Log and Service Report.
5. Keep the copy samples with the Service Log.

1.3 Detailed Contents of the Service Call

1.3.1 Initial Actions

1. Ask the operator(s) about the Device condition.
   - How often and where do paper jams have been occurring recently
   - How is the copy quality
2. Record the copy meter readings.
3. Inspect any error copies, then check the Device.
4. Check the print samples from previous service calls and the Service Log.

1.3.2 Checking Reproducibility of Problem

1. Check the problem status by carrying out Level 1 Troubleshooting in "Chapter 2 Troubleshooting".
2. Perform the appropriate items in the Level 2 Troubleshooting in "Chapter 2 Troubleshooting".
3. If there are no applicable items, troubleshoot by referring to "Chapter 7 BSD".

1.3.3 Checking Copy Quality

1. Make A3 copies using the Test Chart (Color Devices: 499T 00276, B/W Devices: 499T 00247) and check the copy quality.
   - Check each Drum, the IBT, the Fusing Belt, the Transfer Belt, and the Heat Roll for damage.
   - Check the copy image quality for color balance (Y, M, C, K), color shift, uneven (color) density, and low density reproduction failure. (Color Devices)
   - Check for poor copy image quality, uneven density, and poor low density reproducibility. (B/W Devices)

1.3.4 TRIM Service

Perform TRIM servicing during a service call to maintain the Device performance.

1. Follow the TRIM Check List to perform the required TRIM items. The following items must always be performed during a service call.
   - Check the Waste Toner Container
2. Check for parts that require periodical cleaning/replacement (supplies, parts) by referring to the Periodic Replacement Parts/supplies List and the Report/List (HFSI Counter), and clean them if necessary. After replacement, always clear the relevant counters on the DC135 HFSI screen.

1.4 TRIM Checklist

- During every service call, perform the following items.

No.	Servicing Items	Service Details	Service Interval
1.1	Pre- servicing Check (Check the Device operation sound)	• Activate the Device and check that abnormal noise is not heard. • Check the HFSI and Jam/Failure counters.	Every service call
1.2	Pre- servicing Check (Output test patterns)	• Check the overall copy quality using the Test Chart. • Check for uneven density/blank areas, Drum/ IBT Belt/Heat Roll scratches, etc. in A3 Halftone.	Every service call
2.0	Clean the interior of the Device (Clean the paper transport system)	Turn OFF the power and unplug the power plug. • Check and clean the paper transport roller (including MSI). • Check and clean the toner residue in the paper transport path and the contamination, paper dust, and paper bits on the jam sensor.	300KPV
		• Clean the operating parts (around the Toner Cartridge and Drum Cartridge) .	Every service call
		• Clean the LPH (the LPH lens surface is cleaned by pulling out and pushing in the LPH cleaning rod).	
3.0	Clean the Optics/ DADF	1. Clean the Platen Cushion, surface of Platen Glass and CVT Glass using the optical cleaning cloth. 2. Clean the DADF Nudger/Feed/Retard Roll.	1. Every service call 2. Every 10k Feed
4.0	Safety Check	1. Make sure that the power plug is plugged in properly. 2. Make sure that the power cords are not cracked and no wires are exposed. 3. Make sure that no extension cord with insufficient length or power cord outside the specification, such as an off-the-shelf power strip, is being used. 4. Make sure that a single socket does not have multiple power plugs plugged into it.	Every service call
5.1	Post- servicing check (Print image quality check)	1 . Perform Calibration -> for Copy and Printer. NOTE When calibration has been performed at the Printer -> Perform for Copy only 2. Check the overall copy image quality using the Test Chart.	Every service call
5.2	Post- servicing check	Check thepaper feed and abnormal noise.	Every service call

1.5 Periodic Replacement Parts

Check the parts that require periodical cleaning/replacement for the number of copies, the number of revolution of the Drum/IBT Belt, and the number of field sheets at servicing. Clean or replace them if necessary. The history can be checked in the DC135 HFSI of Diag. mode (refer to "Chapter 6 Service Mode"). For the items that cannot be checked in HFSI, clean or replace them according to the replacement intervals (standard PV).

! CAUTION

Do not place the drawing materials such as toner, developer, and drum in the car for long periods of time.

NOTE

Clean the Platen Glass with Platen Wax Cleaner 499D 00194 (194D) every 10k Feed.

NOTE

For details on the HFSI, refer to 6.3.4.1 DC135 HFSI Counter List.

No	Parts/Supplies Name/PL No.	Replacement Interval	Chain-Link No	Description
1	IIT Scan	-	956-802	Number of Scan
2	Document Feed No. [DADF 110] Feed Roll/Nudger Roll (PL 56.5) Retard Roll (PL 56.13)	200KPV	955-806	It is time to replace the DADF, Feed, Nudger, Retard Roll. Clear the counter after replacement. **NOTE** Clean the Platen Glass with Platen Wax Cleaner 499D 00194 (194D) every 10k Feed.
3	BTR Unit (PL 6.1)	180KPV	954-820	The paper transport direction length in A4 LEF reference equivalent. Count value = length in paper transport direction / 210 x 100
4	Fusing Unit (PL 7.1)	90KPV or IOT conducting time of 18,000,000 s	954-850 954-851	954-850: No. of sheets fed through the Fusing Unit (A4 LEF conversion value). When the Fusing Unit Time Count is cleared to 0, it will also be cleared to 0. 954-851: Time between Power ON and Power OFF (s). When the Fusing Unit Print Count is cleared to 0, it will also be cleared to 0.
5	Drum Cartridge (K) (PL 8.1)	18ppm: 65.9kPV 25ppm: 70.4kPV 30ppm: 82.7kPV 35ppm: 95.3kPV	-	
6	Tray 1 Feed Count • Feed Roll/ Nudger Roll/ Retard Roll (PL 9.5)	270 KFeed	954-800	Counts up at feeding from Tray 1. When replacing, replace all 3 at the same time.
7	MSI Feed Count • MSI Feed Roll/ Nudger Roll/ Retard Pad (PL 13.3)	50 KFeed	954-805	Counts up at feeding from MSI. When replacing, replace all 3 at the same time.
8	Tray 2 Feed Count • Feed Roll/ Nudger Roll/ Retard Roll (1TM PL 10.7/3TM PL 11.9 STM PL 12.8)	270 KFeed	954-801	Counts up at feeding from Tray 2. When replacing, replace all 3 at the same time.
9	Tray 3 Feed Count • Feed Roll/ Nudger Roll/ Retard Roll (PL 11.9)	270 KFeed	954-802	Counts up at feeding from Tray 3. When replacing, replace all 3 at the same time.
10	Tray 4 Feed Count • Feed Roll/ Nudger Roll/ Retard Roll (PL 11.9)	270 KFeed	954-803	Counts up at feeding from Tray 4. When replacing, replace all 3 at the same time.
11	Odor Filter (PL 4.1)	120KPV	954-860	Counts up when paper passes through the Fusing Unit.

Chapter 2 Troubleshooting

2 Troubleshooting

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2.1 Preface

2.1.1 How to Troubleshoot

Procedure

Troubleshooting procedures are roughly divided into two categories.

Level 1 Troubleshooting:

- Level 1 Troubleshooting (Level 1 FIP) is the first step to diagnose a problem. Level 1 FIP asks you whether any Fault Code and other problematic symptoms exist, guiding you to Level 2 Troubleshooting or BSD to resolve the problem.

Level 2 Troubleshooting:

- Level 2 Troubleshooting is a diagnostic procedure of separating a problem by Fault Code, document/paper jam and other problematic symptoms. Performing a FIP or an appropriate procedure in the check out list enables you to discover causes of a problem in a short period of time.
  - Fault Code: When a Fault Code alerts you to a Device failure, perform appropriate troubleshooting items, by referring to Level 2 Troubleshooting.

Other troubleshooting:

- Generic FIP: This is the generic check procedure for troubleshooting general electric parts such as Motor, Relay, Solenoid, Switch and Sensor etc.

Service Mode/UI Diagnostic Mode:

- This shows the purposes and usage of the diagnostic program for the Device, and how to read diag data.

Troubleshooting Procedure and Cautions:

- First, perform Level 1 FIP to categorize a problem. Second, proceed to an appropriate Level 2 Troubleshooting or BSD to resolve the problem. To find the causes of the problem using FIP or check chart etc., thoroughly read the instructions and follow the procedure properly. Sometimes, when two or more causes exist, they cannot be identified at once, so the same FIP should be repeated. In this case, pay attention to a different judgment made in the process of the same FIP.
- The generic check procedure for the general electric parts (Motor, Relay, Solenoid, Switch and Sensor etc.) is not shown in each troubleshooting for some cases. In such a case, only the causes of the troubles are shown using the expressions below. Therefore, if you do not know how to check, proceed to troubleshooting by referring to Generic FIP.

E. g. Enter DC330 [xxx-xxx]. Insert paper from the tray. Does the indication show "Low"?

Y N

Repair xxxxxx SENSOR using Sensor Failure FIP.

2.1.2 Glossary

The following terminology are used throughout the troubleshooting section. The meaning of these terminology must be fully understood when performing problem analysis.

Common terms:

- Fault Code
  This 6-digit code appears when the Device has found problems. The first 3 digits show the Chain No. that correspond with the Chain No. of BSD.
- Actuate. (Deactuate)
  To mechanically push (release) the Actuator of the switch or the connected mechanical linkage.
- Block.
  To place a sheet of document or paper on the photo sensor surface for detection.
- Check
  To visually check for operation failure of parts such as relay or mechanical linkage, and the failure status of the parts.
- Enter the Service Mode.
  To enter the Service Mode by following the procedure described in Chapter 2 How to use the Service Mode.
- Enter the UI Diag Mode.
  To enter the UI Diag Mode by following the procedure described in Chapter 2 How to use the UI Diag Mode (UI Diagnostics Mode).
- Check the connection for a short circuit.
  Turn OFF the power. Measure the resistance between the wire and the frame using the ohm range of a tester.
- Check the connection for an open circuit.
  Turn OFF the power. Measure the resistance between both ends of the wire using the ohm range of a tester.
- Select DC330 [xxx-xxx].
  Enter DC330 Component Control by following the procedure described in the Service Mode section in Chapter 2. (Hereinafter for PC-Diag only) Then, either select the applicable parts from the desired module or enter Chain Link No. [xxx-xxx] by selecting [Direct Code Input].
- Check the voltage level

Voltage	Level	Range
+3.5VDC	(H) (L)	+3.33 ~ +3.68VDC 0.0 ~ +1.0VDC
+5VDC	(H) (L)	+4.85 ~ +5.36VDC 0.0 ~ +1.0VDC
+12VDC	(H) (L)	+11.4 ~ +12.6VDC 0.0 ~ +1.5VDC
+13.3VDC	(H) (L)	+12.64 ~ +13.97VDC 0.0 ~ +1.5VDC
+24VDC	(H) (L)	+23.28 ~ +25.73VDC 0.0 ~ +3.0VDC

- Exit the problem analysis procedure
  Mechanical problems: This phrase is used when transitioning to Device adjustment and parts replacement. Read all the items (describing the main causes) and find out the causes of a problem by comparing them with the symptoms shown by the Device.
- PL4.2: Refer to PL4.2 in Chapter 5 Parts List.
- CH 6.2 Zone J4: Refer to 6.2 Zone J4 in Chapter 7 BSD.
- REP 4.1.3: Refer to "REP 4.1.3" in Chapter 4.
- ADJ 4. 1.3: Refer to ADJ 4.1.3 in Chapter 4.
- Replace the parts in sequence: When it is impossible to analyze causes of a problem further, replace the parts in sequence. The part with a higher replacement frequency or higher possibility of causing a problem is listed first for replacement.
- Fault Code, Chain No. Contents

Chain	Description
005	DADF related failures
010	Fusing Unit related failures
024	Toner Out related failures
041	Failures related to internal processing in the circuit inside the board
042	Drum/ Fusing/ Transfer related failures
043	Fan related failures
044	Communication in the device related failures
045	Failures related to video signals or firmware in the device
047	Output device related failures
057	Motor Drive related failures
058	Fusing Unit related failures
059	Fusing Unit related failures
060	LPH/ ROS related failures
061	LPH/ ROS related failures
062	Image reading with IIT related failures
065	CIS (Contact Image Sensor) related failures

Chain	Description
071	Tray 1 paper feeding related failures
072	Tray 2 paper feeding related failures
073	Tray 3 paper feeding related failures
074	Tray 4 paper feeding related failures
075	MSI paper feeding related failures
076	TTM paper feeding related failures
077	Paper feeding related failures
078	HCF paper feeding related failures
089	RC (Regi Control) related failures
091	Drum/ Toner related failures
092	Toner Out, Toner Density related failures
093	Toner Out, Toner Density, Toner Supply related failures
094	Transfer related failures
099	Fusing Unit related failures
161	Communication with LPH related failures

2.2 Product FIP

2.2.1 Level 1 FIP

2.2.1.1 Level 1 FIP

Procedure

Ask the operator about the problem.

Did the operator operate the machine correctly?

Y N

Explain the correct way to operate the Device to the operator.

Output all jobs that are stored in the memory. Turn the power OFF and ON.

Is the UI display normal?

Y N

Refer to [BSD (CH2. 1)] and [2.2.3.1Other Failure FIP] to repair the malfunction in UI display.

Check the Error History. Enter Administrator Mode and output Error History.

Is the Fault Code (Chain-Link) displayed?

Y N

Refer to [Troubleshooting] in the User Guide and repair the errors.

Proceed to Level 2 Troubleshooting and perform the applicable FIP.

2.2.2 Level 2 FIP

CHAIN 5

005-122 (DADF-110) DADF Simplex/Side 1 Pre Regi. Sensor On Jam

BSD-on: CH5.4

Description

- After Pre-Feed started for the first sheet (DADF Feed Motor On (CCW)) in Simplex and Duplex, the DADF Pre Regi Sensor did not turn ON within the specified time.
- After Pre-Feed started for the second sheet onwards (DADF Feed Motor On (CCW)) in Duplex, the DADF Pre Regi Sensor did not turn ON within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Feed Roll and Nudger Roll for foreign matter.
- The surface of the Feed Roll and Nudger Roll for wear.
- The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
- The DADF Feed Clutch (DC330 [005-062]) for operation failure. (PL 56.7)
- The DADF Feed Motor (DC330 [005-008]) for operation failure. (PL 56.6)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-123 (DADF-110) DADF Simplex/Side 1 Regi. Sensor On Jam

BSD-on: CH5.6

Description

The DADF Regi Sensor did not turn ON within the specified time after DADF Pre Regi Sensor On.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Takeaway Roll and Regi Roll for foreign matter.
- The surface of the Takeaway Roll and Regi Roll for wear.
- The DADF Regi Sensor (DC330 [005- 110]) for operation failure. (PL 56.14)
- The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
- The DADF T/A Clutch (DC330 [005-098]) for operation failure. (PL 56.7)
- The DADF Feed Motor (DC330 [005-008]) for operation failure. (PL 56.6)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-125 (DADF-110) DADF Regi. Sensor Off Jam

BSD-on: CH5.6

Description

After the DADF Pre Regi Sensor turned OFF at Scan operation, the DADF Regi Sensor did not turn OFF within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Regi Roll, Out Roll, and Exit Roll for foreign matter.
- The surface of the Regi Roll, Out Roll, and Exit Roll for wear.
- The DADF Regi Sensor (DC330 [005-110]) for operation failure. (PL 56.14)
- The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
- The DADF Feed Motor (DC330 [005-008]) for operation failure. (PL 56.6)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-130 (DADF-110) DADF Invert Sensor On Jam

BSD-on: CH5.6

Description

After the Duplex Scan operation (DADF Regi Sensor On) in Duplex Mode, the DADF Invert Sensor did not turn ON within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Out Roll for foreign matter.
- The surface of the Out Roll for wear
- The DADF Invert Sensor (DC330 [005-211]) for operation failure. (PL 56.10)
- The DADF Regi Sensor (DC330 [005-110]) for operation failure. (PL 56.14)
- The DADF Feed Motor (DC330 [005-008]) for operation failure. (PL 56.6)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-131 (DADF-110) DADF Invert Sensor On Jam on Inverting

BSD-on: CH5.6

Description

After DADF Regi Sensor On in Invert operation, the DADF Invert Sensor did not turn ON within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Out Roll for foreign matter.
- The surface of the Out Roll for wear
- The DADF Invert Sensor (DC330 [005-211]) for operation failure. (PL 56.10)
- The DADF Regi Sensor (DC330 [005- 110]) for operation failure. (PL 56.14)
- The DADF Feed Motor (DC330 [005-008]) for operation failure. (PL 56.6)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-132 (DADF-110) DADF Invert Sensor On Jam

BSD-on: CH5.6

Description

After DADF Regi Sensor On in Simplex scan operation, the DADF Invert Sensor did not turn ON within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Out Roll for foreign matter.
- The surface of the Out Roll for wear
- The DADF Invert Sensor (DC330 [005-211]) for operation failure. (PL 56.10)
- The DADF Regi Sensor (DC330 [005- 110]) for operation failure. (PL 56.14)
- The DADF Feed Motor (DC330 [005-008]) for operation failure. (PL 56.6)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-134 (DADF-110) DADF Invert Sensor Off Jam on Inverting

BSD-on: CH5.6

Description

During the Invert operation where there is a next document, after the DADF Regi Sensor turned OFF, the DADF Invert Sensor did not turn OFF within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Out Roll and Exit Roll for foreign matter.
- Wear on the surface of the Out Roll and Exit Roll.
- The DADF Invert Sensor (DC330 [005-211]) for operation failure. (PL 56.10)
- The DADF Regi Sensor (DC330 [005-110]) for operation failure. (PL 56.14)
- The DADF Feed Motor (DC330 [005-008]) for operation failure. (PL 56.6)
- The Exit Pinch Roll for operation failure (including for the operation failure of the Exit Nip Release Solenoid (DC330 [005-072])). (PL 56.7)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-135 (DADF-110) DADF Side 2 Pre Regi. Sensor On Jam

BSD-on: CH5.4

Description

After the DADF Feed Motor reverse rotation has started at Invert operation, the DADF Pre Regi Sensor did not turn ON within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Exit Roll for foreign matter.
- Wear on the surface of the Exit Roll.

- The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
- The DADF Feed Motor (DC330 [005-048]) for operation failure. (PL 56.6)
- The Exit Pinch Roll for operation failure (including for the operation failure of the Exit Nip Release Solenoid (DC330 [005-072])). (PL 56.7)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-136 (DADF-110) DADF Side 2 Regi. Sensor On Jam

BSD-on: CH5.6

Description

After DADF Pre Regi Sensor On in Invert operation, the DADF Regi Sensor did not turn ON within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Exit Roll, Takeaway Roll, and Regi Roll for foreign matter.
- The surface of the Exit Roll, Takeaway Roll, and Regi Roll for wear.
- The DADF Regi Sensor (DC330 [005- 110]) for operation failure. (PL 56.14)
- The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
- The DADF Feed Motor (DC330 [005-008]) for operation failure. (PL 56.6)
- The DADF T/A Clutch (DC330 [005-098]) for operation failure. (PL 56.7)
- The Exit Pinch Roll for operation failure (including for the operation failure of the Exit Nip Release Solenoid (DC330 [005-072])). (PL 56.7)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-139 (DADF-110) DADF Invert Sensor Off Jam

BSD-on: CH5.6

Description

After the DADF Regi Sensor Off in the Scan operation during Simplex and Duplex, the DADF Invert Sensor did not turn OFF within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Out Roll and Exit Roll for foreign matter.
- Wear on the surface of the Out Roll and Exit Roll.
- The DADF Invert Sensor (DC330 [005-211]) for operation failure. (PL 56.10)
- The DADF Regi Sensor (DC330 [005-110]) for operation failure. (PL 56.14)
- The DADF Feed Motor (DC330 [005-008]) for operation failure. (PL 56.6)
- The Exit Pinch Roll for operation failure (including for the operation failure of the Exit Nip Release Solenoid (DC330 [005-072])). (PL 56.7)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-145 (DADF-110) DADF Regi. Sensor Off Jam on Inverting

BSD-on: CH5.6

Description

After the DADF Pre Regi Sensor turned OFF at Invert operation, the DADF Regi Sensor did not turn OFF within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Regi Roll, Out Roll, and Exit Roll for foreign matter.
- The surface of the Regi Roll, Out Roll, and Exit Roll for wear.
- The DADF Regi Sensor (DC330 [005-110]) for operation failure. (PL 56.14)
- The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
- The DADF Feed Motor (DC330 [005-008]) for operation failure. (PL 56.6)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-147 (DADF-110) DADF Pre Regi. Sensor Off Jam on Inverting

BSD-on: CH5.4

Description

After the DADF Feed Motor reverse rotation has started at Invert operation, the DADF Pre Regi Sensor did not turn OFF within the specified time.

Cause/ Action

Check the following:

- Transportation failure due to foreign matter on the document path.
- The surface of the Exit Roll, Takeaway Roll, Regi Roll, and Out Roll for foreign matter.
- The surface of the Exit Roll, Takeaway Roll, Regi Roll, and Out Roll for wear.
- The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
- The DADF Feed Motor (DC330 [005-008/048] (CCW/CW)) for operation failure. (PL 56.6)
- The Exit Pinch Roll for operation failure (including for the operation failure of the Exit Nip Release Solenoid (DC330 [005-072])). (PL 56.7)
- The Drive Gear for wear and damage.

If no problem is found, replace the DADF PWB. (PL 56.2)

005-194 (DADF-110) Size mismatch Jam on SS Mix-size

BSD-on: CH5.3

Description

When "Slow Scan MIX" is specified, it was detected that the size in the Fast Scan direction is different from that of the Document Guide Width.

Cause/ Action

1. Check the size of the document fed by the user.
2. If the error is not cleared, check the following:
   - The Document Tray Set Guide Sensor 1/2/3 (DC330 [005-215/216/217]) for operation failure. (PL 56.11)
   - The DADF APS Sensor 1/2/3 (DC330 [005-218/219/220]) for operation failure. (PL 56.10)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-196 (DADF-110) Size Mismatch Jam on No Mix-Size

BSD-on: CH5.5

Description

A document of a different size from the first document was detected (longer in SS direction).

Cause/ Action

1. Check the size of the document fed by the user.
2. If the error is not cleared, check the following:
   - The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
   - The Document Tray Size Sensor 1/2 (DC330 [005-221/222]) for operation failure. (PL 56.11)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-197 (DADF-110) Prohibit Combine Size Jam

BSD-on: CH5.3

Description

A prohibited size combination was detected.

Cause/ Action

Refer to the specifications and the User Manual to explain the various prohibited size combinations to the customer.

005-198 (DADF-110) Too Short Size Jam

BSD-on: CH5.4

Description

The Slow Scan length of the document is shorter than the specified value. (Simplex: 85 mm, Duplex: 110 mm)

Cause/ Action

Check the size of the document that was fed by the user. If it is within the permitted length for DADF transport, check the following:

- The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
- The Document Tray Size Sensor 1/2 (DC330 [005-221/222]) for operation failure. (PL 56.11)

If no problem is found, replace the DADF PWB. (PL 56.2)

005-199 (DADF-110) Too Long Size Jam

BSD-on: CH5.4

Description

The Slow Scan length of the document is equal to or longer than the specified value. (Simplex: 670 mm, Duplex: 480.1 mm)

Cause/ Action

Check the size of the document that was fed by the user. If it is within the permitted length for DADF transport, check the following:

- The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
- The Document Tray Size Sensor 1/2 (DC330 [005-221/222]) for operation failure. (PL 56.11)

If no problem is found, replace the DADF PWB. (PL 56.2)

005-210 (DADF-110) DADF Download Fail

BSD-on: CH3.3

Description

When the IISS starts up (including at Power ON/Sleep recovery), it was detected that the DADF is in Download Mode. The DADF download has failed, and the ROM is corrupted. (This includes cases where the power was turned ON after replacement with a defective ROM.)

Cause/ Action

Install the latest F/W of DADF.

005-275 (DADF-110) DADF RAM Fail

BSD-on: CH3.3

Description

RAM failure on DADF PWB was detected. (At Power ON)

Cause/ Action

1. Turn the power OFF and ON.
2. If the problem persists, replace the DADF PWB. (PL 56.2)

005-280 (DADF-110) DADF EEPROM Fail

BSD-on: CH3.3

Description

Write failure to DADF EEPROM or communication failure with EEPROM was detected.

Cause/ Action

1. Turn the power OFF and ON.
2. If the problem persists, replace the DADF PWB. (PL 56.2)

005-305 (DADF-110) DADF Feeder Cover Interlock Open

BSD-on: CH5.1

Description

The DADF Feeder Cover was open during DADF operation.

Cause/ Action

1. Check the DADF Feeder Cover for poor alignment.
2. Check the DADF Feeder Cover Sensor (DC330 [005-213]) for operation failure. (PL 56.2)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-907 (DADF-110) DADF Pre Regi. Sensor Static Jam

BSD-on: CH5.4

Description

DADF Pre Regi Sensor detected Paper when Power was ON, when Feeder Cover was closed, or when Platen was closed.

Cause/ Action

1. Check the DADF Pre Regi Sensor for paper bits, Actuator return failure, sensor contamination, etc.
2. Check the DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-908 (DADF-110) DADF Regi. Sensor Static Jam

BSD-on: CH5.6

Description

DADF Regi Sensor detected Paper when Power was ON, when Feeder Cover was closed, or when Platen was closed.

Cause/ Action

1. Check the DADF Regi Sensor for paper bits, Actuator return failure, sensor contamination, etc.
2. Check the DADF Regi Sensor (DC330 [005- 110]) for operation failure. (PL 56.14)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-913 (DADF-110) DADF Invert Sensor Static Jam

BSD-on: CH5.6

Description

DADF Invert Sensor detected Paper when Power was ON, when Feeder Cover was closed, or when Platen was closed.

Cause/ Action

1. Check the DADF Invert Sensor for paper bits, Actuator return failure, sensor contamination, etc.
2. Check the DADF Invert Sensor (DC330 [005-211]) for operation failure. (PL 56.10)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-915 (DADF-110) DADF APS Sensor 1 Static Jam

BSD-on: CH5.5

Description

DADF APS Sensor 1 detected Paper when Power was ON, when Feeder Cover was closed, or when Platen was closed.

Cause/ Action

1. Check the DADF APS Sensor 1 for paper bits, Actuator return failure, sensor contamination, etc.
2. Check the DADF APS Sensor 1 (DC330 [005-218]) for operation failure. (PL 56.10)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-916 (DADF-110) DADF APS Sensor 2 Static Jam

BSD-on: CH5.5

Description

DADF APS Sensor 2 detected Paper when Power was ON, when Feeder Cover was closed, or when Platen was closed.

Cause/ Action

1. Check the DADF APS Sensor 2 for paper bits, Actuator return failure, sensor contamination, etc.
2. Check the DADF APS Sensor 2 (DC330 [005-219]) for operation failure. (PL 56.10)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-917 (DADF-110) DADF APS Sensor 3 Static Jam

BSD-on: CH5.5

Description

DADF APS Sensor 3 detected Paper when Power was ON, when Feeder Cover was closed, or when Platen was closed.

Cause/ Action

1. Check the DADF APS Sensor 3 for paper bits, Actuator return failure, sensor contamination, etc.
2. Check the DADF APS Sensor 3 (DC330 [005-220]) for operation failure. (PL 56.10)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-921 (DADF-110) Let SEF Detect Error

BSD-on: CH5.3

Description

The DADF document guide width detected a Letter SEF width.

Cause/ Action

1. Check the size of the document fed by the user.
2. If the error is not cleared, check the following:
   - The Document Tray Set Guide Sensor 1/2/3 (DC330 [005-215/216/217]) for operation failure. (PL 56.11)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-940 (DADF-110) DADF No Original Fail

BSD-on: CH5.1

Description

It was detected that the document was pulled out during document feed.

Cause/ Action

Reload the document.

005-941 (DADF-110) DADF Not Enough Document

BSD-on: -

Description

The system detected that some documents are missing after all documents were returned.

Cause/ Action

Follow the instructions on the UI screen to reload the documents.

005-945 (DADF-110) FS-Size Mismatch Jam On No Mix-Size or SS Mix-Size (Cont)

BSD-on: CH5.5

Description

During No-Mix or Slow Scan MIX, size mismatch in Fast Scan direction (width) was detected. (If the size mismatch was detected when NVM [710-600] value is "3", Fail will be notified when the Fast Scan Width is different.)

NOTE

When 005-947 occurs before page distribution, CONT uses this Fault instead.

Cause/ Action

1. Check the size of the document fed by the user.
2. If the error is not cleared, check the following:
   - The DADF APS Sensor 1/2/3 (DC330 [005-218/219/220]) for operation failure. (PL 56.11)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-946 (DADF-110) SS-Size Mismatch Jam on No Mix-size (Cont)

BSD-on: CH5.5

Description

In No Mix mode, it was detected that a document with a shorter size in Slow Scan (SS) direction was transported from the DADF. (If the size mismatch was detected when NVM [710-600] value is "3", Fail will be notified when the Slow Scan Length is short.)

NOTE

When 005-948 occurs before page distribution, CONT uses this Fault instead.

Cause/ Action

1. Check the size of the document fed by the user.
2. If the error is not cleared, check the following:
   - The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
   - The Document Tray Size Sensor 1/2 (DC330 [005-221/222]) for operation failure. (PL 56.11)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-947 (DADF-110) FS-Size Mismatch Jam On No Mix-Size or SS Mix-Size

BSD-on: CH5.5

Description

During No-Mix or Slow Scan MIX, size mismatch in Fast Scan direction (width) was detected. (If the size mismatch was detected when NVM [710-600] value is "3", Fail will be notified when the Fast Scan Width is different.)

Cause/ Action

1. Check the size of the document fed by the user.
2. If the error is not cleared, check the following:
   - The DADF APS Sensor 1/2/3 (DC330 [005-218/219/220]) for operation failure. (PL 56.11)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-948 (DADF-110) SS-Size Mismatch Jam on No Mix-size

BSD-on: CH5.5

Description

In No Mix mode, it was detected that a document with a shorter size in Slow Scan (SS) direction was transported from the DADF. (If the size mismatch was detected when NVM [710-600] value is "3", Fail will be notified when the Slow Scan Length is short.)

Cause/ Action

1. Check the size of the document fed by the user.
2. If the error is not cleared, check the following:
   - The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
   - The Document Tray Size Sensor 1/2 (DC330 [005-221/222]) for operation failure. (PL 56.11)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-949 (DADF-110) SS-Size Mismatch Jam on No Mix-size longer (Cont)

BSD-on: CH5.4

Description

In No Mix mode, it was detected that a document longer in Slow Scan (SS) direction was transported from the DADF. (If the size mismatch was detected when NVM [710-600] value is "3", Fail will be notified when the Slow Scan Length is long.)

NOTE

When 005-950 occurs before page distribution, CONT uses this Fault instead.

Cause/ Action

1. Check the size of the document fed by the user.
2. If the error is not cleared, check the following:
   - The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
   - The Document Tray Size Sensor 1/2 (DC330 [005-221/222]) for operation failure. (PL 56.11)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

005-950 (DADF-110) SS-Size Mismatch Jam on No Mix-size longer

BSD-on: CH5.4

Description

In No Mix mode, it was detected that a document longer in Slow Scan (SS) direction was transported from the DADF. (If the size mismatch was detected when NVM [710-600] value is "3", Fail will be notified when the Slow Scan Length is long.)

Cause/ Action

1. Check the size of the document fed by the user.
2. If the error is not cleared, check the following:
   - The DADF Pre Regi Sensor (DC330 [005-206]) for operation failure. (PL 56.14)
   - The Document Tray Size Sensor 1/2 (DC330 [005-221/222]) for operation failure. (PL 56.11)
3. If no problem is found, replace the DADF PWB. (PL 56.2)

CHAIN 10

010-327 Fusing On Time Fail

BSD-on: CH10.2,CH10.1

Description

When the Main Lamp or Sub Lamp has been ON continuously for longer than the setting time (NVM).

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - Is the Power Supply voltage above 10% of the rated value?
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - LVPS (PL 18.2)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

010-331 Heat Roll STS Over Temperature Fail

BSD-on: CH10.2

Description

Fusing Unit Thermistor detected temperature monitor AD value that is the specified value or higher 3 times in a row.

Initial Action

- Turn OFF the power and remove the Fusing Unit. Check whether foreign matter or paper is wound around the Heat Roll.
- Check whether the MCU DRIVE PWB connector J416 is connected properly.

Procedure

Replace the following parts in sequence. After each replacement, read the note carefully, check the applicable NVM, and clear it to "0".

- LVPS (PL 18.2) and Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

NOTE

To clear this Fail, first remove the cause, next clear the value of NVM [744-002] (Error Detection Flag) to "0", and then turn the power OFF and ON.

The relationship between the displayed value and the sensor that detected the high temperature error is as follows:

- 0: Normal
- 1: High temperature error (Heat Roll NC Sensor)
- 2: High temperature error (Heat Roll Thermistor)
- 3: Abnormal temperature increase of Heat Roll NC Sensor, Heat Roll Thermistor
- 4: Hardware high temperature error (Heat Roll Thermistor)

010-332 Heat Roll NC Sensor Disconnection Fail

BSD-on: CH10.2

Description

Fusing Unit NC Sensor compensation or detected AD value was 1020 or higher 10 or more times in a row when the Fusing Unit temperature monitor value was 20°C or higher or the Fusing Unit Thermistor AD value was 900 or higher. (Use the obtained compensation/ detected AD value instead of the temperature monitor value (average of 4 times))

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

010-333 Heat Roll NC Sensor Over Temperature Fail

BSD-on: CH10.2

Description

Fusing Unit NC Sensor detected temperature that is the specified value or higher 10 times in a row.

Initial Action

- Turn OFF the power and remove the Fusing Unit. Check whether foreign matter or paper is wound around the Heat Roll.
- Check whether the MCU DRIVE PWB connector J416 is connected properly.

Procedure

Replace the following parts in sequence. After each replacement, read the note carefully, check the applicable NVM, and clear it to "0".

- LVPS (PL 18.2) and Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

NOTE

To clear this Fail, first remove the cause, next clear the value of NVM [744-002] (Error Detection Flag) to "0", and then turn the power OFF and ON.

The relationship between the displayed value and the sensor that detected the high temperature error is as follows:

- 0: Normal
- 1: High temperature error (Heat Roll NC Sensor)
- 2: High temperature error (Heat Roll Thermistor)
- 3: Abnormal temperature increase of Heat Roll NC Sensor, Heat Roll Thermistor
- 4: Hardware high temperature error (Heat Roll Thermistor)

010-334 Heat Roll NC Sensor Broken Fail

BSD-on: CH10.2

Description

- The value of (Heat Roll NC Sensor temperature - Heat Roll Thermistor temperature) was detected to be 90 (NVM) degrees or higher 10 or more times in a row.
- The value of (Heat Roll Thermistor temperature - Heat Roll NC Sensor temperature) was detected to be 70 (NVM) degrees or higher 10 or more times in a row.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.

- The connection between the Heat Roll NC Sensor P124 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.

3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

010-335 Heat Roll NC Sensor Range Fail

BSD-on: CH10.2

Description

- Fusing Unit NC Sensor compensation output AD value was detected to be lower than 130 for 10 or more times in a row.
- Fusing Unit NC Sensor detection output AD value was detected to be lower than 150 for 10 or more times in a row.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Heat Roll NC Sensor P124 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

010-337 Heat Roll Paper Winding Fail

BSD-on: CH10.2

Description

Detected that paper was wound around the Heat Roll from the monitor value of Fusing Unit Thermistor and NC Sensor.

Cause/ Action

NOTE
To clear this Fail, first remove the cause, next clear the value of NVM [744-002] (Error Detection Flag) to "0", and then turn the power OFF and ON.

The relationship between the displayed value and the sensor that detected the high temperature error is as follows:

- 0: Normal
- 1: High temperature error (Heat Roll NC Sensor)
- 2: High temperature error (Heat Roll Thermistor)
- 3: Abnormal temperature increase of Heat Roll NC Sensor, Heat Roll Thermistor
- 4: Hardware high temperature error (Heat Roll Thermistor)

1. Remove the jammed paper.
2. Clear the history at the NVM, then turn the power OFF and ON.
3. Check whether an out of spec paper is being used. If no problem is found, replace the Fusing Unit. (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)

010-379 Fusing Unit Hot Not Ready Return Time Fail

BSD-on: CH10.2

Description

The time taken to recover from High Temperature Not Ready state has exceeded the specified time.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

010-420 Fusing Unit Near Life Warning

BSD-on: CH10.2

Description

Detected that the Fusing Unit needs to be replaced soon.

Cause/ Action

Replace with a new Fusing Unit as necessary. (PL 7.1)

After replacement, enter CE mode and clear the following [HFSI Counter].

- Chain-Link:954-850 (Fusing Unit Print)
- Chain-Link:954-851 (Fusing Unit Time)

010-421 Fusing Unit Life Over Warning

BSD-on: CH10.2

Description

Detected that it is time to replace the Fusing Unit.

Cause/ Action

Replace the Fusing Unit. (PL 7.1)

After replacement, enter CE mode and clear the following [HFSI Counter].

- Chain-Link:954-850 (Fusing Unit Print)
- Chain-Link:954-851 (Fusing Unit Time)

CHAIN 24

024-910 Paper Size Mismatch

BSD-on: CH8.5

Description

The specified size in paper transport direction is different from the detected size.

Cause/ Action

Check the following:

- Whether the paper size specified is correct.
- Usage of out of spec paper.
- Malfunction of Tray Size Guide.
- Transportation failure due to foreign matter on the document path.
- Foreign matter adhesion, wear of Feed Roll, Regi Roll, Idler Roll surface.
- The Regi Sensor (DC330 [077- 104]) for operation failure. (PL 15.1)
- The Regi Clutch (DC330 [077-002]) for operation failure. (PL 15.1)
- The Drive Gear for wear and damage.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

024-927/077-454/077-455 Exit1 OCT Full Stack Static Jam

BSD-on: CH10.4

Description

The Exit 1 OCT Full Stack Sensor was detected to be ON continuously for the specified time or longer.

Cause/ Action

1. Check the Exit 1 OCT Full Stack Sensor for paper bits, Actuator return failure, sensor contamination, etc.
2. Check the Exit 1 OCT Full Stack Sensor (DC330 [077-124]) for operation failure. (PL 17.2)
3. If no problem is found, replace the following parts in sequence.
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

024-959 Tray 1 Paper Size Error

BSD-on: CH7.1

Description

The A/D value indicating Tray 1 paper size error was detected.

Cause/ Action

Check the following:

- Correctly set the Tray.

- Malfunction of Tray Size Guide.
- The Tray 1 Size Sensor (DC140 [071-200]/DC330 [071- 104]) for operation failure. (PL 9.1)

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

024-960 Tray 2 Paper Size Error

BSD-on: CH7.2,CH7.3,CH7.4

Description

The A/D value indicating Tray 2 paper size error was detected.

Cause/ Action

Check the following:

- Correctly set the Tray.
- Malfunction of Tray Size Guide.
- The Tray 2 Size Sensor (DC140 [072-200]/DC330 [072- 104]) for operation failure. (PL 10.3, PL 11.4, PL 12.1)

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- ESS PWB (PL 35.2)

024-961 Tray 3 Paper Size Error

BSD-on: CH7.5

Description

The A/D value indicating Tray 3 paper size error was detected.

Cause/ Action

Check the following:

- Correctly set the Tray.
- Malfunction of Tray Size Guide.
- The Tray 3 Size Sensor (DC140 [073-200]/DC330 [073- 104]) for operation failure. (PL 11.4)

If no problem is found, replace the following parts in sequence.

- 3TM PWB (PL 11.5)
- ESS PWB (PL 35.2)

024-962 Tray 4 Paper Size Error

BSD-on: CH7.6

Description

The A/D value indicating Tray 4 paper size error was detected.

Cause/ Action

Check the following:

- Correctly set the Tray.
- Malfunction of Tray Size Guide.
- The Tray 4 Size Sensor (DC140 [074-200]/DC330 [074- 104]) for operation failure. (PL 11.4)

If no problem is found, replace the following parts in sequence.

- 3TM PWB (PL 11.5)
- ESS PWB (PL 35.2)

CHAIN 41

041-310 IM Logic Fail

BSD-on: CH3.1

Description

The IM software control error was detected.

Cause/ Action

1. Turn the power OFF and ON.
2. Install the correct version of the IOT firmware.
3. If the problem persists, replace the following parts in sequence.
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

041-333 MCU DRIVE PWB F10 Blows

BSD-on: CH1.4,CH1.5

Description

Fuse 10 on the MCU DRIVE PWB was detected to be in open circuit.

Cause/ Action

1. Check the Tray Module for overcurrent and overvoltage, and then replace the faulty parts or repair the circuits.
2. Turn OFF the power and replace the MCU DRIVE PWB (PL 18.2).

041-334 MCU DRIVE PWB F11 Blows

BSD-on: CH1.4,CH1.5

Description

Fuse 11 on the MCU DRIVE PWB was detected to be in open circuit.

Cause/ Action

1. Check the Finisher for overcurrent and overvoltage, and then replace the faulty parts or repair the circuits.
2. Turn OFF the power and replace the MCU DRIVE PWB (PL 18.2).

041-335 MCU DRIVE PWB F12 Blows

BSD-on: CH1.4,CH10.3

Description

Fuse 12 on the MCU DRIVE PWB was detected to be in open circuit.

Cause/ Action

1. Check the Fusing Unit Exhaust Fan for overcurrent and overvoltage, and then replace the faulty parts or repair the circuits.
2. Turn OFF the power and replace the MCU DRIVE PWB (PL 18.2).

041-340 MCU NVM(EEPROM) Data Fail

BSD-on: CH3.1

Description

NVM (EEPROM) data error. The specific values are not in their specified addresses. (NVM values are out of the upper/lower limit range)

Initial Action

Check the values of the following NVM that went out of range.

- 740-016 Range Over Chain No
- 740-017 Range Over Link No
- 740-018 Range Over Chain Link
- 740-019 Range Over Value
- 740-020 Range Over Chain No During Write
- 740-021 Range Over Link No During Write

Cause/ Action

1. Turn the power OFF and ON.
2. Install the latest F/W.
3. Initialize NVM (EEPROM).
   If the error code was cleared, set the NVM data from the NVM setting list.
4. If the problem persists, replace the following parts in sequence.
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

041-341 MCU NVM(EEPROM) Access Fail

BSD-on: CH3.1

Description

NVM (EEPROM) access error. (When the IOT starts up, a check is performed for read/write access to the EEPROM. If there is a mismatch, it will attempt to access again. Failure occurs after 3 consecutive attempts.)

Cause/ Action

1. Turn the power OFF and ON.
2. Install the latest F/W.

3. Initialize NVM (EEPROM).
   If the error code was cleared, set the NVM data from the NVM setting list.
4. If the problem persists, replace the following parts in sequence.
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

041-388 Marking Logic Fail

BSD-on: -

Description

When fatal error was detected in Marking control.

Initial Action

Check the following NVM values to identify the cause for the error and contact the Support Department.

- 998 -084 Logic Fail Detailed Information

Cause/ Action

1. Turn the power OFF and ON.
2. Install the latest F/W.

041-391 Finisher Module Logic Fail

BSD-on: -

Description

A fatal error was detected in the Finisher Module.

Cause/ Action

1. Turn the power OFF and ON.
2. Install the latest F/W.

CHAIN 42

042-325 Main Motor Fail

BSD-on: CH4.1

Description

Rotation error of the Main Motor.

Procedure

Enter CE mode and turn ON DC330 [042-003].

Does the Main Motor rotate?

Y N

Check the power supply line of the Main Motor (+24 VDC).

Is the Main Motor power supply normal?

Y N

Check the power supply circuit to the Main Motor.

Turn OFF the power and check the following:

- The connection between the Main Motor J212 and the MCU DRIVE PWB J405 for open circuit, short circuit, and poor contact.
- The Drive Gear for wear, damage, and bearing blockage.
- Load towards the Main Motor.

If no problem is found, replace the following parts in sequence.

- Main Motor (PL 3.2)
- MCU DRIVE PWB (PL 18.2)

Select [Stop] and turn OFF the power. Check the connection between the Main Motor J212-4 and the MCU DRIVE PWB J405-9 for open circuit, short circuit, and poor contact.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

042-330 Fusing Unit Exhaust Fan Fail

BSD-on: CH10.3

Description

Rotation error of the Fusing Unit Exhaust Fan.

Procedure

Enter CE mode and turn ON DC330 [042-050].

Does the Fusing Unit Exhaust Fan rotate?

Y N

Check the power supply line of the Fusing Unit Exhaust Fan (+24 VDC).

Is the Fusing Unit Exhaust Fan power supply normal?

Y N

Check the power supply circuit to the Fusing Unit Exhaust Fan.

Turn OFF the power and check the following:

- The connection between the Fusing Unit Exhaust Fan J210 and the MCU DRIVE PWB J413 for open circuit, short circuit, and poor contact.
- The Fusing Unit Exhaust Fan for loading.

If no problem is found, replace the following parts in sequence.

- Fusing Unit Exhaust Fan (PL 4.1)
- MCU DRIVE PWB (PL 18.2)

Select [Stop] and turn OFF the power. Check the connection between the Fusing Unit Exhaust Fan J210-2 and the MCU DRIVE PWB J413-2 for open circuit, short circuit, and poor contact.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

CHAIN 43

043-344 CRU Fan Fail

BSD-on: CH9.9

Description

Rotation error of the CRU Fan.

Procedure

Enter CE mode and turn ON DC330 [042-052].

Is the CRU Fan rotating?

Y N

Check the power supply line of the CRU Fan (+24 VDC).

Is the CRU Fan power supply normal?

Y N

Check the power supply circuit to the CRU Fan.

Turn OFF the power and check the following:

- The connection between the CRU Fan J209 and the MCU DRIVE PWB J410 for open circuit, short circuit, and poor contact.
- The CRU Fan for loading.

If no problem is found, replace the following parts in sequence.

- CRU Fan (PL 4.1)
- MCU DRIVE PWB (PL 18.2)

Select [Stop] and turn OFF the power. Check the connection between the CRU Fan J209 and the MCU DRIVE PWB J410 for open circuit, short circuit, and poor contact.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

CHAIN 44

044-312 MK TimeOut Fail

BSD-on: -

Description

IM software control error was detected. (MK)

Cause/ Action

1. Turn the power OFF and ON.
2. Install the latest F/W.

044-313 PH TimeOut Fail

BSD-on: -

Description

IM software control error was detected. (PH)

Cause/ Action

1. Turn the power OFF and ON.
2. Install the latest F/W.

044-329 Shut Down Fail

BSD-on: -

Description

Shut Down Fail was detected. (Stops after NVM time from the reference trigger)

Cause/ Action

1. Turn the power OFF and ON.

CHAIN 45

045-310 Image Ready NG

BSD-on: -

Description

The Controller image preparation failure was detected.

Cause/ Action

1. Turn the power OFF and ON.
2. Install the latest F/W.

045-311 Controller Communication Fail

BSD-on: CH3.1

Description

Communication error between ESS PWB and MCU DRIVE PWB was detected.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check whether there is poor connection or foreign matter at the following connectors.
   - Between the ESS PWB J335 and the MCU DRIVE PWB J401

   If no problem is found, replace the following parts in sequence.
   - ESS PWB (PL 35.2)
   - MCU DRIVE PWB (PL 18.2)

045-382 MCU NVM(EEPROM) Write Verify Fail

BSD-on: CH3.1

Description

NVM (EEPROM) write verification error. (When writing data into the EEPROM, they are written in page by page and then a read is performed to check for matching. If there is a mismatch, it will attempt to write again. Failure occurs after 3 consecutive attempts.)

Cause/ Action

1. Turn the power OFF and ON.

2. Install the latest F/W.
3. Initialize NVM (EEPROM).
   If the error code was cleared, set the NVM data from the NVM setting list.
4. If the problem persists, replace the ESS PWB (PL 35.2).

045-396 MCU DRIVE PWB HASIC Fail

BSD-on: CH3.1

Description

IO-Setup error of the HASIC that is installed to the MCU DRIVE PWB.

NOTE

This Fail will also occur when the nHASIC_RESET signal from the ESS PWB has failed due to some reason, causing it to remain in active state.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check whether there is poor connection or foreign matter at the following connectors.
   - Between the ESS PWB J335 and the MCU DRIVE PWB J401
3. If no problem is found, replace the following parts in sequence.
   - ESS PWB (PL 35.2)
   - MCU DRIVE PWB (PL 18.2)

045-398 MCU NVM(EEPROM) Read Verify Fail

BSD-on: CH3.1

Description

NVM (EEPROM) read verification error. (When reading data from the EPROM, they are read out page by page twice and the values are compared to check for matching. If there is a mis-match, it will attempt to read again. Failure occurs after 3 consecutive attempts.)

Cause/ Action

1. Turn the power OFF and ON.
2. Install the latest F/W.
3. Initialize NVM (EEPROM).
   If the error code was cleared, set the NVM data from the NVM setting list.
4. If the problem persists, replace the ESS PWB (PL 35.2).

045-399 MCU DRIVE PWB Power Fail

BSD-on: CH3.1,CH1.4,CH1.5

Description

An error with the power supply to the MCU DRIVE PWB. (This is detected by the combination of WD_RESET signal and DRV_RESET signal)

NOTE

The IOT_PWR_ON signal from ESS PWB has failed due to some reason, causing it to remain inactive. This occurs when there is ESS circuit error, cable open circuit, or missing +5 V power supply from the LVPS (LVPS circuit error, open circuit), etc.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check whether there is poor connection or foreign matter at the following connectors.
   - Between the LVPS J502 and the MCU DRIVE PWB J400
   - Between the ESS PWB J335 and the MCU DRIVE PWB J401
3. Check the power supply line of the MCU DRIVE PWB (+5 VDC). If the +5 VDC is not being supplied, replace the LVPS (PL 18.2).
4. If no problem is found, replace the following parts in sequence.
   - ESS PWB (PL 35.2)
   - MCU DRIVE PWB (PL 18.2)

CHAIN 47

047-213 Finisher Kind Mismatch

BSD-on: CH3.4,CH1.5

Description

The connected Finisher is of an incorrect type.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the connection between the MCU DRIVE PWB J590, J591 and the Finisher PWB for open circuit, short circuit, and poor contact.

   NOTE

   For more information on the IOT connection PWB at the Finisher, refer to the Finisher Supplementary Service Manual.

   If no problem is found, replace the MCU DRIVE PWB (PL 18.2).

047-216 Finisher Communication Fail

BSD-on: CH3.4,CH1.5

Description

The response from communication with the Finisher was determined to be an error.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the connection between the MCU DRIVE PWB J590, J591 and the Finisher PWB for open circuit, short circuit, and poor contact.

   NOTE

   For more information on the IOT connection PWB at the Finisher, refer to the Finisher Supplementary Service Manual.

   If no problem is found, replace the MCU DRIVE PWB (PL 18.2).

047-320 ALL Destination Tray Broken

BSD-on: -

Description

All Trays connected to the IOT have become unusable.

Cause/ Action

Enter the Shutdown History. Go to the FIP of the affected Output Tray.

NOTE

For more information on failures at the Finisher, refer to the Finisher Supplementary Service Manual.

CHAIN 57

057-312 MCU DRIVE PWB SPI Communication Fail

BSD-on: CH3.1

Description

An error with the SPI communication data between the MCU DRIVE PWB and the ESS PWB (data error was detected 3 consecutive times). Or, the software was unable to clear the WDT (as detected by the combination of WD_RESET signal and DRV_RESET signal).

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the connection between the MCU DRIVE PWB J401 and the ESS PWB J335 for open circuit, short circuit, and poor contact.
3. Install the latest F/W.
   If no problem is found, replace the MCU DRIVE PWB (PL 18.2).

057-316 MCU DRIVE PWB F16 Blows

BSD-on: CH1.4

Description

Fuse 16 on the MCU DRIVE PWB was detected to be in open circuit.

Cause/ Action

1. Check the following parts for overcurrent and overvoltage, and then replace the faulty parts or repair the circuits.
   - Take Away Clutch
   - MSI Feed Clutch
   - Regi. Clutch
   - CRU Fan
   - Exit 1 OCT Solenoid
   - Duplex Clutch
2. Turn OFF the power and replace the MCU DRIVE PWB (PL 18.2).

057-317 MCU DRIVE PWB F17 Blows

BSD-on: CH1.4

Description

Fuse 17 on the MCU DRIVE PWB was detected to be in open circuit.

Cause/ Action

1. Check the following parts for overcurrent and overvoltage, and then replace the faulty parts or repair the circuits.
   - Exit Gate Solenoid
   - Face Up Tray Gate Solenoid
2. Turn OFF the power and replace the MCU DRIVE PWB (PL 18.2).

CHAIN 58

058-310 Fusing Ep U4 Notrdy Nc Fail

BSD-on: CH10.2,CH10.1

Description

At the start of Warm Up, the temperature of Heat Roll NC Sensor was found to be at or higher than the inspectable temperature.

Initial Action

- Turn OFF the power and remove the Fusing Unit. Check whether foreign matter or paper is wound around the Heat Roll.
- Check if a high temperature value is set for default temperature at the NVM.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Heat Roll NC Sensor for poor contact and partial connection.
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/ bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
   - The connection between the Heat Roll NC Sensor P124 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - LVPS (PL 18.2)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

058-311 Fusing Ep U4 Notrdy Sts Fail

BSD-on: CH10.2,CH10.1

Description

At the start of Warm Up, the temperature of Heat Roll Thermistor was found to be at or higher than the inspectable temperature.

Initial Action

- Turn OFF the power and remove the Fusing Unit. Check whether foreign matter or paper is wound around the Heat Roll.
- Check if a high temperature value is set for default temperature at the NVM.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Heat Roll Thermistor for malfunction and poor connection.
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - LVPS (PL 18.2)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

058-318 Fusing Ep U4 Fastheat Side Fail

BSD-on: CH10.2,CH10.1

Description

Inspection starts and the time taken for Side temperature to rise from Measurement Start Temperature to Target Temperature is faster then the specified time.

Initial Action

- Turn OFF the power and remove the Fusing Unit. Check whether foreign matter or paper is wound around the Heat Roll.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - Check whether a 100 V spec Heater is connected to a 200 V spec product.
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - LVPS (PL 18.2)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

058-319 Fusing Ep U4 Lamp position Fail

BSD-on: CH10.2,CH10.1

Description

Upon reaching the Heater Judgment Time, the value of Center temperature - Side temperature is found to be equal to or lower than the setting value.

Initial Action

- Turn OFF the power and remove the Fusing Unit. Check whether foreign matter or paper is wound around the Heat Roll.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - Check the Heater for wiring mistakes.
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - LVPS (PL 18.2)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

058-320 Fusing Ep U4 Noheat Side Fail

BSD-on: CH10.2,CH10.1

Description

After inspection has started, the Side temperature has not risen to Measurement Start Temperature within the specified time.

Initial Action

- Turn OFF the power and remove the Fusing Unit. Check whether foreign matter or paper is wound around the Heat Roll.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Main Heater Rod for open circuit and poor connection.
   - The Fusing Unit for improper installation

- The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
- The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
- The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.

3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - LVPS (PL 18.2)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

058-321 Fusing Ep U4 Slowheat Side Fail

BSD-on: CH10.3,CH10.2

Description

Inspection starts and the Side temperature has not risen from Measurement Start Temperature to Target Temperature within the specified time.

Initial Action

- Turn OFF the power and remove the Fusing Unit. Check whether foreign matter or paper is wound around the Heat Roll.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - Check whether a 200V spec Heater is connected to a 100V spec product.
   - The Sub Heater Rod for open circuit and poor connection.
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - LVPS (PL 18.2)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

058-376 DC Input Fail

BSD-on: CH1.1

Description

DC supply (emergency power supply, etc.) was detected from the Power Supply Outlet.

Procedure

Check the following:

- NVM [744-616] value
- Presence of DC application (check with the customer)

Is NVM [744-616] "0"? Or, there is no DC application?

Y N

Replace the following parts:

- LVPS (PL 18.2)
- Heater Relay PWB (PL 18.5)

Check that AC power is supplied from the Power Supply Outlet and change the NVM [744-616] value from "1" -> "0".

Check the connection between the MCU DRIVE PWB J419 and the LVPS J504 for open circuit, short circuit, and poor contact.

Is there no open circuit, short circuit, and poor contact?

Y N

Reconnect the applicable wire. In case of open circuit, replace the harness.

Check the following:

- Whether AC power is supplied from the Power Supply Outlet
- Whether the value of NVM [744-616] has become "0" (if it is "1", change it from "1" to "0").

Replace the following parts:

- LVPS (PL 18.2)
- MCU DRIVE PWB (PL 18.2)

Check that AC power is supplied from the Power Supply Outlet and change the NVM [744-616] value from "1" -> "0".

CHAIN 59

059-326 Heat Roll STS Disconnection Fail

BSD-on: CH10.2

Description

The system detected an open circuit of the Heat Roll Thermistor.

Initial Action

- Turn OFF the Power and check whether the Fusing Unit is set correctly.
- Check the Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
- Check whether the MCU DRIVE PWB connector J416 is connected properly.

Procedure

Turn OFF the power and remove the Fusing Unit.

Measure the resistance between J612 pin-7 and J612 pin-8.

Is the resistance infinite?

Y **N**

Check the following connections for open circuits, short circuits, and poor contacts.

- Between the P612-8 and the MCU DRIVE PWB J416-4
- Between the P612-7 and the MCU DRIVE PWB J416-5

If no problem is found, replace the MCU DRIVE PWB (PL 18.2).

Replace the Fusing Unit (PL 7.1). (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)

059-372 Heat Roll NC Sensor Differential Amp Fail

BSD-on: CH10.2

Description

An abnormal temperature monitor AD value of the Heat Roll NC Sensor was detected 10 times in a row.

NOTE

To clear this Fail, first remove the cause, next normalize the value of NVM [744-003] (Differential Amplification Error Detection Flag) to "0", and then turn the power OFF and ON.

Cause/ Action

1. Clear the history at the NVM, then turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/ bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.

   If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - MCU DRIVE PWB (PL 18.2)

059-383 Warm Up Time Fail

BSD-on: CH10.2,CH10.1

Description

When transitioning from the Wait state, the specified Temperature is not reached within the specified time.

NOTE

This Fail may occur when the temperature in the installation environment is low (10°C or lower).

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/ bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.

   If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - LVPS (PL 18.2)
   - MCU DRIVE PWB (PL 18.2)

CHAIN 60

060-363 VBO-IP PLL Error

BSD-on: CH6.5

Description

A VBO-IP built-in PLL error has occurred.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

060-367 VBO LOCKN Error

BSD-on: CH6.5

Description

An LPH VBO link down error has occurred.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

060-371 LPH DL I2C Fail K

BSD-on: CH6.5

Description

I2C communication error between upper-level ASIC and LPH has occurred.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

060-375 LPH Power On Fail K

BSD-on: CH6.5

Description

It is highly probable that there is a malfunction with the LPH power supply or the RST cannot be released.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

060-379 LPH DL VBO Fail K

BSD-on: CH6.5

Description

VBO communication error between upper-level ASIC and LPH has occurred.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.

- LPH K (PL 2.1)
- FFC K (PL 2.1)
- ESS PWB (PL 35.2)

060-383 LPH DL ROM Fail K

BSD-on: CH6.5

Description

I2C communication error between upper-level ASIC and LPH ROM has occurred.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

060-387 LPH DL Status Fail K

BSD-on: CH6.5

Description

The LPH ROM download has failed. Communication error between LPH and LPH ROM has occurred.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

060-394 LPH VBOWR Fail K

BSD-on: CH6.5

Description

VBO communication error between upper-level ASIC and LPH (data write error to LPH) has occurred.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

060-398 LPH CSUM Fail K

BSD-on: CH6.5

Description

VBO communication error between upper-level ASIC and LPH (image transfer error to LPH) has occurred.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

CHAIN 61

061-365 LPH Read Fail K

BSD-on: CH6.5

Description

Communication error between ESS and LPH (data read error from LPH). This may occur due to noise from external sources, poor FFC connection, power supply malfunction, etc. This may also occur due to a malfunction within the LPH.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

061-369 LPH Write Fail K

BSD-on: CH6.5

Description

Communication error between ESS and LPH (data write error to LPH). This may occur due to noise from external sources, poor FFC connection, power supply malfunction, etc. This may also occur due to a malfunction within the LPH.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

061-373 LPH Ack Fail K

BSD-on: CH6.5

Description

Communication error between ESS and LPH (error in the communication IC or cable). This may occur due to noise from external sources, poor FFC connection, power supply malfunction, etc. This may also occur due to a malfunction within the LPH.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)
   - ESS PWB (PL 35.2)

CHAIN 62

062-277 DADF Communication Fail

BSD-on: CH3.3

Description

Transmission cannot be established between the ESS PWB and the DADF PWB.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the connection between the ESS PWB J1375 and the DADF PWB J751 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - DADF PWB (PL 56.2)
   - ESS PWB (PL 35.2)

062-300 Platen Interlock Open

BSD-on: CH6.2

Description

Any of the following was detected:

- ADF Job was blocked by opening the Platen Cover.
- Platen Cover was opened when the document was set in DADF.
- Platen Cover was opened while performing a Job specified by DADF.

Cause/ Action

Check the following:

- The DADF for improper closing.
- The Platen Close Sensor for failure: DC330 [062-300] (PL 1.3)
- The connection between the Platen Close Sensor J7209 and the ESS PWB J422 for open circuit, short circuit, and poor contact.

If no problem is found, replace the ESS PWB. (PL 35.2)

062-311 IIT Software Logic Fail

BSD-on: -

Description

Error detected in IISS software.

Cause/ Action

1. Turn the power OFF and ON.
2. Install the latest F/W.
3. If the problem persists, replace the ESS PWB. (PL 35.2)

062-345 IIT EEPROM Fail

BSD-on: CH6.4

Description

Write failure to IEEPROM or communication failure with EEPROM (including adjustment value for retries) was detected.

Cause/ Action

1. Turn the power OFF and ON.
2. If the problem persists, replace the CCD Assembly. (PL 1.2)

062-360 Carriage Position Fail

BSD-on: CH6.3

Description

Any of the following was detected:

- An error with the count value of the Carriage Position Control.
- No IIT Regi Sensor input during Carriage initialization.
- An error with the IIT Regi Sensor detection position.

Cause/ Action

Check the following:

- The IIT Regi Sensor (DC330 [062-212]) for operation failure. (PL 1.6)
- The Carriage Motor (DC330 [062-005/006] (Scan/Return)) for operation failure. (PL 1.6)
- The Drive Belt for slack and wear.
- The Carriage operation for mechanical loading.

If no problem is found, replace the ESS PWB. (PL 35.2)

062-362 X Hard Fail

BSD-on: -

Description

Hardware modification of authentication device was detected.

Cause/ Action

1. Turn the power OFF and ON.
2. If the problem persists, replace the ESS PWB. (PL 35.2)

062-371 Lamp Illumination Fail

BSD-on: CH6.4

Description

Insufficient light from Lamp detected in CCD. (During white gradation correction/AGC before Scan starts)

Initial Action

Check whether there is something blocking the light and check the Lamp, CCD, and White Color Correction Plate for deterioration or contamination.

Procedure

1. Turn ON the power and enter CE mode. Change the value for NVM [715-030] to "1" and then perform [NVM Write].
2. A 3 or 4-digit number is displayed in the current value column.
3. Check the upper 1 or 2 digits, or the lower 2 digits using the following table and replace the appropriate parts.
   Sample Display
   - 110 (3-digit display):
     The Lamp Assembly is damaged and the Lamp FFC is damaged or has poor contact.
     (The first digit "1" in "110" is the upper digit, which indicates the Lamp Assembly ("0" in "01" is not displayed). The last 2 digits "10" indicate the Lamp FFC.)
   - 1000 (4-digit display):
     The Lamp FFC is damaged or has poor contact.
     (The first 2 digits "10" in "1000" are the upper digits, which indicate the Lamp FFC. The last 2 digits "00" indicate that nothing is applicable (no failures).)

NOTE

Perform IIT diagnostic and then call NVM [715-030] again to check the value (diagnostic result).

Current Value	Component Name	PL No.
00	Not applicable (No errors)	-
01	Lamp Assembly	PL 1.4
02	CCD Assembly	PL 1.2
03	CCD FFC	PL 1.2
04	This value is not displayed	-
05	This value is not displayed	-
06	This value is not displayed	-
07	This value is not displayed	-
08	This value is not displayed	-
09	This value is not displayed	-
10	Lamp FFC	PL 1.4

4. After replacing the appropriate parts, change the value of NVM [715-030] to "1" again, then perform "NVM Write".
5. Check that the current value column becomes "0".
6. If the problem persists after performing the above procedure, check the following:
   - Check for burnt out Lamp Assembly (DC330 [062-002]). (PL 1.4)
   - The Flat Cable between the Lamp Assembly J7223 and the ESS PWB J1373 for open circuit, short circuit, and poor contact (especially, check whether the Flat Cable was inserted in a skewed manner).
   - The Flat Cable between the CCD Assembly P700 and the ESS PWB J1370 for open circuit, short circuit, and poor contact (especially, check whether the Flat Cable was inserted in a skewed manner).
7. If no problem is found, replace the ESS PWB. (PL 35.2)

062-380 AGC Fail

BSD-on: CH6.4

Description

Insufficient lamp brightness was detected when performing AGC.

Initial Action

Check whether there is something blocking the light and check the Lamp, CCD, and White Color Correction Plate for deterioration or contamination.

Procedure

1. Turn ON the power and enter CE mode. Change the value for NVM [715-030] to "1" and then perform [NVM Write].
2. A 3 or 4-digit number is displayed in the current value column.
3. Check the upper 1 or 2 digits, or the lower 2 digits using the following table and replace the appropriate parts.
   Sample Display
   - 110 (3-digit display):
     The Lamp Assembly is damaged and the Lamp FFC is damaged or has poor contact.
     (The first digit "1" in "110" is the upper digit, which indicates the Lamp Assembly ("0" in "01" is not displayed). The last 2 digits "10" indicate the Lamp FFC.)
   - 1000 (4-digit display):
     The Lamp FFC is damaged or has poor contact.
     (The first 2 digits "10" in "1000" are the upper digits, which indicate the Lamp FFC. The last 2 digits "00" indicate that nothing is applicable (no failures).)

   NOTE
   Perform IIT diagnostic and then call NVM [715-030] again to check the value (diagnostic result).

Current Value	Component Name	PL No.
00	Not applicable (No errors)	-
01	Lamp Assembly	PL 1.4
02	CCD Assembly	PL 1.2
03	CCD FFC	PL 1.2
04	This value is not displayed	-
05	This value is not displayed	-
06	This value is not displayed	-
07	This value is not displayed	-
08	This value is not displayed	-
09	This value is not displayed	-
10	Lamp FFC	PL 1.4

4. After replacing the appropriate parts, change the value of NVM [715-030] to "1" again, then perform "NVM Write".
5. Check that the current value column becomes "0".
6. If the problem persists after performing the above procedure, check the following:
   - Check for burnt out Lamp Assembly (DC330 [062-002]). (PL 1.4)
   - The Flat Cable between the Lamp Assembly J7223 and the ESS PWB J1373 for open circuit, short circuit, and poor contact (especially, check whether the Flat Cable was inserted in a skewed manner).
   - The Flat Cable between the CCD Assembly P700 and the ESS PWB J1370 for open circuit, short circuit, and poor contact (especially, check whether the Flat Cable was inserted in a skewed manner).
7. If no problem is found, replace the ESS PWB. (PL 35.2)

062-386 AOC Fail

BSD-on: CH6.4

Description

A CCD output error was detected when performing AOC.

Procedure

1. Turn ON the power and enter CE mode. Change the value for NVM [715-030] to "1" and then perform [NVM Write].
2. A 3 or 4-digit number is displayed in the current value column.
3. Check the upper 1 or 2 digits, or the lower 2 digits using the following table and replace the appropriate parts.
   Sample Display
   - 110 (3-digit display):
     The Lamp Assembly is damaged and the Lamp FFC is damaged or has poor contact.
     (The first digit "1" in "110" is the upper digit, which indicates the Lamp Assembly ("0" in "01" is not displayed). The last 2 digits "10" indicate the Lamp FFC.)
   - 1000 (4-digit display):
     The Lamp FFC is damaged or has poor contact.
     (The first 2 digits "10" in "1000" are the upper digits, which indicate the Lamp FFC. The last 2 digits "00" indicate that nothing is applicable (no failures).)

   NOTE
   Perform IIT diagnostic and then call NVM [715-030] again to check the value (diagnostic result).

Current Value	Component Name	PL No.
00	Not applicable (No errors)	-
01	Lamp Assembly	PL 1.4
02	CCD Assembly	PL 1.2
03	CCD FFC	PL 1.2
04	This value is not displayed	-
05	This value is not displayed	-
06	This value is not displayed	-
07	This value is not displayed	-
08	This value is not displayed	-
09	This value is not displayed	-
10	Lamp FFC	PL 1.4

4. After replacing the appropriate parts, change the value of NVM [715-030] to "1" again, then perform "NVM Write".
5. Check that the current value column becomes "0".
6. If the problem persists after performing the above procedure, check the following:
   - Check for burnt out Lamp Assembly (DC330 [062-002]). (PL 1.4)
   - The Flat Cable between the Lamp Assembly J7223 and the ESS PWB J1373 for open circuit, short circuit, and poor contact (especially, check whether the Flat Cable was inserted in a skewed manner).
   - The Flat Cable between the CCD Assembly P700 and the ESS PWB J1370 for open circuit, short circuit, and poor contact (especially, check whether the Flat Cable was inserted in a skewed manner).
7. If no problem is found, replace the ESS PWB. (PL 35.2)

062-389 Carriage Over Run Fail

BSD-on: CH6.4

Description

A Carriage overrun was detected.

Cause/ Action

Check the following:

- The IIT Regi Sensor (DC330 [062-212]) for operation failure. (PL 1.6)
- The Carriage Motor (DC330 [062-005] (Scan) / DC330 [062-006] (Return)) for operation failure. (PL 1.6)
- The Carriage operation for mechanical load, the Carriage Cable for improper winding, and the rail for contamination/foreign matter.
- The Full/Half Rate Carriages for improper positioning (ADJ 1.1.1).

If no problem is found, replace the ESS PWB. (PL 35.2)

062-393 CCD PWB Sync Signal Fail

BSD-on: CH6.4

Description

- Write failure to the Shading Memory has occurred.
- Write failure to Gap Memory was detected.
- Averaging processing error has occurred in the ASIC.

Procedure

1. Turn ON the power and enter CE mode. Change the value for NVM [715-030] to "1" and then perform [NVM Write].
2. A 3 or 4-digit number is displayed in the current value column.
3. Check the upper 1 or 2 digits, or the lower 2 digits using the following table and replace the appropriate parts.
   Sample Display
   - 110 (3-digit display):
     The Lamp Assembly is damaged and the Lamp FFC is damaged or has poor contact.
     (The first digit "1" in "110" is the upper digit, which indicates the Lamp Assembly ("0" in "01" is not displayed). The last 2 digits "10" indicate the Lamp FFC.)
   - 1000 (4-digit display):
     The Lamp FFC is damaged or has poor contact.
     (The first 2 digits "10" in "1000" are the upper digits, which indicate the Lamp FFC. The last 2 digits "00" indicate that nothing is applicable (no failures).)

NOTE

Perform IIT diagnostic and then call NVM [715-030] again to check the value (diagnostic result).

Current Value	Component Name	PL No.
00	Not applicable (No errors)	-
01	Lamp Assembly	PL 1.4
02	CCD Assembly	PL 1.2
03	CCD FFC	PL 1.2
04	This value is not displayed	-
05	This value is not displayed	-
06	This value is not displayed	-
07	This value is not displayed	-
08	This value is not displayed	-
09	This value is not displayed	-
10	Lamp FFC	PL 1.4

4. After replacing the appropriate parts, change the value of NVM [715-030] to "1" again, then perform "NVM Write".
5. Check that the current value column becomes "0".
6. If the problem persists after performing the above procedure, check the following:
   - Check for burnt out Lamp Assembly (DC330 [062-002]). (PL 1.4)
   - The Flat Cable between the Lamp Assembly J7223 and the ESS PWB J1373 for open circuit, short circuit, and poor contact (especially, check whether the Flat Cable was inserted in a skewed manner).
   - The Flat Cable between the CCD Assembly P700 and the ESS PWB J1370 for open circuit, short circuit, and poor contact (especially, check whether the Flat Cable was inserted in a skewed manner).
7. If no problem is found, replace the ESS PWB. (PL 35.2)

062-396 CCD Cable Connection Fail

BSD-on: CH6.4

Description

A CIS Flat Cable connection error was detected.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the Flat Cable between the CCD Assembly P700 and the ESS PWB J1370 for open circuit, short circuit, and poor contact (especially, check whether the Flat Cable was inserted in a skewed manner).
3. If no problem is found, replace the following parts in sequence.
   - CCD FFC (PL 1.2)
   - ESS PWB (PL 35.2)

062-790 X- Recognition Fail

BSD-on: -

Description

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Cause/ Action

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CHAIN 71

071-100 Tray 1 Miss Pre Feed Jam

BSD-on: CH8.1,CH7.7

Description

Paper does not turn ON the Tray 1 Pre Feed Sensor within the specified time after Tray 1 Feed Start.

Cause/ Action

Check the following:

- The Tray 1 Pre Feed Sensor (DC330 [071-105]) for operation failure. (PL 9.4)
- The Tray 1 Feed/Lift Up Motor (DC330 [071-001] (Feed)) for operation failure. (PL 9.4)
- The T/A Roll, Feed Roll, Nudger Roll, and Pinch Roll for transport failure due to contamination, wear, and deterioration.
- The Drive Gear for wear and damage.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the MCU DRIVE PWB. (PL 18.2)

071-105 Regi. Sensor On Jam (Tray 1)

BSD-on: CH8.5,CH7.7

Description

The Regi Sensor did not turn ON within the specified time after Regi Clutch On during paper feed from Tray 1.

Cause/ Action

Check the following:

- The Regi Sensor (DC330 [077- 104]) for operation failure. (PL 15.1)
- The Regi Clutch (DC330 [077-002]) for operation failure. (PL 15.1)
- The Takeaway Clutch (DC330 [077-001]) for operation failure. (PL 3.2)
- The Tray 1 Feed/Lift Up Motor (DC330 [071-001] (Feed)) for operation failure. (PL 9.4)
- The Main Motor (DC330 [042-003]) for operation failure. (PL 3.2)
- The Feed Roll for contamination, wear, and transport failure due to deterioration.
- The Drive Gear for wear and damage.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

071-210/071-461 Tray 1 Lift Up Fail

BSD-on: CH7.7

Description

Tray 1 Lift Up NG has occurred 3 consecutive times.

Cause/ Action

Check the following:

- The Tray 1 Level Sensor (DC330 [071- 102]) for operation failure. (PL 9.4)
- The Tray 1 Feed/Lift Motor (DC330 [071-002] (Lift Up)) for operation failure. (PL 9.4)
- The drive system between the Bottom Plate and the Tray 1 Feed/Lift Motor for operation failure.
- The Tray for Paper misload.
- The Tray for existence of objects other than Paper.

If no problem is found, replace the MCU DRIVE PWB. (PL 18.2)

071-212 Tray 1 Paper Size Sensor Broken

BSD-on: CH7.1

Description

Abnormal output AD value from Tray 1 Paper Size Sensor was detected.

Cause/ Action

Check the following:

- Broken link and damage at the bottom of the tray
- The Actuator at the rear of the Tray for operation failure
- The Tray 1 Size Sensor (DC140 [071-200]/DC330 [071- 104]) for operation failure. (PL 9.1)

If no problem is found, replace the MCU DRIVE PWB. (PL 18.2)

CHAIN 72

072-101 Tray2 Miss Feed Jam

BSD-on: CH8.2,CH8.3,CH8.4

Description

Paper does not turn ON the Tray 2 Feed Out Sensor within the specified time after Tray 2 Feed Start.

Cause/ Action

Check the following:

- The Tray 2 Feed Out Sensor (DC330 [072- 103]) for operation failure. (PL 10.3, PL 11.4, PL 12.2)
- The 1TM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 10.4)
- The 3TM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 11.5)
- The STM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 12.5)
- The Tray 2 Feed/Lift Up Motor (DC330 [072-001] (Feed)) for operation failure. (PL 10.6, PL 11.7, PL 12.7)
- The T/A Roll, Feed Roll, Nudger Roll, and Pinch Roll for transport failure due to contamination, wear, and deterioration.
- The Drive Gear for wear and damage.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- ESS PWB (PL 35.2)

072-105 Regi. Sensor On Jam (Tray 2)

BSD-on: CH8.5

Description

Paper does not turn ON the Regi Sensor within the specified time after Regi Clutch ON during Feed from Tray 2.

Cause/ Action

Check the following:

- The Regi Sensor (DC330 [077- 104]) for operation failure. (PL 15.1)
- The Regi Clutch (DC330 [077-002]) for operation failure. (PL 15.1)
- The Takeaway Clutch (DC330 [077-001]) for operation failure. (PL 3.2)
- The 1TM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 10.4)
- The 3TM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 11.5)
- The STM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 12.5)
- The T/A Roll, Feed Roll, and Pinch Roll for transport failure due to contamination, wear, and deterioration.
- The Drive Gear for wear and damage.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

072-210/072-461 Tray 2 Lift Up Fail

BSD-on: CH7.8,CH7.9,CH7.10

Description

Tray 2 Lift Up NG has occurred 3 consecutive times.

Cause/ Action

Check the following:

- The Tray 2 Level Sensor (DC330 [072-102]) for operation failure. (PL 10.6, PL 11.7, PL 12.7)
- The Tray 2 Feed/Lift Motor (DC330 [072-002] (Lift Up)) for operation failure. (PL 10.6, PL 11.7, PL 12.7)
- The drive system between the Bottom Plate and the Tray 2 Feed/ Lift Motor for operation failure.
- The Tray for Paper misload.
- The Tray for existence of objects other than Paper.

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)

072-212 Tray 2 Paper Size Sensor Broken

BSD-on: CH7.2,CH7.3,CH7.4

Description

Abnormal output AD value from Tray 2 Paper Size Sensor was detected.

Cause/ Action

Check the following:

- Broken link and damage at the bottom of the tray
- The Actuator at the rear of the Tray for operation failure
- The Tray 2 Size Sensor (DC140 [072-200]/DC330 [072- 104]) for operation failure. (PL 10.3, PL 11.4, PL 12.1)

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)

072-900 Tray 2 Feed Out Sensor Static Jam

BSD-on: CH8.2,CH8.3,CH8.4

Description

When the power was turned ON, the device was stopped (Cycle Down/Shut Down), or when the interlocks were closed (all interlocks including options), the Tray 2 Feed Out Sensor detected leftover paper.

Cause/ Action

1. Check the Tray 2 Feed Out Sensor for paper bits, Actuator return failure, sensor contamination, etc.

2. The Tray 2 Feed Out Sensor (DC330 [072- 103]) for operation failure. (PL 10.3, PL 11.4, PL 12.2)
3. If no problem is found, replace the following parts in sequence.
   - 1TM PWB (PL 10.4)
   - 3TM PWB (PL 11.5)
   - STM PWB (PL 12.5)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

CHAIN 73

073-105 Regi. Sensor On Jam (Tray 3)

BSD-on: CH8.5

Description

Paper does not turn ON the Regi Sensor within the specified time after Regi Clutch ON during Feed from Tray 3.

Cause/ Action

Check the following:

- The Regi Sensor (DC330 [077- 104]) for operation failure. (PL 15.1)
- The Regi Clutch (DC330 [077-002]) for operation failure. (PL 15.1)
- The Takeaway Clutch (DC330 [077-001]) for operation failure. (PL 3.2)
- The 1TM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 10.4)
- The 3TM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 11.5)
- The STM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 12.5)
- The T/A Roll, Feed Roll, and Pinch Roll for transport failure due to contamination, wear, and deterioration.
- The Drive Gear for wear and damage.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

073-106 Tray 2 Feed Out Sensor On Jam

BSD-on: CH8.2,CH8.3,CH8.4

Description

Paper does not turn ON the Tray 2 Feed Out Sensor within the specified time after each Tray Feed Start.

Cause/ Action

Check the following:

- The Tray 2 Feed Out Sensor (DC330 [072- 103]) for operation failure. (PL 10.3, PL 11.4, PL 12.2)
- The 1TM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 10.4)
- The 3TM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 11.5)
- The STM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 12.5)
- The Tray 2 Feed/Lift Up Motor (DC330 [072-001] (Feed)) for operation failure. (PL 10.6, PL 11.7, PL 12.7)
- The Tray 3 Feed/Lift Up Motor (DC330 [073-001] (Feed)) for operation failure. (PL 11.8)
- The Tray 4 Feed/Lift Up Motor (DC330 [074-001] (Feed)) for operation failure. (PL 11.8)
- The T/A Roll, Feed Roll, Nudger Roll, and Pinch Roll for transport failure due to contamination, wear, and deterioration.
- The Drive Gear for wear and damage.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- ESS PWB (PL 35.2)

073-210/073-461 Tray 3 Lift Up Fail

BSD-on: CH7.11

Description

Tray 3 Lift Up NG has occurred 3 consecutive times.

Cause/ Action

Check the following:

- The Tray 3 Level Sensor (DC330 [073-102]) for operation failure. (PL 11.8)
- The Tray 3 Feed/Lift Motor (DC330 [073-002] (Lift Up)) for operation failure. (PL 11.8)
- The drive system between the Bottom Plate and the Tray 3 Feed/ Lift Motor for operation failure.
- The Tray for Paper misload.
- The Tray for existence of objects other than Paper.

If no problem is found, replace the 3TM PWB (PL 11.5).

073-212 Tray 3 Paper Size Sensor Broken

BSD-on: CH7.5

Description

Abnormal output AD value from Tray 3 Paper Size Sensor was detected.

Cause/ Action

Check the following:

- Broken link and damage at the bottom of the tray
- The Actuator at the rear of the Tray for operation failure
- The Tray 3 Size Sensor (DC140 [073-200]/DC330 [073- 104]) for operation failure. (PL 11.4)

If no problem is found, replace the 3TM PWB (PL 11.5).

CHAIN 74

074-105 Regi. Sensor On Jam (Tray 4)

BSD-on: CH8.5

Description

Paper does not turn ON the Regi Sensor within the specified time after Regi Clutch ON during Feed from Tray 4.

Cause/ Action

Check the following:

- The Regi Sensor (DC330 [077- 104]) for operation failure. (PL 15.1)
- The Regi Clutch (DC330 [077-002]) for operation failure. (PL 15.1)
- The Takeaway Clutch (DC330 [077-001]) for operation failure. (PL 3.2)
- The 1TM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 10.4)
- The 3TM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 11.5)
- The STM Takeaway Motor (DC330 [077-033]) for operation failure. (PL 12.5)
- The T/A Roll, Feed Roll, and Pinch Roll for transport failure due to contamination, wear, and deterioration.
- The Drive Gear for wear and damage.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

074-210/074-461 Tray 4 Lift Up Fail

BSD-on: CH7.12

Description

Tray 4 Lift Up NG has occurred 3 consecutive times.

Cause/ Action

Check the following:

- The Tray 4 Level Sensor (DC330 [074- 102]) for operation failure. (PL 11.8)
- The Tray 4 Feed/Lift Motor (DC330 [074-002] (Lift Up)) for operation failure. (PL 11.8)
- The drive system between the Bottom Plate and the Tray 4 Feed/ Lift Motor for operation failure.
- The Tray for Paper misload.
- The Tray for existence of objects other than Paper.

If no problem is found, replace the 3TM PWB (PL 11.5).

074-212 Tray 4 Paper Size Sensor Broken

BSD-on: CH7.6

Description

Abnormal output AD value from Tray 4 Paper Size Sensor was detected.

Cause/ Action

Check the following:

- Broken link and damage at the bottom of the tray
- The Actuator at the rear of the Tray for operation failure
- The Tray 4 Size Sensor (DC140 [074-200]/DC330 [074- 104]) for operation failure. (PL 11.4)

If no problem is found, replace the 3TM PWB (PL 11.5).

CHAIN 75

075-135 Regi. Sensor On Jam (MSI)

BSD-on: CH8.5,CH8.1

Description

Paper does not turn ON the Regi Sensor within the specified time after Regi Clutch ON during Feed from MSI.

Cause/ Action

Check the following:

- The Regi Sensor (DC330 [077- 104]) for operation failure. (PL 15.1)
- The Regi Clutch (DC330 [077-002]) for operation failure. (PL 15.1)
- The MSI Feed Clutch (DC330 [075-001]) for operation failure. (PL 13.3)
- The Takeaway Clutch (DC330 [077-001]) for operation failure. (PL 3.2)
- The MSI Feed Roll, MSI Nudger Roll, and T/A Roll for contamination, wear, and transport failure due to deterioration.
- The Drive Gear for wear and damage.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

CHAIN 77

077-101 Regi. Sensor Off Jam

BSD-on: CH8.5

Description

Paper does not turn OFF the Regi Sensor within the specified time after Regi Clutch ON.

Cause/ Action

Check the following:

- The Regi Sensor (DC330 [077- 104]) for operation failure. (PL 15.1)
- The Main Motor (DC330 [042-003]) for operation failure. (PL 3.2)
- The Regi Clutch (DC330 [077-002]) for operation failure. (PL 15.1)
- Paper misplacement in Tray/MSI.
- The Regi Roll and Pinch Roll for transport failure due to contamination, wear, and deterioration.
- The Transfer Unit for a decrease in transportation force.
- The Drive Gear for wear and damage.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-104 Fusing Unit Exit Sensor Off Jam (Short)

BSD-on: CH10.3

Description

Paper has turned OFF the Fusing Unit Exit Sensor earlier than the specified time after Fusing Unit Exit Sensor ON.

Cause/ Action

Check the following:

- The Fusing Unit Exit Sensor (DC330 [077- 101]) for operation failure. (PL 7.1)
- The Main Motor (DC330 [042-003]) for operation failure. (PL 3.2)

- The Exit 2 Motor (DC330 [077-014] (Exit)) for operation failure. (PL 17.4)
- The Heat Roll for wound up, stuck paper.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-105 Exit Sensor 2 Off Jam

BSD-on: CH10.5

Description

Paper does not turn OFF the Exit 2 Sensor within the specified time after Exit 2 Sensor On.

Cause/ Action

Check the following:
- The Exit 2 Sensor (DC330 [077-100]) for operation failure. (PL 17.4)
- The Exit 2 Motor (DC330 [077-014] (Exit)) for operation failure. (PL 17.4)
- Paper transport failure due to foreign matter/burr on the paper path.
- The Exit 2 Roll and Pinch Roll for contamination, wear, and rotation failure.
- The Exit 2 Roll Drive Gear for wear and damage.
- Usage of out of spec paper.
- The Exit 2 Sensor for contamination, improper installation, and Actuator operation failure.

If no problem is found, replace the following parts in sequence.
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-109 Fusing Unit Exit Sensor On Jam

BSD-on: CH10.3

Description

The Fusing Unit Exit Sensor did not turn ON within the specified time after Regi Clutch On.

Cause/ Action

Check the following:
- The Fusing Unit Exit Sensor (DC330 [077- 101]) for operation failure. (PL 7.1)
- The Main Motor (DC330 [042-003]) for operation failure. (PL 3.2)
- The Regi Clutch (DC330 [077-002]) for operation failure. (PL 15.1)
- The Fusing Unit for improper installation and deformation.
- The Transfer Unit for a decrease in transportation force.
- The Drive Gear for wear and damage.
- The Heat Roll for wound up, stuck paper.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-113 Fusing Unit Exit Sensor Off Jam (Long)

BSD-on: CH10.3

Description

Paper does not turn OFF the Fusing Unit Exit Sensor within the specified time after Fusing Unit Exit Sensor ON.

Cause/ Action

Check the following:
- The Fusing Unit Exit Sensor (DC330 [077- 101]) for operation failure. (PL 7.1)
- The Main Motor (DC330 [042-003]) for operation failure. (PL 3.2)
- The Exit 2 Motor (DC330 [077-014] (Exit)) for operation failure. (PL 17.4)
- The Exit Roll and Pinch Roll for transportation failure due to contamination, wear, and deterioration.
- The Transfer Unit for a decrease in transportation force.
- The Heat Roll for wound up, stuck paper.
- The Drive Gear for wear and damage.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-123 Regi. Sensor On Jam (Duplex Direct)

BSD-on: CH8.5,CH10.7

Description

Paper does not turn ON the Regi Sensor within the specified time after Regi Clutch ON during Feed from Duplex Path.

Cause/ Action

Check the following:

- The Regi Sensor (DC330 [077- 104]) for operation failure. (PL 15.1)
- The Duplex Clutch (DC330 [077-003]) for operation failure. (PL 14.3)
- The Drum Motor (DC330 [042-001]) for operation failure. (PL 3.2)
- The Exit 2 Motor (DC330 [077-014] (Exit)) for operation failure. (PL 17.4)
- The Exit Roll, Duplex Roll, and Pinch Roll for transport failure due to contamination, wear, and deterioration.
- The Drive Gear for wear and damage.
- Paper transport failure due to foreign matter on the paper path.
- Usage of out of spec paper.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-126 Exit Sensor 2 On Jam

BSD-on: CH10.5

Description

Paper does not turn ON the Exit 2 Sensor within the specified time after Fusing Unit Exit Sensor On.

Cause/ Action

Check the following:

- The Exit 2 Sensor (DC330 [077-100]) for operation failure. (PL 17.4)
- The Exit 2 Motor (DC330 [077-014] (Exit)) for operation failure. (PL 17.4)
- The Exit Gate Solenoid (DC330 [077-004]) for operation failure. (PL 17.5)
- The Fusing Unit Exit Sensor (DC330 [077- 101]) for operation failure. (PL 7.1)
- The Main Motor (DC330 [042-003]) for operation failure. (PL 3.2)
- Paper transport failure due to foreign matter/burr on the paper path.
- The Exit 2 Roll and Pinch Roll for contamination, wear, and rotation failure.
- The Exit 2 Roll Drive Gear for wear and damage.
- Usage of out of spec paper.
- The Heat Roll for wound up, stuck paper.
- The Exit 2 Sensor for contamination, improper installation, and Actuator operation failure.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-211 Tray Module Kind Mismatch

BSD-on: CH3.2

Description

A different type of Tray Module is connected.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - Is the Tray Module supported by the device and is it connected properly?
   - Is the Tray Module Type set correctly in NVM [742-205]?

   If no problem is found, replace the following parts in sequence.
   - 1TM PWB (PL 10.4)
   - 3TM PWB (PL 11.5)
   - STM PWB (PL 12.5)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

077-212 Tray Module Reset Fail

BSD-on: CH3.2,CH1.5

Description

The Tray Module reset was detected.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following connections for open circuits, short circuits, and poor contacts.
   - Between the MCU DRIVE PWB J592 and the STM PWB J541
   - Between the MCU DRIVE PWB J592 and the 1TM PWB J541
   - Between the MCU DRIVE PWB J592 and the 3TM PWB J541
   - Between the MCU DRIVE PWB J401 and the ESS PWB J335

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-214 Tray Module Logic Fail

BSD-on: CH3.2,CH1.5

Description

A fatal error was detected in the Tray Module.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following connections for open circuits, short circuits, and poor contacts.
   - Between the MCU DRIVE PWB J592 and the STM PWB J541
   - Between the MCU DRIVE PWB J592 and the 1TM PWB J541
   - Between the MCU DRIVE PWB J592 and the 3TM PWB J541
   - Between the MCU DRIVE PWB J401 and the ESS PWB J335

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-215 Tray Module Communication Fail

BSD-on: CH3.2,CH1.5

Description

The response from communication with the Tray Module was detected to be an error.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following connections for open circuits, short circuits, and poor contacts.
   - Between the MCU DRIVE PWB J592 and the STM PWB J541
   - Between the MCU DRIVE PWB J592 and the 1TM PWB J541
   - Between the MCU DRIVE PWB J592 and the 3TM PWB J541
   - Between the MCU DRIVE PWB J401 and the ESS PWB J335

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-300 Front Cover Open

BSD-on: CH1.6

Description

Front Cover was detected to be open.

Cause/ Action

Check the following:

- The Front Cover Interlock Switch (DC330 [077-303]) for operation failure. (PL 18.1)
- The Front Cover for damage or mismatch.

If no problem is found, replace the following parts in sequence.

- LVPS (PL 18.2)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-301 L/H Cover Open

BSD-on: CH1.6

Description

L/H Cover Open was detected.

Cause/ Action

Check the following:

- The L/H Cover Interlock Switch (DC330 [077-300]) for operation failure. (PL 14.1)
- The L/H Cover for damage or mismatch.

If no problem is found, replace the following parts in sequence.

- LVPS (PL 18.2)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-305 TM Left Cover Open

BSD-on: CH1.7

Description

Tray Module Left Cover Open was detected.

Cause/ Action

Check the following:

- The 1TM Cover Switch (DC330 [077-306]) for operation failure. (PL 10.3)
- The 3TM Cover Switch (DC330 [077-306]) for operation failure. (PL 11.3)
- The STM Left Cover Switch (DC330 [077-306]) for operation failure. (PL 12.3)
- The L/H Cover for damage or mismatch.

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-308 L/H High Cover Open

BSD-on: CH10.5

Description

L/H High Cover Open was detected.

Cause/ Action

Check the following:

- The L/H High Cover Switch (DC330 [077-302]) for operation failure. (PL 17.4)
- The L/H High Cover for damage and poor alignment.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-314 P/H Module Logic Fail

BSD-on: CH3.2,CH1.5

Description

A Tray Module fatal error was detected.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following connections for open circuits, short circuits, and poor contacts.
   - Between the MCU DRIVE PWB J592 and the STM PWB J541
   - Between the MCU DRIVE PWB J592 and the 1TM PWB J541

- Between the MCU DRIVE PWB J592 and the 3TM PWB J541
- Between the MCU DRIVE PWB J401 and the ESS PWB J335

If no problem is found, replace the following parts in sequence.

- 1TM PWB (PL 10.4)
- 3TM PWB (PL 11.5)
- STM PWB (PL 12.5)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

077-900 Regi. Sensor Static Jam

BSD-on: CH8.5

Description

When the power was turned ON, the device was stopped (Cycle Down/Shut Down), or when the interlocks were closed (all interlocks including options), the Regi Sensor detected leftover paper.

Cause/ Action

1. Check the Regi Sensor for paper bits, Actuator return failure, sensor contamination, etc.
2. The Regi Sensor (DC330 [077- 104]) for operation failure. (PL 15.1)
3. If no problem is found, replace the following parts in sequence.
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

077-901 Fusing Unit Exit Sensor Static Jam

BSD-on: CH10.3

Description

When the power was turned ON, the device was stopped (Cycle Down/Shut Down), or when the interlocks were closed (all interlocks including options), the Fusing Unit Exit Sensor detected leftover paper.

Cause/ Action

1. Check the Fusing Unit Exit Sensor for paper bits, Actuator return failure, sensor contamination, etc.
2. The Fusing Unit Exit Sensor (DC330 [077- 101]) for operation failure. (PL 7.1)
3. If no problem is found, replace the following parts in sequence.
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

077-902 Exit 2 Sensor Static Jam

BSD-on: CH10.5

Description

When the power was turned ON, the device was stopped (Cycle Down/Shut Down), or when the interlocks were closed (all interlocks including options), the Exit 2 Sensor detected left-over paper.

Cause/ Action

1. Check the Exit 2 Sensor for paper bits, Actuator return failure, sensor contamination, etc.
2. The Exit 2 Sensor (DC330 [077- 100]) for operation failure. (PL 17.4)
3. If no problem is found, replace the following parts in sequence.
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

CHAIN 89

089-617 RC Data Over Range Fail

BSD-on: -

Description

The result from adding the offset value to the correction value has exceeded the configurable range. (This is a hidden failure)

Cause/ Action

1. Check the value of NVM [759-009] (Lead Regi Offset).
2. Check the value of NVM [759-011] (Side 1 Side Regi Offset).
3. Check the value of NVM [759-012] (Side 2 Side Regi Offset).

CHAIN 91

091-316 Drum Motor Fail

BSD-on: CH4.2

Description

Rotation error of the Drum Motor.

Procedure

Enter CE mode and turn ON DC330 [042-001].

Does the Drum Motor rotate?

Y N

Check the power supply line of the Drum Motor (+24 VDC).

Is the Drum Motor power supply normal?

Y N

Check the power supply circuit to the Drum Motor.

Turn OFF the power and check the following:

- The connection between the Drum Motor J213 and the MCU DRIVE PWB J405 for open circuit, short circuit, and poor contact.
- The Drive Gear for wear, damage, and bearing blockage.
- The Drum Motor for loading.

If no problem is found, replace the following parts in sequence.

- Drum Motor (PL 3.2)
- MCU DRIVE PWB (PL 18.2)

Select [Stop] and turn OFF the power. Check the connection between the Drum Motor J213-4 and the MCU DRIVE PWB J405-2 for open circuit, short circuit, and poor contact.

If no problem is found, replace the following parts in sequence.

- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

091-328 Drum CRUM K Authentication IC Is Not Available

BSD-on: CH9.1

Description

Communication error of CRUM authentication IC. NAK was detected during communication with the CRUM Authentication IC.

Cause/ Action

1. Turn the power OFF and ON.
2. If the problem persists, replace the following parts in sequence.
   - Drum Cartridge (K) (PL 8.1)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

091-401 Drum Cartridge K Near Life

BSD-on: CH9.1

Description

The replacement time of Drum Cartridge (K) is closer than Pre Near.

Cause/ Action

Replace the Drum Cartridge (K) as necessary because the Drum Cartridge (K) needs to be replaced soon. (PL 8.1)

091-402 Drum Cartridge K Life Over

BSD-on: CH9.1

Description

It is time to replace the Drum Cartridge (K).

Cause/ Action

Replace the Drum Cartridge (K). (PL 8.1)

091-406 Drum Cartridge K Pre Near Life

BSD-on: CH9.1

Description

It is necessary to prepare for Drum Cartridge (K) replacement.

Cause/ Action

Prepare a new Drum Cartridge (K) because the Drum Cartridge (K) needs to be replaced soon. In addition, replace the Drum Cartridge (K) as necessary. (PL 8.1)

091-913/091-424 Drum Cartridge K Life End

BSD-on: CH9.1

Description

Indicates that it is time to replace Drum Cartridge (K). (Print operation not allowed)

Cause/ Action

Replace the Drum Cartridge (K). (PL 8.1)

091-916 Drum CRUM K Data Mismatch

BSD-on: CH9.1

Description

Detected invalid Authentication Area Data of CRUM of Drum Cartridge (K).

Cause/ Action

Unplug and plug the Drum Cartridge (K) back in and check for any setup error.

If no problem is found, replace with a genuine Drum Cartridge (K) (PL 8.1).

091-921 Drum CRUM K Not In Position

BSD-on: CH9.1

Description

CRUM of Drum Cartridge (K) is not installed in the proper position (CRUM disconnected).

Cause/ Action

1. Remove and reinstall the Drum Cartridge (K).

2. Check the following:
   - The connection between the MCU DRIVE PWB J409 and the Drum Cartridge (K) DP614B for open circuit, short circuit, and poor contact.
   - The CRUM connection terminal of Drum Cartridge (K) for damage and foreign matter.
   - The Drum Cartridge (K) for improper installation.

   If no problem is found, replace the following parts in sequence.
   - Drum Cartridge (K) (PL 8.1)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

CHAIN 92

092-315 ATC K System Fail

BSD-on: CH9.3

Description

The ATC Sensor output that detects the Toner density in the Deve Unit is continuously abnormal.

To be more specific, this occurs when the number of continuous occurrence of ATC Average Fail or ATC Amplitude Fail of the applicable color has reached or exceeded the threshold value.

Influence

- As the ATC Sensor output is continuously abnormal when this Fail occurs, the image that is currently being formed will be output and then the Device operation is forcibly stopped.
- Although this Fail can be cleared by turning the power OFF and ON, which makes it possible to print out a number of sheets, when the Fail occurrence count has reached the specified value, it can no longer be cleared by turning the power OFF and ON. If it can no longer be cleared, first refer to 092-660 and 092-668 to restore the faulty status into normal status, then clear the NVM value of the applicable color to '0'. If the NVM value of the applicable color is cleared to "0" without restoring the machine to normal status, this Fail will occur again during usage.
  - NVM [753- 115] (ATC System Fail K)
  - NVM [753- 116] (ATC System Fail Continuous Rotation K)

Cause/ Action

Enter Service Mode and check whether any of the following Fail has occurred. If any has occurred, go to the relevant FIP and perform the action.

- 092-660 (ATC Amplitude Fail K)
- 092-668 (ATC Average Fail K)

092-660 ATC Amplitude Fail K

BSD-on: CH9.3

Description

The measurement result of Toner density in the Deve Unit by the ATC Sensor is abnormal. (This Fail is a hidden failure and it is registered only in the History)

Specifically, this Fail occurs when the difference between the maximum and minimum sensor values in the ATC Sensor measurement set is lower than the threshold value.

Influence

When this Fail occurs, Toner Density Control that uses the ATC Sensor is not performed and ICDC (pixels) based Toner Supply Control is performed instead. Because of that, if the Fail is allowed to remain for a long time, image density error (too dark, too light) might occur. Furthermore, there might be an instant drop in image density if this is caused by the Developer Housing Assy.

Image Quality Problem (Priority)

Check the corresponding color image in Print Mode. If the following image quality problem is occurring, there is a high possibility that the problem is caused on your side. Please refer to the corresponding image quality troubleshooting and resolve it first.

- The density is close to a blank print or blank paper -> this could be due to a malfunctioning Developer Housing Assy.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The connection between the ATC Sensor (K) J117 and the MCU DRIVE PWB J414 for open circuit, short circuit, and poor contact.
   - The Deve Drive Gear and Auger for operation failure.
3. If no problem is found, replace the following parts in sequence.
   - Drum Cartridge (K) (PL 8.1)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

092-668 ATC Average Fail K

BSD-on: CH9.3

Description

The measurement result of Toner density in the Deve Unit by the ATC Sensor is abnormal. (This Fail is a hidden failure and it is registered only in the History)

Specifically, this Fail occurs when the average value of ATC Sensor measurement value is out of the appropriate upper and lower limit range.

Influence

When this Fail occurs, Toner Density Control that uses the ATC Sensor is not performed and ICDC (pixels) based Toner Supply Control is performed instead. Because of that, if the Fail is allowed to remain for a long time, image density error (too dark, too light) might occur. Furthermore, there might be an instant drop in image density if this is caused by the Developer Housing Assy.

Fail (Priority)

Enter Shutdown/History of CE mode and check the Fail that occurred recently. If the following Fail is occurring, there is a high possibility that the problem is caused on your side. Please refer to the corresponding FIP and resolve it first.

- 092-660: ATC Amplitude Fail K
- 093-912: Toner Cartridge Empty K

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The connection between the ATC Sensor (K) J117 and the MCU DRIVE PWB J414 for open circuit, short circuit, and poor contact.
   - The Deve Drive Gear and Auger for operation failure.
3. If no problem is found, replace the following parts in sequence.
   - Toner Cartridge (K) (PL 5.1)
   - Drum Cartridge (PL 8.1)
   - MCU DRIVE PWB (PL 18.2)
   - HVPS (PL 18.1)

092-914 Toner Cartridge Uncertain Empty K

BSD-on: CH9.4

Description

The Toner Cartridge (K) is Empty even though New Cartridge Period has not ended.

Cause/ Action

Remove the Toner Cartridge (K) and shake it well before reinstalling it.

If the problem persists, replace the Toner Cartridge (K) (PL 5.1).

CHAIN 93

093-335 Toner CRUM K Authentication IC Is Not Available

BSD-on: CH9.4

Description

Communication error of CRUM authentication IC. NAK was detected during communication with the CRUM Authentication IC.

Cause/ Action

1. Turn the power OFF and ON.
2. If the problem persists, replace the following parts in sequence.
   - Toner Cartridge (K) (PL 5.1)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

093-400 Toner Cartridge K Near Empty

BSD-on: CH9.4

Description

Indicates that the replacement time of Toner Cartridge (K) is closer than Pre Near.

Cause/ Action

Prepare a new Toner Cartridge (K). Replace the Toner Cartridge (K) as required. (PL 5.1)

093-406 Toner Cartridge K Pre Near Empty

BSD-on: CH9.4

Description

Indicates that the Toner Cartridge (K) needs to be replaced soon.

Cause/ Action

Prepare a new Toner Cartridge (K) because the Toner Cartridge (K) needs to be replaced soon. Replace the Toner Cartridge (K) as required. (PL 5.1)

093-912 Toner Cartridge K Empty

BSD-on: CH9.4

Description

The Toner Cartridge (K) is Empty.

Cause/ Action

Replace the Toner Cartridge (K). (PL 5.1)

093-916 Toner K CRUM Not In Position

BSD-on: CH9.4

Description

CRUM of Toner Cartridge (K) is not installed in the proper position (CRUM disconnected).

Cause/ Action

1. Remove and reinstall the Toner Cartridge (K).
2. Wipe the connection terminal between CRUM PWB of Toner Cartridge (K) and CRUM of Toner CRUM Connector Assembly (K) with a dry cloth. (When cleaning, do not use Drum cleaner, etc.)
3. Check the following:
   - The connection between the MCU DRIVE PWB J411 and the Toner CRUM Connector Assembly (K) J113 for open circuit, short circuit, and poor contact.
   - Damage, contamination by foreign matter of the connection terminal between CRUM PWB of Toner Cartridge (K) and CRUM of Toner CRUM Connector Assembly (K).
   - The Toner Cartridge (K) for improper installation.

   If no problem is found, replace the following parts in sequence.
   - Toner Cartridge (K) (PL 5.1)
   - Toner CRUM Connector Assembly (K) (PL 5.2)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

093-926 Toner K CRUM Data Mismatch

BSD-on: CH9.4

Description

Detected invalid Authentication Area Data of CRUM of Toner Cartridge (K).

Cause/ Action

Remove and reinstall the Toner Cartridge (K) and check for improper installation.

If no problem is found, replace with a genuine Toner Cartridge (K) (PL 5.1).

CHAIN 94

094-400 BTR Unit Near End Warning

BSD-on: -

Description

Generate Fail if NVM (BTR Unit current counter) is greater than NVM (BTR Unit Life) minus NVM (PV up until BTR Unit replacement warning).

Cause/ Action

Prepare a new BTR Unit because the BTR Unit needs to be replaced soon. In addition, replace the BTR Unit as necessary. (PL 6.1)

After replacement, enter CE mode and clear the following [HFSI Counter].

- Chain-Link:954-820

094-402 BTR Unit End Warning

BSD-on: -

Description

Generate Fail when NVM (BTR Unit current counter) becomes greater then NVM (BTR Unit Life).

Cause/ Action

Replace the BTR Unit if necessary since it has reached the time to replace the BTR Unit. (PL 6.1)

After replacement, enter CE mode and clear the following [HFSI Counter].

- Chain-Link:954-820

CHAIN 99

099-364 Fusing Cold Not Ready Return Time Fail

BSD-on: CH10.2

Description

The time taken to recover from Cold Not Ready state is longer than the setting value (NVM).

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - Is the Power Supply voltage above 10% of the rated value?
   - The Fusing Unit for improper installation
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - LVPS (PL 18.2)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

099-396 Fusing Ep U4 Noheat Center Fail

BSD-on: CH10.2

Description

After inspection has started, the Center temperature has not risen to Measurement Start Temperature within the specified time.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Heater Rod of Fusing Unit for open circuit and poor contact.
   - The Heat Roll NC Sensor for improper installation.
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - LVPS (PL 18.2)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

099-397 Fusing Ep U4 Slowheat Center Fail

BSD-on: CH10.2

Description

Inspection starts and the Center temperature has not risen from Measurement Start Temperature to Target Temperature within the specified time.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - Check whether a 200V spec Heater is connected to a 100V spec product.
   - The Heater Rod of Fusing Unit for open circuit and poor contact.
   - The Heat Roll NC Sensor for improper installation.
   - The Drawer Connector (DP/DJ612) between the Fusing Unit and the Main Unit for broken/bent pins, foreign matter, burns, etc.
   - The connection between the Fusing Unit DJ612 and the LVPS J2 for open circuit, short circuit, and poor contact.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)

- LVPS (PL 18.2)
- MCU DRIVE PWB (PL 18.2)
- ESS PWB (PL 35.2)

099-398 Fusing Ep U4 Fastheat Center Fail

BSD-on: CH10.2

Description

Inspection starts and the time taken for Center temperature to rise from Measurement Start Temperature to Target Temperature is faster then the specified time.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - Check whether a 100 V spec Heater is connected to a 200 V spec product.
   - The Heat Roll NC Sensor for improper installation.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

099-399 Fusing Ep U4 Under Side Fail

BSD-on: CH10.2

Description

Inspection starts and during the temperature difference detection period while the Center temperature is at the Measurement Start Temperature, the temperature difference between Side_T and Center_T equals or exceeds the specified value.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the following:
   - The Heat Roll Thermistor for improper installation.
   - The connection between the Fusing Unit P612 and the MCU DRIVE PWB J416 for open circuit, short circuit, and poor contact.
3. If no problem is found, replace the following parts in sequence.
   - Fusing Unit (PL 7.1) (After replacing, enter CE mode and select [HFSI Counter] to clear Chain-Link: 954-850/954-851.)
   - MCU DRIVE PWB (PL 18.2)
   - ESS PWB (PL 35.2)

CHAIN 161

161-312 LPH Timeout Fail K

BSD-on: CH6.5

Description

Communication error between ESS and LPH. This may occur due to noise from external sources.

Cause/ Action

1. Turn the power OFF and ON.
2. Turn OFF the power and check the FFC between the LPH K and ESS PWB J1363 for open circuit, short circuit, and poor contact.
   If no problem is found, replace the following parts in sequence.
   - ESS PWB (PL 35.2)
   - LPH K (PL 2.1)
   - FFC K (PL 2.1)

2.2.3 Other Failure FIP

2.2.3.1 AC Power FIP

BSD-on: CH1.1

Procedure

Turn OFF the power.

Does the voltage between AC Inlet J23 and J18 satisfy the power supply AC listed in the specifications?

Y N

Unplug the Power Cord from the outlet.

Does the voltage at the outlet satisfy the power supply AC listed in the spec?

Y N

Check the customer's Breaker, etc.

Check the Power Cord for open circuit and poor contact. If no problems are found, replace the AC Inlet. (PL 18.3)

Turn ON the power.

Does the voltage between LVPS P1-1 and P1-3 satisfy the power supply AC listed in the spec?

Y N

Turn OFF the power and unplug the Power Cord from the outlet. Check the following connections for open circuit and poor contact.

- Between the AC Inlet J23-1 and the LVPS P1-3
- Between the AC Inlet J18-1 and the LVPS P1-1

Check the AC circuit to each component by referring to Chapter 7 Wiring Data.

2.2.3.2 +5VDC Power FIP

BSD-on: CH1.3

Procedure

Turn ON the power.

Is the voltage between the LVPS J501-8 (+) and the GND (-) +5VDC?

Y N

Does the voltage between LVPS P1-1 and P1-3 satisfy the power supply AC listed in the spec?

Y N

Go to 2.2.3.1 AC Power FIP.

Turn OFF the power and disconnect the LVPS J501. After 15 sec or longer has passed, turn ON the power.

Is the voltage between the LVPS J501-8 (+) and the GND (-) +5VDC?

Y N

Replace the LVPS. (PL 18.2)

Check the +5 VDC circuit for a short circuit in the frame by referring to Chapter 7 Wiring Data.

Check the circuit to the applicable component for an open circuit or poor contact by referring to "Wire Network" in Chapter 7.

2.2.3.3 +24VDC Power FIP

BSD-on: CH1.4

Procedure

Turn ON the power.

Is the voltage between the LVPS J501-1 (+) and the GND (-) +24VDC?

Y N

Does the voltage between LVPS P1-1 and P1-3 satisfy the power supply AC listed in the spec?

Y N

Go to 2.2.3.1 AC Power FIP.

Turn OFF the power and disconnect the LVPS J501. After 15 sec or longer has passed, turn ON the power.

Is the voltage between the LVPS J501-1 (+) and the GND (-) +24VDC?

Y N

Replace the LVPS. (PL 18.2)

Check the +24 VDC circuit for a short circuit to a frame by referring to Chapter 7 Wiring Data.

Check the circuit to the applicable component for an open circuit or poor contact by referring to "Wire Network" in Chapter 7.

2.2.5 Generic FIP

2.2.5.1 Reflective Sensor Failure FIP

Procedure

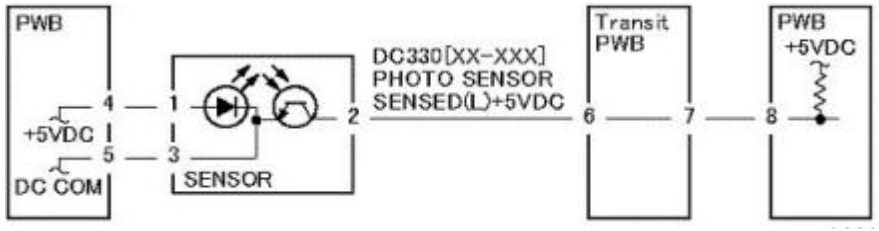


Figure 1 2001

Enter DC330 [XXXX-XXX]. Block the sensor with a sheet of blank paper. Is [LOW] displayed?

Y N

Is the voltage between the sensor pin-2 (+) and the GND (-) +5VDC?

Y N

Check the connection between the sensor pin-2 and the PWB pin-8 for open circuit and poor contact.

If no problem is found, replace the PWB.

Is the voltage between the sensor pin-1 (+) and pin-3 +5VDC?

Y N

Is the voltage between the PWB pin-4 (+) and pin-5 +5VDC?

Y N

Replace the PWB.

Check the connection between the PWB pin-4 and the sensor pin- 1, as well as between the PWB pin-5 and the sensor pin-3 for open circuits and poor contacts.

Check the sensor for contamination and improper installation.

If no problem is found, replace the sensor.

Remove the sheet of paper blocking the sensor. Is [HIGH] displayed?

Y N

Disconnect the sensor connector.

A

Does the display change to [HIGH]?

Y N

Check the connection between the sensor pin-2 and the PWB pin-8 for a short circuit.

If no problem is found, replace the PWB.

Check the sensor for improper installation and incident light diffraction. If no problem is found, replace the sensor.

Check the installation of the sensor. If no problem is found, replace the sensor.

2.2.5.2 Permeable Sensor Failure FIP

Procedure

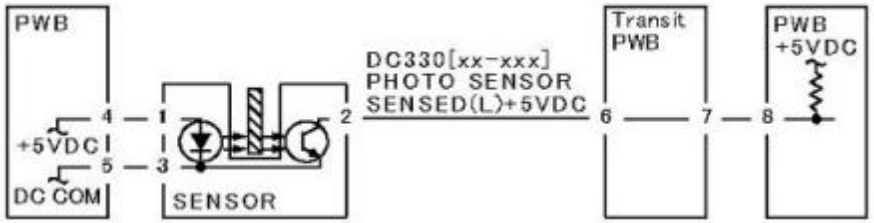


Figure 1 2002

Enter DC330 [XXX-XXX]. Block the sensor.

Is [HIGH] displayed?

Y N

Disconnect the sensor connector.

Does the display change to [HIGH]?

Y N

Check the connection between the sensor pin-2 and the PWB pin-8 for a short circuit. If no problem is found, replace the PWB.

Replace the sensor.

Remove any obstruction on the sensor light path.

Does the display change to [LOW]?

Y N

Is the voltage between the sensor pin-2 (+) and the GND (-) +5VDC?

Y N

Check the connection between the sensor pin-2 and the PWB pin-8 for open circuit and poor contact.

If no problem is found, replace the PWB.

Is the voltage between the sensor pin-1 (+) and pin-3 (-) +5VDC?

Y N

Check the connection between the PWB pin-4 and the sensor pin- 1, as well as between the PWB pin-5 and the sensor pin-3 for open circuits and poor contacts.

If no problem is found, replace the PWB.

Check the sensor for contamination.

If no problem is found, replace the sensor.

Check the sensor for improper installation and the Actuator for bending or failure.

If no problem is found, replace the sensor.

2.2.5.3 Switch (Normal/Open) Failure FIP

Procedure

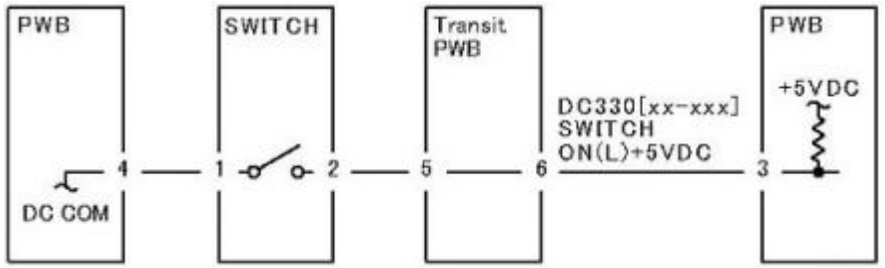


Figure 1 2003

Enter DC330 [XXX-XXX]. Turn the switch ON. Is [LOW] displayed?

Y N

Is the voltage between the switch pin-2 (+) and the GND (-)

+5 VDC?

Y N

Check the connection between the switch pin-2 and the PWB pin-3 for open circuit and poor contact.

If no problem is found, replace the PWB.

When the switch is turned ON, is the voltage between the switch pin- 1 (+) and the GND (-)

+5 VDC?

Y N

Replace the switch.

Check the connection between the switch pin-1 and the PWB pin-4 for open circuit and poor contact.

If no problem is found, replace the PWB.

Turn the switch OFF. Is [HIGH] displayed?

Y N

Disconnect the switch connector. Is [HIGH] displayed?

Y N

Check the connection between the switch pin-2 and the PWB pin-3 for a short circuit.

If no problem is found, replace the PWB.

Replace the switch.

Check the installation of the switch.

If no problem is found, replace the switch.

2.2.5.4 Solenoid/Clutch Not Energized Failure FIP

Procedure

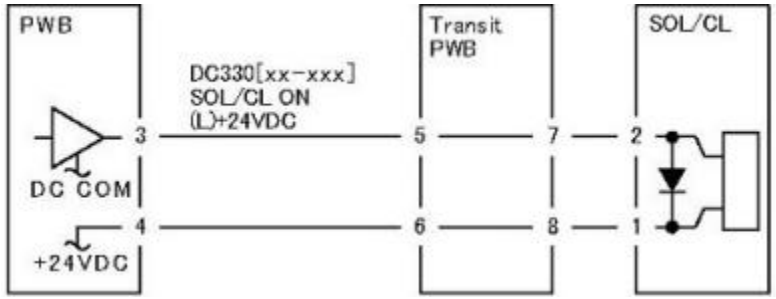


Figure 1 2004

NOTE

Before performing this FIP, ensure that there is no (mechanical) operation failure with the solenoid and the clutch.

Enter DC330 [XXX-XXX] and turn it ON.

Is the voltage between the PWB pin-3 (+) and the GND (-) +24 VDC?

Y N

Is the voltage between the solenoid/clutch pin-2 (+) and the GND (-)

+24 VDC?

Y N

Is the voltage between the solenoid/clutch pin- 1 (+) and the GND (-)

+24 VDC?

Y N

Check the connection between the PWB pin-4 and the solenoid/clutch pin-1 for open circuit and poor contact.

If no problem is found, replace the PWB.

Replace the solenoid/clutch.

Check the connection between the PWB pin-3 and the solenoid/clutch pin-2 for open circuit and poor contact.

Replace the PWB.

2.2.5.5 Solenoid/Clutch Left Energized Failure FIP

Procedure

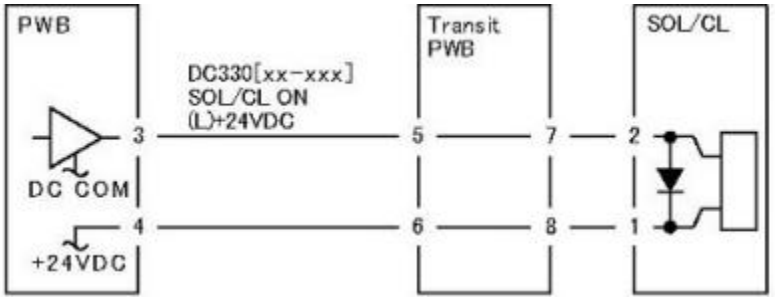


Figure 1 2004

Turn OFF the power.

Disconnect the PWB connector.

Is the resistance between the connector pin-3 and the frame 10 Ohm or lower?

Y N

Replace the PWB.

Check the connection between the connector pin-3 and the solenoid/clutch pin-2 for a short circuit.

If no problem is found, replace the solenoid/clutch.

2.2.5.6 Motor Does Not Rotate Failure FIP

Procedure

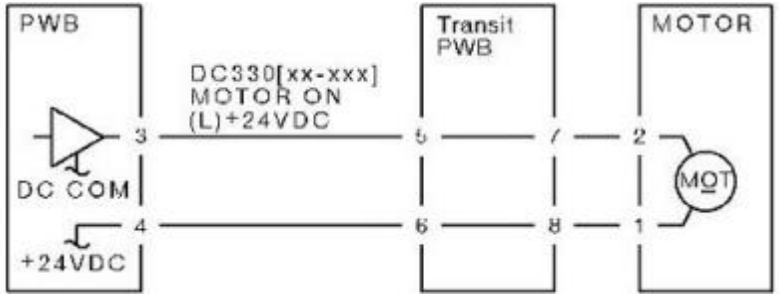


Figure 1 2005

NOTE

Before performing this FIP, ensure that the motor is not locked or loaded.

Enter DC330 [XXX-XXX] and turn it ON.

Is the voltage between the PWB pin-3 (+) and the GND (-)

+24 VDC?

Y N

Is the voltage between the motor pin-2 (+) and the GND (-)

+24 VDC?

Y N

Is the voltage between the motor pin- 1 (+) and the GND (-)

+24 VDC?

Y N

Is the voltage between the PWB pin-4 (+) and the GND (-)

+24 VDC?

Y N

Replace the PWB.

Check the connection between the PWB pin-4 and the motor pin- 1 for open circuit and poor contact.

Replace the motor.

Check the connection between the PWB pin-3 and the Motor pin-2 for open circuit and poor contact.

Replace the PWB.

2.2.5.7 Motor Left Running Failure FIP

Procedure

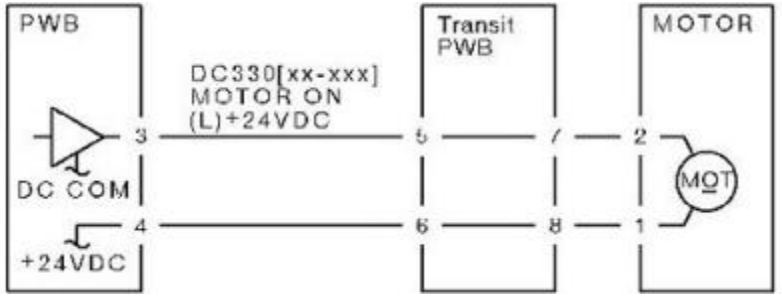


Figure 1 2005

Turn OFF the power. Disconnect the PWB connector. Is the resistance between the connector pin-3 and the frame 10 Ohm or lower?

Y N

Replace the PWB.

Check the connection between the connector pin-3 and the motor pin-2 for a short circuit.

If no problem is found, replace the motor.

2.2.5.8 NIP/RELEASE SOLENOID Not Energized Failure FIP

Procedure

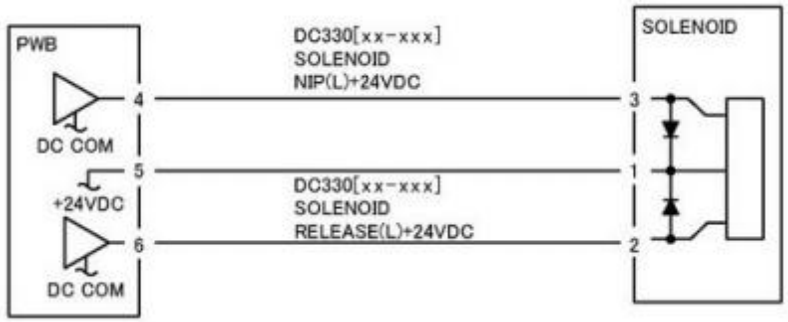


Figure 1 2017

NOTE
Before performing this FIP, ensure that there is no (mechanical) operation failure with the solenoid.

Is the voltage between the NIP/RELEASE SOLENOID pin-1 (+) and the GND (-) +24VDC?

Y N

Is the voltage between the PWB pin-5 (+) and the GND (-) +24 VDC?

Y N

Check the +24 VDC inputs of the PWB. If no problem is found, replace the PWB.

Check the connection between the PWB pin-5 and the NIP/RELEASE SOLENOID pin- 1 for open circuit and poor contact.

Use the following FIP when there is a problem with the NIP.

Enter DC330 [XXX-XXX] and turn the SOL NIP ON.

Is the voltage between the PWB pin-4 (+) and the GND (-) +24 VDC?

Y N

Enter DC330 [XXX-XXX] and turn the SOL NIP ON.

Is the voltage between the NIP/RELEASE SOLENOID pin-3 (+) and the GND (-) +24VDC?

Y N

Replace the NIP/RELEASE SOLENOID.

Check the connection between the PWB pin-4 and the NIP/RELEASE SOLENOID pin-3 for open circuit and poor contact.

Use the following FIP when there is a problem with the RELEASE.

Enter DC330 [XXX-XXX] and turn the SOL RELEASE ON.

Is the voltage between the PWB pin-6 (+) and the GND (-) +24 VDC?

Y N

Enter DC330 [XXX-XXX] and turn the SOL RELEASE ON. Is the voltage between the NIP/RELEASE SOLENOID pin-2 (+) and the GND (-) +24VDC?

Y N

Replace the NIP/RELEASE SOLENOID.

Check the connection between the PWB pin-6 and the NIP/RELEASE SOLENOID pin-2 for open circuit and poor contact.

Replace the PWB.

Chapter 3 Image Quality Troubleshooting

3 Image Quality Troubleshooting

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3.1 Preface

3.1.1 Chapter 3 Structure

Chapter 3 Image Quality Troubleshooting is composed of the following sections.

- 3.2 Using Image Quality Troubleshooting Flow
  - Line/Streak Troubleshooting Flow
  - Registration Skew Troubleshooting Flow
  - Black/White Spots Troubleshooting Flow
  - Dark/Light Troubleshooting Flow
- 3.3 Image Fault Samples, and Others
  - Image Fault Samples (IOT/IIT)
  - Image Defect Samples (IPS)
  - Fusing Unit Paper Wrinkles Alignment Adjustment
  - Cycle Table
  - Things to Note for Image Quality Restrictions
  - Marking Refresh Mode

3.2 Image Quality Troubleshooting Flow

3.2.1 Using Image Quality Troubleshooting Flow

Check the Defect Sample that is obtained during the service call or the one that is provided by the customer and proceed with the appropriate IQ-FIP.

- Check the Defect Sample. Go to the appropriate FIP by the following procedure and fix the problem.

Procedure

1. Output in both Copy mode and Print mode.
   - If the problem occurs in both modes, go to Step 2.
   - If the problem occurs in Copy mode, go to [CQ-00 IIT/DADF FIP].
   - If an IPS-related image quality problem occurs, go to [3.3.2 IPS-related Image Quality Troubleshooting].
2. After selecting [Diagnostics] from the [Maintenance / Diagnostics] screen, select [DC612 Print Test Pattern].
3. Configure the Setting Items as follows.

Setting Item	Setting Value
Pattern Number	280
Quantity	1
Paper Supply	Tray XX (select A3 paper or larger)
Cin%	0%
Screen	Photo
2 Sided	1 Sided

4. Press [Start].
5. The following pattern is output. (3 sheets) (Figure 1)
   - K50% halftone, 0% halftone, Total Pattern

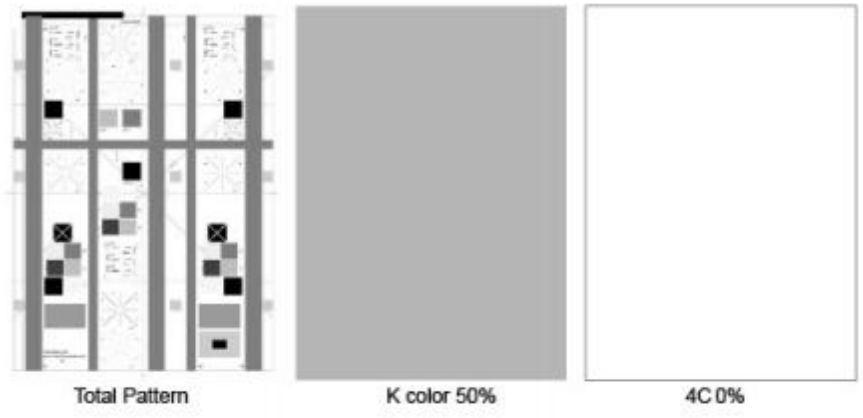


Figure 1 mnt320001

6. Look at the printouts to check for whether any of the following problems are applicable, and then proceed with the appropriate FIP.
   (1) Line/Streak Problem has occurred.
   -> Go to [3.2.2 Line/Streak Troubleshooting Flow].
   (2) Registration Skew problem has occurred.
   -> Go to [3.2.3 Registration Skew Troubleshooting Flow].
   (3) Black/White Spots Problem has occurred.
   -> Go to [3.2.4 Black/White Spots Troubleshooting Flow].
   (4) Darker/Lighter Problem has occurred.
   -> Go to [3.2.5 Darker/Lighter Troubleshooting Flow].
   (5) None of the above.
   -> Check [3.3 Image Fault Samples, and Others].

3.2.2 Line/ Streak Troubleshooting Flow

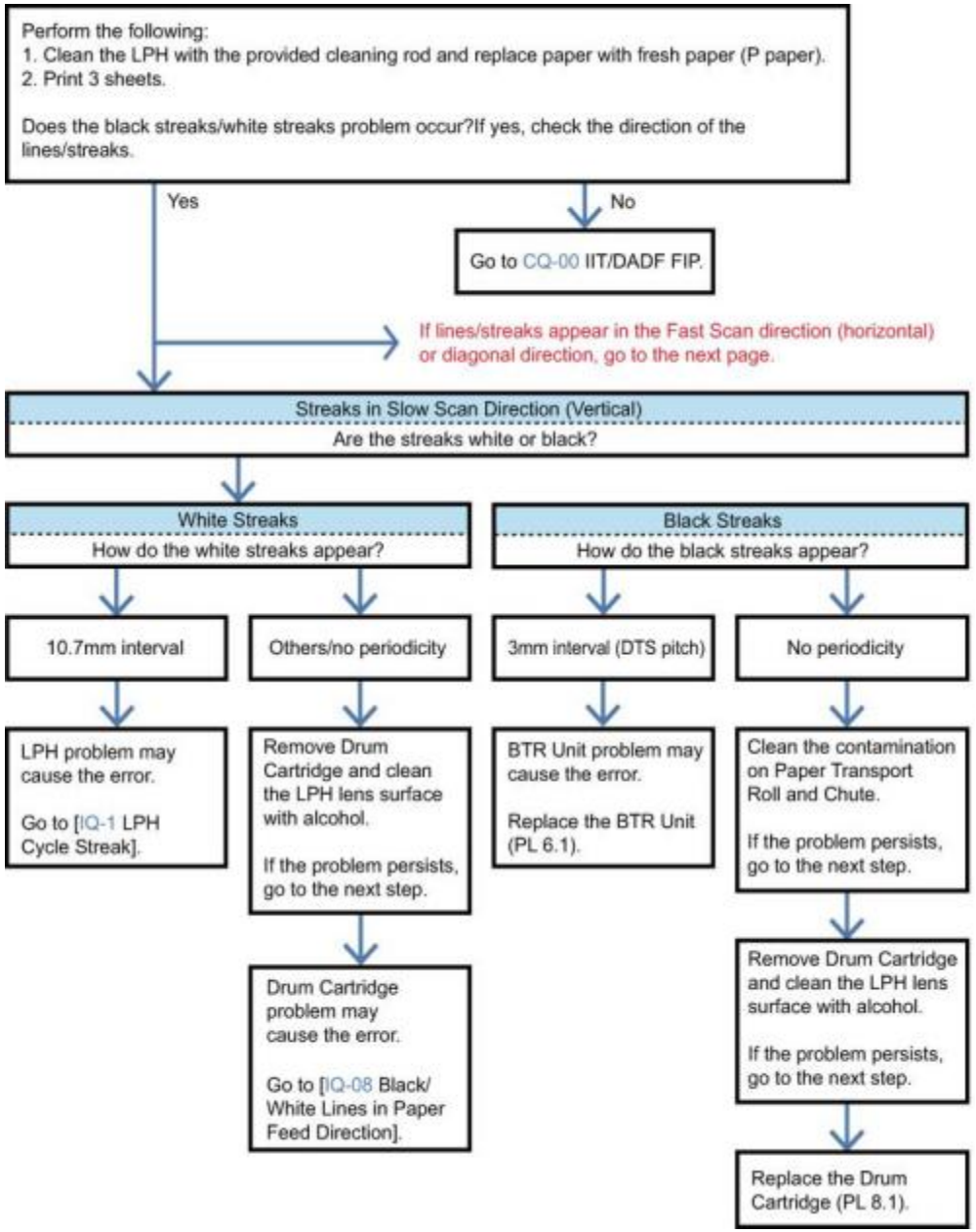


Figure 1 mnl320001

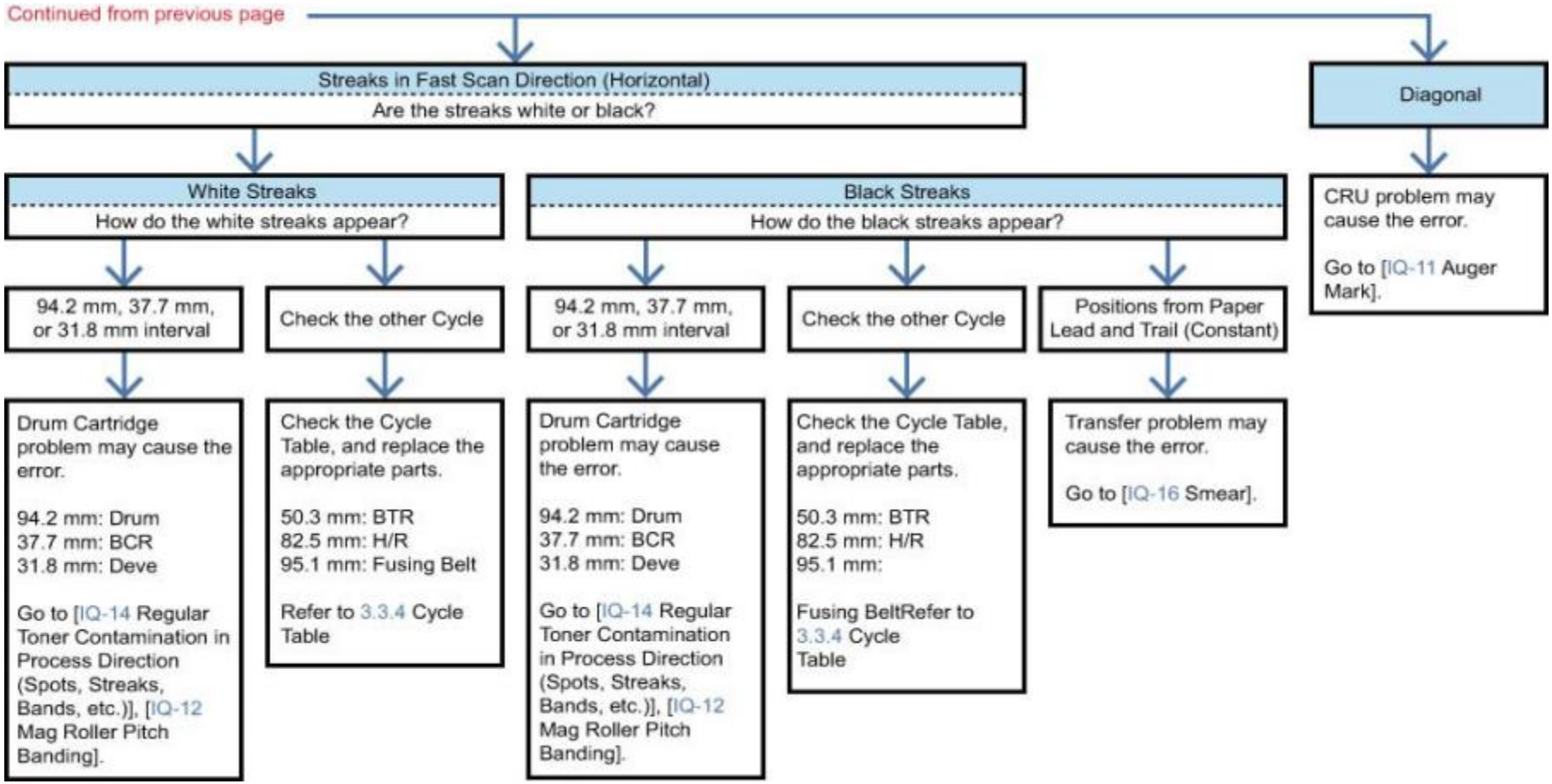


Figure 2 mnl320002

3.2.3 Registration Skew Troubleshooting Flow

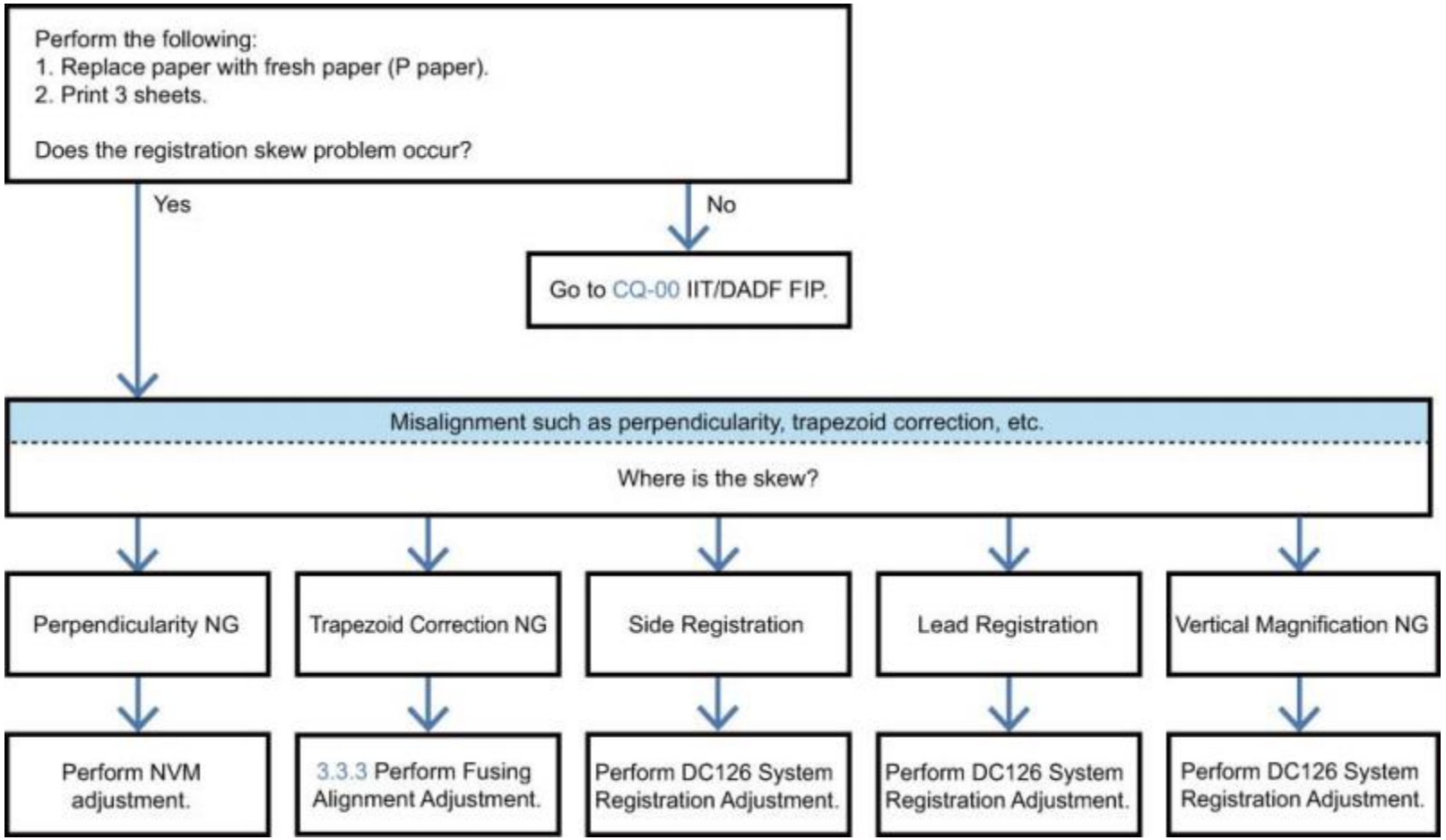


Figure 1 mnl320003

3.2.4 Black/White Spots Troubleshooting Flow

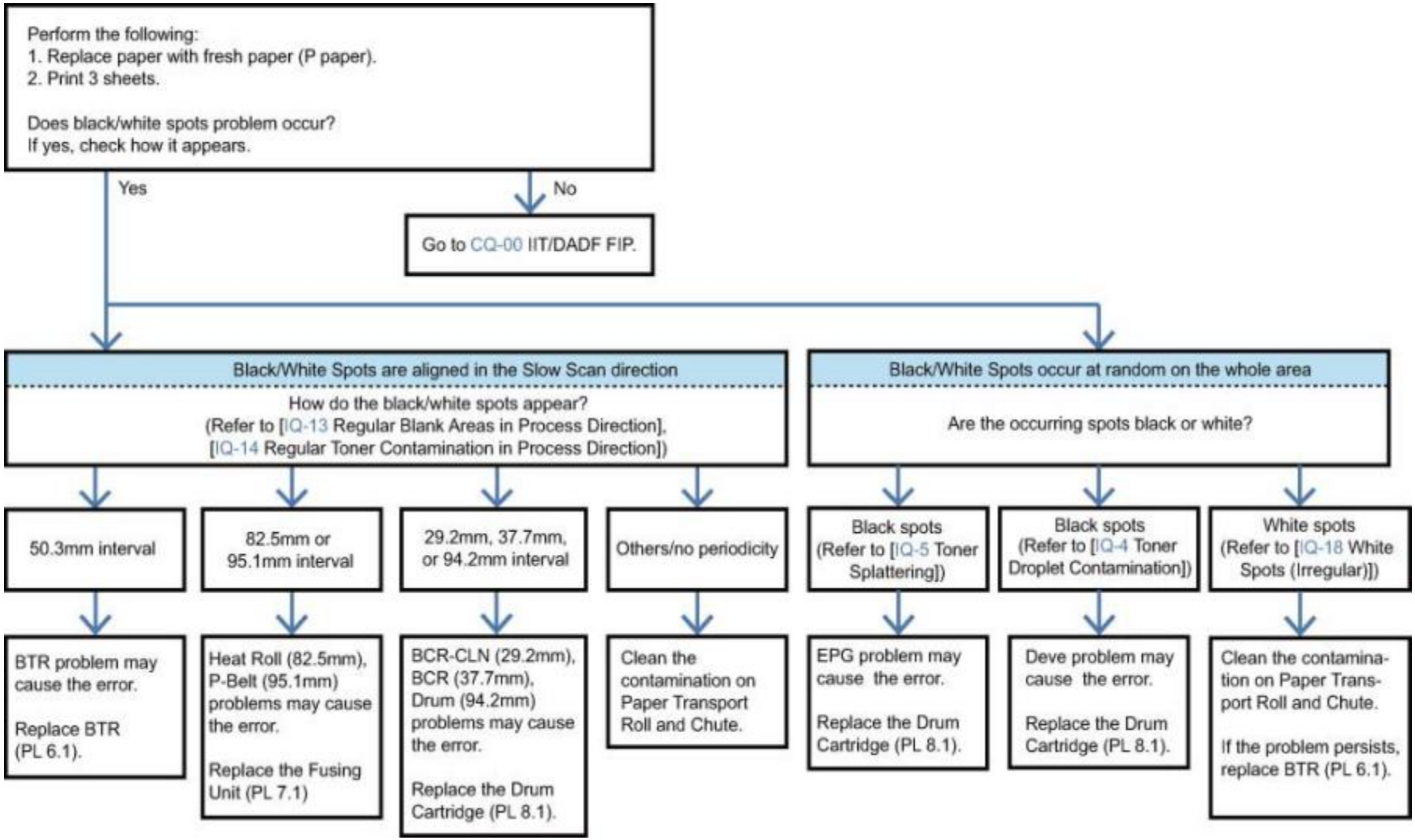


Figure 1 mnl320004

3.2.5 Dark/Light Troubleshooting Flow

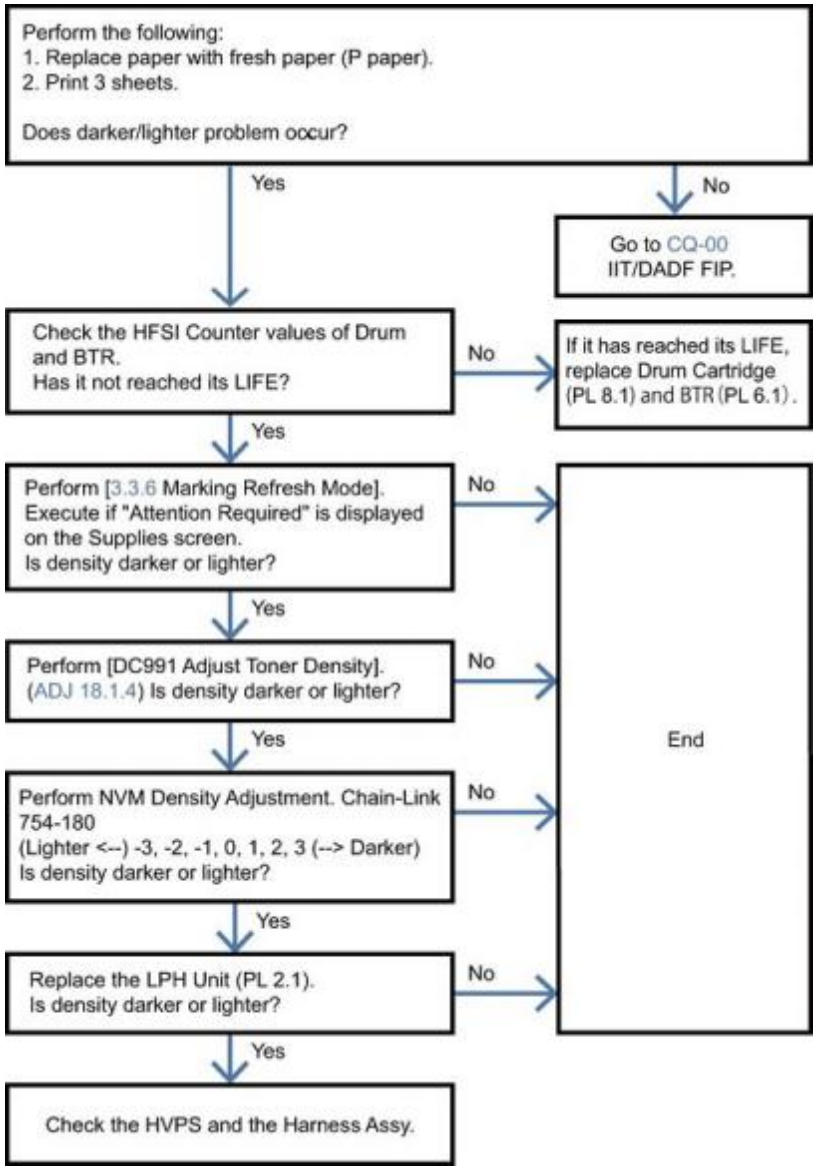


Figure 1 mnl320005

3.3 Image Fault Samples, and Others

3.3.1 Image Fault Samples (IOT)

Perform the following procedure to check the defect sample that is obtained during visit or the one that is provided by the customer and proceed with the appropriate IQ-FIP.

1. If the defected sample is determined as the same problem with the one covered in this chapter ("Defect Image Sample") through visual observation, check the part which is causing the poor image quality.
2. When the problem cannot be determined or there was no corresponding NG sample in 1 above, proceed to the corresponding FIP below to repair the problem.

Image Quality Problem	SUB	Symptoms	Reference No.
LPH Periodic Streaks	LPH	A line appears periodically as a result of the decrease in light quantity of the light emitter (chip) or from unevenness continuously occurring in multiple chips.	IQ-1
Ghost	EPG/DEVE	Ghost images appear on the paper. Parts of the previous page or current page may appear as ghost images on the paper.	IQ-2
Background	EPG/ DEVE	The whole page or part of the page is contaminated by toner. The contamination appears as very light grayish color.	IQ-3
Toner Droplet Contamination	EPG/ DEVE	Toner spills on a part of the page, and long, thin, vertical stains appear.	IQ-4
Toner Splattering	EPG/ DEVE	A part of the page has many black spots, of non- uniform size .	IQ-5
Dilation	EPG/DEVE	Part of the image is missing .	IQ-6
Skew	EPG/ DEVE	Printed images are not parallel to the edges of the paper.	IQ-7
Black lines and white lines in the paper feed direction	EPG/DEVE	Black lines or blank areas running along the paper in vertical direction.	IQ-8
Black and white lines in the roller axis direction	EPG/DEVE	Black lines or blank areas running along the paper in horizontal direction .	IQ-9
Mottle	EPG/DEVE	The density of solidly printed areas are uneven .	IQ- 10
Auger Mark	EPG/DEVE	There are several uneven- toned bands parallel to each other in the halftone part .	IQ-11
Mag Roller Pitch Banding	EPG/DEVE	There are uneven tones at a pitch of 3 2 mm or 1 6 mm in the process direction.	IQ- 12
Regular Blank Areas In Process Direction (Spots, Streaks, Bands etc.)	EPG/DEVE	White spots of the same shape with a regular pitch in the process direction are found .	IQ- 13
Regular toner contamination in the process direction (spots, streaks, bands etc.)	EPG/ DEVE	Toner stains with a regular pitch in the process direction are found.	IQ- 14
Regular toner contamination in process direction (Side 2)	EPG/ DEVE	Toner stains with a regular pitch in the process direction are found. (Side 2)	IQ- 15
Smear	Transfer	Black lines or blank areas running along the paper in horizontal direction.	IQ- 16
Smear on Cardstock	Transfer	The symptoms are the same as smears, but they only appear when using cardstock.	IQ- 17
White Spots	Transfer	Toner spots and blank areas are spread irregularly over the whole page .	IQ- 18
Wrinkled Image	Fusing	The printed paper is creased, folded or torn.	IQ- 19
Fusing Failure/ Offset	Fusing	Printed images are not properly fused onto the paper. When rubbed, the image comes off easily.	IQ-20
Black Prints	Others	Paper is printed completely black.	IQ-21
Blank Paper	Others	Paper is printed completely white.	IQ-22

Image Quality Problem	SUB	Symptoms	Reference No.
Toner Streaks	EPG/DEVE	These are vertical long thin streaks and the length may differ from a few mm to 10 cm or longer. This occurs in solid or halftone images of the same color and does not generally occur in the background part.	IQ-23
Light- induced fatigue	EPG/DEVE	Uneven tones occur at the Drum Pitch (94 .2 mm) in the halftone image .	IQ-24
IIT/ DADF- related	IIT	Refer to CQ-00.	CQ-00

IQ-1 LPH Periodic Streaks

Description

LPH positions the light emitter (size: 10.7 mm) in a zigzag in the order of even numbers/odd numbers.

A line appears periodically as a result of the decrease in light quantity of the light emitter (chip) or from unevenness continuously occurring in multiple chips.

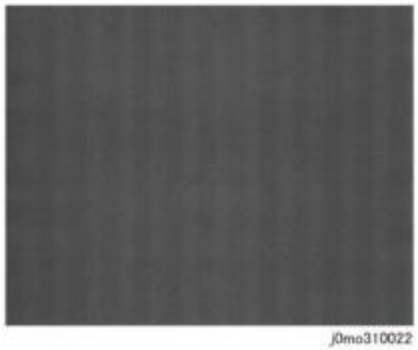


Figure 1 mo310022

[Cause]

1. 10.7 mm pitch vertical line
   - Occurs from the continuous multiple chip of vertical line in SLED (light emitter) edge position.

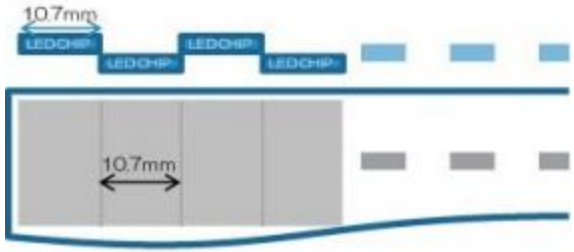


Figure 2 bs32001

2. 21.4mm pitch vertical line
   - Occurs from the continuous multiple chip of shade of SLED (light emitter) mounted in a zigzag.

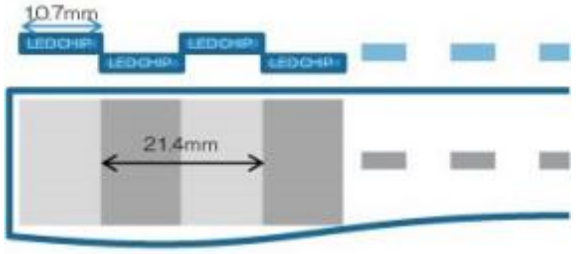


Figure 3 bs32002

[Corrective Action]

1. Change the [Screen] setting in [Graphics] of the Printing Preferences of the driver.
   - Select [Graphics] > [Screen], and change from [Auto] to [Gradation].
2. Replace the LPH Unit (PL 2.1) of the applicable color.

IQ-2 Ghost

Description

- Ghost images appear on the paper. Parts of the previous page or current page may appear as ghost images on the paper.

Procedure

Remove the Drum Cartridge (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Install a new Drum Cartridge (PL 8.1). Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Remove the Fusing Unit (PL 7.1) and check the surface of the Heat Roll for contamination.

The surface of the Heat Roll is clean.

Y N

Clean the dirt. If there is difficulty in removing the dirt, replace the Fusing Unit (PL 7.1).

Replace the MCU Drive PWB (PL 18.2), followed by the ESS PWB (PL 35.2).

IQ-3 Background

Description

- The whole page or part of the page is contaminated by toner. The contamination appears as very light grayish color.

Procedure

Check for contamination on the Platen Glass.

The Platen Glass is clean.

Y N

Clean any contamination on the Platen. If it is very dirty, replace the Platen Glass (PL 1.2).

Remove the Drum Cartridge (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Install a new Drum Cartridge (PL 8.1). Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Check the surface of the BTR for contamination and distortion.

The surface of the BTR is clean and there is no distortion.

Y N

Clean the BTR. If there is distortion, replace the BTR (PL 6.1).

Remove the HVPS and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Replace the MCU Drive PWB(PL 18.2), followed by the HVPS (PL 18.2), and the ESS PWB (PL 35.2).

IQ-4 Toner Droplet Contamination

Description

- Toner spills on a part of the page, and long, thin, vertical stains appear.

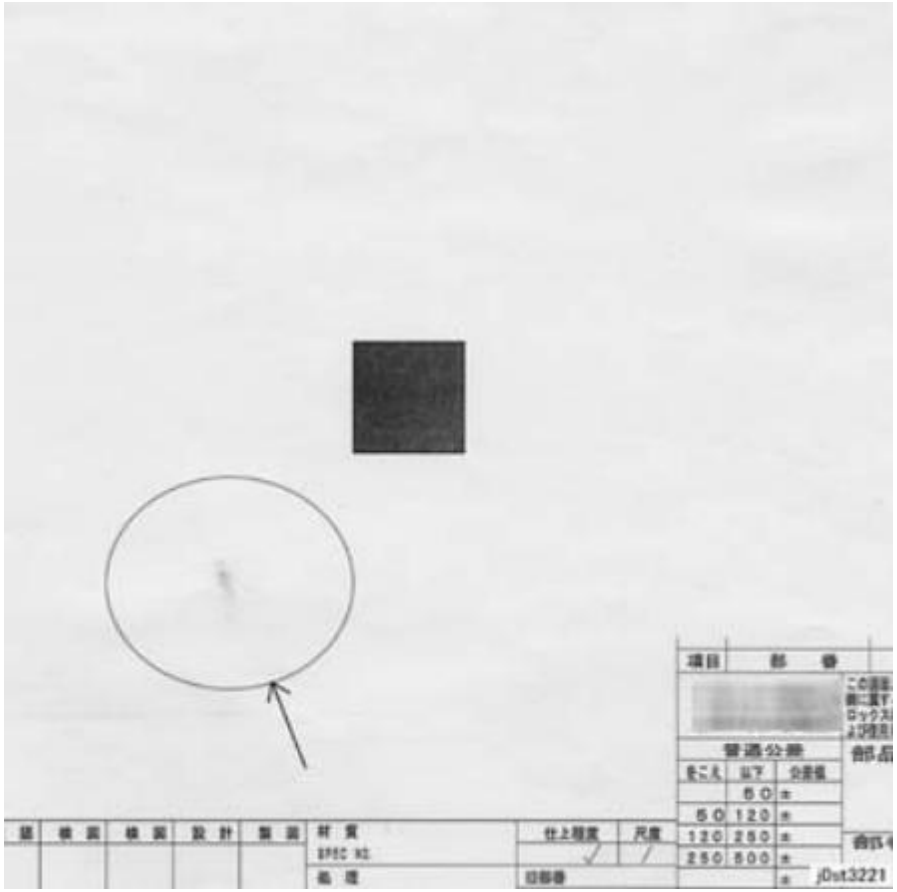


Figure 1 Toner Contamination Defect Sample (st3221)

Cause

1. Cloud toner dropped from the Drum Cartridge.

Action

1. Agitate the developer by feeding blank paper.
2. Replace the Drum Cartridge (PL 8.1)

IQ-5 Toner Splattering

Description

- A part of the page has many black spots, of non-uniform size.

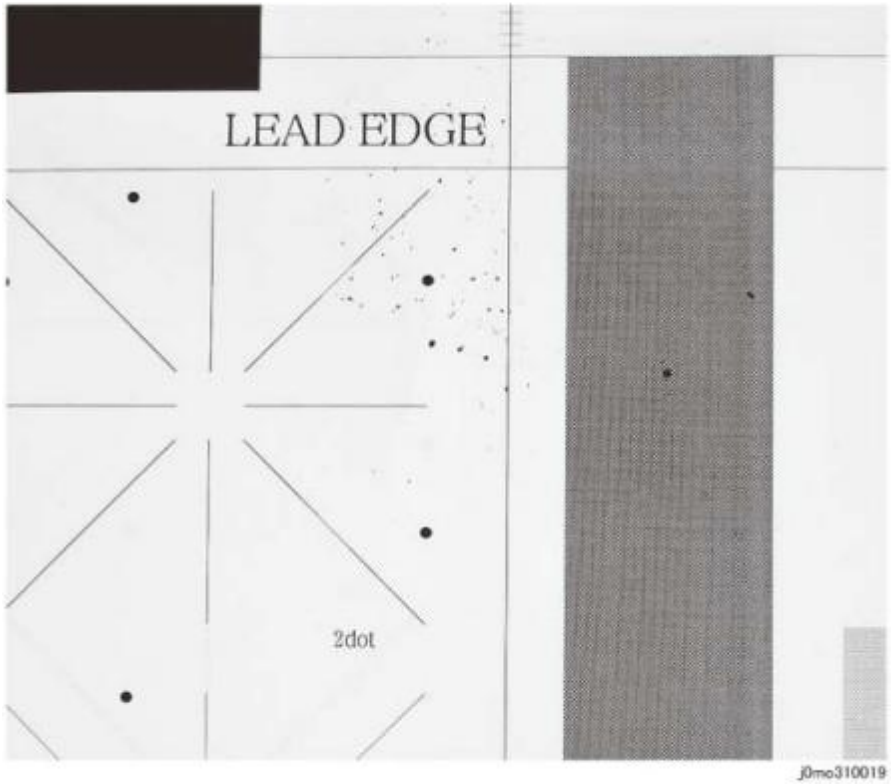


Figure 1 mo310019

Cause

1. Paper size mismatch occurred (tray settings and paper size are different).
2. The resistance of the paper increased under dry conditions.
3. Spilled Toner Due to Clogged Drum Cartridge Cleaner

Action

1. Check the tray settings.
2. Use paper from a freshly opened packet.
3. Replace the Drum Cartridge (PL 8.1).

NOTE

If there are a large number of high-run-length jobs, recurrence prevention setting can be set. Change the following NVMs.

However, since toner bands are developed on the drum after a fixed number of sheets during the job in this mode, productivity is reduced.

Chain-Link No.751-133 “0” → “2” (Mode Switch ON)

Chain-Link No.751- 141 “25” → “7” (interval no. of sheets before toner band inclusion x 10)

IQ-6 Dilation

Description

- Part of the image is missing.

Procedure

Check the paper type.

Paper used is within specifications.

Y N

Use paper within specifications.

Use paper from a freshly opened packet.

The problem reoccurs.

Y N

End

Remove the Drum Cartridge (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Install a new Drum Cartridge (PL 8.1). Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Check the surface of the BTR for distortion.

There is no distortion on the surface of the BTR.

Y N

Replace the BTR (PL 6.1).

Replace the MCU Drive PWB (PL 18.2), followed by the ESS PWB (PL 35.2).

IQ-7 Skew

Description

- Printed images are not parallel to the edges of the paper.

Procedure

Check the location where the machine is installed.

The machine is installed on a stable level surface.

Y N

Install the machine on a stable level surface.

Remove the Drum Cartridge (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Check the installation of the Paper Cassette.

The Paper Cassette is installed correctly.

Y N

Install the mirror properly.

Check for distortion in the paper transport path.

There is no distortion in the paper transport path.

Y N

Correct the distortion or replace the distorted part.

Replace the MCU Drive PWB (PL 18.2), followed by the ESS PWB (PL 35.2).

IQ-8 Black lines and white lines in the paper feed direction

Description

- Black lines or blank areas running along the paper in vertical direction.

Procedure

Remove the Drum Cartridge (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Install a new Drum Cartridge (PL 8.1). Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Check the surface of the BTR for contamination and distortion.

The surface of the BTR is clean and there is no distortion.

Y N

Clean the BTR. If there is distortion, replace the BTR (PL 6.1).

Check for contamination in the paper transport path.

The paper transport path is clean.

Y N

Clean the dirt.

Remove the Fusing Unit (PL 7.1) and check the surface of the Heat Roll for contamination.

The surface of the Heat Roll is clean.

Y N

Clean the dirt. If there is difficulty in removing the dirt, replace the Fusing Unit (PL 7.1).

Check the LPH for scratches and contamination.

The LPH is clean and there are no scratches.

Y N

Clean the LPH Unit. If there are scratches, replace LPH Unit (PL 2.1).

Replace the LPH Unit (PL 2.1), followed by the MCU Drive PWB (PL 18.2) and ESS PWB (PL 35.2).

IQ-9 Black and white lines in the roller axis direction

Description

- Black lines or blank areas running along the paper in horizontal direction.

Procedure

Remove the Drum Cartridge (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Install a new Drum Cartridge (PL 8.1). Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Check the surface of the BTR for contamination and distortion.

The surface of the BTR is clean and there is no distortion.

Y N

Clean the BTR. If there is distortion, replace the BTR (PL 6.1).

Check the pitch of the black lines or blank areas.

The pitch of the black lines is approx. 82.5 mm (Heat Roll circumference).

Y N

Replace the LPH Unit (PL 2.1), followed by the MCU Drive PWB (PL 18.2) and ESS PWB (PL 35.2).

Clean the Heat Roll. If there is difficulty in removing the dirt, replace the Fusing Unit (PL 7.1).

IQ-10 Mottle

Description

- The density of solidly printed areas are uneven.

Procedure

Check the paper type.

Paper used is within specifications.

Y N

Use paper within specifications.

Use paper from a freshly opened packet.

The problem reoccurs.

Y N

End

Remove the Drum Cartridge (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Install a new Drum Cartridge (PL 8.1). Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Check the surface of the BTR for contamination and distortion.

The surface of the BTR is clean and there is no distortion.

Y N

Clean the BTR. If there is distortion, replace the BTR (PL 6.1).

Remove the HVPS and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Replace the MCU Drive PWB (PL 18.2), followed by the ESS PWB (PL 35.2).

IQ-11 Auger Mark

Description

- There are several uneven-toned bands parallel to each other in the halftone part.

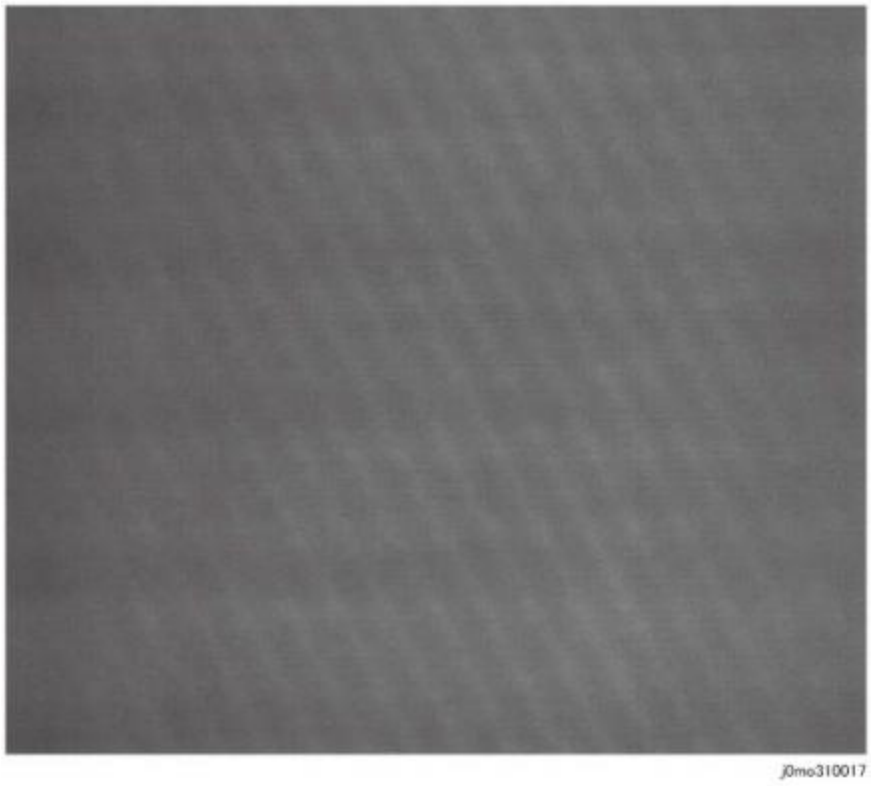


Figure 1 mo310017

Cause

1. The Developer Magnetic Roll magnetic field failed.
2. There was a drop in the level of developing powder.

Action

1. 1.2 Replace the Drum Cartridge (PL 8.1)

NOTE

This may occur immediately after a new Drum Cartridge is installed. -> Correct this by feeding a few sheets of paper.

IQ-12 Mag Roller Pitch Banding (32 mm or 16 mm Pitch Density)

Description

- There are uneven tones at a pitch of 32 mm or 16 mm in the process direction.

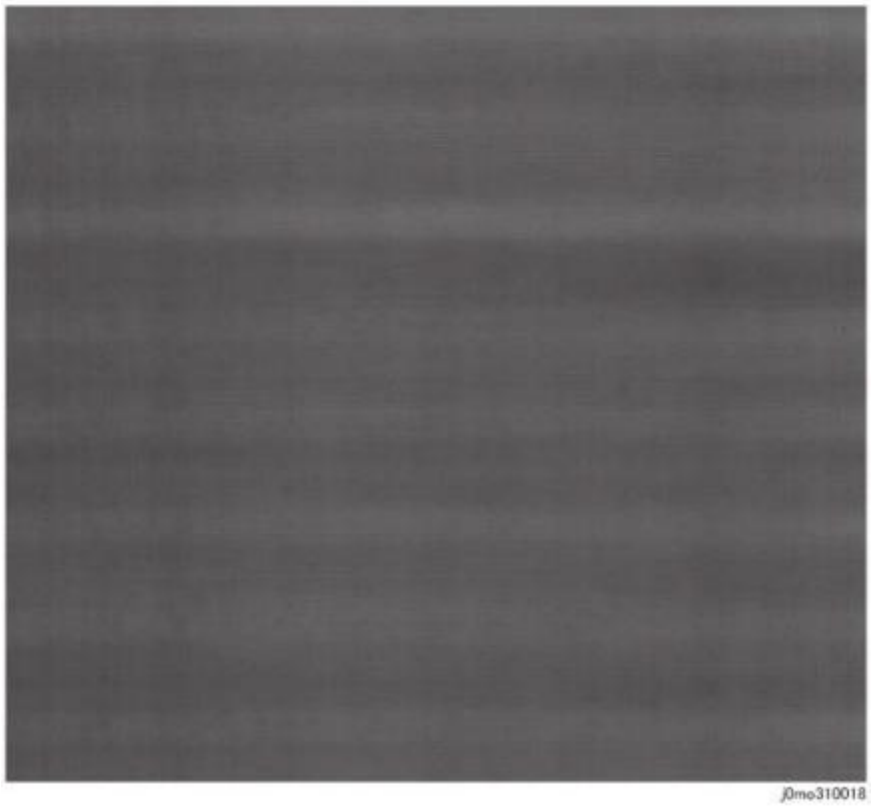


Figure 1 Mag Roller Pitch Banding (32 mm or 16 mm Pitch Density) Defect Sample (mo310018)

Cause

1. Developer Magnetic Roll bias.

Action

1. Replace the Drum Cartridge (PL 8.1)

IQ-13 Regular Blank Areas in Process Direction (Spots, Streaks, Bands etc.)

Description

- White spots of the same shape with a regular pitch in the process direction are found.

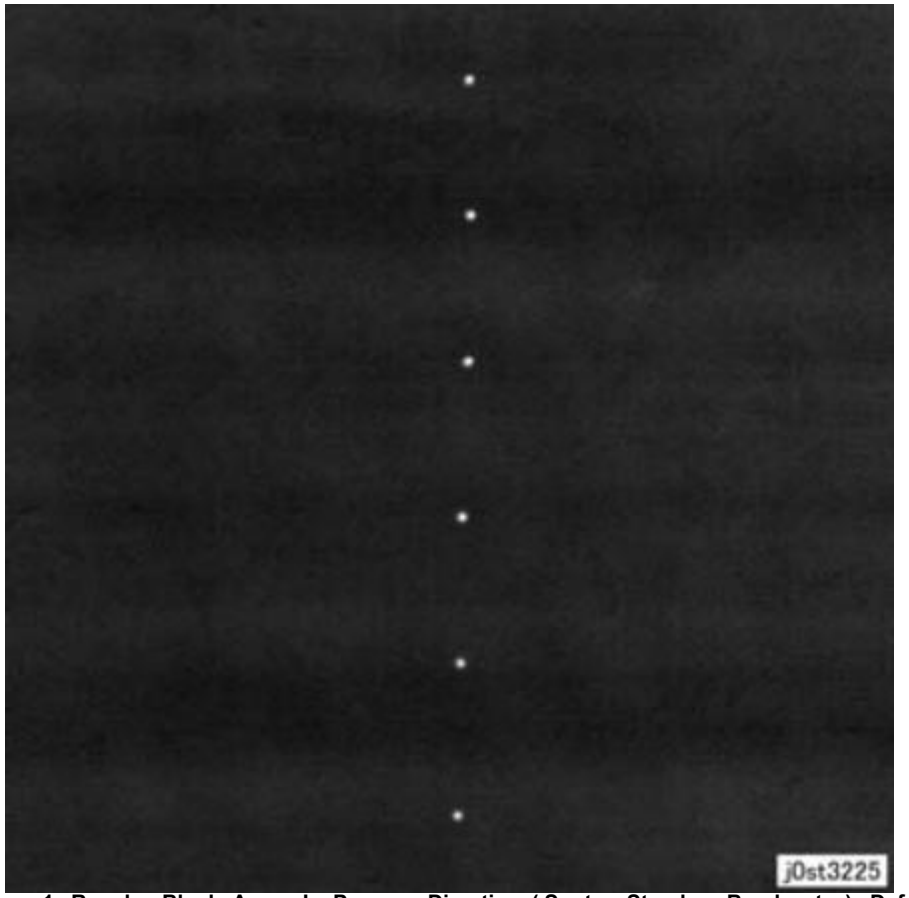


Figure 1 Regular Blank Areas In Process Direction (Spots, Streaks, Bands etc.) Defect Sample (st3225)

Cause

1. 94.2 mm pitch -> Drum: Scratches or foreign matter
2. 31.8 mm pitch -> Magnetic Roll: Developer stuck on the Magnetic Roll
3. 37.7 mm pitch -> BCR: Scratches or foreign matter
4. 82.5 mm pitch -> Heat Roll: Scratches or foreign matter

Action

1. 1, 4: Clean or replace the [Drum Cartridge (PL 8.1)/Fusing Unit (PL 7.1)]
2. 2, 3: Replace the Drum Cartridge (PL 8.1)

IQ-14 Regular Toner Contamination in Process Direction (Spots, Streaks, Bands etc.)

Description

- Toner stains with a regular pitch in the process direction are found.

Figure 1 Regular Toner Contamination In Process Direction (Spots, Streaks, Bands etc.) Defect Sample (st3226)

Cause

1. 94.2 mm pitch -> Drum: Scratches or foreign matter
2. 31.8 mm pitch -> Magnetic Roll: Developer stuck on the Magnetic Roll
3. 37.7 mm pitch -> BCR: Scratches or foreign matter
4. 82.5 mm pitch -> Heat Roll: Scratches or foreign matter

5. 47.1 mm pitch -> Exit-Roll: Contamination

Action

1. 1, 4, 5: Clean or replace the [Drum Cartridge (PL 8.1)/Fusing Unit (PL 7.1)]
2. 2, 3: Replace the Drum Cartridge (PL 8.1)

IQ-15 Regular Toner Contamination in Process Direction (Side 2)

Description

- Toner stains with a regular pitch in the process direction are found. (Side 2)

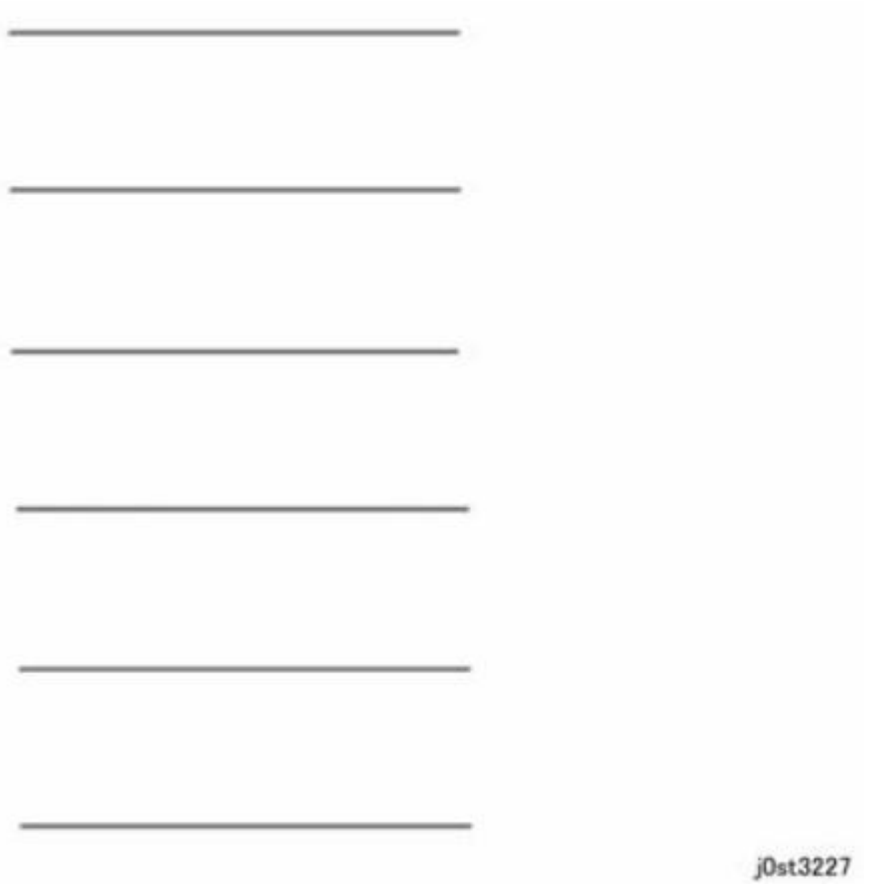


Figure 1 Regular Toner Contamination In Process Direction (Side 2) Defect Sample (st3227)

Cause

1. 95.1 mm pitch-> Fusing Belt (Fusing unit): Scratches or foreign matter
2. 50.3 mm pitch -> BTR: Contamination, scratches or paper size mismatch
3. 37.7 mm pitch -> BCR: Contamination

Action

1. Cause 1: Clean or replace the Fusing Unit (PL 7.1)
2. Cause 2: (1) Clean or replace the BTR(PL 6.1)
   (2) Check the tray settings.
3. Cause 3: Clean the BCR or replace the Drum Cartridge (PL 8.1)

IQ-16 Smear

Description

- Black lines or blank areas running along the paper in horizontal direction.

Procedure

Remove the Drum Cartridge (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Install a new Drum Cartridge (PL 8.1). Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Check the surface of the BTR for contamination and distortion.

The surface of the BTR is clean and there is no distortion.

Y N

Clean the BTR. If there is distortion, replace the BTR (PL 6.1).

Replace the LPH Unit (PL 2.1) followed by the MCU Drive PWB (PL 18.2) and then the ESS PWB (PL 35.2).

IQ-17 Smear on Cardstock

Description

The symptoms are the same as smears, but they only appear when using cardstock.



Figure 1 mo310024

[Cause]

Image compression due to instantaneous fluctuations in paper feed speed.

It occurs at the moment when the trail edge of the paper passes through the Regi Roller, so it occurs at the position that is 74 mm from the trail edge.

[Corrective Action]

1. Check the paper type setting. (Check if there any mistakes such as using cardstock (106 gsm or more) with plain paper setting)
2. If the paper type has been set correctly but smears occur, adjust with NVM.
3. Since the Chain Link to be changed differs depending on the paper type to be changed, adjust the NVM of the target paper type according to Table 1.

NOTE

Larger negative values will produce more effective smear reductions.

(Example) Within the permissible range of the width change, lower by 5 steps (increase the minus value), and search for a point at which smear disappears.

NOTE

When the change value gets large, there are concerns about the following secondary failure.

<Secondary Failure- 1 Vertical length increases. >

-> (Countermeasure) Adjustment can be made on “Change 2” in the table below. However, because there are limits to the change, if the problem cannot be resolved, correct the value of Change 1 in the positive direction.

<Secondary Failure-2 Paper jam occurs. >

-> (Countermeasure) Change the setting of Change 1 in the plus direction according to the applicable paper type in Table 1.

Set Paper Type	Paper Weight [gsm]	Change 1 (Main Effect Section)		Change 2 (Vertical Reduce/ Enlarge Adjustment for Secondary Failure)	
		Chain-Link	Possible change width	Chain- Link	New Value
Lightweight Cardstock	106~169	746-091	0~- 120	759-045~759-047 759-071~759-073	As a guide, this NVM value is increased by 1 step every time the value of the Change 1 is increased by 30 steps . After the change, print the built-in pattern (grid) and check that the margin at the trail edge is around 2mm . If it is off, adjust by changing this value.
Cardstock	170~	746-092	0~- 120	759-048~759-050	
Labels	106~169	746-093	0~- 120	759-051~759-053	
Heavyweight Labels	170~	746-094	0~- 120	759-054~759-056	
Envelope	-	746-097	0~- 120		

<Secondary failure-3: Impulse banding at the 35mm position at the trail edge of the paper>

-> (Countermeasure) Change the setting of Change 1 in the plus direction according to the applicable paper type in Table 1.

*Some paper types have worse banding at the 35mm position.
In this case, it can be improved by changing Change 1 in the plus direction.
When changing the value, pay attention to the deterioration of smear at the 74 mm position while changing the value.

IQ-18 White Spots

Description

- Toner spots and blank areas are spread irregularly over the whole page.

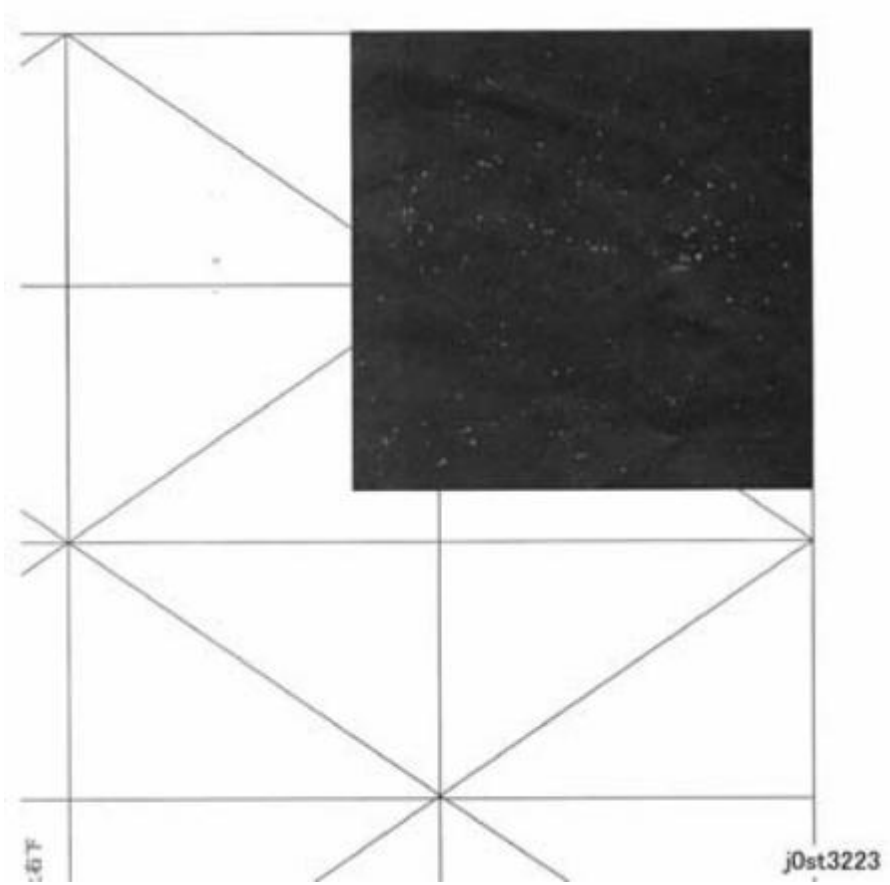


Figure 1 White Spots (Irregular) Defect Sample (st3223)

Procedure

Remove the Drum Cartridge (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Install a new Drum Cartridge (PL 8.1). Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Check the surface of the BTR for contamination and distortion.

The surface of the BTR is clean and there is no distortion.

Y N

Clean the BTR. If there is distortion, replace the BTR (PL 6.1).

Check for contamination in the paper transport path.

The paper transport path is clean.

Y N

Clean the dirt.

Remove the Fusing Unit (PL 7.1) and check the surface of the Heat Roll for contamination.

The surface of the Heat Roll is clean.

Y N

Clean the dirt. If there is difficulty in removing the dirt, replace the Fusing Unit (PL 7.1).

Check the paper type.

Paper used is within specifications.

Y N

Use paper within specifications.

Use paper from a freshly opened packet.

The problem reoccurs.

Y N

End

Replace the MCU Drive PWB (PL 18.2), followed by the ESS PWB (PL 35.2).

IQ-19 Wrinkled Image

Description

- The printed paper is creased, folded or torn.

Procedure

Check the paper type.

Paper used is within specifications.

Y N

Use paper within specifications.

Use paper from a freshly opened packet.

The problem reoccurs.

Y N

End

Check that the paper type setting of the tray used is correct.

Paper used is within specifications.

Y N

Use paper within specifications.

Remove the Fusing Unit (PL 7.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Check for foreign matter and distortion in the paper transport path.

No distortion or foreign matter are found in the paper transport path.

Y N

Remove the foreign substances. Correct the distortion.

Perform Fusing Unit Paper Wrinkles Alignment. (3.3.3)

The problem reoccurs.

Y N

End

Replace the Fusing Unit (PL 7.1).

IQ-20 Fusing Failure Offset

Description

- Printed images are not properly fused onto the paper. When rubbed, the image comes off easily.

Procedure

Check the paper type.

Paper used is within specifications.

Y N

Use paper within specifications.

Use paper stored under room conditions.

The problem reoccurs.

Y N

End

Check that the paper type setting of the tray used is correct.

Paper used is within specifications.

Y N

Use paper within specifications.

Check the power supply voltage.

The voltage is within the specified range.

Y N

Connect a power supply with voltage within the specified range.

Check the fusing temperature using the Diagnostics.

A normal fusing temperature is set.

Y N

Set the normal fusing temperature.

Replace the Fusing Unit (PL 7.1).

IQ-21 Black Prints

Description

- Paper is printed completely black.

Procedure

Remove the CRU (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Install a new CRU (PL 8.1). Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Check the connection of connectors on the HVPS (PL 18.2), LPH Unit (PL 2.1), MCU Drive PWB (PL 18.2), and ESS PWB (PL 35.2). If the problem persists, replace the following parts in the stated sequence.

IQ-22 Blank Paper

Description

- Paper is printed completely white.

Procedure

Check the installation of the LPH Unit.

The LPH Unit is installed correctly.

Y N

Install the LPH Unit (PL 2.1) correctly.

Check the drum ground contact point for contamination and distortion.

The drum ground contact point is clean and there is no distortion.

Y N

Clean the drum ground contact point. Correct the distortion.

Remove the Drum Cartridge (PL 8.1) and reinstall it. Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Install a new Drum Cartridge (PL 8.1). Turn the power OFF and ON, then make a printout.

The problem reoccurs.

Y N

End

Print a page that is entirely black. During the print cycle, turn OFF the power after the feeding sound is heard. (i.e. forcing to stop the transfer in mid-progress). Check the surface of the Drum.

There is a considerable amount of toner left on the surface of the drum.

Y N

Check the connection of connectors on the LPH Unit (PL 2.1) and MCU Drive PWB (PL 18.2).

If not repaired, replace sequentially.

Check the connection of connectors on the BTR (PL 6.1), HVPS (PL 18.2), and MCU Drive PWB (PL 18.2).

If not repaired, replace sequentially.

IQ-23 Toner Streaks

Description

- These are vertical long thin streaks and the length may differ from a few mm to 10 cm or longer. This occurs in solid or halftone images and does not generally occur in the background part.

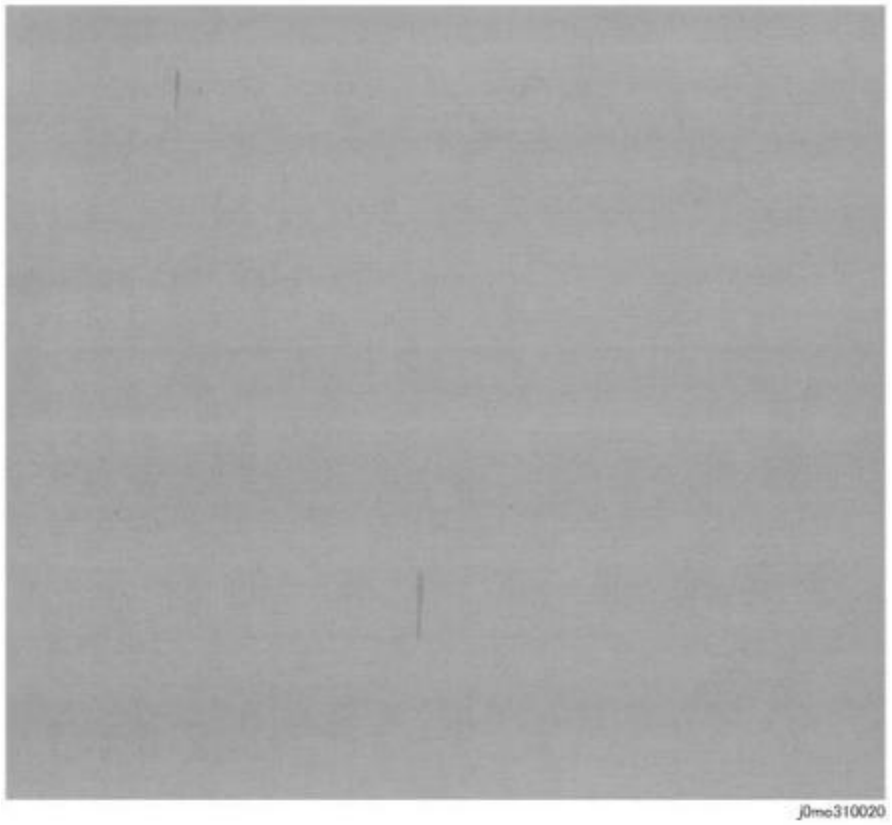


Figure 1 Toner Streaks Defect Sample (mo310020)

Cause

1. Phenomenon where lump of Supply Toner is not loosened inside the Developing Housing Assy, gets transported on to the Mag Roller, and is developed.

Action

1. This will be resolved after feeding a few copies. If white paper image is printed in advance or printed between high density image, there will be more agitation inside the Developer Housing Assy, which makes it easier to control the occurrence.

IQ-24 Light-induced fatigue

Description

- Uneven tones occur at the Drum Pitch (94.2 mm) in the halftone image.

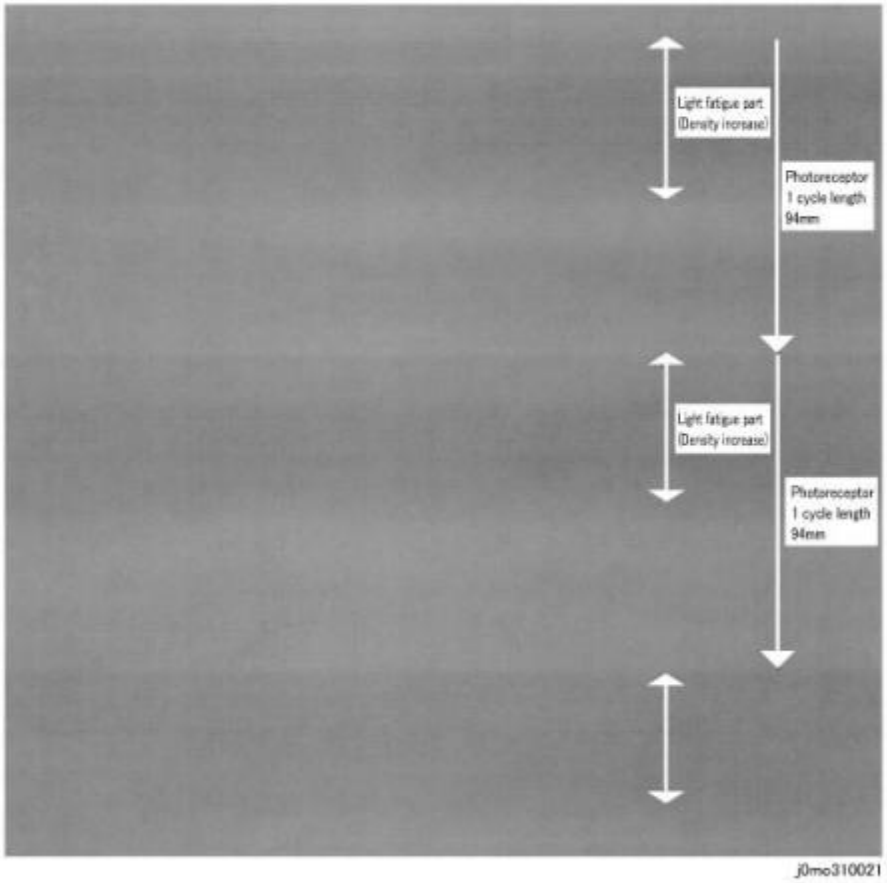


Figure 1 Light-induced Fatigue Defect Sample (mo310021)

Cause

- As light continues to hit the photoreceptor, the generated charge remains and the darkness decay of the surface potential increases at that portion. When the whole surface is exposed, the potential falls below the periphery and the density becomes darker.

Action

1. Leave it overnight
2. Replace the Drum Cartridge (PL 8.1)

CQ-00 IIT/DADF FIP

Description

IIT/DADF Flow Diagram

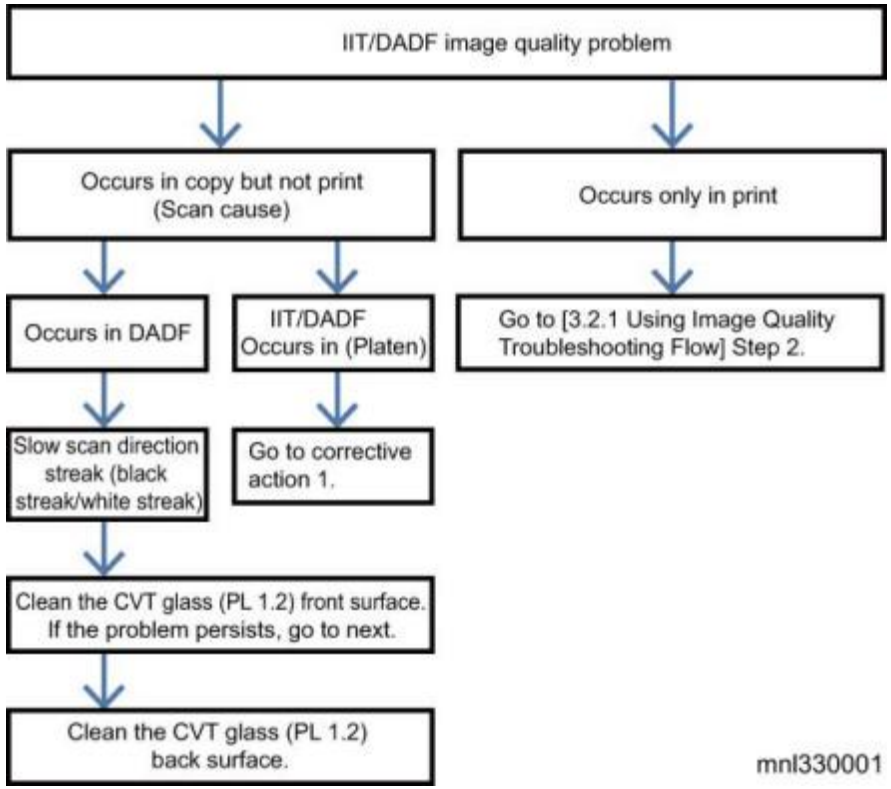


Figure 1 mnl330001

[DADF Side 2 Image Quality Failure Improvement Flow]

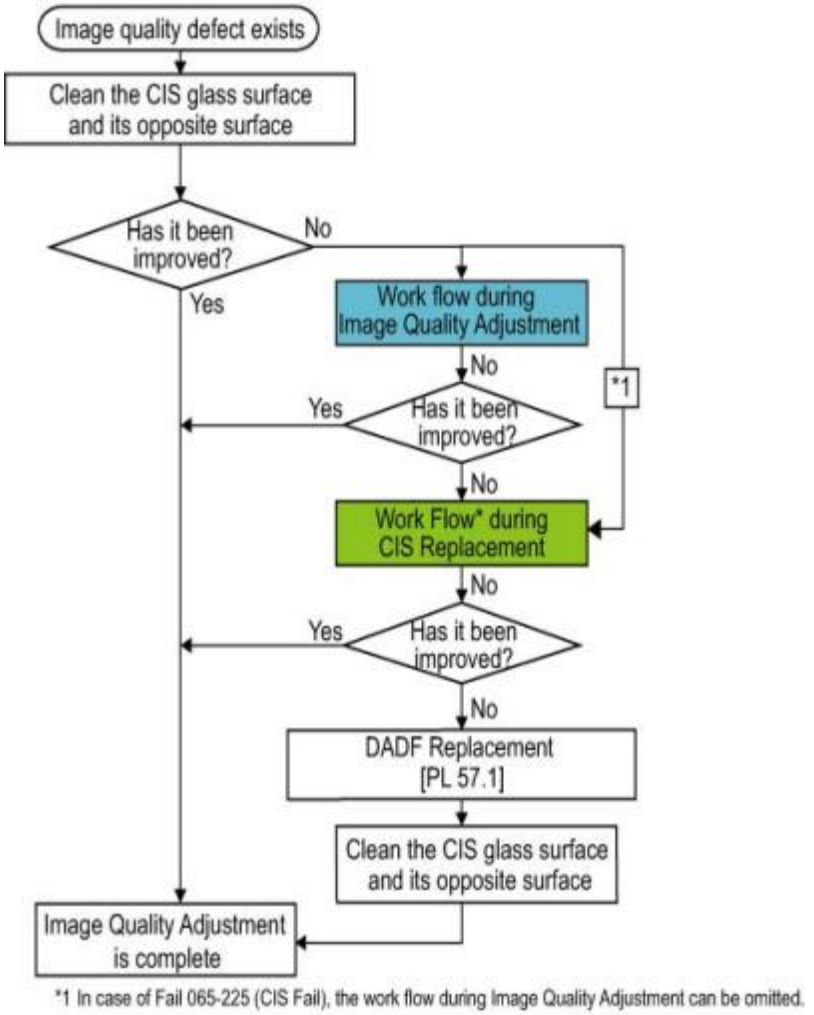


Figure 2 mbl330002

[Work Flow during Image Quality Adjustment]

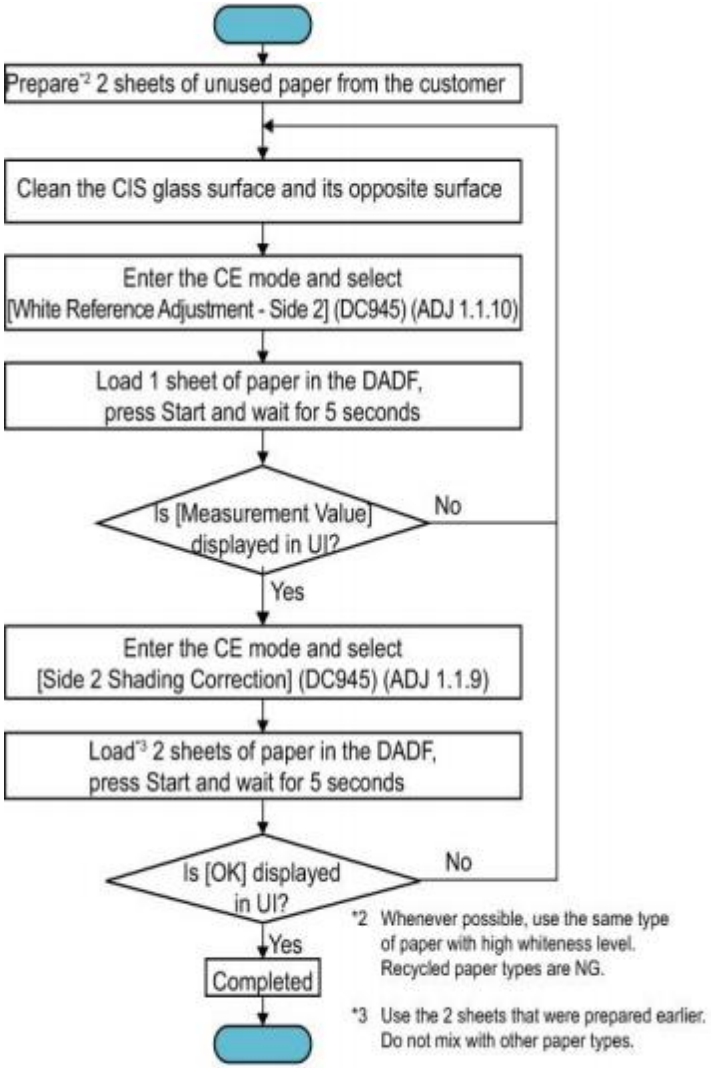


Figure 3 mbl330003

[Work Flow during CIS Replacement]

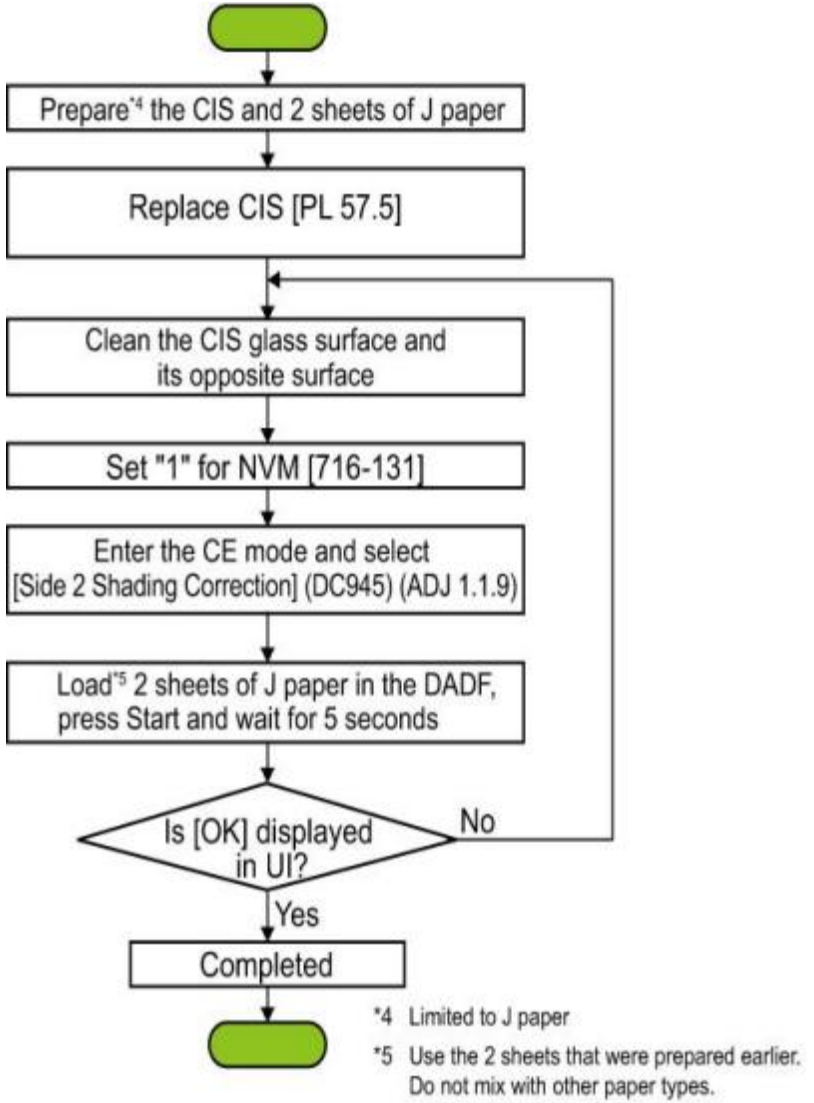


Figure 4 mbl330004

[Corrective Action]

1. Check the following problems and take appropriate action.

Image Quality Problem	Symptoms	Action
Background	The whole page or part of the page is contaminated by toner.	Check for contamination on the Platen Glass. If there is, clean it. If it is very dirty, replace the Platen Glass (PL 1.2).
Process Direction Bands, Streaks, and Smears	Black lines or blank areas running along the paper in vertical direction.	(1) Check the IIT Carriage Mirrors for scratches and contamination. If there is, clean it. (2) Check the Side 2 Shading Correction section of the Platen Glass (back of the Regi Guide) for contamination. If there is, clean it. (3) If the IIT Carriage Mirrors and the Shading Correction section are very dirty or have a lot of scratches, replace the No.1 Mirror (PL 1.4), No.2/No.3 Mirror (PL 1.5), and Platen Glass PL 1.2).
Spots	Toner spots and blank areas are spread irregularly over the whole page.	Check for contamination on the Platen Glass. If there is, clean it. If it is very dirty, replace the Platen Glass (PL 1.2).

3.3.2 Image Fault Samples (IPS)

Perform the following procedure to check the fault sample that is obtained during visit or the one that is provided by the customer and proceed with the appropriate IQ-FIP.

1. If the defected sample is determined as the same problem with the one covered in this chapter ("Defect Image Sample") through visual observation, check the part which is causing the poor image quality.
2. When the problem cannot be determined or there was no corresponding NG sample in 1 above, proceed to the corresponding FIP below to repair the problem.

Image Quality Problem	SUB	Symptoms	Reference No.
Background, Recycled Paper Support (Background Suppression Adjustment)	IPS	A phenomenon like background (e.g. background color or document bleed) may occur depending on the document.	CQ-1
Density Adjustment and Light Ink Support	IPS	This is used to copy an image to be lighter than the current BW Copy settings; e.g. when using light ink.	CQ-2
Density Adjustment: Darken Highlight	IPS	The highlight (light colors) is intended to be reproduced in darker shade.	CQ-3-1
Density Adjustment: Lighten	IPS	The density is intended to be reproduced in lighter shade.	CQ-3-2
Bleed on Tracing Paper	IPS	When copying or scanning Tracing Paper document, bleed or background occur around the texts.	CQ-4
Dual Color Copy Reproduction Adjustment (NVM Adjustment for Yellow Color Reproduction)	IPS	When using Dual Color (Red/ Black Copy) in Copy Service, the Yellow marker pen is reproduced differently from the previous model.	CQ-5-1
Dual Color Copy Reproduction Adjustment (Adjustment of Color Reproduction Difference in Comparison with a Dual Color Device from Another Company)	IPS	The color reproduction for Dual Color is different compared to a Device from another company.	CQ-5-2
Dual Color Copy Reproduction Adjustment (Adjustment of Dual Color Photo Image Quality to Match a Device from Another Company)	IPS	To make the reproduction the same as the Dual Color Copy Default Mode of a Device from another company.	CQ-5-3
Dual Color Copy Reproduction Adjustment (Adjustment of Color Extraction Range)	IPS	When yellow highlight is applied on fine red line, the highlighted portion does not appear as red and is reproduced in black instead.	CQ-5-4
Gradation Jump in 100-lines Photo Document	IPS	In the BW and Text & Photo Copy Mode, gradation jump occurs on 100-line photo documents.	CQ-6
Scan: Smeared Text, Mosquito Noise Around Text	IPS	Color texts are blurred and mosquito noise is generated around the texts due to JPEG compression.	CQ-7
Fax: File Size, Transmission Time	IPS	When a document with tint on the whole paper or a background image is scanned using Fax Text Mode in High Quality (Fine), the file size or the Fax transmission time may increase drastically.	CQ-8
Bleed on 2 Sided Document	IPS	Bleed occurs in the BW Copy and Text Mode.	CQ-9
Platen Background	IPS	When scanning in A3 using fully white A4 paper such as J Paper, etc., when using BW Copy, Text mode, and Background Suppression, the density of the platen background stands out in the area outside the paper.	CQ-10

Image Quality Problem	SUB	Symptoms	Reference No.
Color Balance Adjustment	IPS	The color of the copy image quality is different from that of the original.	CQ-11
Rough Thin Lines	IPS	When a document containing extremely thin lines is copied in the Photo & Text Mode, the density of the lines on the copy may become uneven and rough.	CQ-12
Moire due to Interference Between Document and IIT	IPS	There are cases where moire is generated due to interference between the document and the IIT (Copy, Binary Scan) .	CQ-13
Poor Reproduction of Inkjet Document	IPS	When making a copy of a document that was printed by an inkjet printer, it is reproduced poorly on the output copy.	CQ-14
Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Sharpness Adjustment)	IPS	During 2 Sided Simultaneous Scan, the text and halftone dot reproduction qualities of copy or scan images are different between Side 1 and Side 2 .	CQ-21
Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Color Balance Adjustment)	IPS	Narrows the density difference between Side 1 and Side 2 during scan.	CQ-22
Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Background Suppression Adjustment)	IPS	Adjustment method for Suppression Levels	CQ-24
Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Color Adjustment)	IPS	Narrows the color difference between Side 1 and Side 2 during scan.	CQ-25

CQ-1 Background, Recycled Paper Support (Background Suppression Adjustment)

Description

A phenomenon like background (e.g. background color or document bleed) may occur depending on the document.



Figure 1 ki31019

[Cause]

The default settings of Background Suppression are as shown in Table 1. Background Suppression Level Adjustment may be required depending on the document.

Procedure

1. Set Background Suppression to "Enabled" and check whether background still occur on the customer's document.

[Corrective Action]

1. Background Suppression Level Adjustment
   Background Suppression Feature Default

Table 1 Rough Standards of Suppression Levels

Suppression Level	Rough Standard for Suppression Levels (documents with white background, or level of effect on documents)	
Output Color	**Full Color**	**B&W**
Normal	White paper such as P paper	Bleed is reduced slightly.
Higher +1: Default	Recycled Other company's recycled paper, etc. with whiteness of approx. 66%	White paper such as P paper, Recycled paper, Newspaper
Higher +2	Old recycled paper, Dark recycled paper	The suppression amount is more than Higher +1 .
Higher +3	Newspaper (with some bleed)	The suppression amount is more than Higher +2 .
Higher +4	Newspaper	Reduces background to the level at which Light Text (pencil text) can be read.

*The contents in Table 1 are only rough standards. The suppression results may differ depending on the document.

[Adjustment Method]

1. The adjustment methods are different between Services and Output Colors. (Table 2)

Table 2 Background Suppression Level Adjustment Method by Mode

Services	Output Color	Adjustment Method
Copy	Full Color	System Administrator Mode
	B&W	CE Mode (NVM)
FAX	B&W	CE Mode (NVM)
Scan	Full Color	System Administrator Mode
	B&W	CE Mode (NVM)

(1) Adjustment in System Administrator Mode

- Copy (Full Color) Adjustment
  [Device] -> [App Settings] -> [Copy Settings] -> [Copy Control] -> [Background Suppression Level]
- Scan (Full Color) Adjustment
  [Device] -> [App Settings] -> [Scan Settings] -> [Other Settings] -> [Background Suppression Level]

(2) Adjustment in CE Mode (NVM)

- When adjusting the Text & Photo mode for BW Copy, Fax, and BW Scan, change the following NVM values:

Chain-Link	NVM Name	PSW Display	Setting Range	Default Value	Meaning
715-631	Background Suppression Offset Level for BW Copy, Fax, Binary Scan Photo & Text Mode (Print, Photograph, Copy)	TP_ BW_ Copy_ Fax Offset Level of AE	0 ~ 4095	273	Background Suppression Level* 1 0: Strength Level 0 (Standard) 1: Strength Level 1 (+1) 2: Strength Level 2 (+2) 3: Strength Level 3 (+3) 4: Strength Level 4 (+4) 5 to 15 and above: Strength Level 0 (Standard) 0 bit to 3 bit: Platen 4bit-7bit: CVT&DADF 8bit- 11bit: CIS

*1: Relationship between Background Suppression Level and Strength Level

Table 3 Relationship between Background Suppression Level and Strength Level

Background Suppression Level	Strength Level
Normal	0, (5 to 15)
Higher +1	1
Higher +2	2
Higher +3	3
Higher +4	4

	Meaning of Adjustment Value											
Scanning Method	CIS				CVT&DADF				Platen			
Bit allocation	11	10	9	8	7	6	5	4	3	2	1	0
Expressed in binary	0	0	0	1	0	0	0	1	0	0	0	1

* Changing the binary value in Table 5 above to decimal value results in the default value of "273" in Table 3.

REFERENCE

Description of NVM Settings

The NVM setting range is 12 bit, which are broken up into 4 bit for each scan method.

The NVM setting value is determined in binary first, and then converted to a decimal number.

Example: The initial value 273 (decimal) indicates that the background suppression levels are 1 for all scan methods.

When the background suppression levels are 2 for all scan methods, it is = 546 (decimal) = 001000100010 (binary)

When the background suppression levels are 3 for all scan methods: = 819 (decimal) = 001100110011 (binary)

When the background suppression levels are 4 for all scan methods: = 1092 (decimal) = 010001000100 (binary)

- When adjusting the Text mode for BW Copy and BW Scan (2 Gradations), change the following NVM values:
  Set different NVM values for (Normal, Light (Pencil)) and (Tracing Paper) in Text mode.
  The description of the settings is the same as that for the Text & Photo mode.

Chain-Link	NVM Name	PSW Display	Setting Range	Default Value	Meaning
715-633	Background Suppression Offset Level for BW Copy, Fax, Binary Scan Text Mode (Normal, Light (Pencil))	TP_BW_Copy_Fax Offset Level of AE	0 ~ 4095	273	Background Suppression Level*1 0: Strength Level 0 (Standard) 1: Strength Level 1 (+1) 2: Strength Level 2 (+2) 3: Strength Level 3 (+3) 4: Strength Level 4 (+4) 5 to 15 and above: Strength Level 0 (Standard) 0 bit to 3 bit: Platen 4bit-7bit: CVT&DADF 8bit- 11bit: CIS
715-637	Background Suppression Offset Level for BW Copy, Fax, Binary Scan Text Mode (Tracing Paper)	TP_BW_Copy_Fax Offset Level of AE	0 ~ 4095	273	Background Suppression Level*1 0: Strength Level 0 (Standard) 1: Strength Level 1 (+1) 2: Strength Level 2 (+2) 3: Strength Level 3 (+3) 4: Strength Level 4 (+4) 5 to 15 and above: Strength Level 0 (Standard) 0 bit to 3 bit: Platen 4bit-7bit: CVT&DADF 8bit- 11bit: CIS

(3) Precautions

The following NVM settings do not change the background suppression level because their operations are disabled.
715-630, 632, 636, 638-641, 643, 645-649
In addition, due to the mechanism of this function (Figure 2), backgrounds might not be suppressed up to the user's expectations on the following documents. Depending on the document type, this problem may be improved by performing the following methods.

No.	Document Type on Which Smear May Occur	Adjustment Method
1	The document contains text on dark background. E.g. newspaper	Density Adjustment. Recommended values for BW Copy (Text/Photo) Color paper: Lighten +1 or +2, Newspaper: Lighten +2
2	Photo documents having their high density sections placed in the background detection areas.	Change the Background Suppression method from High Speed (Default) to High Quality. **NOTE** The High Quality function is only available for the Platen and the productivity will be reduced due to pre-scan operation.
3	The document contains dark frames or fringes.	
4	Negative document	

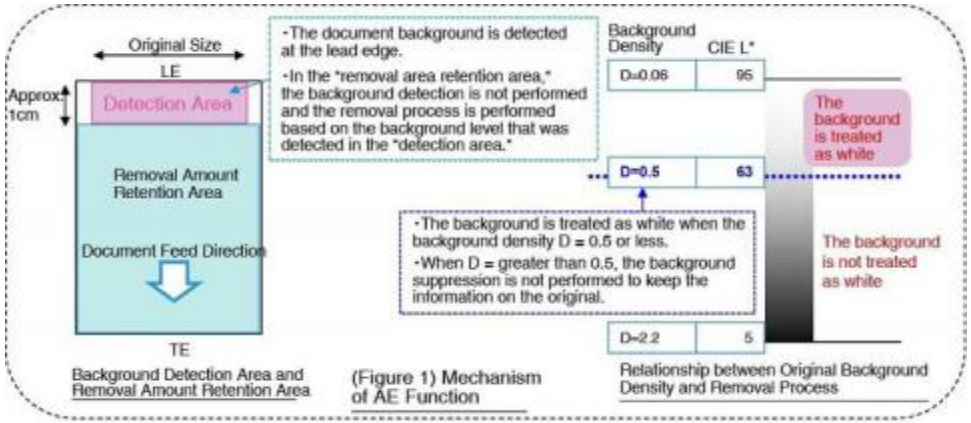


Figure 2 bi330013

CQ-2 Density Adjustment and Light Ink Support

Description

This is used to copy an image to be lighter than the current BW Copy settings; e.g. when using light ink.

[Cause]

1. Density adjustment cannot lighten images to the light ink level.

Procedure

1. Consult with the customer to determine which (or all) level of Photo mode (Lighten +1 to +3) is to be set with light ink support adjustment.

[Corrective Action]

1. Change the NVM values listed in the following table to adjust the "Lighten +1", "Lighten +2", and "Lighten +3" of Photo mode.

NOTE
This countermeasure is only valid for Copy BW images.

Table 1 Table of Light Ink Support

	Chain-Link and Recommended Setting Value
Photo Mode "Lighten +3"	[Chain-Link: 715-692]: 37 (recommended value) Setting Range: [0 to 64] (Default=0) Note 1) When 0 is set, the state is the same as when 64 is set. Note 2) When 20 or lower is set, the result may be blank paper.
Photo Mode "Lighten 2"	[Chain-Link: 715-693]: 40 (recommended value) Setting Range: [0 to 64] (Default=0) Note 1) When 0 is set, the state is the same as when 64 is set. Note 2) When 15 or lower is set, the result may be blank paper.
Photo Mode "Lighten 1"	[Chain-Link: 715-694]: 43 (recommended value) Setting Range: [0 to 64] (Default=0) Note 1) When 0 is set, the state is the same as when 64 is set. Note 2) When 10 or lower is set, the result may be blank paper.

CQ-3-1 Density Adjustment: Darken Highlight

Description

The highlight (light colors) is intended to be reproduced in darker shade.

[Cause]

1. The highlight reproducibility had been adjusted to prevent background from appearing.

Procedure

1. No special actions required.

[Corrective Action]

1. Set the density adjustment from "Darken +1" to "Darken +3".
   * When the highlight is not reproduced after performing the density adjustment in (1), it can be adjusted by the following method:
2. Set the Background Suppression to [Off].
   * Although may cause background to appear, it improves the highlight reproducibility.
3. In the case of Copy Service, adjust the density by using "DC919: Color Balance Adjustment".
   In the case of Scan Service, increase the [Resolution].
   * The highlight reproducibility is improved more with 600dpi than 200dpi.
4. The following describes the adjustment method that is only valid for Output Color "BW" and Original Type "Text".

Table 1 Density Adjustment: Darken Highlight

NVM Chain-Link	Services	Mode	How to Use
715-720	Copy	Output Color "BW" Original Type "Text" Density "Normal"	The highlight is reproduced darker when a value smaller than the default value (128) is set. The recommended value is 120.
715-721	Copy	Output Color "BW" Original Type "Text" Density "Darken +3"	The highlight is reproduced darker when a value smaller than the default value (128) is set. The recommended value is 120. The density of "Darken +3" and "Normal" may be reversed depending on the setting value.

Table 1 Density Adjustment: Darken Highlight

NVM Chain-Link	Services	Mode	How to Use
715-722	Fax Scan	Output Color "BW" Original Type "Text" Density "Normal"	The highlight is reproduced darker when a value smaller than the default value (128) is set. The recommended value is 125.
715-723	Fax Scan	Output Color "BW" Original Type "Text" Density "Darken +3"	The highlight is reproduced darker when a value smaller than the default value (128) is set. The recommended value is 125. The density of "Darken +3" and "Normal" may be reversed depending on the setting value.

* The NVM value adjustment is done by visually checking the copy or scan output while performing the adjustment.

CQ-3-2 Density Adjustment: Lighten

Description

The density is intended to be reproduced in lighter shade.

[Cause]

No special actions required.

Procedure

1. No special actions required.

[Corrective Action]

1. Set the density adjustment from "Lighten +1" to "Lighten +3".
   * When desired image quality cannot be obtained after performing the density adjustment in (1), the following adjustment method is also available:
   Countermeasure (2): In the case of Copy Service, adjust the density by using "Color Balance Adjustment".
   The following describes the adjustment method that is only valid for Output Color "BW" and Original Type "Text".

Table 1 Density Adjustment: Lighten

NVM Chain-Link	Services	Mode	How to Use
715-720	Copy	Output Color "BW" Original Type "Text" Density "Normal"	The highlight is reproduced lighter when a value larger than the default value (128) is set. The recommended value is 136.
715-721	Copy	Output Color "BW" Original Type "Text" Density "Darken +3"	The highlight is reproduced lighter when a value larger than the default value (128) is set. The recommended value is 136. The density of "Darken +3" and "Normal" may be reversed depending on the setting value.
715-722	Fax Scan	Output Color "BW" Original Type "Text" Density "Normal"	The highlight is reproduced lighter when a value larger than the default value (128) is set. The recommended value is 132.

Table 1 Density Adjustment: Lighten

NVM Chain-Link	Services	Mode	How to Use
715-723	Fax Scan	Output Color "BW" Original Type "Text" Density "Darken +3"	The highlight is reproduced lighter when a value larger than the default value (128) is set. The recommended value is 132. The density of "Darken +3" and "Normal" may be reversed depending on the setting value.

* The NVM value adjustment is done by visually checking the copy or scan output while performing the adjustment.

CQ-4 Bleed on Tracing Paper

Description

When copying or scanning Tracing Paper document, bleed or background occur around the texts.

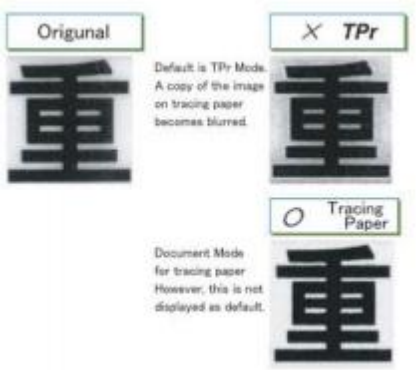


Figure 1 ki31009

[Cause]

1. Because of the characteristics of Tracing Paper, shades are generated around the texts when scanning using CCD.

Procedure

1. No special actions required.

[Corrective Action]

1. Use the Text on Lightweight Mode.
   (1) Copy Settings
   Perform the following procedure to display the Text on Lightweight Mode on the UI.
   Enter the System Administrator Mode, go to Device -> App Settings -> Copy Settings -> Copy Control -> Original Type - Lightweight Paper -> Enabled
   The Lightweight mode becomes selectable when [Output Color = BW] and [Original Type = Text] are specified.
   (2) Scan Settings
   Change the following NVM values to enable the Text on Lightweight Mode.
   NVM 715-669 0: Normal -> 1: Tracing Paper mode
   Select [Color Scanning = BW] and [Original Type = Photo] for the Text on Lightweight Mode.
   (The Text on Lightweight Mode button does not exist on the UI. It is a hidden mode that is located at the position of the Photo Mode.)

CQ-5-1 Dual Color Copy Reproduction Adjustment (NVM Adjustment for Yellow Color Reproduction)

Description

When using Dual Color (Red/Black Copy) in Copy Service, the Yellow marker pen is reproduced differently from the previous model.

- Models on sale in 2010 or earlier: Yellow and Yellow marker pen are reproduced as "black".
- Predecessor and third-party models: Yellow and Yellow marker pen are not reproduced as "black".

[Cause]

The idea behind picture formation for Dual Color is different compared to previous models, as well as Devices from other companies.

[Original]



Figure 1 ki31010

[Dual Color Copy (Text Mode and Map Mode Default Settings)]

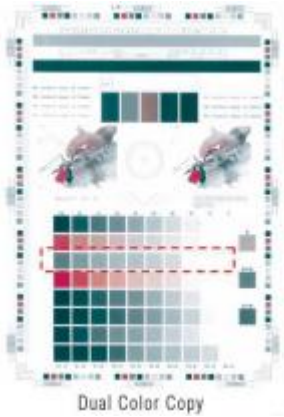


Figure 2 hs30008

[Dual Color Copy (Photo & Text Mode and Photo Mode Default Settings)]



Figure 3 hs30006

Procedure

1. No special actions required.

[Corrective Action]

1. You can use NVM 715-695 to select whether to reproduce the yellow color for each image quality mode. The default settings is as follows.

Table 1 Default setting

	Bit 3: Map Mode	Bit 2: Photo Mode	Bit 1: Photo & Text Mode	Bit 0: Text Mode
Reproduce yellow as black: 0	Default			Default
Do not reproduce yellow as black: 1		Default	Default	

REFERENCE

Description of NVM Settings

The NVM setting value is determined in binary first, and then converted to a decimal number.

Example: Changing the binary value (= 0110) in Table 1 above to decimal value results in the default value of "6".

CQ-5-2 Dual Color Copy Reproduction Adjustment (Adjustment of Color Reproduction Difference in Comparison with a Dual Color Device from Another Company)

Description

The color reproduction for Dual Color is different compared to a Device from another company.

[Cause]

As the default of Dual Color Copy , chromatic colors are extracted and then replaced with red to output while achromatic colors are replaced with black to output.

A sample Device from another company may, as the default, utilize a method that extracts only red to output as red and outputs the rest in black.

Therefore, when making Dual Color Copy in default setting, it would result in a different color reproduction from that of another company's.

	Default Setting	Other Company Sample
Extracted Color	Chromatic color	Red
Replacement for Extracted Color	Red	Red
Replacement for Non- extracted Color	Black	Black

Procedure

1. No special actions required.

[Corrective Action]

1. In [Copy Settings] screen, by changing [Output Color] (more options) -> [Dual Color] -> [Source Color] -> specify Red, you can obtain the same Dual Color Copy as another company's.

CQ-5-3 Dual Color Copy Reproduction Adjustment (Adjustment of Dual Color Photo Image Quality to Match a Device from Another Company)

Description

To make the reproduction the same as the Dual Color Copy Default Mode of a Device from another company.

[Cause]

The extracted color or replacement color for Dual Color is different.

Procedure

1. No special actions required.

[Corrective Action]

1. As it is difficult to reproduce the photo image quality of another company's Dual Color Copy (Figure 1) using the current image quality adjustment feature, make the following settings.
   - Source Color: Red, Yellow
   - Register a Custom Color [Yellow: 80, Magenta: 100, Cyan: 20] (Red equivalent) and specify it as the Target Area Color.
   - Register [Yellow: 100, Magenta: 100, Cyan: 100] (equivalent to black) as the registered color, and specify it as the copy color outside the extracted part.

[Dual Color Copy with a Device from Another Company]



Other Company Dual Color Copy

Figure 1 hs30001

[Normal Dual Color Copy]



Usual Dual Color Copy

Figure 2 hs30002

[Dual Color Copy after Taking Action]

- The achromatic color area is reproduced with YMC.
- C is mixed to the color area (Red).



Improved Dual Color Copy

Figure 3 hs30003

CQ-5-4 Dual Color Copy Reproduction Adjustment (Adjustment of Color Extraction Range)

Description

When yellow highlight is applied on fine red line, the highlighted portion does not appear as red and is reproduced in black instead.



Figure 1 hs30004

[Cause]

The interaction between fine red line and yellow highlight resulted in [Orange], which falls outside the [Red] extraction range.

Procedure

1. No special actions required.

[Corrective Action]

1. Adjust the Extraction Angle for Dual Color Copy.

In the case of this example, to extract the portion that had changed to [Orange] as [Red], increase the value of Chain-Link 715-785 (R-Hue End Degree) from 60 (Default) to 105. (Refer to Table 1 and Figure 2.)

Chain-Link		Item	Default Color Angle
715	780	B- Hue Start Degree	270 degrees
715	781	B- Hue End Degree	320 degrees
715	782	G- Hue Start Degree	110 degrees
715	783	G- Hue End Degree	200 degrees
715	784	R- Hue Start Degree	350 degrees
715	785	R- Hue End Degree	60 degrees
715	786	Y- Hue Start Degree	60 degrees
715	787	Y- Hue End Degree	120 degrees
715	788	M- Hue Start Degree	320 degrees
715	789	M- Hue End Degree	10 degrees
715	790	C- Hue Start Degree	190 degrees
715	791	C- Hue End Degree	280 degrees

[Default Color Extracted Color Angle]

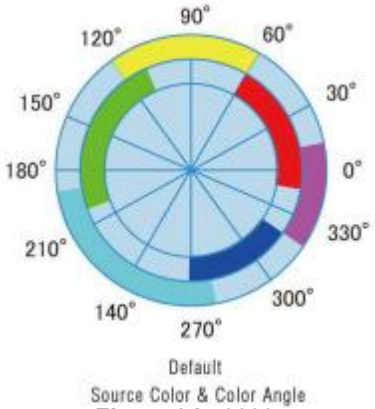


Figure 2 hs30007

2. [Darken the density], [Increase the saturation], and [Add more contrast] according to the customer's request to make the red color more vivid.
3. If the red color of fine red line is smeared and/or mixed with black, change from [Photo & Text Mode] to [Photo Mode].

CQ-6 Gradation Jump in 100-lines Photo Document

Description

In the BW and Text & Photo Copy Mode, gradation jump occurs on 100-line photo documents.



Figure 1 ki31013

[Cause]

As Text & Photo mode gives priority to 175-line halftone dots and text quality, Sharpen Edge is performed for low-line count dot.

Procedure

1. No special actions required.

[Corrective Action]

100-line document: Countermeasures

Table 1 100-line document: Countermeasures

Countermeasures	Secondary Defect
Set the Original Type to "Photo".	The text becomes blurred .
Enter the System Administrator Mode, go to [Device] -> [System Settings] -> [Image Quality] -> [Photo & Text Recognition] to make adjustments	Image quality of photographs deteriorate in [More Text] and [Text] settings. Text becomes blurred in [More Photo] and [Photo] settings.

CQ-7 Scan: Smeared Text, Mosquito Noise Around Text

Description

Color texts are blurred and mosquito noise is generated around the texts due to JPEG compression.



Figure 1 ki31014

[Cause]

As the JPEG compression technique is for images, not texts, noise is easy to crop up when it is used to compress texts.

Procedure

1. No special actions required.

[Corrective Action]

1. Set [Quality/File Size] in [Scan] to "Maximum/Largest".
   (Secondary defect: The file size becomes bigger.)

CQ-8 Fax: File Size, Transmission Time

Description

When a document with tint on the whole paper or a background image is scanned using Fax Text Mode in High Quality (Fine), the file size or the Fax transmission time may increase drastically.



Fax fine 133 line half tone Screen Image

Figure 1 ki31015

[Cause]

As the Text mode is designed to highlight texts, it generates halftone dot moire.

Procedure

1. Scan the customer's document (photo image) in Binary Scan mode and check whether moire is generated and the file size became bigger.

[Corrective Action]

133-line document: Countermeasures

Table 1 133-line document: Countermeasures

Countermeasures	Secondary Defect
Set Original Type to Photo & Text Mode, or Photo Mode.	As the amount of data increases in Text & Photo Mode, the Device takes a longer time for transmission.
Set [Lighten/ Darken] to [Lighten] and the [Sharpness] to [Soften].	The text quality is degraded.

CQ-9 Bleed on 2 Sided Document

Description

Bleed occurs in the BW Copy and Text Mode.

[Cause]

Because the gradation feature is designed to improve the reproducibility of Low Contrast, when bleed density of the document is high, the background suppression function might not be able to remove it completely.

Procedure

1. No special actions required.

[Corrective Action]

Bleed on document: Countermeasures

Table 1 Bleed on document: Countermeasures

Countermeasures	Secondary Defect
Switch the background suppression level setting. [Switch at NVM (715-633); refer to CQ- 1 for setting values]	Reproducibility of highlights is degraded .
Set the density adjustment to "Lighten +1".	The density on the whole area becomes lighter and the reproducibility of highlights is degraded.

CQ-10 Platen Background

Description

When scanning in A3 using fully white A4 paper such as J Paper, when using BW Copy, Text mode, and AE is ON, the density of the platen background stands out in the area outside the paper.

[Cause]

Since detection of paper such as J paper base level is small, the platen bag density may not be completely removed depending on the S/N level status of IIT.

Procedure

1. No special actions required.

[Corrective Action]

Platen Background: Countermeasures

Table 1 Platen Background: Countermeasures

Countermeasures	Secondary Defect
Switch the background suppression level setting. [Switch at NVM (715-633); refer to CQ- 1 for setting values]	Reproducibility of highlights is degraded .
Set the density adjustment to " Lighten + 1 " .	The density on the whole area becomes lighter and the reproducibility of highlights is degraded.
Set " Sharpness" to " Soften + 1 " .	The text becomes blurred.
Set the Color Balance Adjustment Level (Low Density) to "Lighten".	The low density becomes lighter and the reproducibility of highlights is degraded.

CQ-11 Color Balance Adjustment

Description

The color of the copy image quality is different from that of the original.

[Cause]

No special actions required.

Procedure

No special actions required.

[Corrective Action]

- Color IOT Models
  Perform fine adjustment for each Y, M, C, and K color density at the Diag function of the CE Mode. (use DC919)
- BW IOT Models
  Perform fine adjustment for K color density using Chain-Link 715-689 to 691 Default Color Balance Adjustment Level K Color.

1. Color IOT Models
   (1) Enter Diag mode and enter [DC919 Color Balance Adjustment].

   (2) Adjust the values of High Density/Medium Density/Low Density for Y, M, C, and K respectively within the range of -4 to +4 on the [DC919 Color Balance Adjustment] screen.
   - When Output Color is "B/W", the adjustment value for "K" becomes effective.
   - Press [Start] to reflect the setting value.
   - Visually check the copy image quality to ensure that it meets the customer's requirements.
2. BW IOT Models
   - Adjust the values of the High Density/Medium Density/Low Density for K color within the range of 0 to 8 according to the Chain-Link in the following table.
     - The default is 4.
     - 0 to 3 are to lighten: 4 levels
     - 5 to 8 are to darken: 4 levels

NOTE
The Chain-Link adjustment is done by visually checking the copy output while performing the adjustment.

Table 1

Chain-Link	Mode
715-689	Default Color Balance Adjustment Level K Color Low Density
715-690	Default Color Balance Adjustment Level K Color Medium Density
715-691	Default Color Balance Adjustment Level K Color High Density

CQ-12 Rough Thin Lines

Description

When a document containing extremely thin lines is copied in the Photo & Text Mode, the density of the lines on the copy may become uneven and rough.

[Cause]

Extremely thin lines are lines that are barely wide enough to be detected as edges. Therefore, as only some of their segments can be detected edges, the Device will switch between the following processes frequently, making the lines look rough.

- Edge Process: Darkens by emphasizing lines.
- Non-Edge Process: Lines are reproduced in a light density that is faithful to the document without emphasizing them.

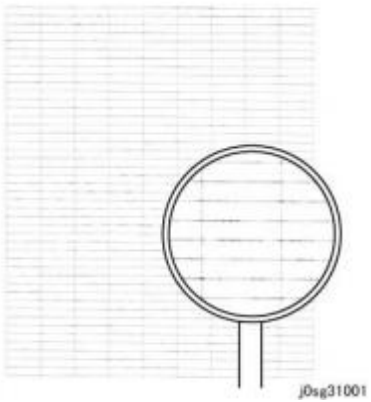


Figure 1 sg31001

Procedure

1. No special actions required.

[Corrective Action]

Countermeasures	Secondary Defect
• Text Mode • Text / Light Text Mode • Map Mode Make a copy in any one of the above modes.	• Because lines are more emphasized compared to the original, the overall image becomes darker.

Countermeasures	Secondary Defect
Enter the System Administrator Mode. [Device] -> [System Settings] -> [Image Quality] -> [Photo & Text Recognition] • Change [Normal] -> [More Text]. (To emphasize edges) or • Change [Normal] -> [More Photo]. (To reproduce the whole image smoothly without emphasizing edges) Try the above while looking at the resulting images and select your preferred one.	• Change [Normal] -> [More Text]. Because lines are more emphasized compared to the original, the overall image becomes darker. • Change [Normal] -> [More Photo]. Images will be faithful to the original but texts are reproduced lighter.

CQ-13 Moire due to Interference Between Document and IIT

Description

There are cases where moire is generated due to interference between the document and the IIT (Copy, Binary Scan).

- This is more likely to occur when the document number of screen lines is 100 lines, 133 lines, or 150 lines.
- This might also occur when the magnification is changed.
- This can also occur in the Full Color Mode.
- If this occurs, the ease at which it can be seen will vary depending on the device.

[Cause]

Moire might be generated due to the interference that arise with a 600 dpi scan depending on the number of lines and density of the document.

Dot 100 Lines (Halftone Original)

Copy in BW Text mode

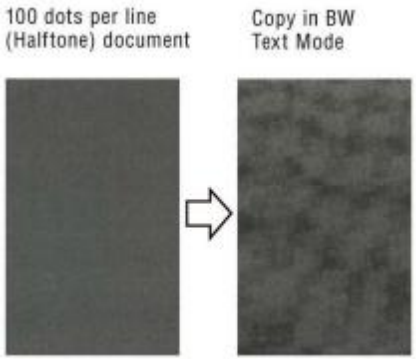


Figure 1 wg30001

Procedure

1. No special actions required.

[Corrective Action]

Countermeasures	Secondary Defect
• If this occurs in Text Mode, change to Photo & Text Mode. *If it is during a Copy, setting the [Photo & Text Recognition] in the spec settings to [More Photo] might improve the condition. • Change to Photo Mode. • Reduce sharpness. • If this occurs after a reduction/enlargement, use another R/E Ratio. • If it is during a Scan, use another resolution. • Change the orientation of the document.	• Text (line) turns into slightly blurred image.
Enter the System Administrator Mode and change the [Photo & Text Recognition] in the following menu from [Normal] to [More Photo]. [Device] -> [System Settings] -> [Image Quality] -> [Photo & Text Recognition]	• Change [Normal] -> [More Photo]. Images will be faithful to the original but texts are reproduced lighter.

CQ-14 Poor Reproduction of Inkjet Document

Description

When making a copy of a document that was printed by an inkjet printer, it is reproduced poorly on the output copy.

[Cause]

In the default document mode, the reproducibility is optimized when a printed material is used as document.

Procedure

1. No special actions required.

[Corrective Action]

1. In the System Administrator Mode, go to [Device] -> [App Settings] -> [Copy Settings] -> [Copy Controls] -> [Photo &Text / Printed Original] -> [Inkjet Originals] to configure the setting so that the color identification is improved when copying in Photo & Text Mode for documents that were printed using an inkjet printer.

CQ-21 Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Sharpness Adjustment)

Description

During 2 Sided Simultaneous Scan, the text and halftone dot reproduction qualities of copy or scan images are different between Side 1 and Side 2.

[Corrective Action]

Adjust the sharpness of Side 2 scan with NVM 716-421.

The NVM has 5 levels, and represents the Side 2 sharpness offset against Side 1.

Content	Setting Range	Default Value	Meaning
Sharpness adjustment for CIS (difference against Side 1)	0-4	2	Indicates the difference in sharpness adjustment against Side 1. 0: Soften by 2 levels compared to Side 1 1: Soften by 1 level compared to Side 1 2: Same as Side 1 3: 1 levels sharper than Side 1 4: 2 levels sharper than Side 1

Sample Image

Side 1 with low resolution power reproduces light and rough text. The difference in resolution power is manifested in the difference in density of text reproduced.

Sample Image (Left): Copy Text Mode Side 1

Sample Image (Right): Copy Text Mode Side 2



Figure 1 hk30001

CQ-22 Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Color Balance Adjustment)

Description

Narrows the density difference between Side 1 and Side 2 during scan.

[Countermeasures]

Adjust the color balance of Side 1/Side 2 separately. This adjustment changes the core of the Customer Mode color balance adjustment*.

* The Customer Mode color balance adjustment adjusts Side 1/Side 2 simultaneously whereas this adjustment adjusts them separately.

This adjustment is only applicable to the copy function. Perform this adjustment only when requested by the customer.

Table 1 Overview of color balance adjustment of Side 1/Side 2 scan

	Side 1 Scan Color Balance Adjustment	Side 2 Scan Color Balance Adjustment
Overview	Changes the core of Side 1 scan color balance adjustment of Customer Mode	Changes the core of Side 2 scan color balance adjustment of Customer Mode.
Adjustment Method	DC919	NVM 716-408 to 419
Adjustment Value	"0" is the default value. "- 1" to "-4" lighten the color balance in 4 stages. "1" to "4" darken it in 4 stages.	"4" is the default value. "0" to "3" lighten the color balance in 4 stages. "5" to "8" darken it in 4 stages.

Table 2 Side 2 Scan Color Balance Adjustment Chain-Link List

Chain-Link	Mode
716-408	Side 2 Color Balance Adjustment Level K Color Low Density
716-409	Side 2 Color Balance Adjustment Level K Color Medium Density
716-410	Side 2 Color Balance Adjustment Level K Color High Density
716-411	Side 2 Color Balance Adjustment Level Y Color Low Density
716-412	Side 2 Color Balance Adjustment Level Y Color Medium Density
716-413	Side 2 Color Balance Adjustment Level Y Color High Density
716-414	Side 2 Color Balance Adjustment Level M Color Low Density
716-415	Side 2 Color Balance Adjustment Level M Color Medium Density
716-416	Side 2 Color Balance Adjustment Level M Color High Density

Table 2 Side 2 Scan Color Balance Adjustment Chain-Link List

Chain-Link	Mode
716-417	Side 2 Color Balance Adjustment Level C Color Low Density
716-418	Side 2 Color Balance Adjustment Level C Color Medium Density
716-419	Side 2 Color Balance Adjustment Level C Color High Density

(Sample adjustment)

Adjust the Yellow low density portion of Side 2 as it is light compared to Side 1.

1. Enter DC919 and check the value of Side 1 Color Balance Adjustment Y Low Density. Assume it is the default "0" for Side 1.
2. To darken Side 2 Y Low density, increase the default 4 of Chain-Link 716-411 in the range of 5 to 8.

NOTE
The NVM value adjustment is done by visually checking the copy output while performing the adjustment.

CQ-24 Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Background Suppression Adjustment)

Description

CQ-01 Background Suppression Adjustment (Continuation)

1. Adjustment in CE Mode (NVM)

When adjusting the Text & Photo mode for BW Copy, Fax, and BW Scan, change the following NVM values:

Chain-Link	NVM Name	PSW Display	Setting Range	Default Value	Meaning
715-631	Background Suppression Offset Level for BW Copy, Fax, Binary Scan Photo & Text Mode (Print, Photograph, Copy)	TP_BW_Copy_Fax Offset Level of AE	0 to 4095	273	Background Suppression Level*1 0: Strength Level 0 (Standard) 1: Strength Level 1 2: Strength Level 2 3: Strength Level 3 4: Strength Level 4 5 to 15 and above: Strength Level 0 (Standard) 0 bit to 3 bit: Platen 4bit-7bit: CVT&DADF 8bit-11bit: CIS

*1: Relationship between Background Suppression Level and Strength Level

Table 1 Relationship between Background Suppression Level and Strength Level

Background Suppression Level	Strength Level
Normal	0, (5 to 15)
Higher +1	1
Higher +2	2
Higher +3	3
Higher +4	4

	Meaning of Adjustment Value		
Scanning Method	CIS	CVT&DADF	Platen

	Meaning of Adjustment Value											
Bit allocation	11	10	9	8	7	6	5	4	3	2	1	0
Expressed in binary	0	0	0	1	0	0	0	1	0	0	0	1

* Changing the binary value in Table 3 above to decimal value results in the default value of "273" in Table 1.

Reference: Description of NVM Settings

The NVM setting range is 12 bit, which are broken up into 4 bit for each scan method. The NVM setting value is determined in binary first, and then converted to a decimal number.

Example: The initial value 273 (decimal) indicates that the background suppression levels are 1 for all scan methods.

When the background suppression levels are 2 for all scan methods, it is = 546 (decimal) = 001000100010 (binary)

When the background suppression levels are 3 for all scan methods: = 819 (decimal) = 001100110011 (binary)

When the background suppression levels are 4 for all scan methods: = 1092 (decimal) = 010001000100 (binary)

When background suppression level of Platen or CVT & DADF scan method is 1, and CIS scan method is 3 (background suppression of Side 2 against Side 1 is desired): = 785 (decimal) = 001100010001 (binary)

When background suppression level of CIS scan method is 1, and Platen or CVT & DADF scan method is 3 (background suppression of Side 1 against Side 2 is desired): = 307 (decimal) = 000100110011 (binary)

CQ-25 Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Color Adjustment)

Description

Narrows the color difference between Side 1 and Side 2 during scan.

[Countermeasures]

By performing "2 Sided Scanning Color Correction" of the System Administrator Mode, the color difference between Side 1 and Side 2 is automatically brought close to Side 1. This adjustment is only applicable to the copy, scan functions. Perform this adjustment only when requested by the customer.

[Adjustment Method]

Refer to "Performing 2 Sided Color Scanning Calibration" in the Administrator's Guide and perform it.

3.3.3 Fusing Unit Paper Wrinkles Alignment Adjustment

Procedure

1. Installation/removal of Adjustment Bracket

(1) Remove the Fusing Unit.

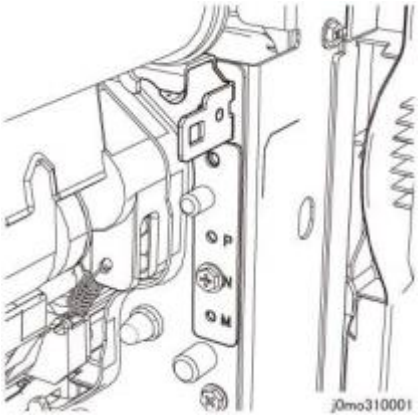


Figure 1 mo310001

(2) Remove the alignment adjustment bracket on the Front Side.

- Loosen the screw on top and remove the screw at the bottom.

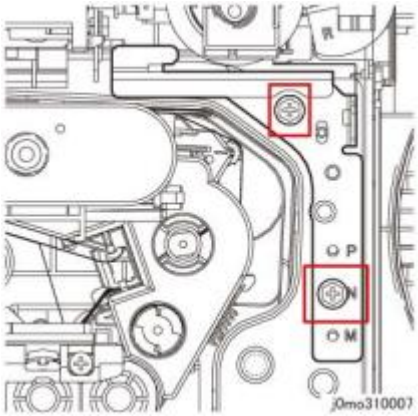


Figure 2 mo310007

- N: Nominal position
- M: Minus position
- P: Plus position

2. Adjustment Method

Refer to "Usage Flow of Alignment Adjustment Bracket" in Step 3 for adjustment.

(1) Move the adjustment bracket from N -> M when paper wrinkle appears on the left side of the printout.

(a) Temporary tack the Screw in the hole at the top.

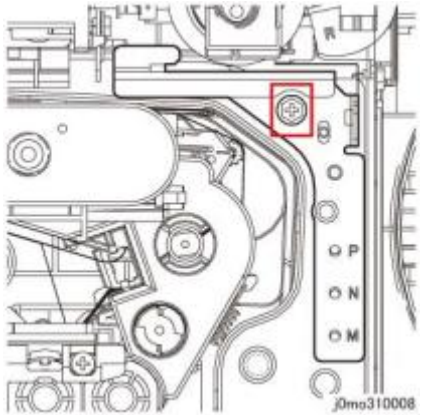


Figure 3 mo310008

(b) Fasten the Screw in the M hole at the bottom.

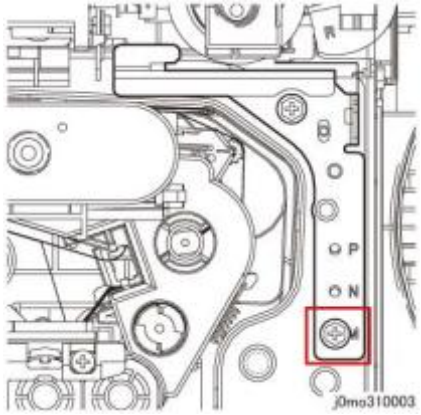


Figure 4 mo310003

(c) Tighten the Screw at the top.

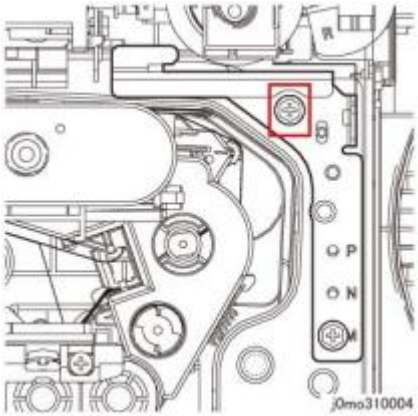


Figure 5 mo310004

(d) Install the Fusing Unit.

(2) Move the adjustment bracket from N -> P when paper wrinkle appears on the right side of the printout.

(a) Temporary tack the Screw in the hole at the top.

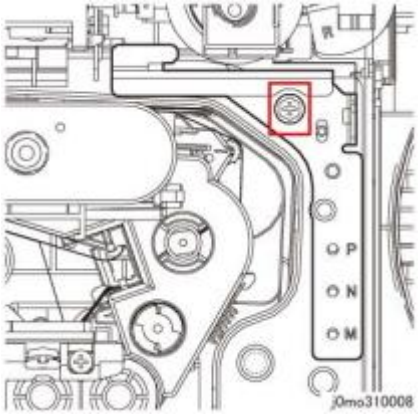


Figure 6 mo310008

(b) Fasten the Screw in the P hole at the bottom.

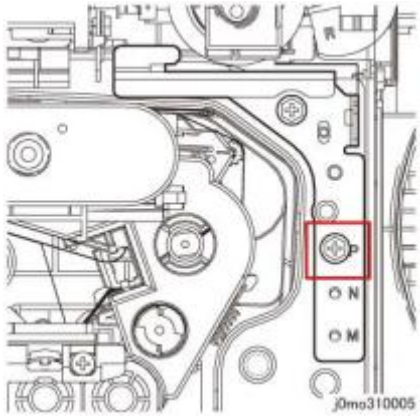


Figure 7 mo310005

(c) Tighten the Screw in the P hole at the top.

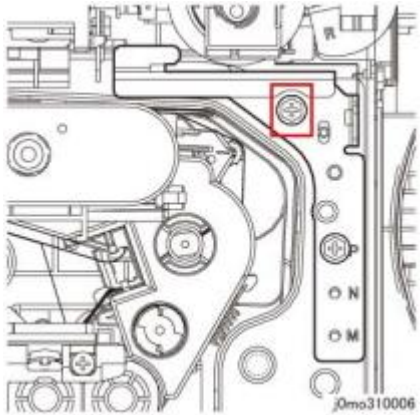


Figure 8 mo310006

(d) Install the Fusing Unit.

3. Usage Flow of Alignment Adjustment Bracket

NOTE

Use this when paper wrinkles (*1) have been generated due to interaction.

(1) Paper wrinkle due to interaction

- Paper wrinkles due to interaction between the Fusing Unit, Transfer, and Regi

- Cause: The positional relation between the various Sub Rolls is wrong, which degenerates the transport form of the paper and results in wrinkles being generated in the Fusing Unit.

(2) *2: Sampling

- Paper: A3 SEF
- Pattern: Half Tone K50%
- No. of sheets: Simp 5 sheets

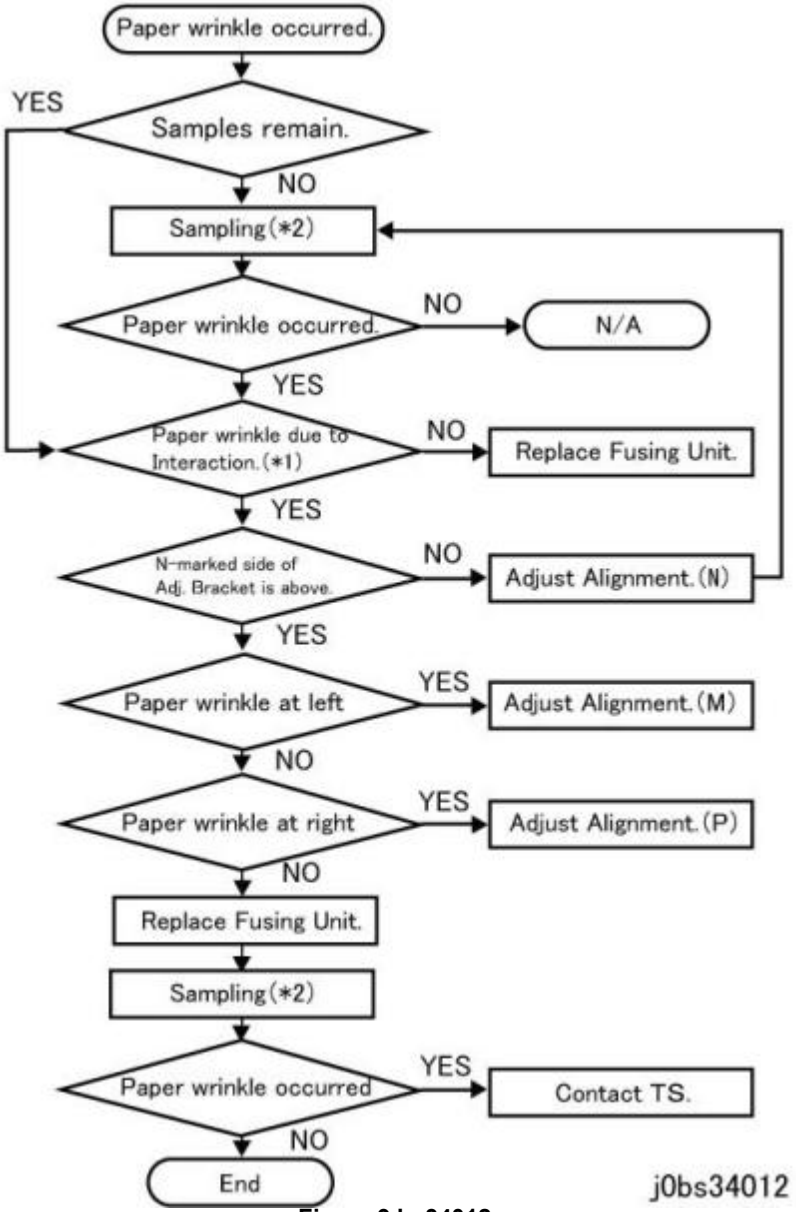


Figure 9 bs34012

3.3.4 Cycle Table

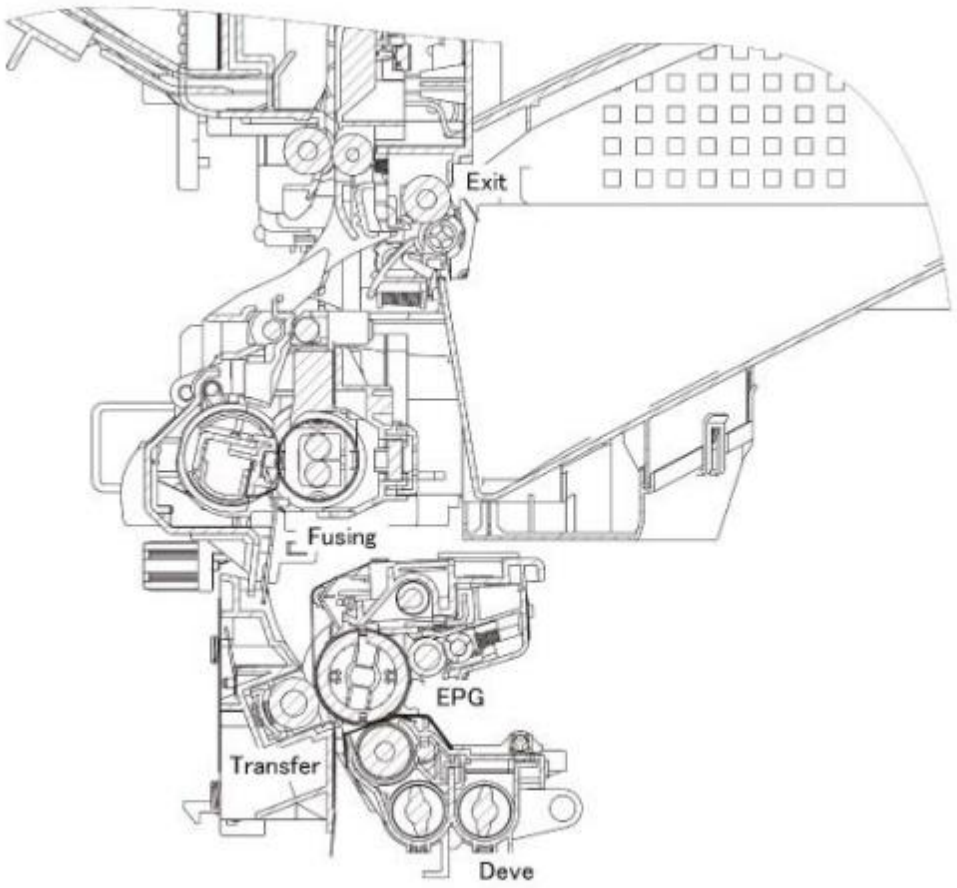


Figure 1 mnl330005

Sub	Device	Diameter (imm)	Print Period (imm)
Exit	Pinch Roll	10.00	31.4
	Exit Roll	15.00	47. 1
Fusing	Heat Roll	26.12	82.5
	Belt	30.10	95. 1
Transfer	BTR	16.00	50.3
Deve	Roll Assy Mag	18.20	31.8
EPG	Drum	30.00	94.2
	BCR	12.00	37.7
	BCR Cln	9.30	29.2

3.3.5 Things to Note for Image Quality Restrictions

	Image Quality Problem Name	SUB	Details	Occurrence Condition				Interim Measures Details
				Environment	Side-1 Side-2	Media	Others Conditions	
1	Nip Marks	Fusing	If you have not used it for a while, such as when replacing a new unit, early in the morning or after not using it for a few days, the Nip of the Fusing Roll can be depressed because of pressure applied. After starting up, if printing is done before it is warmed up for a period of time and the depressed part returns to its original state, the gloss of the depressed part changes, and image defects, such as smear, may occur.	All	Both Side 1 and Side 2 Media: this phenomenon is more obvious with cardstock Other conditions: this phenomenon is more obvious with solid images (not easily detectable on non-solid images)	-	-	Warm up for a period of time until the depressed part returns to its normal state (leave it on standby or print).
2	Condensation Copy	Fusing	Sometimes patches of water droplets may be found on paper that is printed right after Device start up.	All	-	Hydrated paper is a stress.		Use fresh paper
3	White Streaks in Process Direction	Deve	It give better improvement than Sangoh, but it does not stop foreign matter in the reclaimed toner from getting into Deve and clogging the trimmer and forming white streaks.	All	Side-1 Side-2	All	Paper Types With A Lot of Paper Dust	Replace the Drum Cartridge (In some cases, recovery may happen with continued printing)
4	Density decrease during high AC continuous printing	Deve	Due to Dispense density conformance, density may gradually decrease with high A/C. The solid density specification of IOT image quality in the IOT Performance Specification states that *2) After continuous runs of high & low AC images, the specified specifications may be exceeded.	All	Side-1 Side-2	All		After some time a blank paper is printed
5	Density decrease with low AC continuous printing	Deve	Since it is a reclaimed machine, it cannot discharge toner, so low-image-density RUN raises the TV and lowers density. The solid density specification of IOT image quality in the IOT Performance Specification states that *2) After continuous runs of high & low AC images, the specified specifications may be exceeded.	All	Side-1 Side-2	All		Execute the Toner Refresh Mode Print a solid black patch

	Image Quality Problem Name	SUB	Details	Occurrence Condition				Interim Measures Details
				Environment	Side-1 Side-2	Media	Others Conditions	
6	Auger Mark	Deve	No. of samples is reduced for cost reduction purposes. It becomes weak after running continuously on high AC.	All	All	All	Significant at HT CRU Near Life Immediately after CRU replacement When toner is low	Developer Replacement Developer refill Replace the Drum Cartridge
7	Toner Streaks	Deve	When the toner is consumed abruptly, poorly-agitated toner may be fed (due to toner blockage), and insufficient agitation in the Developer Housing Assy may cause toner streaks to appear on the prints. • Since toner is fed forcibly at the time of toner recovery, such as immediately before an empty detection, a short streak-like stain may appear for a while.	All	Side-1 Side-2	All	After machine is left alone Immediately after high density image print Immediately after low density image print and after insertion/removal of the Drum Cartridge After toner recovery	Disappears when the toner causing the blockage is discharged
8	Side 2 contamination (foggy & horizontal stripes on Side 2 edges)	Deve	It happens when cloud toner accumulates on the BTR Inlet Chute and is generated by the scraping of accumulated cloud toner on the paper (fog-like stain). At this time, if the BTR is contaminated, the Side 2 surface becomes dirty at the BTR pitch (Side 2 horizontal stripes)	High humidity environment	Side-2	All	Significant when printing on wide papers after continuous printing on narrow papers	Print several sheets of wide white paper (A4 LEF) Clean the Chute
9	Black Spots	Deve	When the image developing electric field of a high AC image, covered with low-charge toner and magnetically trapped downstream of the magnetic round rod trimmer, becomes strong, it moves to the developer nip and becomes black spots.	All	Side-1 Side-2	All	Significant at HT50%, but does not occur at HT30%/100%. Significant in high temperature environments	Print a solid black patch
10	Paper Dust Fog (Fibrous)	EPG /Deve	Occurs when non-circulating developer accumulates in the Deve unit	All	Side-1 Side-2	All	After jam clearing After paper replacement Or other circumstances in which vibration is applied to the M/C or ERU	Developer Replacement Replace the Drum Cartridge Execute the Toner Refresh Mode

	Image Quality Problem Name	SUB	Details	Occurrence Condition				Interim Measures Details
				Environment	Side-1 Side-2	Media	Others Conditions	
11	Corrugation Streaks	PH	Depending on the paper, there may be Pinch Roll traces or minor scratches in the paper feed direction. This is more likely to occur with special paper such as Gloss.	All	Side1 , Side2	Cardstock Paper Coated	-	Use substitute paper (Non- gloss, lightweight paper).
12	Star Wheel Mark	Xfer	For Dup A3 moist paper, when Side 1 curls after fusing, and Side 2 does not go in/out of the Nip of the Fusing Unit evenly, this is will result in improper orientation of the paper between transfer and fusing, the paper will come into contact with the star wheel that has accumulated toner contamination, and this contamination is transferred to the paper.	A	Side- 2	JW A3	-	(Performance limit)
13	80mm Pitch Offset	Xfer	Image is offset on paper at the H/Roll pitch. Caused by rough H/Roll surface or static electricity.	C, B	Side- 2	V- PaperA3 P A3	HT or ladder	Set the 2nd Transfer Voltage to Minus side (reduce the voltage) by performing 2nd Transfer Voltage Offset Adjustment (UI operation). Take into consideration that it is a trade- off with transfer failure.
14	Trail Edge Contamination	Xfer	Toner accumulates in the sheet transport path, and the trail edge of the sheet becomes dirty because of the application of the accumulated toner. In case of AP/DC-V 3060G, the Regi Chute Film position becomes dirty.	All	-	Paper with strong resilience	-	Clean the paper transport path. (Be careful not to damage the film member, etc. when cleaning)
15	Smear on Cardstock	Xfer	This is caused by slipping in the transfer area when the lead edge of the paper, especially when it is a thick paper, enters the fusing nip. The speed changes when the trail edge leaves the Regi nip.	All	Side- 1 Side-2	Heavy Media	-	Change the following NVM (in the negative (-) direction) and reduce the Drum speed. (In some cases, there is no improvement) 746-091 (Lightweight Cardstock)/ 746-092 (Cardstock)/ 746-093 (Labels)/ 746-094 (Heavyweight Labels)/ 746-095 (Lightweight Glossy Cardstock)/ 746-096 (Glossy Cardstock)/ 746-097: (Envelope)/ If it is lowered too much, the vertical magnification may collapse or the paper may be damaged.

	Image Quality Problem Name	SUB	Details	Occurrence Condition				Interim Measures Details
				Environment	Side-1 Side-2	Media	Others Conditions	
16	Chain- like Blank Area	Xfer	Use P or V paper. A discharge phenomenon occurs in the Pre-Nip depending on the posture of the paper, and white spots are formed.	All	Side- 2	P- paper/ V- paper etc.	HT (Not outstanding with text)	Set the 2nd Transfer Voltage to Minus side (reduce the voltage) by performing 2nd Transfer Voltage Offset Adjustment (UI operation). Take into consideration that it is a trade- off with transfer failure.
17	HT Side 2 white spots (chain- like white spots)/ black spots (sesame- like transfer failure at the trail edge (trail edge 7 mm))	Xfer	This occurs when the resistance of the BTR increases with time in the C/J environment or over time, or when dry paper is used, due to uneven charging of the drum by the transfer current. If it happens during or after Nip, black spots will form. If it happens before Nip, white spots will form.	C, J	Side- 2	High elec- resistance paper	HT (Not outstanding with text)	Set the 2nd Transfer Voltage to Minus side (reduce the voltage) by performing 2nd Transfer Voltage Offset Adjustment (UI operation). Take into consideration that it is a trade- off with transfer failure.
18	Lead Edge XX mm Black Line 30 ppm: 15 mm (A4 LEF), 21 mm (Letter LEF) 35 ppm: 39 mm (A4 LEF), 45 mm (Letter LEF)	Xfer	Black line at lead edge due to residual potential of previous page's trail edge	A	Next page of Side1 (Simp: the second page after the first page, except Dup: Next page of Side 1)	-	HT (Not outstanding with text)	Change the following NVM (in the negative (-) direction) to adjust the TES controls. * The first 3 digits for all of them are [746-]. 072,073,074 (Plain) /075,076,077 (Lightweight Cardstock) /078,079,080 (Cardstock) /081,082,083 (Labels) /084,085,086 (Envelope) If the value is too low, transfer failure may occur, such as a solid black patch at the trail edge.
19	Printed Side Toner Contamination	Xfer	A cloud of toner around the transfer chute accumulates electrically on the transfer chute and is physically transferred to the paper.	All	Side- 1 Side-2	-	-	(Performance limit)
20	The Simp Mode covers a 50mm width in drum axis direction (BTR 1- cycle)	Xfer	The toner that has deteriorated over time adheres to the BTR (during empty rotation, etc.) and is transferred to the paper. Appears on the first sheet after the recovery.				Simplex	Replace the BTR

	Image Quality Problem Name	SUB	Details	Occurrence Condition				Interim Measures Details
				Environment	Side-1 Side-2	Media	Others Conditions	
21	Toner Explosion (Scaly defects)	Xfer	A phenomenon in which the toner on the paper is biased when the charge on the toner is greatly reduced, and the electrical resistance of the paper is large and static elimination is likely to occur	A, B	Side2	P-paper/V-paper Fresh paper causes stress	-	• After opening, leave to stand for 30 minutes. • When using fresh paper, switch the DTS to "Always ON" (746-015: default 0 -> 1). Take into consideration that it is a trade-off with transfer failure.
22	Roll Marks	Fusing PH	Depending on the paper, there may be rubber roll traces or toner WAX component stuck in the paper feed direction when performing 2 Sided print or changing the output destination after continuous printing. This is more likely to occur with glossy cardstock and transparencies.	All	All	All On glossy cardstock, this problem is more obvious.		Output several sheets of blank paper to clean the wax component adhered to the Roll.
23	Vapor	Fusing	White vapor may come out from the upper part of LH cover when moist paper is fed. (There are no safety issues.)	All	All	Hydrated paper is a stress.		Use fresh paper
24	Side 2 Rib Streak	Fusing	A rib mark may appear in the paper feeding direction on the printed side of Side1 when Duplex print is performed. This is more likely to occur with special paper such as Gloss.	All	side1	Cardstock, Glossy Cardstock		Rib streaks will be reduced more when paper is output to Exit 1, compared to when it is output to Exit 2. The occurrence level during outputting to Exit 1 is performance limit.
25	Light- induced fatigue	EPG	If left alone without shading the photoreceptor, the density may change from the photoreceptor cycle. -> This will disappear if left alone.	All	All	All	Immediately after replacing the Drum Cartridge After releasing the LH Cover for a long period of time	Leave it overnight or replace the Drum Cartridge
26	BCR Pitch Uneven Density	EPG	Depending on the shape of the BCR, it may occur at 175 mm/s, 106lpi (600 dpi) Clean, Low Cin HT (less than 10%) at the BCR pitch.	All	All	All		This can be avoided by selecting the paper type PS for 126 mm/s.

3.3.6 Marking Refresh Mode

Purpose

If the toner in the machine continues to be circulated without being consumed, the toner may deteriorate and image density may reduce, or defects such as fogging and offset may be prone to occurring Since this machine does not have a waste toner bottle, instead of collecting the deteriorated toner, a mode is provided in which a solid image print is being output to discharge the deteriorated toner out of the machine.

Operation Content

The pixel count of the printed image is cumulatively counted, and when it is determined that the toner consumption is small, Refresh Mode may be executed. The print output is a completely solid image.

NOTE

The customers may do this on their own. Paper and toner are consumed, but there is no printing charge.

Procedure

1. Select [Device].
2. Press [Device Status].
3. Press [Check Consumables] to check the status of the drum cartridge.
   When [OK (cleaning required)] is displayed, press [Drum Cartridge].



Figure 1 mnl330002

4. Select [Cleaning].



Figure 2 mnl330003

5. Follow the instructions in the displayed message to select the paper as required and press [Start].

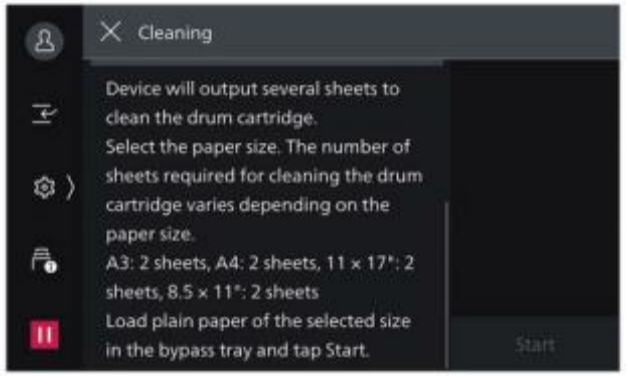


Figure 3 mnl330004

6. The print output is a completely solid image.

Chapter 4 Disassembly/Assembly and Adjustment

4 Disassembly/Assembly and Adjustment

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4.1 Preface

This section contains procedures required for parts disassembly, assembly, replacement and adjustment.

4.1.1 How to Use the Disassembly/Assembly and Adjustment

1. The installation procedure is omitted since it is the reverse of the removal procedure. However, if there is a procedure that requires caution during installation, it is described as an installation procedure.
2. Numbers in the illustration indicate the sequence of the steps.
3. (REP X.X.X) at the end of a procedure indicates the replacement procedure to be referred to.
4. Item numbers of disassembly/assembly and adjustment procedures (i.e. REP/ADJ No.) correlate to PL No. in Chapter 5 Parts List.
   E.g. The Disassembly/Assembly No. and Adjustment No. of the parts included in [PL 1. 1] is indicated by [REP 1. 1.X] and [ADJ 1. 1.X] respectively.
5. Positions or directions of the Device and directions inside the Device used in the procedure are defined as below.
   (1) Front: Front of the Device
   (2) Right: Right-hand side when facing the front of the Device
   (3) Left: Left-hand side when facing the front of the Device
   (4) Rear: Rear when facing the front of the Device

4.1.2 Terminology and Symbols

The terminology and symbols used throughout this manual are explained here.

DANGER
Indicates an imminently hazardous situation, such as death or serious injury if operators do not handle the Device correctly by disregarding the statement.

WARNING
Indicates a potentially hazardous situation, such as death or serious injury if operators do not handle the Device correctly by disregarding the statement.

! CAUTION
Indicates a potentially hazardous situation, such as injury or property damage if operators do not handle the Device correctly by disregarding the statement.

NOTE
Used when work procedures and rules are emphasized.

Instruction: Used to alert you to a procedure which, if not strictly observed, could result in damage to the Device or equipment.

REFERENCE
Used when other explanations are given.

Purpose

Used to describe the purposes of Adjustment.

Safety Critical Components (SCC)

For the safety control of the Safety Critical Components and the components specified, follow the regulations regarding the Safety Critical Components set by our company.

As to replacement of any component designated SCC, the complete component unit must be replaced. It must never be disassembled or no individual internal parts of it must be replaced. However, even the parts specified as SCC can be disassembled if they include spare parts at the lower level.

Installation of any part other than the ones designated by our company shall be strictly prohibited because it cannot be guaranteed in quality and safety.

Important Information Stored Component (ISC)

This component stores all the important customer information. Perform the replacement/discarding operation according to the procedures found in Chapter 4, and do not leak to the outside.

4.2 Disassembly/Assembly

1. IIT/UI

REP 1.1.1 Platen Kit

Parts-list-on: PL 1.1

Installation

NOTE

Remove all remaining tape on the Platen Cover after the Platen Cushion has been peeled off.

1. Place the Platen Cushion on the Platen Glass, at the proper position. (Figure 1)
   (1) Peel off the tape liner (x2).
   (2) Leave a gap of 0.5 +/-0.3 mm from the Regi Guide and the Platen Guide of the Platen Glass.
   (3) Close the Platen Cover gently and press it onto the Platen Cushion.

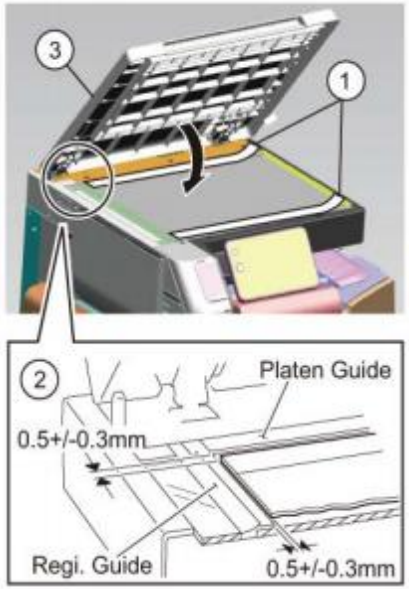


Figure 1 mbl401001

REP 1.1.2 IIT Trans PWB

Parts-list-on: PL 1.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the Rear Cover. (REP 19.2.1)
3. Remove the IIT Rear Cover. (PL 1.1)
4. Remove the IIT Trans PWB. (Figure 1)
   (1) Disconnect the connector (x2).
   (2) Remove the screw (x4).
   (3) Remove the IIT Trans PWB.

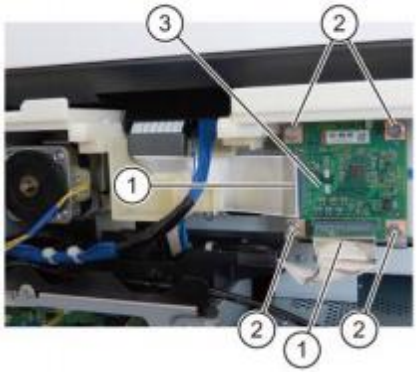


Figure 1 mbl457014

Installation

1. Place and install the IIT Trans PWB inside the protrusion. (Figure 2)

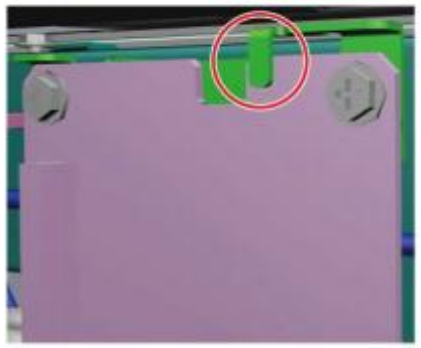


Figure 2 mbl457015

REP 1.2.1 Platen Glass

Parts-list-on: PL 1.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the Platen Cover or DADF.
3. Remove the Platen Glass. (Figure 1)
   (1) Remove the screw (x2).
   (2) Remove the Right Plate.
   (3) Remove the Platen Glass.

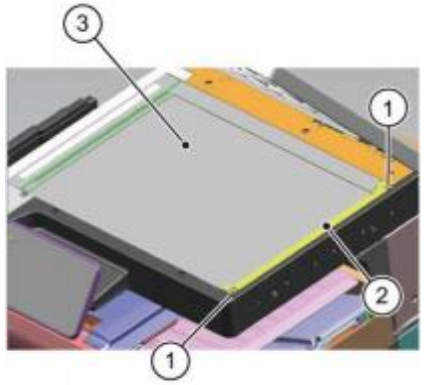


Figure 1 mbl401002

Installation

1. To install, carry out the removal steps in reverse order, taking note of the following:

NOTE

Push the Platen Glass in the direction of arrow A and the Right Plate in the direction of arrow B.

(Figure 2)

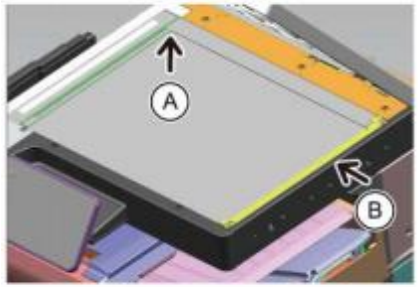


Figure 2 mbl401003

REP 1.2.2 CCD Lens Assembly

Parts-list-on: PL 1.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

Optical axis correction using UI Diag is required after replacing the parts. After replacement, always check the optical axis and perform the optical axis correction adjustment where necessary. (The correction procedures are described in this step.)

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the following parts:
   - Platen Glass (REP 1.2.1)
   - Lens Cover Assembly (PL 1.2)
3. Move the APS Sensor. (Figure 1)
   (1) Remove the screw.
   (2) Release the harness from the clamp (x2).

(3) Move the APS Sensor.

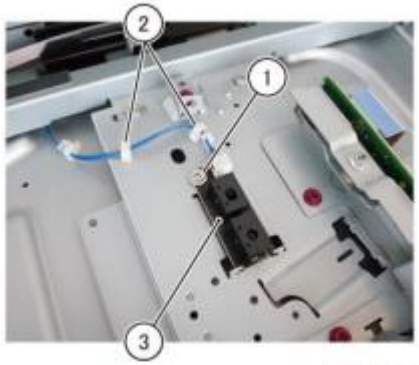


Figure 1 mb401003

4. Disconnect the FFC CCD Contact Cable. (Figure 2)
   (1) Release the hook and disconnect the connector.



Figure 2 rk40113

5. Replace the CCD Lens Assembly. (Figure 3)

NOTE

When removing the CCD Lens Assembly, never remove the screw (Red: x2) of the jig pin.

   (1) Remove the screw (x4).
   (2) Replace the CCD Lens Assembly.
   (3) Secure the CCD Lens Assembly with the screw (x4).

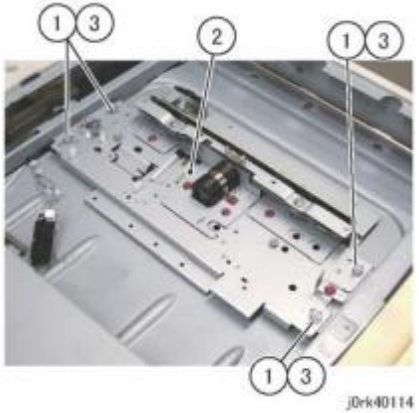


Figure 3 rk40114

6. Connect the FFC CCD Contact Cable.
7. Install the APS Sensor and the Lens Cover Assembly.
8. Install the Platen Glass. (No need to install the Right Plate.)
9. Change the following items to match values listed in the [NVM List] (NPOT) that is bundled with the Device at shipment.
   (1) Write NPOT values (fixed value)

Chain	Link	Description
715	106	IIT Paper Code (J Paper)
715	020	No. of APS
715	307	Document Size Detection Table Switching

   (2) Write NPOT values (adjustment value)
   - Check the sample and perform the necessary adjustments. (Alignment)

Chain	Link	Description
715	050	Platen Slow Scan Regi Correction Value
715	051	Platen Slow Scan Reduce/ Enlarge Correction Value
715	053	Platen Fast Scan Regi Correction Value

   (3) Set the NVMs that were individually configured.
   - If there are individual NVMs that are configured by market, check the history and set them.

10. Make an A3 size copy using the Test Chart, and check the Lead/Trail as well as both sides.
11. Reinstall the removed parts if no problem is found.
    If any problem is found in the image (especially alignment), go to Step 12.

NOTE

In the following steps, it is best to work in a condition in which outside light is minimized. If the device is directly below fluorescent light, perform the servicing with the Platen (or DADF) somewhat closed to shut out the light.

12. Enter UI Diag.
13. Enter [IIT Calibration] (White Reference Adjustment, CCD Calibration, Optical Axis Correction).
14. Select [Optical Axis Correction].
15. Follow the instructions shown on the screen. Open the Platen and press [Start].
    The Lamp Carriage moves and the lamp irradiates.
16. Check the following items on the UI screen.

Optical Axis Correction	
Optical Axis Correction Result	NG
Front Nut Correction Angle - : Left rotation	-90
Rear Nut Correction Angle + : Right rotation	-555

Optical Axis Correction Result: Displays OK/NG. If OK appears, the operation is complete. If NG appears, correction is needed. Front/Rear Nut Correction Angle shows a combination of +/- and a number.

- Front Nut refers to the Nut at the front of the CCD Lens Assembly.
- Rear Nut refers to the Nut at the rear of the CCD Lens Assembly.
- +: Refers to right rotation.
- -: Refers to left rotation.
- Numeral: Refers to the angle. (Unit: degrees)

Using the content of the above table as an example:
The Front Nut must be rotated 90 degrees to the left.
The Rear Nut must be rotated 555 degrees to the left.

REFERENCE

If the value is an abnormal number such as 990, clean the Platen Glass and the mirror, etc. and start again. This may be due to the light path being blocked.

17. Carry out the steps above using the information on the UI screen.
18. Rotate the nut. (Figure 4)

NOTE

As it is difficult to control the rotation amount, it is recommended to draw a line on a strip of paper and tape it to the tip of the Box Driver to make a mark as shown in the figure below.

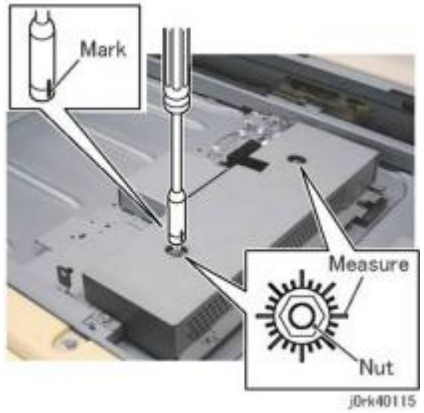


Figure 4 rk40115

19. After the adjustment, perform [DC945 IIT Calibration] (White Reference Adjustment, CCD Calibration, Optical Axis Correction) again.
20. Repeat Steps 12 to 18 until the result displays [OK].

NOTE

If the result is [OK], the operation can be completed even if the number of rotations is still displayed.

21. Reinstall all removed parts.

REP 1.3.1 Front/Rear Carriage Cable

Parts-list-on: PL 1.3

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

The burr at the edge of the IIT Frame might cause injury. Be very careful when disconnect the Carriage Cable.

NOTE

The front and rear coatings of the Carriage Cable are different.

- Front: Silver
- Rear: Black

NOTE

Only the replacement procedures for the Rear Carriage Cable is described here. The replacement procedures for the Front Carriage Cable is the same as for the Rear Carriage Cable.

NOTE

The Carriage Cables must be replaced one by one. Never remove both front and rear cables at the same time.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the Platen Cover or DADF.
3. Open the Front Cover Unit. (PL 19.2)
4. Open the L/H Cover Assembly. (PL 14.2)
5. Remove the following parts:
   - Platen Glass (REP 1.2.1)
   - L/H Top Cover (PL 19.1)
   - Pillar LH Cover (PL 1.7)
   - IIT Left Cover (PL 1.1)
6. Take note of the installation position of the FK Glass Support. (Figure 1)
   (1) Mark.

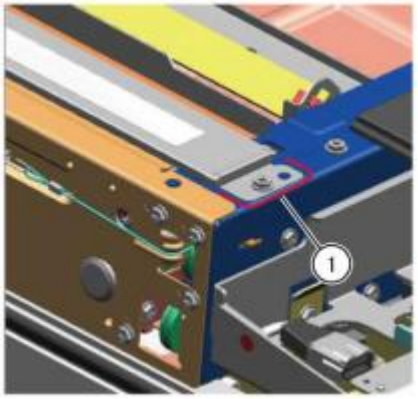


Figure 1 mbl401004

7. Remove the Platen Assembly CVT. (Figure 2)
   (1) Remove the screw.
   (2) Remove the FK Glass Support.
   (3) Remove the Platen Assembly CVT.
   When installing, place it such that the mark on the left side surface is at the rear.

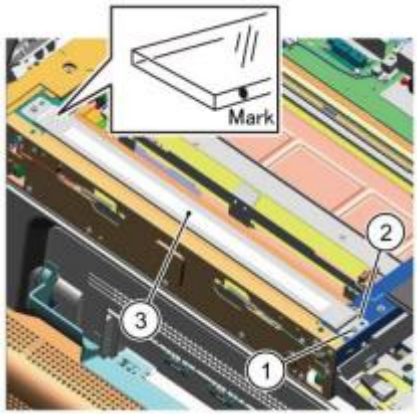


Figure 2 mbl401005

8. Unfasten the Carriage Cable from the Full Rate Carriage. (Figure 3)

(1) Move the Full Rate Carriage to the notch on the Frame.
(2) Remove the screw.

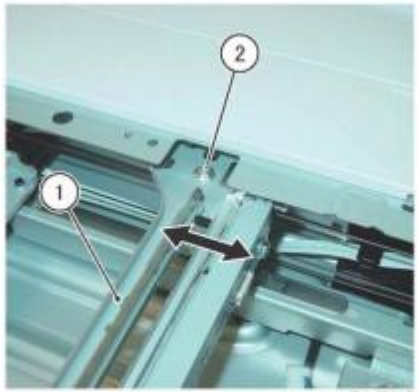


Figure 3 rk40118

9. Remove the Carriage Cable. (Figure 4)
   (1) Remove the Extension Spring from the Frame.
   (2) Detach the cable from the Extension Spring.

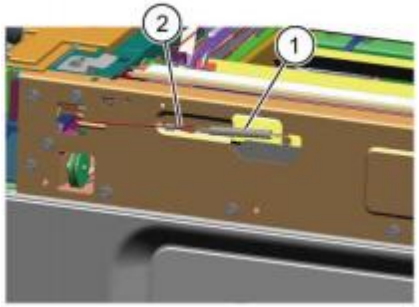


Figure 4 mbl401006

10. Remove the Carriage Cable. (Figure 5)
    (1) Pull out the ball from the notch of the Frame and remove the Carriage Cable.

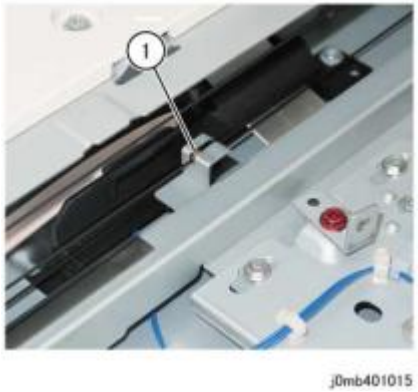


Figure 5 mb401015

Installation

1. Insert the ball of the Carriage Cable into the groove of the pulley. (Figure 6)

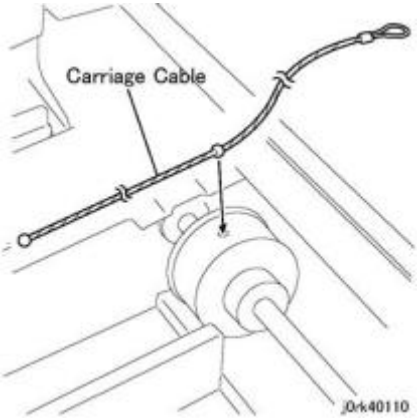


Figure 6 rk40110

2. Wind the Carriage Cable at the Extension Spring end around the Capstan Pulley for 2.5 rounds. (Figure 7)
   (1) Wind the cable 2.5 rounds.

(2) Affix the cable at the Extension Spring end on the Frame by using tape.

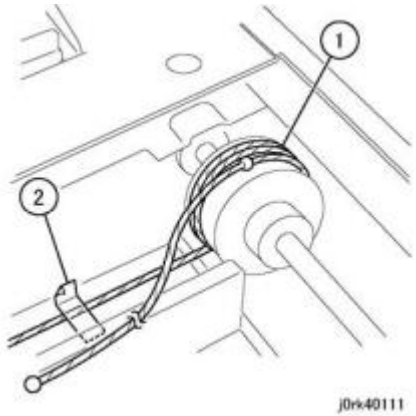


Figure 7 rk40111

3. Wind the Carriage Cable at the ball end around the Capstan Pulley for 3 rounds. (Figure 8)
   (1) Wind the cable 3 rounds.
   (2) Affix the cable that is wound around the Capstan Pulley by using tape to prevent it from getting loose.

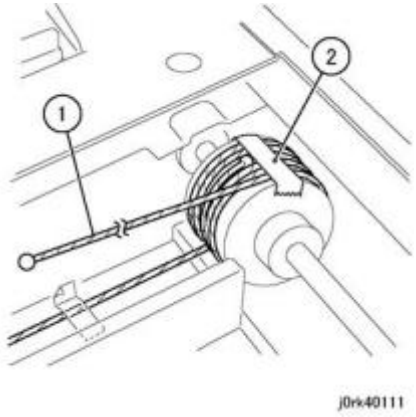


Figure 8 rk40189

REFERENCE

The figure below shows the number of rounds made by Carriage Cable at the front and rear. (Figure 9)

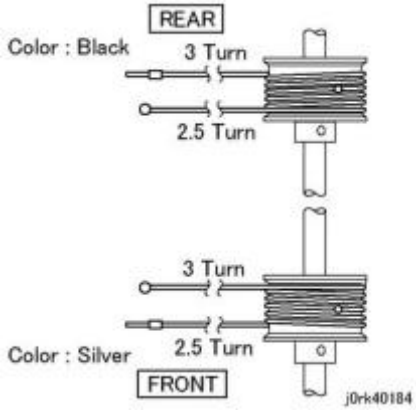


Figure 9 rk40184

4. Install the ball end of the Carriage Cable. (Figure 10)
   (1) Hang the cable on the pulley at the front of the Half Rate Carriage.
   (2) Hang the ball on the notch of the Frame.

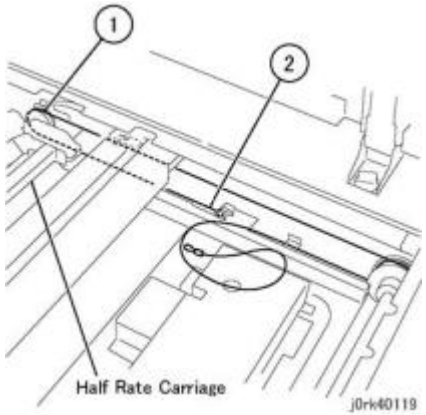


Figure 10 rk40119

5. Install the Extension Spring end of the Carriage Cable. (Figure 11)
   (1) Peel off the tape that secures the cable.
   (2) Hang the cable on the pulley.

(3) Hang it on the pulley at the rear of Half Rate Carriage.

(4) Hang the Extension Spring on the cable and attach it to the Frame.

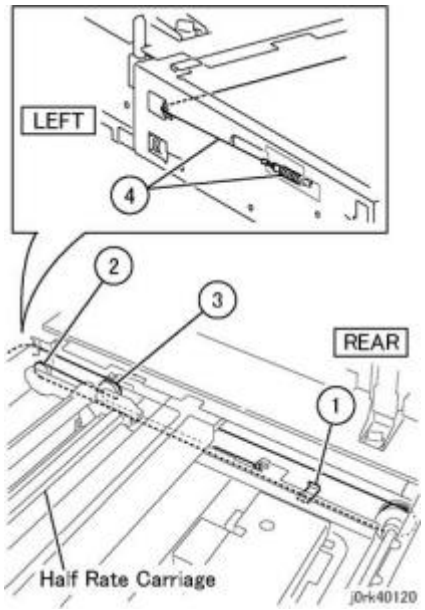


Figure 11 rk40120

6. Loosely affix the cable to the Full Rate Carriage. (Figure 12)

(1) Peel off the tape.

(2) Move the Full Rate Carriage to the notch on the Frame.

(3) Loosely affix the cable to the Full Rate Carriage.

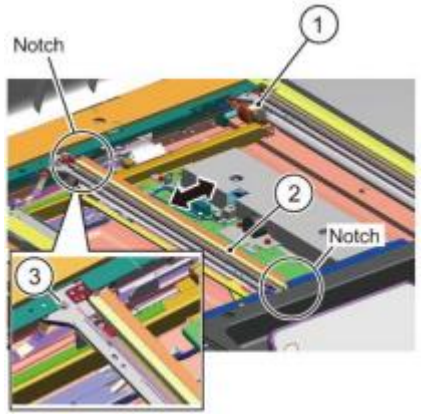


Figure 12 mbl401007

7. Adjust the position of Full/Half Rate Carriage. (ADJ 1.1.1)

8. Restore the Device to its original state.

REP 1.4.1 Lamp Assembly

Parts-list-on: PL 1.4

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

Do not touch the chip on the Lamp Assembly.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the Platen Cover or DADF.
3. Remove the Platen Glass. (REP 1.2.1)
4. Move the Full Rate Carriage to the cutout portion of the Frame.
5. Disconnect the FFC LED Cable. (Figure 1)
   (1) Move the Block of the Connector Housing in the direction of the arrow.
   (2) Remove the FFC LED Cable.

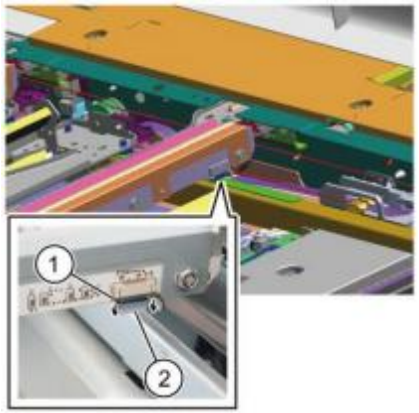


Figure 1 mbl401008

6. Remove the LED Bracket. (Figure 2)
   (1) Remove the screw (x3).
   (2) Remove the LED Bracket.

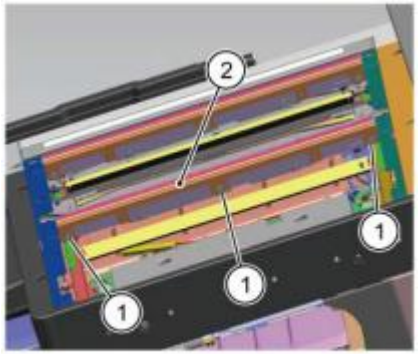


Figure 2 mbl401009

7. Remove the Lamp Assembly. (Figure 3)
   (1) Remove the screw (x2).
   (2) Remove the Lamp Assembly.

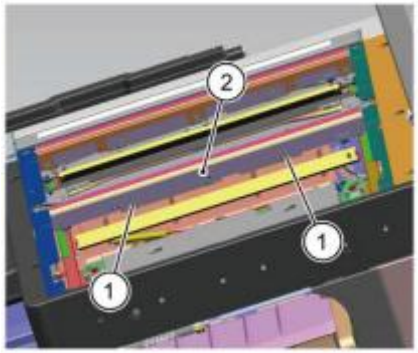


Figure 3 mbl401010

Installation

1. When installing the Lamp Assembly, tighten the screw in the order of 1 then 2. (Figure 4)

2. When installing the LED Bracket, tighten the screw in the order of 3 to 5. (Figure 4)

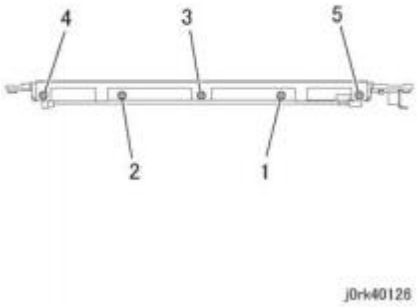


Figure 4 rk40126

3. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 956-803
   - Chain Link : 956-804

REP 1.4.2 FFC LED Cable

Parts-list-on: PL 1.4

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the following parts:
   - Platen Cover or DADF (REP 56.1.1) (REP 57.1.1)
   - Rear Cover (REP 19.2.1)
   - Rear Cover (PL 1.1)
3. Disconnect the FFC LED Cable. (Figure 1)
   (1) Move the Block of the Connector Housing in the direction of the arrow.

(2) Disconnect the FFC LED Cable.

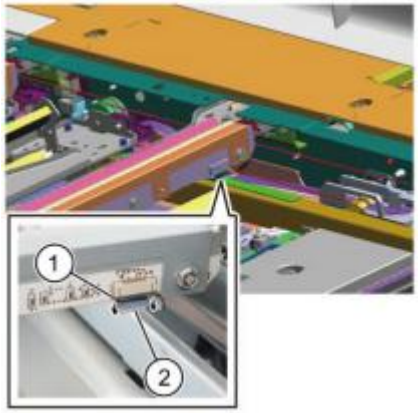


Figure 1 mbl401008

4. Remove the Full Rate Carriage. (Figure 2)
   (1) Move the Full Rate Carriage to the notch on the Frame.
   (2) Remove the screw (x2).
   (3) Remove the Full Rate Carriage.

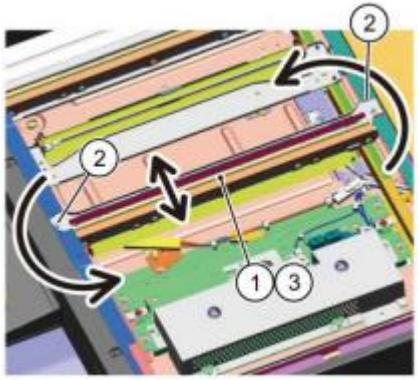


Figure 2 mbl401011

5. Turn the Full Rate Carriage upside down.
6. Remove the FFC LED Cable from Full Rate Carriage. (Figure 3)
   (1) Remove the screw and remove the Plate.

(2) Remove the FFC LED Cable.

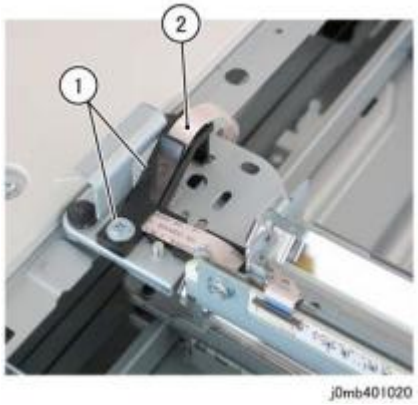


Figure 3 mb401020

7. Disconnect the FFC LED Cable from the Harness Guide of the Half Rate Carriage. (Figure 4)
   (1) Disconnect the FFC LED Cable from the Guide.

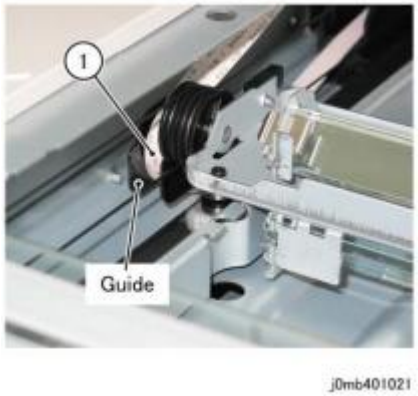


Figure 4 mb401021

8. Disconnect the FFC LED Cable from the Guide. (Figure 5)

(1) Disconnect the FFC LED Cable from the Guide.

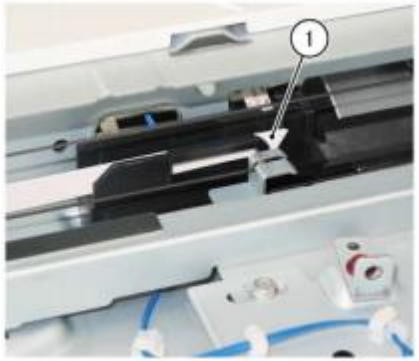


Figure 5 mb401022

9. Disconnect the FFC LED Cable from the ESS Chassis Assembly. (Figure 6)
   (1) Move the Block of the Connector Housing in the direction of the arrow.
   (2) Disconnect the FFC LED Cable.

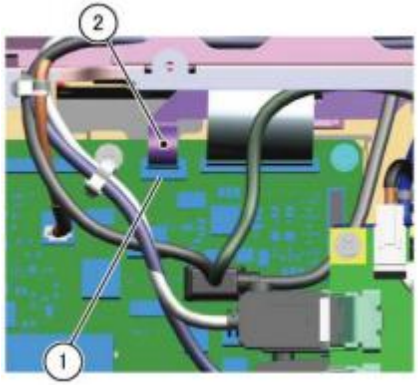


Figure 6 mbl401012

NOTE
While pressing the release lever at the top, pull out and disconnect the FFC LED Cable. (Figure7)

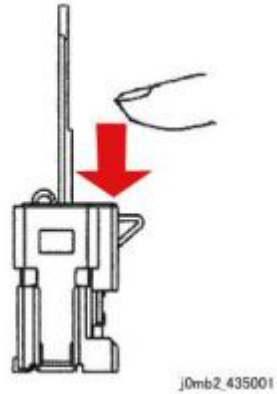


Figure 7 mb2_435001

NOTE
The Actuator of the connector is structured to operate vertically. (Figure8)
When opening the Actuator, make sure to pull it out with equal force applied to both left and right edges.

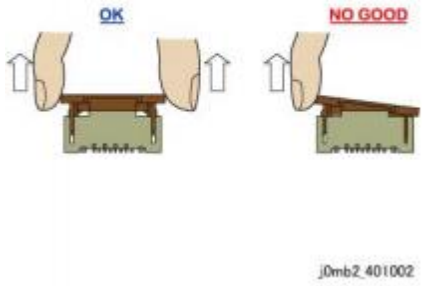


Figure 8 mb2_401002

Installation

1. Adjust the position of Full/Half Rate Carriage. (ADJ 1.1.1)

2. When connecting the FFC LED Cable, insert it straight until you hear the Lock sound.

REP 1.4.3 Light Guide

Parts-list-on: PL 1.4

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

Do not touch the Light Guide with your bare hands.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF. (REP 56.1.1) (REP 57.1.1)
3. Remove the Platen Glass. (REP 1.2.1)
4. Move the Full Rate Carriage to the cutout portion of the Frame.
5. Remove the LED Bracket. (Figure 1)
   (1) Remove the screw (x3).
   (2) Remove the LED Bracket.

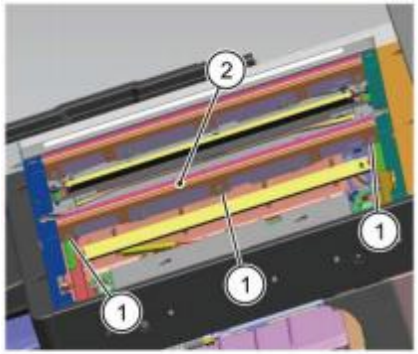


Figure 1 mbl401009

6. Remove the Light Guide. (Figure 2)
   (1) Remove the screw.
   (2) Remove the Spring Guide.
   (3) Remove the screw.
   (4) Remove the Spring Guide.
   (5) Remove the Light Guide.

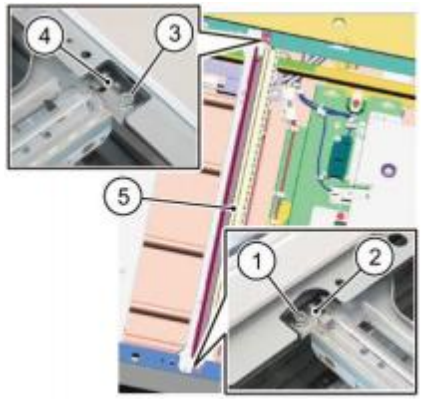


Figure 2 mbl401013

Installation

1. When installing the Light Guide, insert the boss of the Light Guide into the positioning hole of the Full Rate Carriage.

REP 1.6.1 Carriage Motor Assembly

Parts-list-on: PL 1.6

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the following parts:
   - Platen Cover or DADF (REP 56.1.1) (REP 57.1.1)
   - Right Cover (PL 1.1)
   - Rear Cover (REP 19.2.1)
   - Rear Cover (PL 1.1)
   - Top Cover (PL 1.1)
3. Remove the Carriage Motor Assembly. (Figure 1)
   (1) Disconnect the connector.
   (2) Remove the Extension Spring.
   (3) Remove the screw (x3).

(4) Remove the Carriage Motor Assembly.

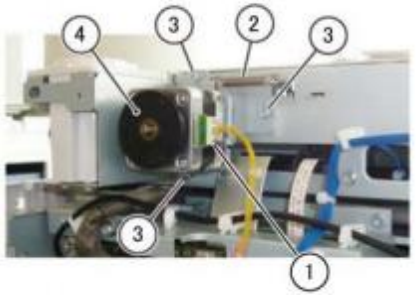


Figure 1 mbt401017

Installation

1. Install the Timing Belt to the Pulley of the Carriage Motor. (Figure 2)

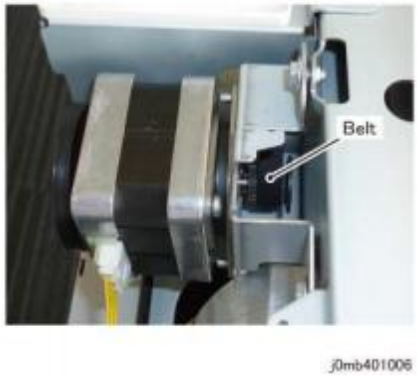


Figure 2 mb401006

2. Take note of the following points when installing the Carriage Motor Assembly.
   (1) Install the Extension Spring.
   (2) Loosely affix the Carriage Motor Assembly that comes attached with a Timing Belt.
   (3) Move the carriage to fit the Timing Belt.
   (4) Secure the Carriage Motor Assembly properly.
3. After installing the Carriage Motor Assembly, move the Full Rate Carriage back and forth and check that it is moving smoothly.

REP 1.7.1 UI Console

Parts-list-on: PL 1.7

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Set the UI Console 55 degrees. (Turn to the front)
3. Remove the Cap (G). (PL 1.7)
4. Remove the Top Cover. (PL 1.7)
5. Make the UI Console horizontal (8 degrees).
6. Remove the Bottom Cover. (PL 1.7)
7. Raise the UI Console up to 100 degrees, and set it as the service position.
8. Remove the Rear Cap Cover. (PL 1.7)
9. Remove the connector (x2). (Figure 1)
   (1) Remove the connector (x2).



Figure 1 shb401013

10. Remove the UI Console. (Figure 2)
    (1) Remove the screw (x4).
    (2) Remove the UI Console.

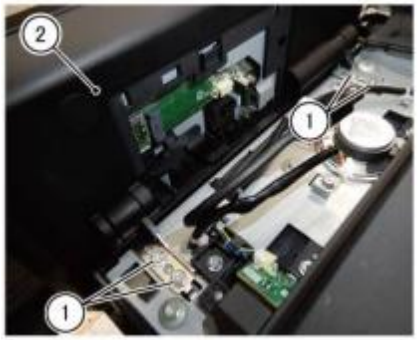


Figure 2 shb401014

2. LPH

REP 2.1.1 (SCC) LPH Unit

Parts-list-on: PL 2.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

CAUTION

To prevent light-induced fatigue, either wrap the removed Drum Cartridge in black paper or store it in a black bag.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Drum Cartridge. (REP 8.1.1)
3. Remove the Front Cover Unit. (REP 19.1.1)
4. Remove the Inner Cover. (REP 19.1.2)
5. Remove the CRU Upper Guide Assembly. (Figure 1)
   (1) Remove the screw.
   (2) Remove the CRU Upper Guide Assembly.

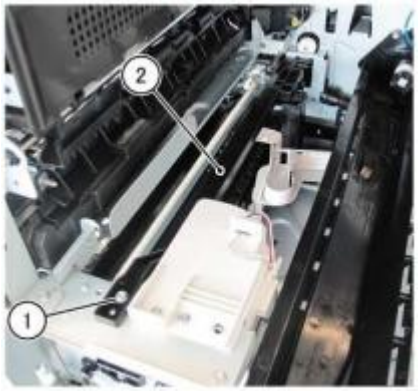


Figure 1 mnl402001

6. Raise the Center Tab, shift the CRU Guide towards the rear, and remove it. (Figure 2)
   (1) Remove the CRU Guide.



Figure 2 mo402002

7. Disconnect the FFC Cable in sequence. (Figure 3)
   (1) Raise the Actuator in the direction of the arrow.

(2) Disconnect the FFC Cable in a straight motion.

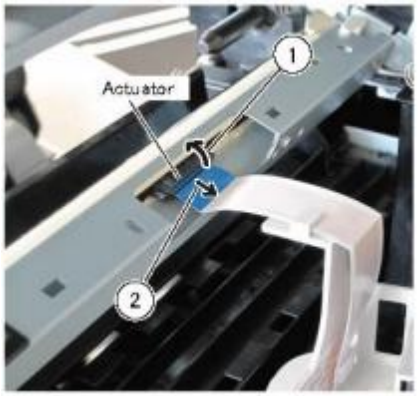


Figure 3 mnt402001

8. Remove the LPH Unit. (Figure 4)
   (1) Remove the screw.
   (2) Remove the LPH Unit.

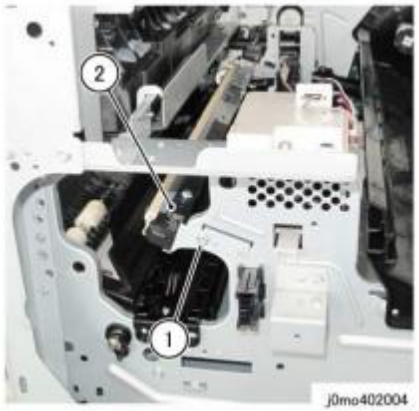


Figure 4 mo402004

Installation

1. To install, carry out the removal steps in reverse order, taking note of the following:

NOTE
When installing the LPH Unit, fit the hole of the Frame to the Block. (Figure 5)

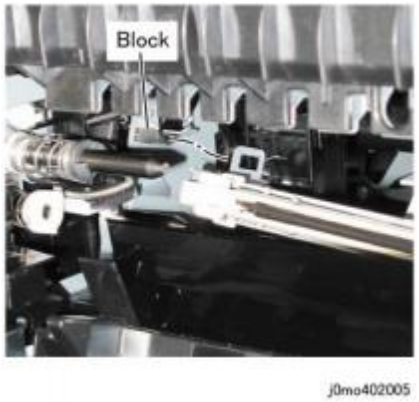


Figure 5 mo402005

NOTE
When installing the CRU Upper Guide Assembly, insert the boss into the hole. (Figure 6)



Figure 6 mo402006

REP 2.1.2 FFC Cable

Parts-list-on: PL 2.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

To prevent light-induced fatigue, either wrap the removed Drum Cartridge in black paper or store it in a black bag.

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

NOTE

Place the drop cloth or newspapers at the servicing area to keep the site clean.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. [1TM/3TM/STM]
   Disconnect the connector. (Figure 1)
   (1) Remove the STM Cover, and disconnect the connector.



Figure 1 mo402007

4. Remove the Rear Lower Cover Unit. (REP 19.2.2)
5. [Devices with SSD]

NOTE

Check that the LED under the power connector is OFF. (If it is not OFF, do not perform the following procedure until it is OFF.)

Remove the SSD. (Figure 1)
(1) Disconnect the connector (x2).
(2) Remove the SSD.

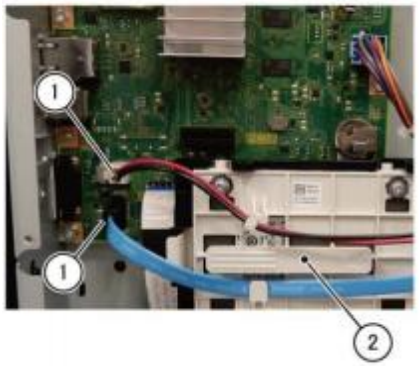


Figure 2 mbl435001

6. [Devices with SSD] (Figure 2)
   (1) Remove the screw.
   (2) Remove the HDD Bracket.

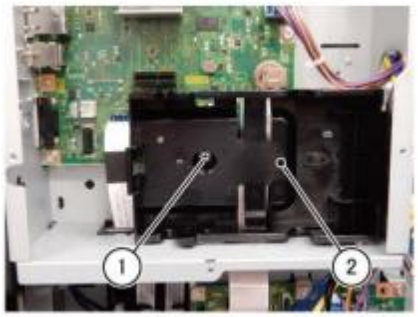


Figure 3 mbl435002

7. Disconnect the FFC Cable. (Figure 4)
   (1) Raise the Actuator in the direction of the arrow.
   (2) Disconnect the FFC Cable in a straight motion.
   (3) Pull the FFC Cable down to disconnect.

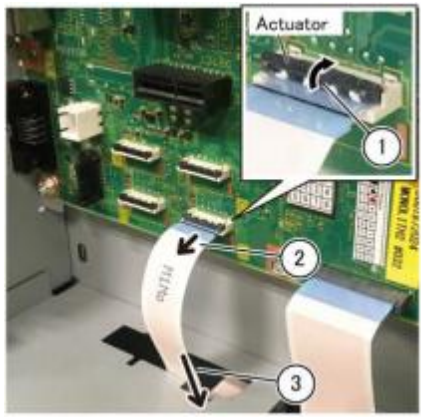


Figure 4 mnt402002

8. Release the FFC Cable from the FFC Guide-R. (Figure 5)
   (1) Release from the FFC Guide-R.



Figure 5 mnt402003

9. Remove the Inner Cover. (REP 19.1.2)
10. Remove the CRU Upper Guide Assembly.
    (1) Remove the screw.
    (2) Remove the CRU Upper Guide Assembly.

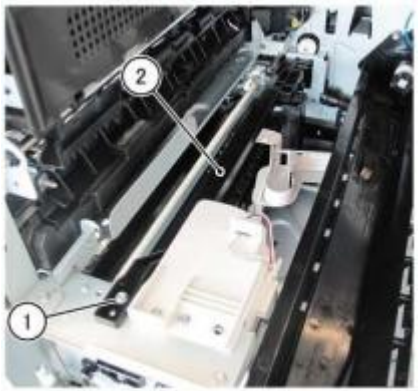


Figure 6 mnl402001

11. Raise the Center Tab, shift the CRU Guide towards the rear, and remove it. (Figure 7)

(1) Remove the CRU Guide.



Figure 7 mo402002

12. Disconnect the FFC Cable. (Figure 8)
    (1) Raise the Actuator in the direction of the arrow.
    (2) Disconnect the FFC Cable in a straight motion.

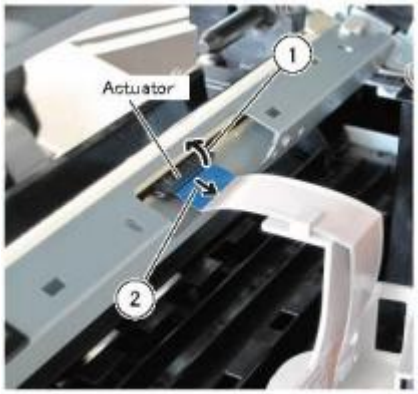


Figure 8 mnt402001

13. Remove the Harness Assembly. (Figure 9)
    (1) Pull out and disconnect the FFC Cable towards the machine inner side.
    (2) Release the hook (x2) at the leg and remove the Harness Assembly.

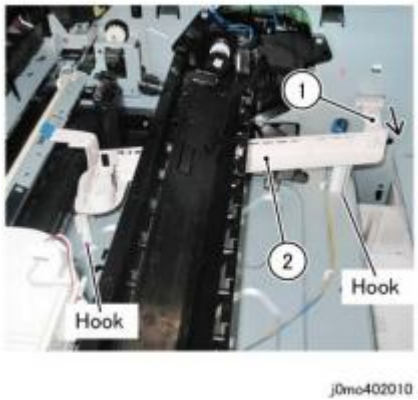


Figure 9 mo402010

14. Remove the FFC Cable. (Figure 10)
    (1) Remove the FFC Cable from the FFC Guide.

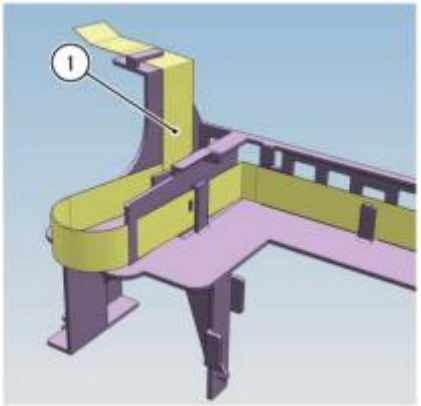


Figure 10 mnt402004

3. Drive

REP 3.1.1 (SCC) Drive Unit

Parts-list-on: PL 3.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. [Devices with 1TM/3TM/STM]
   Disconnect the connector. (Figure 1)
   (1) Remove the STM Cover, and disconnect the connector.

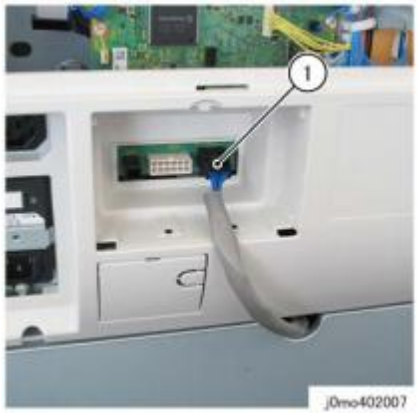


Figure 1 mo402007

4. Remove the Rear Lower Cover Unit. (REP 19.2.2)
5. Remove the LV Power Supply Assembly. (REP 18.2.4)
6. Remove the Wire Harness that is secured to the Drive Unit. (Figure 2)
   (1) Disconnect the connector (x2).
   (2) Disconnect the connector (x2).
   (3) Disconnect the connector.
   (4) Remove the cable band (x2).

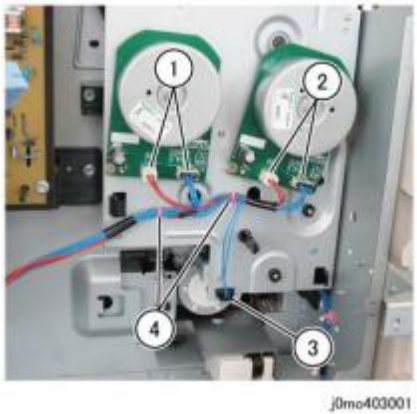


Figure 2 mo403001

7. Move the Exit 1 Transport Assembly slightly upwards. (Figure 3)
   (1) Remove the screw (x3).
   (2) Move the Exit 1 Transport Assembly upwards.

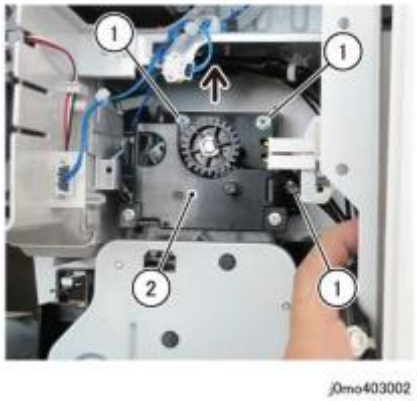


Figure 3 mo403002

8. Remove the Drive Unit. (Figure 4)
   (1) Remove the screw (x6).
   (2) Remove the Drive Unit.

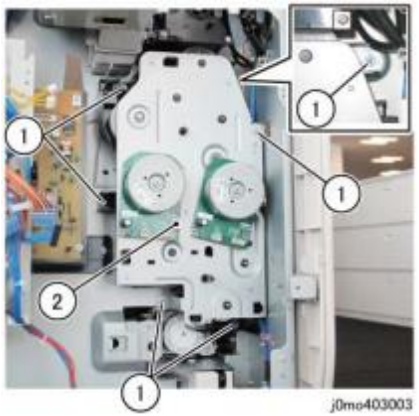


Figure 4 mo403003

9. Remove the MSI Gear from the Drive Unit. (Figure 5)
   (1) Remove the MSI Gear.

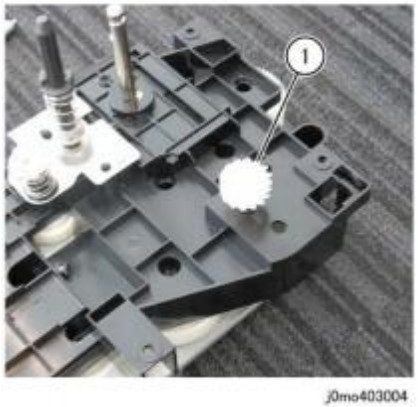


Figure 5 mo403004

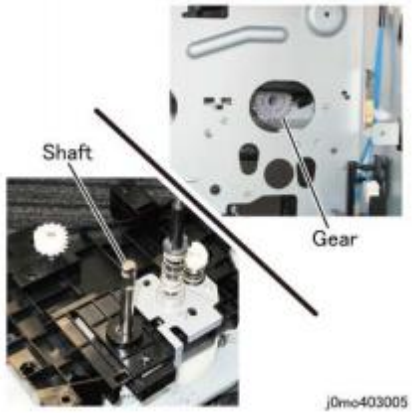


Figure 6 mo403005

Installation

1. To install, carry out the removal steps in reverse order, taking note of the following:

NOTE

When installing the Drive Unit, install it by aligning the D cut surface of the gear and the shaft as shown in the figure. (Figure 6)

4. NOHAD

REP 4.1.1 (SCC) Fusing Exhaust Fan

Parts-list-on: PL 4.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. Remove the Fusing Exhaust Fan. (Figure 1)
   (1) Disconnect the connector.
   (2) Remove the Wire Harness from the hook.
   (3) Release the hook (x2).
   (4) Remove the Fusing Exhaust Fan.

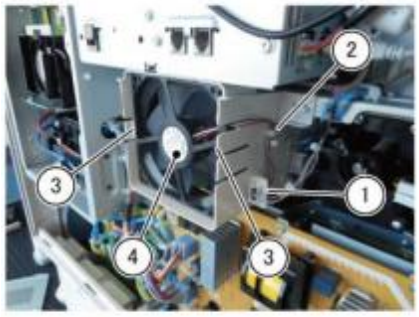


Figure 1 mb404001

REP 4.1.2 Rear Fusing Duct A

Parts-list-on: PL 4.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. Remove the Rear Lower Cover Unit. (REP 19.2.2)
4. Remove the LV Power Supply Assembly. (REP 18.2.4)
5. Remove the Fusing Exhaust Fan. (REP 4.1.1)
6. Remove Rear Fusing Duct A. (Figure 1)
   (1) Disconnect the connector.
   (2) Remove the screw.
   (3) Release the Hook and remove the Rear Fusing Duct A.

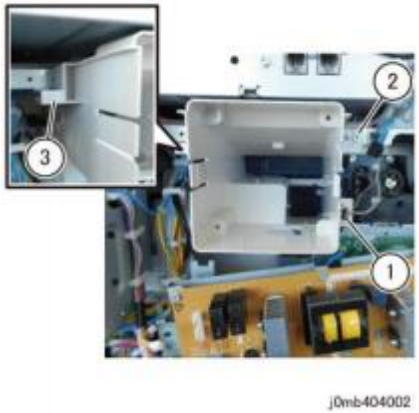


Figure 1 mb404002

5. Development

REP 5.1.1 Dispenser Pipe Unit

Parts-list-on: PL 5.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

CAUTION

To prevent light-induced fatigue, either wrap the removed Drum Cartridge in black paper or store it in a black bag.

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

NOTE

Spread paper on the floor before performing the task to prevent the floor from getting dirty in case of toner spill during the operation.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Drum Cartridge. (REP 8.1.1)
3. Remove the Front Cover Unit. (REP 19.1.1)
4. Remove the Inner Cover. (REP 19.1.2)
5. Remove the LPH Unit. (REP 2.1.1)
6. Remove the AC Housing Assembly. (REP 8.1.3)
7. Remove the Bracket Assembly. (Figure 1)
   (1) Remove the screw (x2).
   (2) Remove the Bracket Assembly.

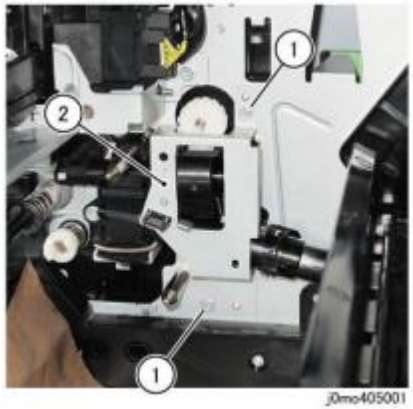


Figure 1 mo405001

8. Disconnect the connector (x2). (Figure 2)
   (1) Release the Wire Harness.
   (2) Disconnect the connector (x2).

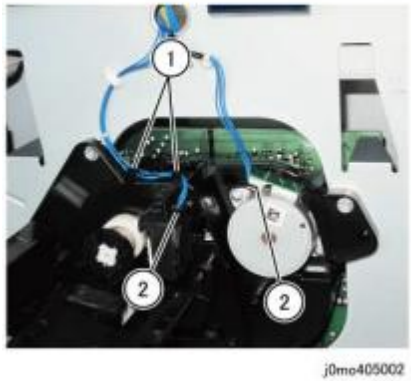


Figure 2 mo405002

9. Remove the Dispenser Pipe Unit. (Figure 3)
   (1) Remove the screw (x5).

(2) Remove the Dispenser Pipe Unit.

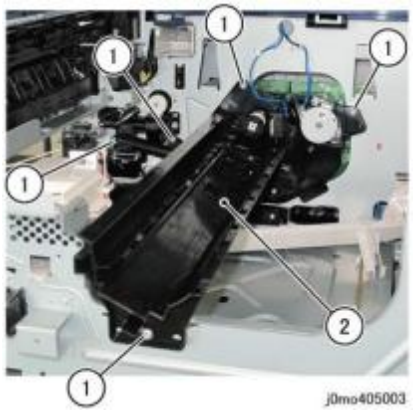


Figure 3 mo405003

REP 5.1.2 Dispenser Pipe Assembly

Parts-list-on: PL 5.1

Removal

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION
Static electricity may damage electrical parts. Static electricity may damage electrical parts. Always wear a wrist band during servicing. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

! CAUTION
To prevent light-induced fatigue, either wrap the removed Drum Cartridge in black paper or store it in a black bag.

NOTE
Place the drop cloth or newspapers at the servicing area to keep the site clean.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Drum Cartridge. (REP 8.1.1)
3. Remove the Front Cover Unit. (REP 19.1.1)
4. Remove the Inner Cover. (REP 19.1.2)
5. Remove the LPH Unit. (REP 2.1.1)
6. Remove the AC Housing Assembly. (REP 8.1.3)
7. Remove the Dispenser Pipe Unit. (REP 5.1.1)
8. Remove the Cartridge Guide from the Dispenser Pipe Unit. (Figure 1)

(1) Release the hook (x2) to pull out and remove the Cartridge Guide.

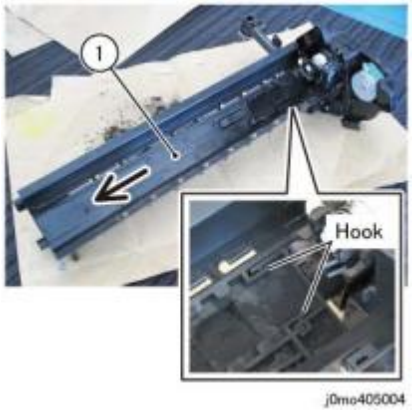


Figure 1 mo405004

6. Transfer

REP 6.1.1 BTR

Parts-list-on: PL 6.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the LH Transport Assembly.
3. Remove the BTR. (Figure 1)
   (1) Release the hook at the front and rear, and remove the BTR.



Figure 1 mo406001

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-820

7. Fusing Unit

REP 7.1.1 Fusing Unit

Parts-list-on: PL 7.1

Removal

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

WARNING
Do not work on a hot Fusing Unit until it is cool enough.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the L/H Cover.
3. Remove the Fusing Unit. (Figure 1)
   (1) Loosen the Knob Screw (x2).
   (2) Remove the Fusing Unit.

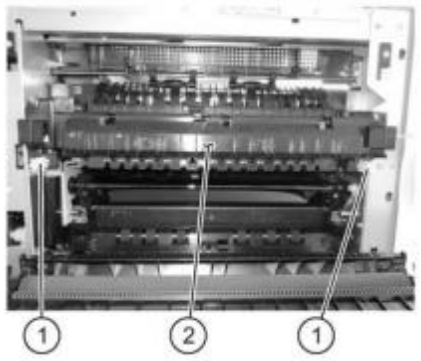


Figure 1 mnl407002

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-850
   - Chain Link : 954-851

8. Electrographic

REP 8.1.1 Drum Cartridge

Parts-list-on: PL 8.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

CAUTION

Do not touch the Drum Cartridge surface.

To prevent light-induced fatigue, either wrap the removed Drum Cartridge in black paper or store it in a black bag.

NOTE

Place the drop cloth or newspapers at the servicing area to keep the site clean.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Prepare a sheet of black paper or a black bag.
3. Open the Front Cover Unit.
4. Open the LH Transport Assembly.
5. Raise the CRU Handle. (Figure 1)
   (1) Raise the CRU Handle.

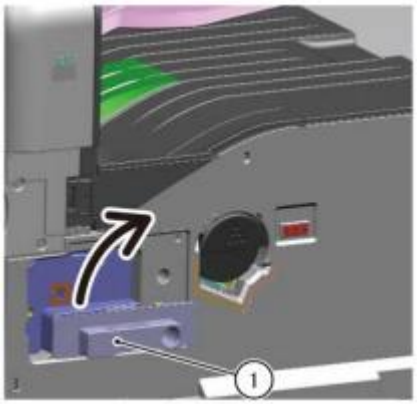


Figure 1 mnl408001

6. Pull out and remove the Drum Cartridge. (Figure 2)
   (1) Pull out and remove the Drum Cartridge.

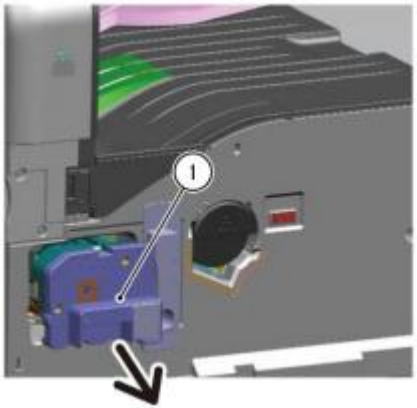


Figure 2 mnl408002

REP 8.1.2 Reclaim Pipe Assembly

Parts-list-on: PL 8.1

Removal

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION
Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

! CAUTION
To prevent light-induced fatigue, either wrap the removed Drum Cartridge in black paper or store it in a black bag.

NOTE
Spread paper on the floor before performing the task to prevent the floor from getting dirty in case of toner spill during the operation.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Drum Cartridge. (REP 8.1.1)
3. Remove the Front Cover Unit. (REP 19.1.1)
4. Remove the Inner Cover. (REP 19.1.2)
5. Remove the LPH Unit. (REP 2.1.1)
6. Remove the AC Housing Assembly. (REP 8.1.3)
7. Remove the Dispenser Pipe Unit. (REP 5.1.1)
8. Remove the Reclaim Pipe Assembly. (Figure 1)
   (1) Remove the screw (x2).
   (2) Remove the Reclaim Pipe Assembly.

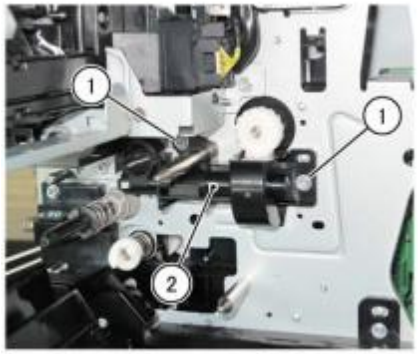


Figure 1 mo408003

REP 8.1.3 AC Housing Assembly

Parts-list-on: PL 8.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

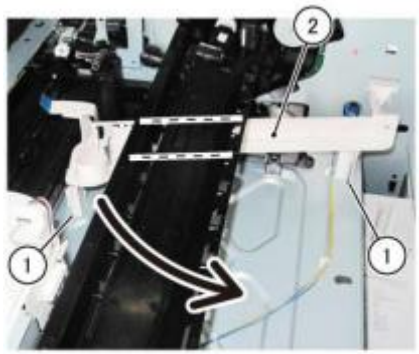
! CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

! CAUTION

To prevent light-induced fatigue, either wrap the removed Drum Cartridge in black paper or store it in a black bag.

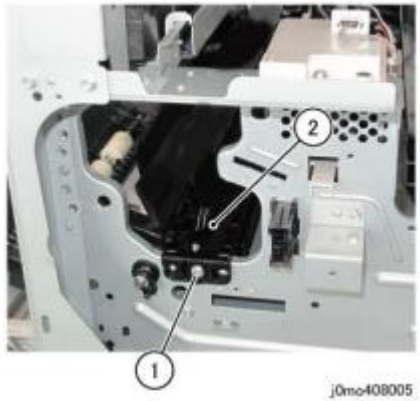
1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Drum Cartridge. (REP 8.1.1)
3. Remove the Front Cover Unit. (REP 19.1.1)
4. Remove the Inner Cover. (REP 19.1.2)
5. Remove the LPH Unit. (REP 2.1.1)
6. Move the Harness Assembly in the direction of the arrow. (Figure 1)
   (1) Disconnect the tab.
   (2) Disconnect the tab.
   (3) Move the Harness Assembly.



j0mo408004

Figure 1 mo408004

7. Remove the Lower Guide Assembly. (Figure 2)
   (1) Remove the screw.
   (2) Remove the Lower Guide Assembly.



j0mo408005

Figure 2 mo408005

8. Remove the AC Housing Assembly. (Figure 3)
   (1) Remove the screw (x2).

(2) Remove the AC Housing Assembly.

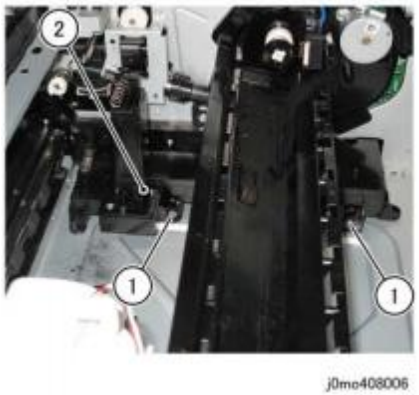


Figure 3 mo408006

Installation

1. To install, carry out the removal steps in reverse order, taking note of the following:

NOTE

When installing the Lower Guide Assembly, insert the boss (x2) into the hole. (Figure 4)



Figure 4 mo408007

9. Tray Module

REP 9.1.1 (SCC) Tray 1 Paper Size Sensor

Parts-list-on: PL 9.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove Tray 1.
3. Remove the Tray 1 Paper Size Sensor. (Figure 1)
   (1) Disconnect the connector.
   (2) Remove the screw.
   (3) Remove the Tray 1 Paper Size Sensor.

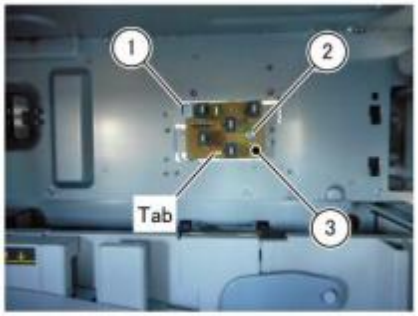


Figure 1 mb409001

REP 9.3.1 (SCC) Tray 1 Feeder Assembly

Parts-list-on: PL 9.3

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the following parts:
   - MSI (REP 13.1.1)
   - L/H Cover (REP 14.1.1)
3. Pull out Tray 1 and remove the paper.
4. Remove Tray 1.
5. Remove the MSI Cover. (Figure 1)
   (1) Remove the screw.
   (2) Remove the MSI Cover.

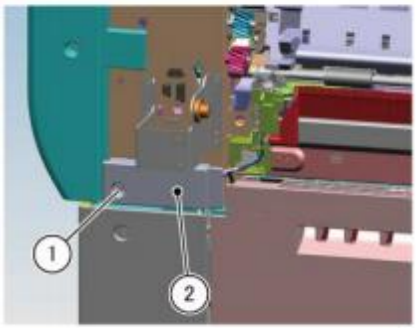


Figure 1 mbl409001

6. Remove the harness holder. (Figure 2)
   (1) Disconnect the connector (x2).
   (2) Remove the screw.
   (3) Remove the harness holder.

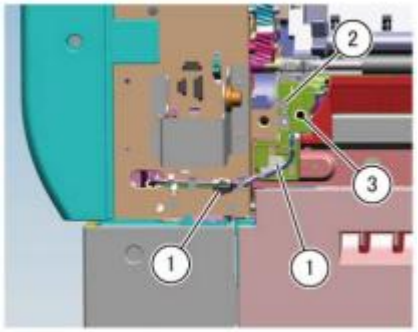


Figure 2 mbl409002

7. Remove the Tray 1 Feeder Assembly. (Figure 3)
   (1) Remove the screw (x2).
   (2) Remove the Tray 1 Feeder Assembly.

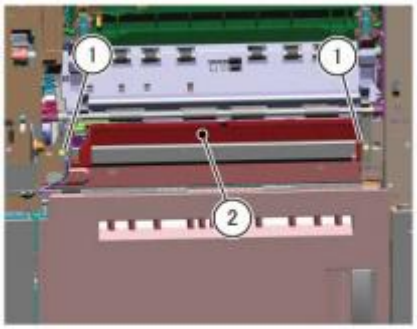


Figure 3 mbl409003

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].

- Chain Link : 954-800

REP 9.5.1 Tray 1 Feed/Retard/Nudger Roll Kit

Parts-list-on: PL 9.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

Perform replacement of the Feed/Retard/Nudger Roll all at the same time.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Pull out Tray 1 and remove the paper.
3. Remove Tray 1.
4. Remove the Tray 1 Feed/Retard/Nudger Roll. (Figure 1)
   (1) Slide the chute towards you.
   (2) Remove the Tray 1 Feed/Retard/Nudger Roll.

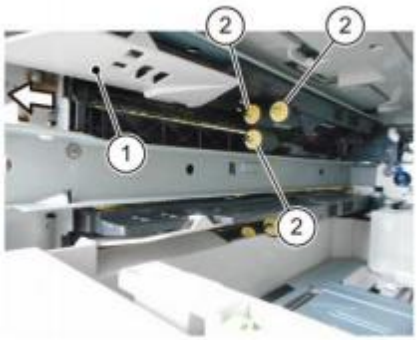


Figure 1 mbl409004

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-800

10. Tray Module (1TM)

REP 10.3.1 (SCC) Tray 2 Feeder Assembly (1TM)

Parts-list-on: PL 10.3

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Pull out Tray 2 and remove the paper.
3. Remove Tray 2.
4. Open the LH COH 1TM Cover Assembly.
5. Remove the ESD Cover. (Figure 1)
   (1) Remove the hook.
   (2) Remove the ESD Cover.

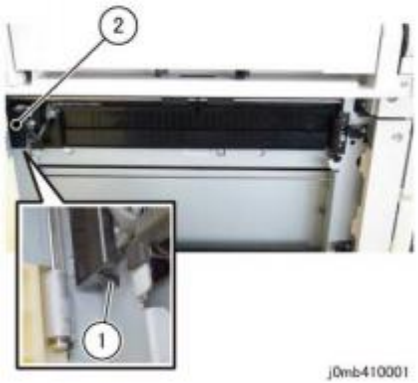


Figure 1 mb410001

6. Remove the Tray 2 Feeder Assembly (1TM). (Figure 2)

(1) Disconnect the connector (x2).
(2) Remove the screw (x2).
(3) Remove the Tray 2 Feeder Assembly (1TM).

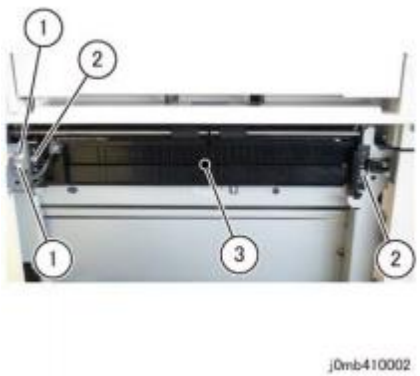


Figure 2 mb410002

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-801

REP 10.4.1 (SCC) 1TM PWB

Parts-list-on: PL 10.4

Removal

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

CAUTION
Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Do not get yourself hurt by a soldered part on the back of the PWB.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (PL 10.1) (Figure 1)
   (1) Remove the screw (x4).
   (2) Remove the Rear Cover.

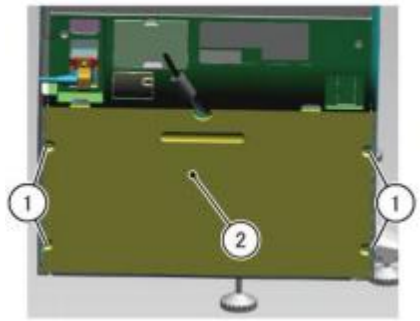


Figure 1 mbl410003

3. Remove the 1TM PWB. (Figure 2)

(1) Disconnect the connector (x5).
(2) Remove the screw (x4).
(3) Remove the 1TM PWB.

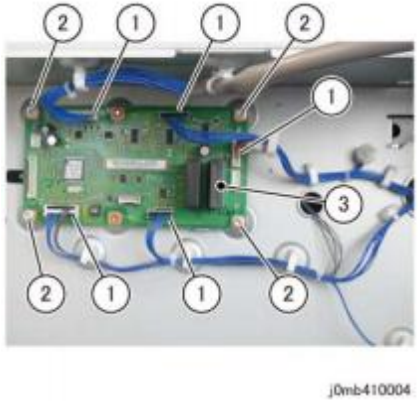


Figure 2 mb410004

Installation

1. After replacing the 1TM PWB, change the value of NVM [742-205] to "0".

REP 10.4.2 (SCC) 1TM Takeaway Motor

Parts-list-on: PL 10.4

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (PL 10.1) (Figure 1)
   (1) Remove the screw (x4).
   (2) Remove the Rear Cover.

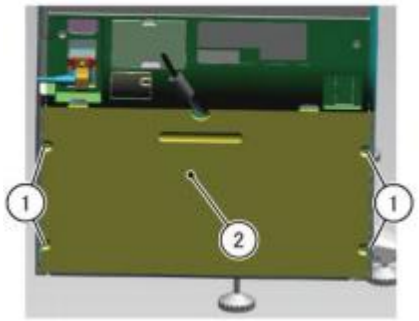


Figure 1 mbl410003

3. Remove the 1TM Takeaway Motor. (Figure 2)

(1) Remove the clamp.
(2) Disconnect the connector.
(3) Remove the screw (x2).
(4) Remove the 1TM Takeaway Motor.

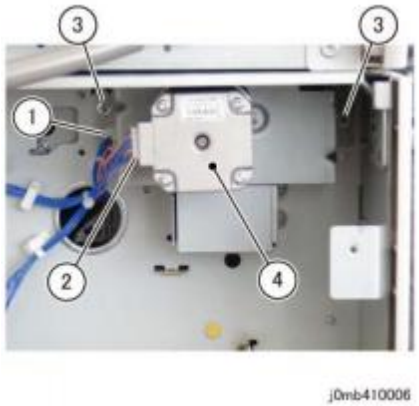


Figure 2 mb410006

REP 10.7.1 Tray 2 Feed/Retard/Nudger Roll Kit (1TM)

Parts-list-on: PL 10.7

Removal

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE
Perform replacement of the Feed/Retard/Nudger Roll all at the same time.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Pull out Tray 1/Tray 2 and remove the paper.
3. Remove Tray 1/Tray 2.
4. Open the LH COH 1TM Cover Assembly.
5. Remove the Tray 2 Feed/Retard/Nudger Roll (1TM). (Figure 1)
   (1) Slide the chute towards you.
   (2) Remove the Tray 2 Feed/Retard/Nudger Roll (1TM).

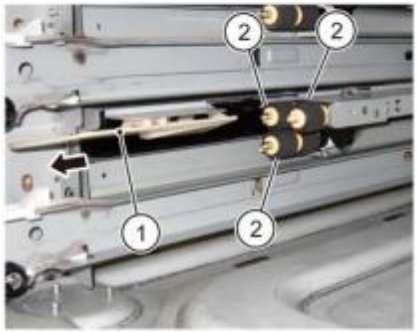


Figure 1 mbl410004

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-801

11. Tray Module (3TM)

REP 11.3.1 (SCC) Tray 2 Feeder Assembly (3TM)

Parts-list-on: PL 11.3

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Pull out Tray 2 and remove the paper.
3. Remove Tray 2.
4. Open the LH COH Cover Assembly.
5. Remove the ESD Cover. (Figure 1)
   (1) Remove the hook.
   (2) Remove the ESD Cover.

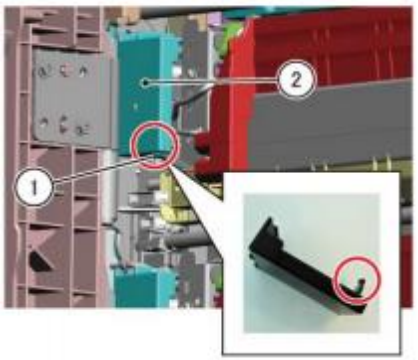


Figure 1 mbl411001

6. Disconnect the connector (x2). (Figure 2)

(1) Release the Wire Harness from the clamp.
(2) Disconnect the connector (x2).

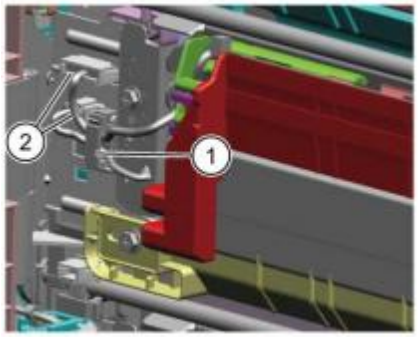


Figure 2 mbl411002

7. Remove the screw. (Figure 3)
   (1) Remove the screw.

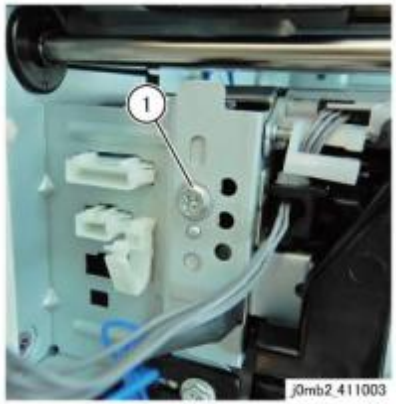


Figure 3 mb2_411003

8. Remove the Tray 2 Feeder Assembly (3TM). (Figure 4)
   (1) Remove the screw and remove the Tray 2 Feeder Assembly (3TM).

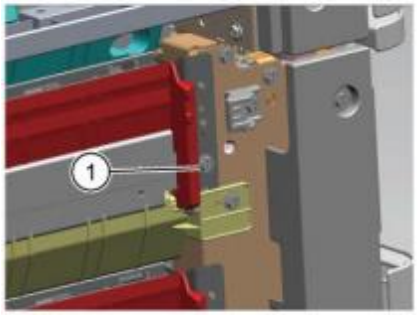


Figure 4 mbl411003

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-801

REP 11.3.2 (SCC) Tray 3 Feeder Assembly (3TM)

Parts-list-on: PL 11.3

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Pull out Tray 3 and remove the paper.
3. Remove Tray 3.
4. Open the LH COH Cover Assembly.
5. Remove the ESD Cover. (Figure 1)
   (1) Remove the hook.
   (2) Remove the ESD Cover.

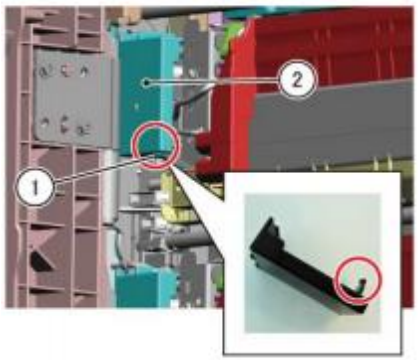


Figure 1 mbl411001

6. Disconnect the connector (x2). (Figure 2)
   (1) Release the Wire Harness from the clamp.
   (2) Disconnect the connector (x2).

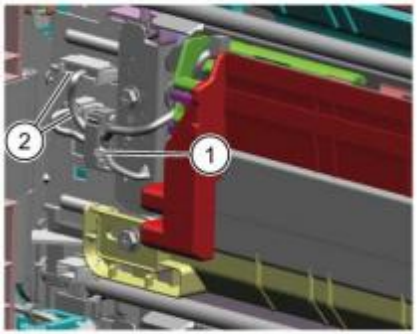


Figure 2 mbl411002

7. Remove the screw. (Figure 3)
   (1) Remove the screw.

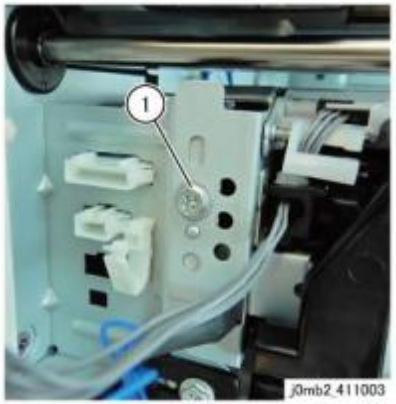


Figure 3 mb2_411003

8. Remove the Tray 3 Feeder Assembly (3TM). (Figure 4)

(1) Remove the screw and remove the Tray 3 Feeder Assembly (3TM).

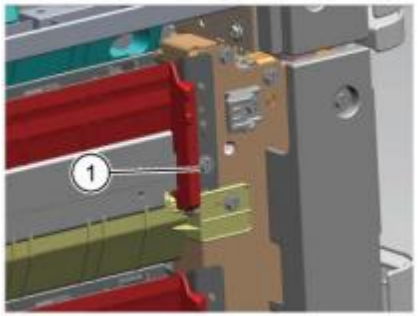


Figure 4 mbl411003

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-802

REP 11.3.3 (SCC) Tray 4 Feeder Assembly (3TM)

Parts-list-on: PL 11.3

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Pull out Tray 4 and remove the paper.
3. Remove Tray 4.
4. Open the LH COH Cover Assembly.
5. Remove the ESD Cover. (Figure 1)
   (1) Remove the hook.
   (2) Remove the ESD Cover.

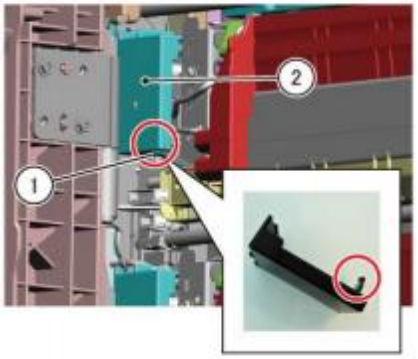


Figure 1 mbl411001

6. Disconnect the connector (x2). (Figure 2)
   (1) Release the Wire Harness from the clamp.

(2) Disconnect the connector (x2).

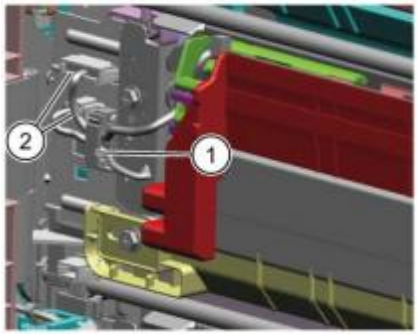


Figure 2 mbl411002

7. Remove the screw. (Figure 3)
   (1) Remove the screw.

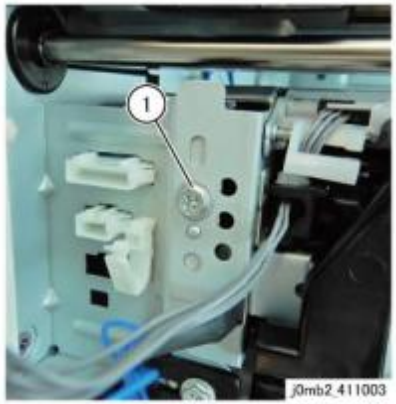


Figure 3 mb2_411003

8. Remove the Tray 4 Feeder Assembly (3TM). (Figure 4)

(1) Remove the screw and remove the Tray 4 Feeder Assembly (3TM).

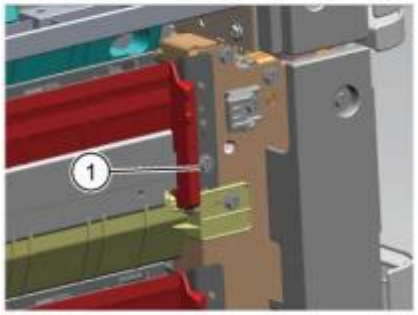


Figure 4 mbl411003

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-803

REP 11.5.1 (SCC) 3TM PWB

Parts-list-on: PL 11.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Do not get yourself hurt by a soldered part on the back of the PWB.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (PL 11.1) (Figure 1)
   (1) Remove the screw (x4).
   (2) Remove the Rear Cover.

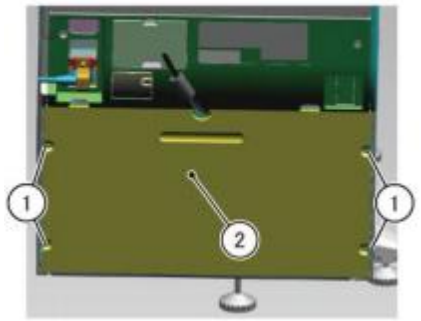


Figure 1 mbl410003

3. Remove the 3TM PWB. (Figure 2)
   (1) Disconnect the connector (x6).
   (2) Remove the screw (x6).
   (3) Remove the 3TM PWB.

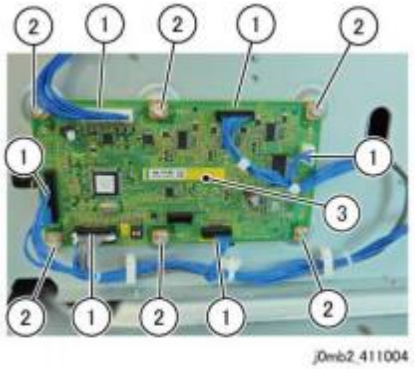


Figure 2 mb2_411004

Installation

1. After replacing the 1TM PWB, change the value of NVM [742-205] to "1".

REP 11.5.2 (SCC) 3TM Takeaway Motor

Parts-list-on: PL 11.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (PL 11.1) (Figure 1)
   (1) Remove the screw (x4).
   (2) Remove the Rear Cover.

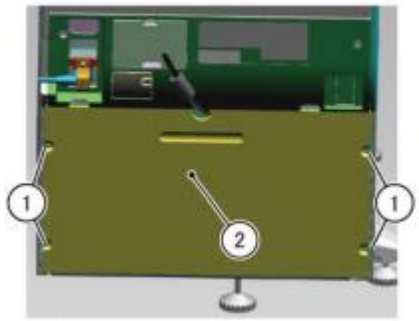


Figure 1 mbl410003

3. Remove the 3TM Takeaway Motor. (Figure 2)
   (1) Remove the Clamp (x2).
   (2) Disconnect the connector.
   (3) Remove the screw (x4).
   (4) Remove the 3TM Takeaway Motor.

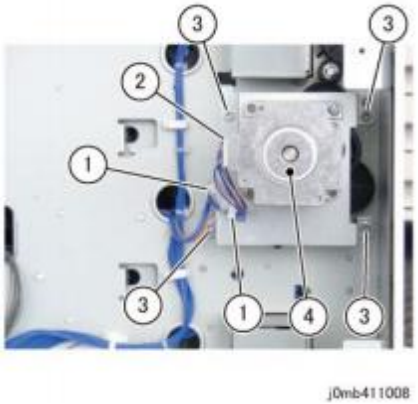


Figure 2 mb411008

REP 11.9.1 Tray 2/3/4 Feed/Retard/Nudger Roll Kit (3TM)

Parts-list-on: PL 11.9

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

Perform replacement of the Feed/ Retard/ Nudger Roll all at the same time.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Pull out Tray 2/3/4 and remove the paper.
3. Remove Tray 2/3/4.
4. Open the LH COH Cover Assembly.
5. Remove the Tray 2/3/4 Feed/Retard/Nudger Roll (3TM). (Figure 1)
   (1) Slide the chute towards you.
   (2) Remove the Tray 2/3/4 Feed/Retard/Nudger Roll (3TM).

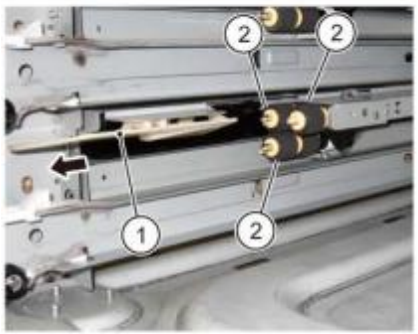


Figure 1 mbl410004

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Tray 2_Chain Link : 954-801
   - Tray 3_Chain Link : 954-802
   - Tray 4_Chain Link : 954-803

12. Tray Module (STM)

REP 12.5.1 (SCC) STM PWB

Parts-list-on: PL 12.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

CAUTION

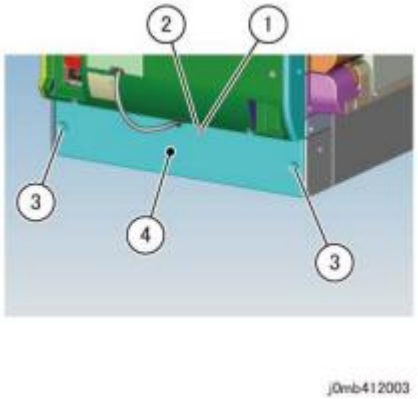
Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Do not get yourself hurt by a soldered part on the back of the PWB.

NOTE

Before replacing the STM PWB, check the value of 742-090 [Side Regi Adjustment (Tray 2 Factory Settings Adjustment Value)] and make a note of it.

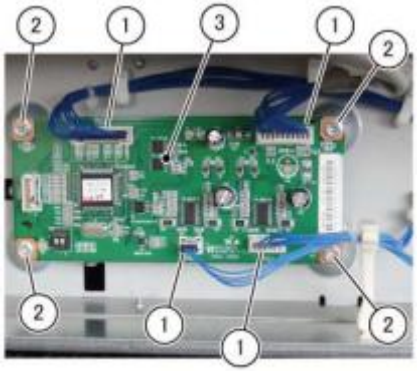
1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (PL 12.1) (Figure 1)
   (1) Remove the Docking Screw.
   (2) Remove the Docking Bracket.
   (3) Remove the screw (x2).
   (4) Remove the Rear Cover.



jOmb412003

Figure 1 mb412003

3. Remove STM PWB. (Figure 2)
   (1) Disconnect the connector (x4).
   (2) Remove the screw (x4).
   (3) Remove STM PWB.



jOmb412004

Figure 2 mb412004

Installation

1. After replacing the STM PWB, change the value of NVM [742-205] to "6".

REP 12.5.2 (SCC) STM Takeaway Motor

Parts-list-on: PL 12.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (PL 12.1) (Figure 1)
   (1) Remove the Docking Screw.
   (2) Remove the Docking Bracket.
   (3) Remove the screw (x2).
   (4) Remove the Rear Cover.

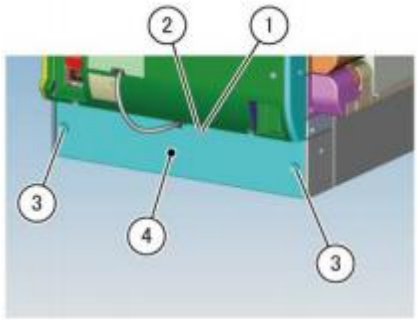


Figure 1 mb412003

3. Remove the STM Takeaway Motor. (Figure 2)
   (1) Disconnect the connector.
   (2) Remove the screw (x2).
   (3) Remove the STM Takeaway Motor.

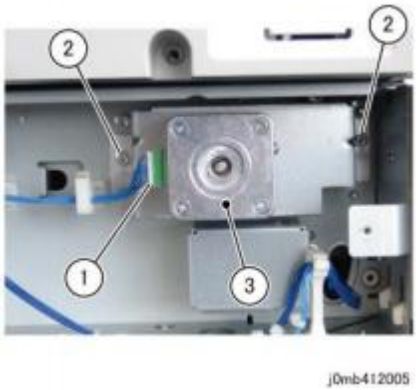


Figure 2 mb412005

REP 12.8.1 Tray 2 Feed/Retard/Nudger Roll Kit (STM)

Parts-list-on: PL 12.8

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

Perform replacement of the Feed/ Retard/ Nudger Roll all at the same time.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Pull out Tray 1/Tray 2 and remove the paper.
3. Remove Tray 1/Tray 2.
4. Open the LH STM Cover Assembly.
5. Remove the Tray 2 Feed/Retard/Nudger Roll (STM). (Figure 1)
   (1) Slide the chute towards you.
   (2) Remove the Tray 2 Feed/Retard/Nudger Roll (STM).

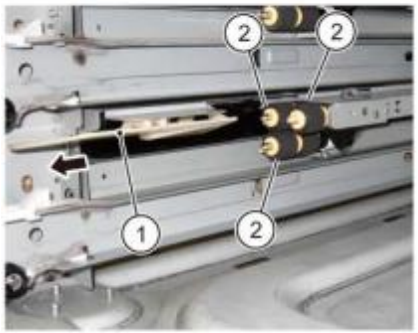


Figure 1 mbl410004

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-801

13. MSI

REP 13.1.1 MSI

Parts-list-on: PL 13.1, PL 13.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear MAT Hinge Cover. (Figure 1)
   (1) Remove the screw.
   (2) Remove the Rear MAT Hinge Cover.

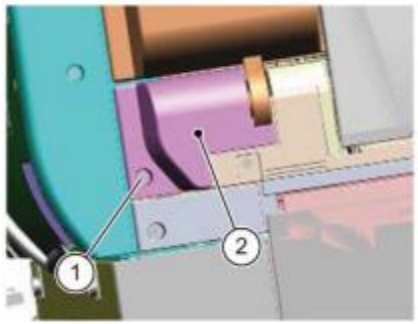


Figure 1 mbl413001

3. Disconnect the connector (x2). (Figure 2)
   (1) Release the Wire Harness from the clamp.
   (2) Disconnect the connector.
   (3) Disconnect the connector. (Excluding FBCN)

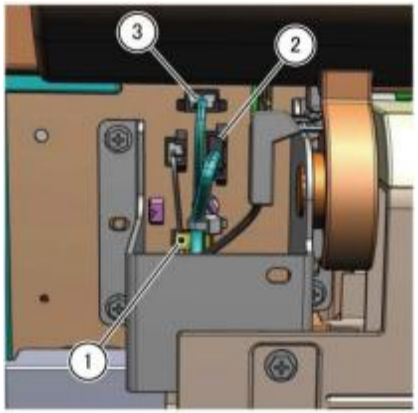


Figure 2 mbt413001

4. Remove the MSI. (Figure 3)
   (1) Remove the screw (x2).
   (2) Remove the MSI.

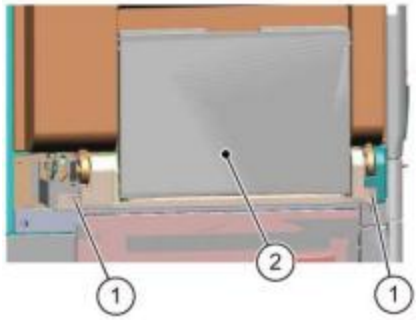


Figure 3 mbl413002

Installation

1. When installing the MSI, insert the boss (x2) of the MSI into the holes for the boss. (Figure 4)



Figure 4 mbl413003

2. After installing MSI Unit, open and close the L/H Cover Unit once.

REP 13.3.1 MSI Nudger/Feed Roll

Parts-list-on: PL 13.3, PL 13.7

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

The MSI Nudger Roll, the MSI Feed Roll, and the MSI Retard Pad must be replaced at the same time.

Refer to the following procedure to replace the MSI Retard Pad.

REP 13.3.2 MSI Retard Pad

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the MSI. (REP 13.1.1)
3. Remove the Upper Frame. (Figure 1)
   (1) Remove the spring.
   (2) Remove the Tapping Screw (x2).

(3) Remove the Upper Frame.

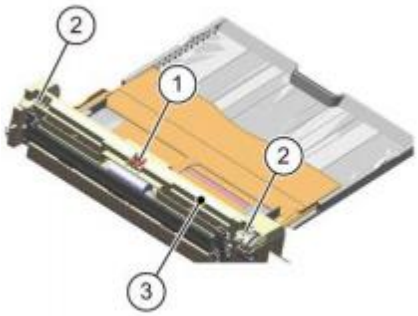


Figure 1 mbl413004

4. Remove the MSI Tray Assembly. (Figure 2)
   (1) Remove the MSI Tray Assembly in the direction of the arrow.

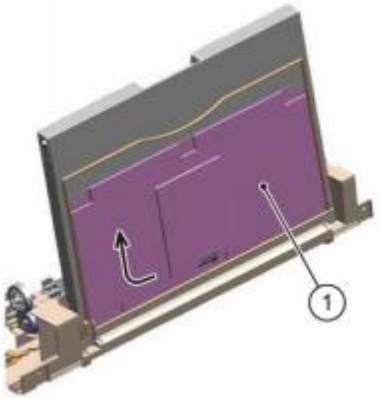


Figure 2 mbl413005

5. Remove the shaft of the MSI Nudger Roll. (Figure 3)
   (1) Release the hook of the shaft and remove the shaft in the direction of the arrow.

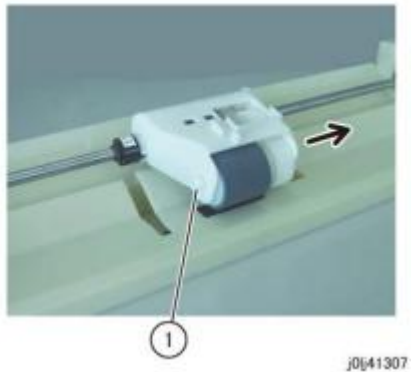


Figure 3 lj41307

6. Remove the MSI Nudger Roll. (Figure 4)

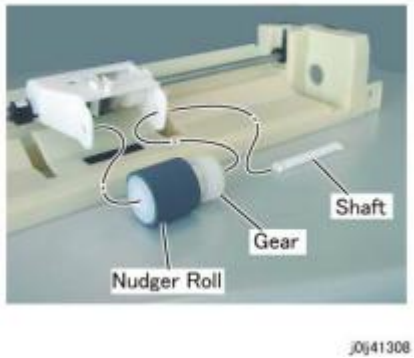
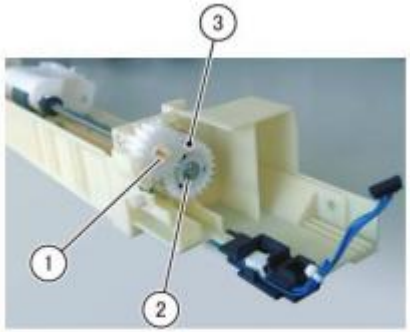


Figure 4 lj41308

7. Shift the MSI Feed Clutch from the shaft. (Figure 5)
   (1) Release the hook and remove the gear.
   (2) Remove the E-Clip.

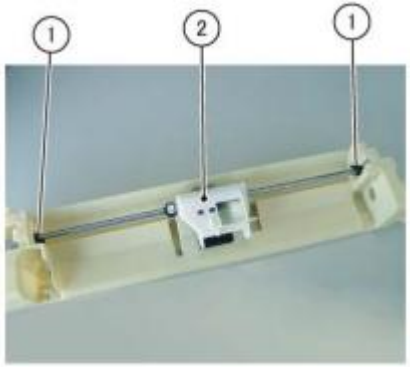
(3) Shift the MSI Feed Clutch from the shaft.



j0lj41309

Figure 5 lj41309

8. Remove the MSI Feed Roll Assembly. (Figure 6)
   (1) Remove the E-Clip (x2).
   (2) Remove the MSI Feed Roll Assembly.

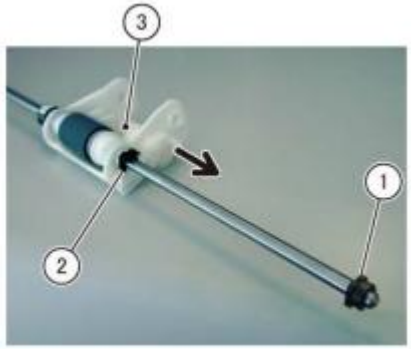


j0lj41310

Figure 6 lj41310

9. Move the housing to the tip of the shaft. (Figure 7)
   (1) Remove the Bearing.
   (2) Remove the E-Clip.

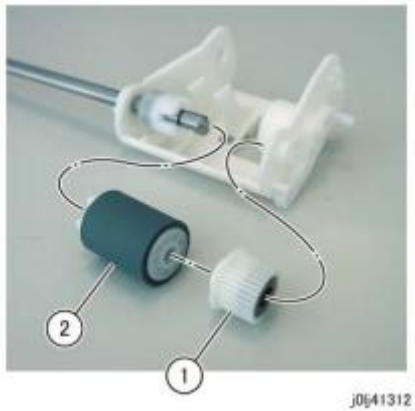
(3) Move the housing in the direction of the arrow until it is at the tip of the shaft.



j0lj41311

Figure 7 lj41311

10. Remove the MSI Feed Roll. (Figure 8)
   (1) Remove the gear.
   (2) Remove the MSI Feed Roll.



j0lj41312

Figure 8 lj41312

Installation

1. When installing the MSI Feed Clutch, align the Cutout of the MSI Feed Clutch to the Tab. (Figure 9)

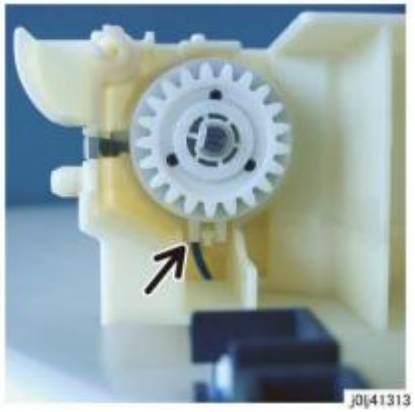


Figure 9 lj41313

2. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-805

REP 13.3.2 MSI Retard Pad

Parts-list-on: PL 13.3, PL 13.7

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

The MSI Nudger Roll, the MSI Feed Roll, and the MSI Retard Pad must be replaced at the same time.

Refer to the following procedure to replace the MSI Nudger Roll/MSI Feed Roll.

REP 13.3.1 MSI Nudger/ Feed Roll

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the MSI. (REP 13.1.1)
3. Remove the MSI Low Chute. (Figure 1)
   (1) Remove the screw (x2).
   (2) Remove the MSI Low Chute.

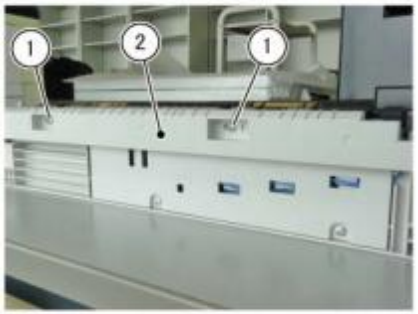


Figure 1 mb413006

4. Remove the screws that secure the MSI Lower Cover at the bottom of the MSI. (Figure 2)
   (1) Remove the Tapping Screw (x2).

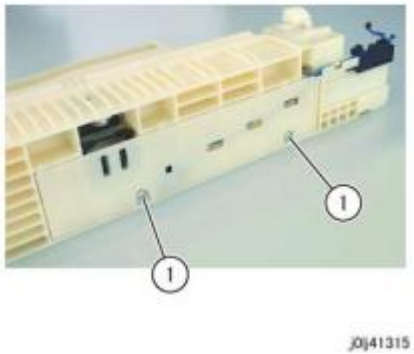


Figure 2 lj41315

5. Release the hook (x3), pull out the boss (x3) from the installation holes, and open the MSI Lower Cover outwards. (Figure 3)

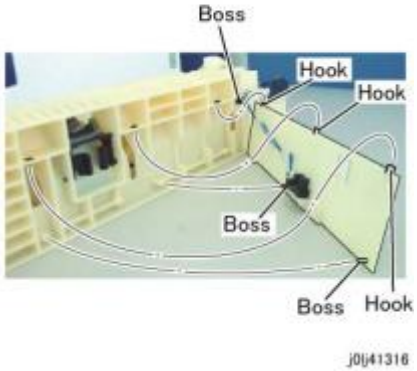


Figure 3 lj41316

6. Remove the MSI Retard Pad. (Figure 4)
   (1) Remove the spring.
   (2) Pull out the boss (x2) from the installation holes and remove the MSI Retard Pad.

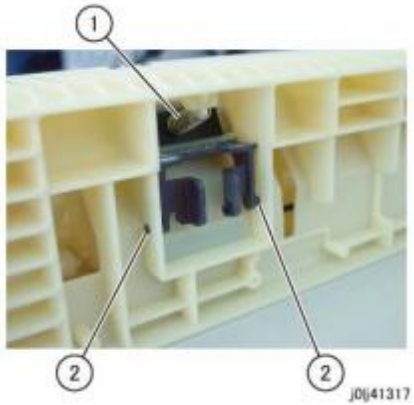


Figure 4 lj41317

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   - Chain Link : 954-805

14. Duplex

REP 14.1.1 L/H Cover

Parts-list-on: PL 14.1, PL 14.4

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the MSI. (REP 13.1.1)
3. Pull out Tray 1 slightly and remove the screw that secures the Front MAT Hinge Cover. (Figure 1)
   (1) Remove the screw.

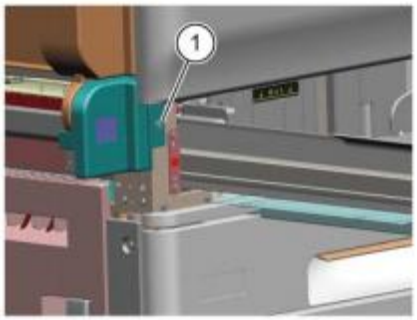


Figure 1 mbl414001

4. Pull out the boss (x2) from the installation hole, release the hook, and remove the Front MAT Hinge Cover. (Figure 2)

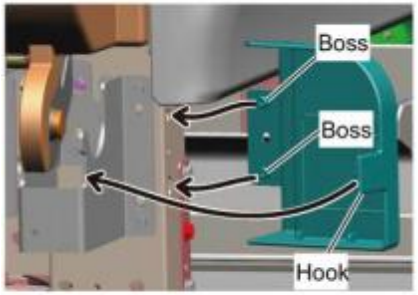


Figure 2 mbl414002

5. [Duplex Type]: Release the clamp and disconnect the connector. (Figure 3)
   (1) Release the clamp.
   (2) Disconnect the connector.

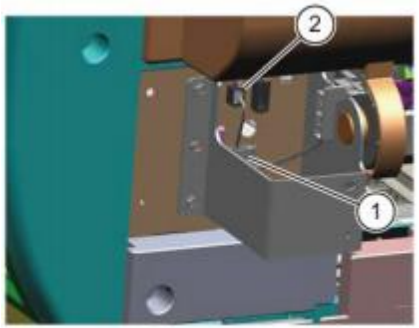


Figure 3 mbl414003

6. Remove the LH Support (x2). (Figure 4)
   (1) Rotate by 90 degrees and pull out the LH Rear Support at the rear.

(2) Rotate by 90 degrees and pull out the LH Front Support at the front.

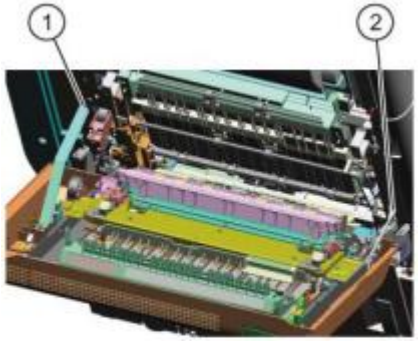


Figure 4 mbl414004

7. Open the L/H Cover 90 degrees and remove the L/H Cover. (Figure 5)
   (1) Remove the L/H Cover in the direction of the arrow from the boss (x2).

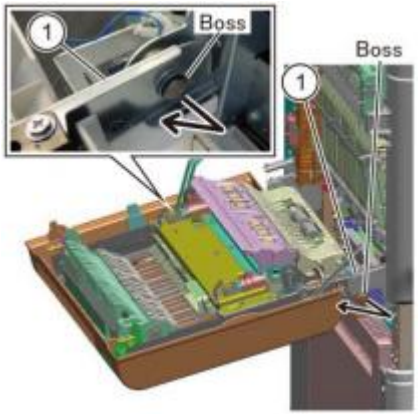


Figure 5 mbl414005

Installation

1. Take note of the following points when installing the Rear L/H Cover. (Figure 6)
   - Tilt the L/H Cover Boss Hole Bracket as shown in the figure and insert into the Boss Bracket.
   - Attach the L/H Cover Harness Guide so it will not touch the Boss Bracket.



Figure 6 bs41406

2. When installing the Front L/H Cover, tilt the L/H Cover Boss Hole Bracket as shown in the figure and insert it into the Boss Bracket. (Figure 7)



Figure 7 mbl414006

3. When installing the Front L/H Cover at the front, align the Tab at the Boss Hole Bracket of the L/H Cover with the Cutout position of the Boss Bracket and slide the L/H Cover towards the rear. (Figure 8)



Figure 8 mbl414007

15. Registration

REP 15.1.1 Regi. Transport Assembly

Parts-list-on: PL 15.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

When intending to work for a long duration with the L/H Cover in removed state, remove the Drum Cartridge. (REP 8.1.1)

To prevent light-induced fatigue, either wrap the removed Drum Cartridge in black paper or store it in a black bag.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the MSI. (REP 13.1.1)
3. Remove the L/H Cover. (REP 14.1.1)
4. Remove the Connector Cover. (Figure 1)
   (1) Remove the screw.

(2) Remove the Connector Cover.

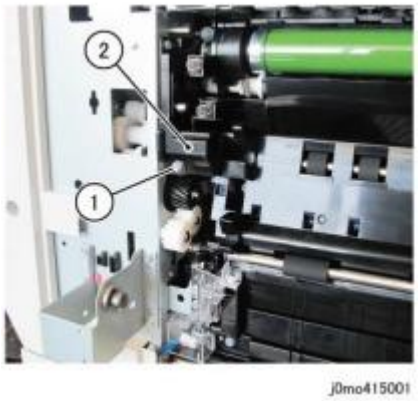


Figure 1 mo415001

5. Disconnect the connector. (Figure 2)
   (1) Disconnect the connector.

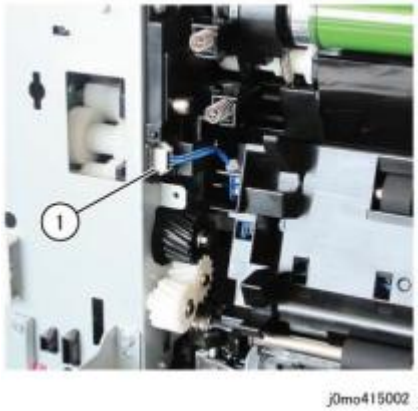


Figure 2 mo415002

6. Shift and remove the Regi. Transport Assembly in the direction of the arrow. (Figure 3)
   (1) Remove the screw.
   (2) Shift and remove the Regi. Transport Assembly.

NOTE

Be careful not to damage the Paper Guide when removing the Regi. Transport Assembly. Damage of the Paper Guide may result in paper transport failure.

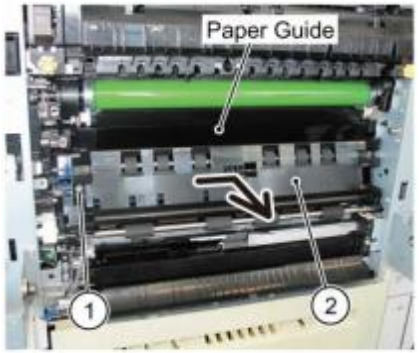


Figure 3 mnl415001

REP 15.1.2 Regi. Roller Assembly

Parts-list-on: PL 15.1

Removal

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION
To prevent light-induced fatigue, either wrap the removed Drum Cartridge in black paper or store it in a black bag.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Drum Cartridge. (REP 8.1.1)
3. Remove the Front Cover Unit. (REP 19.1.1)
4. Remove the Inner Cover. (REP 19.1.2)
5. Remove the MSI. (REP 13.1.1)
6. Remove the L/H Cover. (REP 14.1.1)
7. Remove the Regi. Transport Assembly. (REP 15.1.1)
8. Remove the Drive Unit. (REP 3.1.1)
9. Remove the Regi. Clutch at the rear. (Figure 1)
   (1) Release the Wire Harness from the Harness Guide.
   (2) Disconnect the connector.
   (3) Remove the E-Clip.
   (4) Remove the Regi. Clutch Gear.
   (5) Remove the Regi. Clutch.

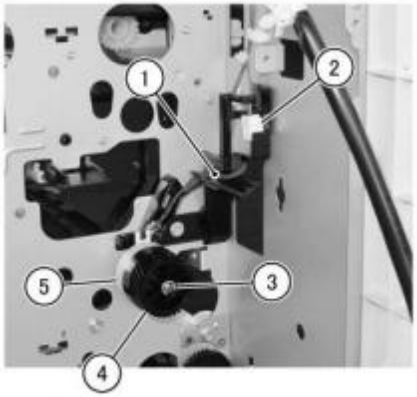
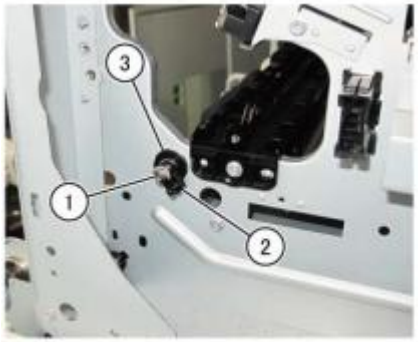


Figure 1 mnl415003

10. Remove the Regi. Bearing at the front. (Figure 2)
    (1) Remove the E-Clip.
    (2) Remove the Regi. Coupling.
    (3) Remove the Regi. Bearing.

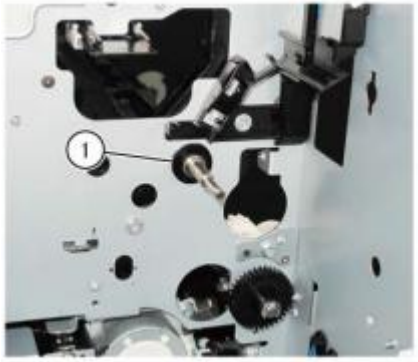


j0mo415005

Figure 2 mo415005

11. Remove the Bearing at the rear. (Figure 3)

(1) Remove the Bearing.



jDmo415006

Figure 3 mo415006

12. Remove the Regi. Roller Assembly. (Figure 4)
    (1) Remove the Regi. Roller Assembly.



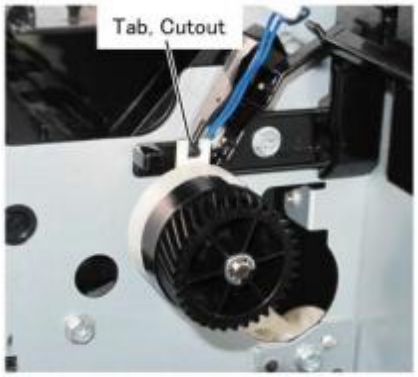
Figure 4 mnl415002

Installation

1. To install, carry out the removal steps in reverse order, taking note of the following:

NOTE

When installing the Regi. Clutch, insert the Regi. Clutch Cutout into the Harness Guide Tab. (Figure 5)



jDmo415008

Figure 5 mo415008

17. Exit/OCT

REP 17.1.1 Exit 1 Transport Assembly

Parts-list-on: PL 17.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

When intending to work for a long duration with the L/H Cover in open state, remove the Drum Cartridge. (REP 8.1.1)

To prevent light-induced fatigue, either wrap the removed Drum Cartridge in black paper or store it in a black bag.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Exit 2 Transport Assembly. (PL 17.3)
3. Remove the LH Top Cover. (PL 19.1)
4. Remove the Fusing Fan Duct Assembly. (REP 4.1.1, REP 4.1.2) (PL 4.1)
5. Move the bearing at the front towards the inner side. (Figure 1)
   (1) Shift the bearing.

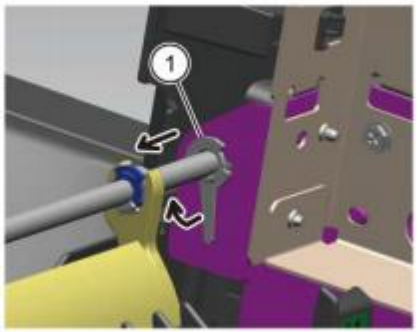


Figure 1 mnl417001

6. Remove the Exit 1 Transport Assembly towards the Rear. (Figure 2)
   (1) Disconnect the connector.
   (2) Remove the screw (x3).
   (3) Remove the Exit 1 Transport Assembly towards the Rear.

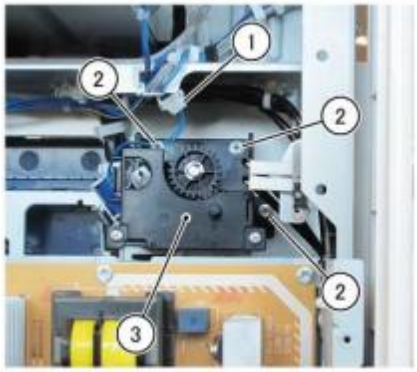


Figure 2 mo417002

REP 17.5.1 Exit 2 Roll

Parts-list-on: PL 17.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

Place the drop cloth or newspapers at the servicing area to keep the site clean.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Paper Exit 1 Weight Assembly. (Figure 1)
   (1) Release the hook and remove the Paper Exit 1 Weight Assembly.

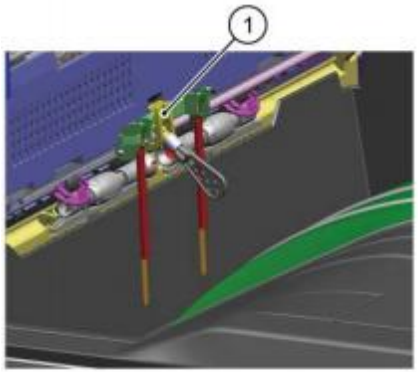


Figure 1 mnl417002

3. Open the Front Cover.
4. Open the L/H Cover.
5. Remove the Pillar LH Cover. (PL 1.7)
6. Open the Exit 2 Transport Assembly.
7. Remove the LH Top Cover. (PL 19.1)
8. Disconnect the connector (x3). (Figure 2)
   (1) Disconnect the connector (x3).

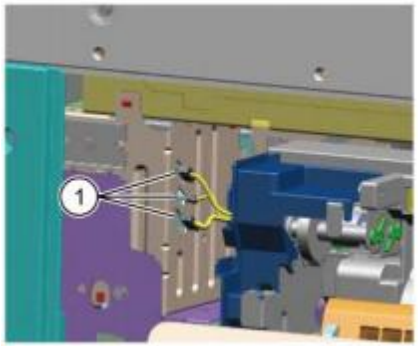


Figure 2 mnl417003

9. Close the Exit 2 Transport Assembly.
10. Remove the Exit 2 Transport Assembly. (Figure 3)
    (1) Remove the screw (x4).
    (2) Remove the Exit 2 Transport Assembly.

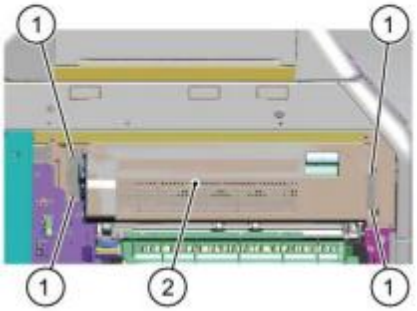


Figure 3 mnl417004

11. Remove the Rear Cover. (PL 17.4) (Figure 4)
    (1) Release the hook (x2).

(2) Remove the Rear Cover.

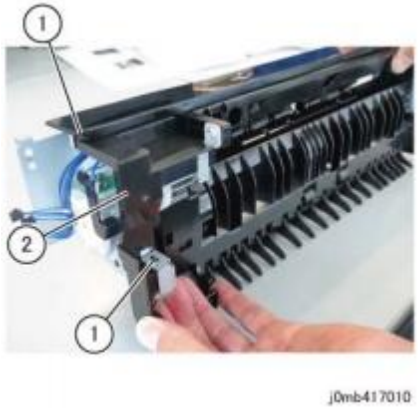


Figure 4 mb417010

12. Remove the Rear Bracket and Exit 2 Motor. (Figure 5)
    (1) Release the Wire Harness from the clamp.
    (2) Disconnect the connector.
    (3) Remove the screw (x4).
    (4) Remove the hook.
    (5) Remove the Rear Bracket and Exit 2 Motor.

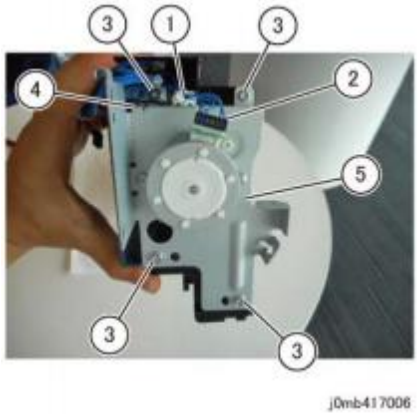


Figure 5 mb417006

13. Remove the Front Bracket. (Figure 6)
    (1) Remove the screw (x2).
    (2) Remove the E-Clip.
    (3) Remove the Front Bracket.

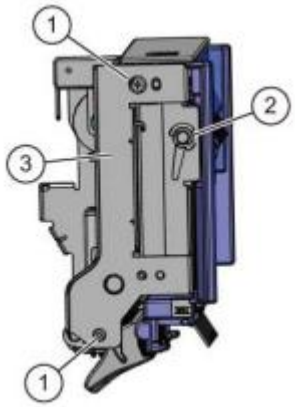


Figure 6 mbl417004

14. Remove the 22Z E2 Helical Gear. (Figure 7)
    (1) Remove the E-Clip.
    (2) Slide the Exit Roll.
    (3) Release the hook and remove the 22Z E2 Helical Gear.

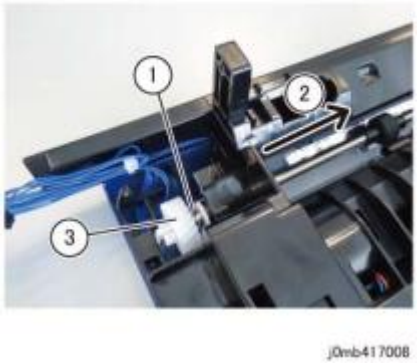


Figure 7 mb417008

15. Remove the Exit Roll. (Figure 8)
    (1) Slide the Exit Roll to remove it from the shaft and release it outwards.

(2) Remove the Exit Roll.

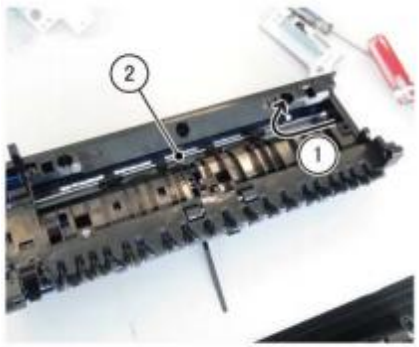


Figure 8 mb417009

18. Electrical

REP 18.2.1 (SCC) MCU Drive PWB

Parts-list-on: PL 18.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Do not get yourself hurt by a soldered portion on the back of the PWB.

Do not touch the Battery section. Do not peel off the protective tape.

NOTE

The Serial Number, Product Number, and Billing Data are saved in the following parts.

- EEP ROM on the ESS PWB
- Memory on ESS PWB
- Memory on MCU Drive PWB

NOTE

Refer to DC132 for troubleshooting of FC 124-315 data mismatching.

NOTE

About the Diag screen (DC132) displayed after replacing the parts

Diag Screen (DC132)	Parts Targeted for Replacement
IOT	MCU Drive PWB
SYS1	ESS PWB
SYS2	ESS PWB

NOTE

Backup the NVM data before replacing the MCU Drive PWB. (Refer to 6.4.2.15 Back Up / Restore NVM in Chapter 6)

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.

(1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
(2) Press the <Power> button, and select [Power Off Device] on the UI screen.
(3) Make sure that the screen display turns off and the <Power> button stops blinking.
(4) Unplug the power plug, and wait about 30 seconds before starting the operation.

2. Remove the Rear Cover. (REP 19.2.1)
3. Remove the Rear Lower Cover Unit. (REP 19.2.2)
4. Disconnect the FFC CD Cable. (Figure 1)
   (1) Disconnect the FFC CD Cable in a straight motion.



Figure 1 mbl418002

5. Disconnect the connector. (Figure 2)
   (1) Disconnect the connector (x20).

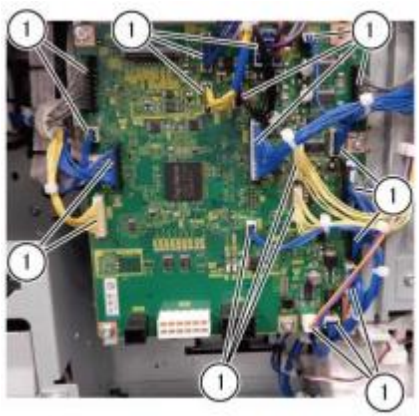


Figure 2 mbl418003

6. Remove the MCU Drive PWB. (Figure 3)
   (1) Remove the screw (x8).
   (2) Remove the MCU Drive PWB.

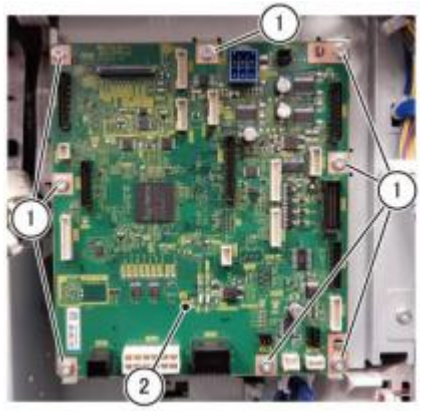


Figure 3 mbl418004

Installation

1. Take note of the following points when connecting the FFC CD Cable. (Figure 4)
   (1) When connecting the FFC CD Cable, insert the FFC CD Cable straight into the Connector Housing until you hear the Lock sound.
   (2) Check to see if the FFC CD Cable on the side that is not inserted and removed is securely connected.



Figure 4 mbl418005

2. After installing the MCU Drive PWB, restore the NVM data that has been backed up previously. (Refer to 6.4.2.15 Back Up / Restore NVM in Chapter 6)

REP 18.2.2 MCU Drive PWB Bracket

Parts-list-on: PL 18.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. Remove the Rear Lower Cover Unit. (REP 19.2.2)
4. Remove the Right Cover. (REP 19.1.3)
5. Remove the ESS PWB Chassis Assembly. (REP 35.2.1)
6. Remove the LV Power Supply Assembly. (REP 18.2.4)
7. Remove the MCU Drive PWB. (REP 18.2.1)
8. Release the clamp and remove the Wire Harness from the MCU Drive PWB Bracket. (Figure 1)

(1) Release the clamp (x4) and remove the Wire Harness.

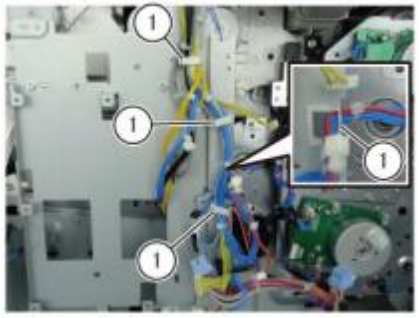


Figure 1 mb418004

9. Remove the MCU Drive PWB Bracket. (Figure 2)
   (1) Remove the screw (x5).
   (2) Remove the MCU Drive PWB Bracket.

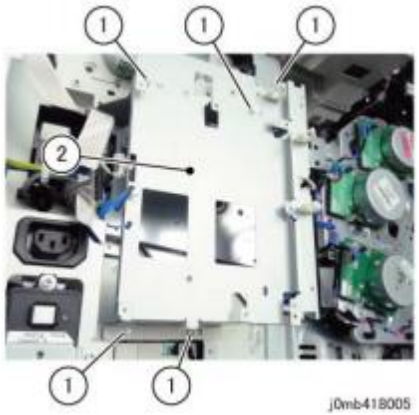


Figure 2 mb418005

REP 18.2.3 (SCC) LVPS

Parts-list-on: PL 18.2

Removal

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

CAUTION
Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Do not get yourself hurt by a soldered portion on the back of the PWB.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. Remove the Rear Lower Cover Unit. (REP 19.2.2)
4. Disconnect the connector. (Figure 1)
   (1) Disconnect the connector (x7).

NOTE
For machines installed with IOT Heater, the connector configuration is different.

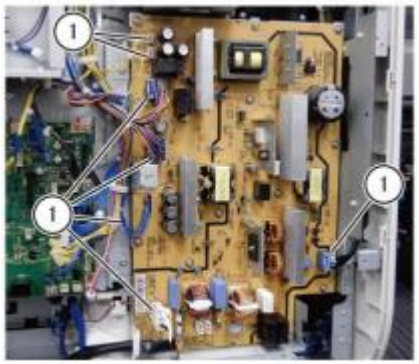


Figure 1 mbl418006

5. Remove the LVPS. (Figure 2)
   (1) Remove the screw (x13).
   (2) Remove the LVPS.

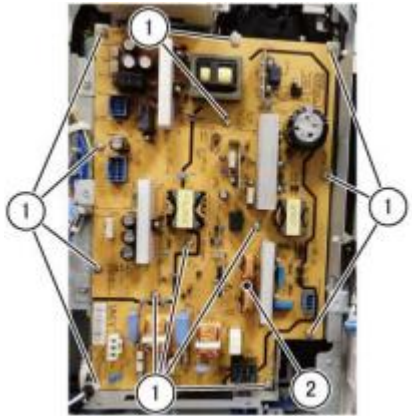


Figure 2 mbt418006

REP 18.2.4 LV Power Supply Assembly

Parts-list-on: PL 18.2

Removal

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION
Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. Remove the Rear Lower Cover Unit. (REP 19.2.2)
4. Disconnect the connector. (Figure 1)
   (1) Disconnect the connector (x7).

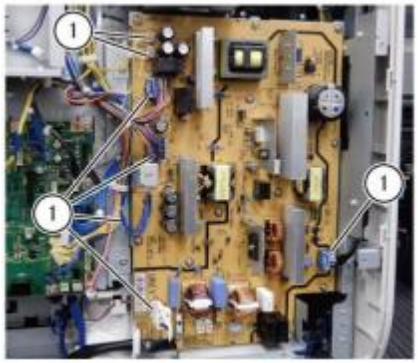


Figure 1 mbl418006

5. Remove the LV Power Supply Assembly. (Figure 2)
   (1) Release the Wire Harness from the clamp.
   (2) Remove the cable band (x2).
   (3) Remove the screw (x4).
   (4) Remove the LV Power Supply Assembly.

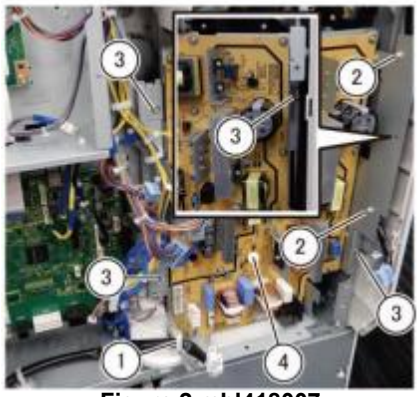


Figure 2 mbl418007

REP 18.2.5 (SCC) HVPS

Parts-list-on: PL 18.2

Removal

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION
Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.
Do not get yourself hurt by a soldered portion on the back of the PWB.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. Remove the ESS PWB Chassis Assembly. (REP 35.2.1)
4. Remove the LV Power Supply Assembly. (REP 18.2.4)
5. Disconnect the connector (x3). (Figure 1)
   (1) Remove the Clamp of the Wire Harness.
   (2) Disconnect the connector (x3).

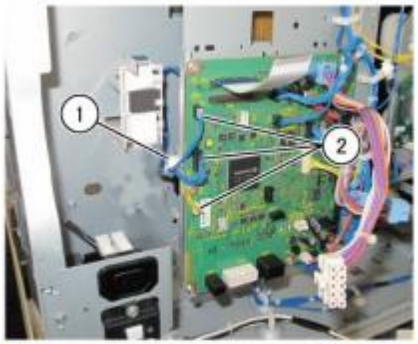


Figure 1 mo418001

6. Move the MCU Drive PWB Assembly in the direction of the arrow. (Figure 2)

NOTE
When moving the MCU Drive PWB Assembly, do not pull the wire harness strongly.

   (1) Remove the screw (x4).

(2) Move the MCU Drive PWB Assembly.

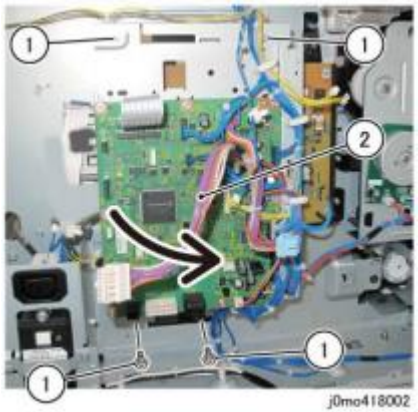


Figure 2 mo418002

7. Remove the HVPS. (Figure 3)
   (1) Disconnect the connector.
   (2) Remove the screw (x5).
   (3) Remove the HVPS.

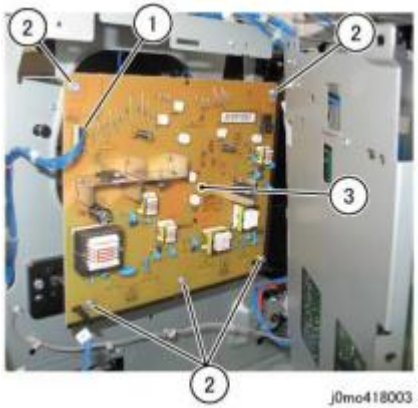


Figure 3 mo418003

19. Cover

REP 19.1.1 Front Cover Unit

Parts-list-on: PL 19.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the Front Cover Unit.
3. Remove the BS Strap (x2) of Front Cover Unit. (Figure 1)
   (1) Turn the BS Strap by 90 degrees and remove it.



Figure 1 mnl419001

4. Remove the Front Cover Unit. (Figure 2)

(1) Move the Front Cover Unit towards the Left by pressing the Stopper and remove the Front Cover Unit from the Boss.

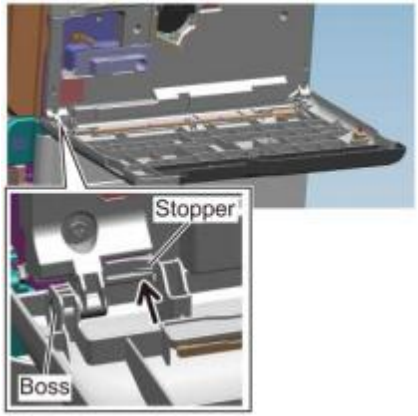


Figure 2 mnl419002

Installation

1. When installing the Front Cover Unit, fit the Front Cover Unit installation hole to the boss of Inner Cover. (Figure 3)

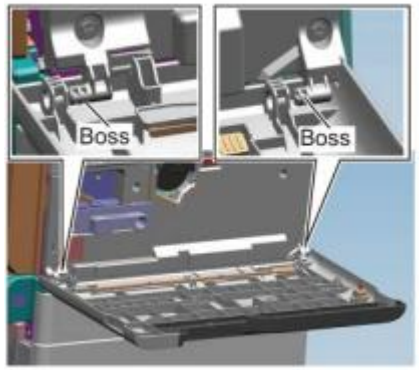


Figure 3 mnl419003

REP 19.1.2 Inner Cover

Parts-list-on: PL 19.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Drum Cartridge. (REP 8.1.1)
3. Remove the Front Cover Unit. (REP 19.1.1)
4. Pull out and remove the Toner Cartridge. (PL 5.1)
5. Remove the CRU Handle together with the Handle Bearing. (Figure 1)
   (1) Remove the screw.
   (2) Remove the CRU Handle together with the Handle Bearing.

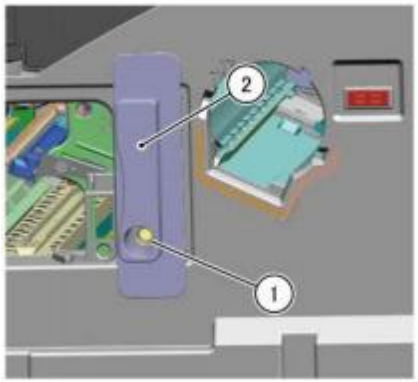


Figure 1 mnl419004

6. Remove the Pillar LH Cover and Pillar RH Cover. (PL 1.7)
7. Remove the Inner Cover. (Figure 2)
   (1) Remove the screw (x5).

(2) Remove the Inner Cover.

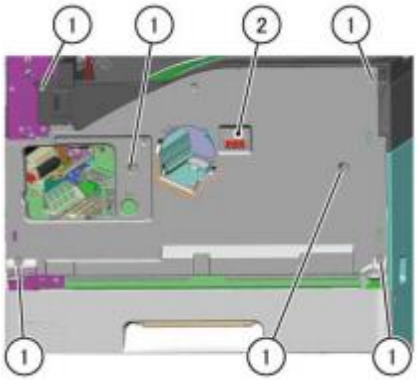


Figure 2 mnl419005

Installation

1. To install, carry out the removal steps in reverse order, taking note of the following:

NOTE

When replacing the Inner Cover, remove the Stopper-T (x2) from the old Inner Cover and attach them to the new Inner Cover. (Figure 3)

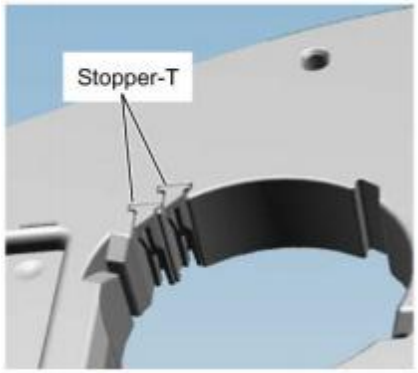


Figure 3 mnl419007

REP 19.1.3 Right Cover

Parts-list-on: PL 19.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the Front Cover Unit.
3. Open Tray 1.
4. Remove the Right Cover. (Figure 1)
   (1) Remove the screw (x2).
   (2) Remove the Right Cover.

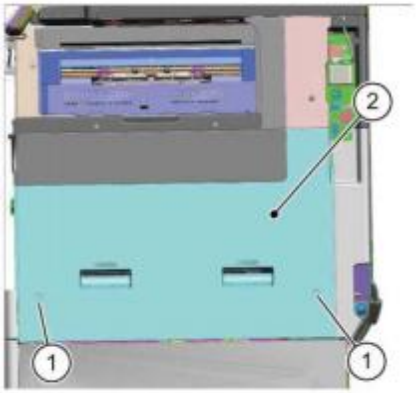


Figure 1 mbl419006

Installation

1. When installing the Right Cover, insert the hook (x3) of the Right Cover into the hole (x3) of the Frame. (Figure 2)



Figure 2 mbl419007

REP 19.1.4 Top Cover

Parts-list-on: PL 19.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Front Cover Unit. (REP 19.1.1)
3. Remove the Pillar LH Cover and Pillar RH Cover. (PL 1.7)
4. Remove the Inner Cover. (REP 19.1.2)
5. Remove the Top Cover. (Figure 1)
   (1) Remove the screw.
   (2) Remove the Top Cover.

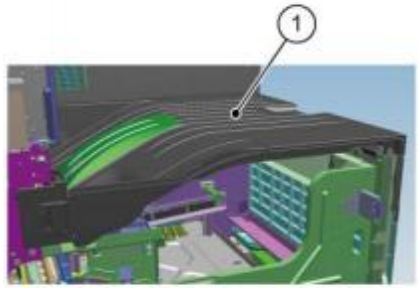


Figure 1 mnl419009

Reference: This shows the removed Top Cover. (Figure 2)

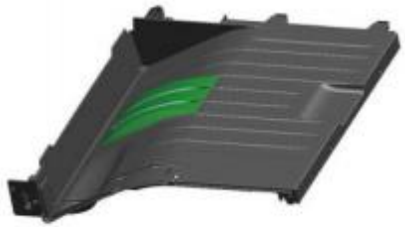


Figure 2 mbl419009

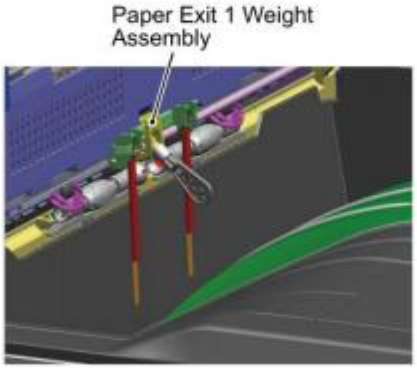


Figure 4 mnl419008

Installation

1. When installing the Top Cover, insert the boss (x3) at the rear of Top Cover into the installation holes. (Figure 3)

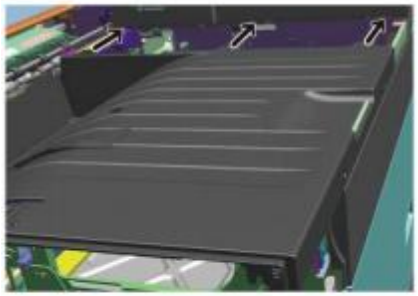


Figure 3 mnl419010

NOTE

When installing the Top Cover Assembly, be careful not to pinch the Paper Exit 1 Weight Assembly. (Figure 4)

REP 19.2.1 Rear Cover

Parts-list-on: PL 19.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (Figure 1)
   [Devices with Fax]
   (1) Remove the screw (x10).
   (2) Remove the Rear Cover.

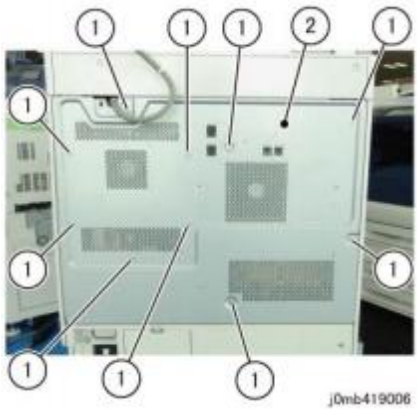


Figure 1 mb419006

[Devices without Fax]
(1) Remove the screw (x9).
(2) Remove the Rear Cover.

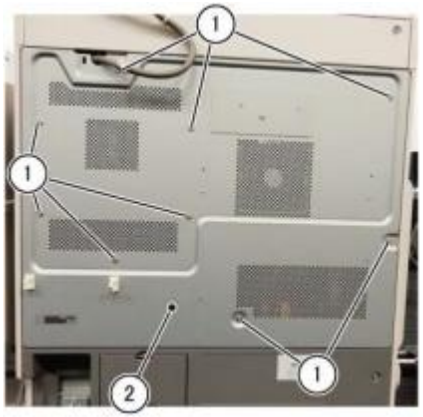


Figure 2 mbt419001

REP 19.2.2 Rear Lower Cover Unit

Parts-list-on: PL 19.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. [Devices with 1TM/3TM/STM]
   Open the STM Cover and disconnect the connector. (Figure 1)
   (1) Open the STM Cover.
   (2) Disconnect the connector.

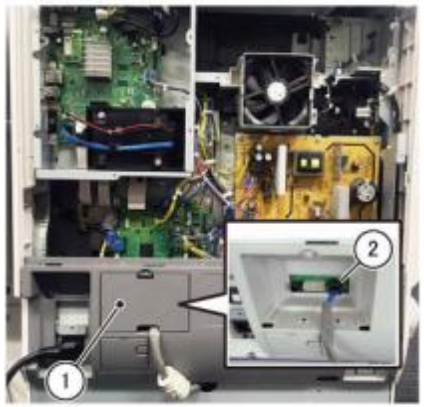


Figure 1 mbt419002

4. Remove the Rear Lower Cover Unit. (Figure 2)
   (1) Remove the screw (x4).
   (2) Remove the Rear Lower Cover Unit.

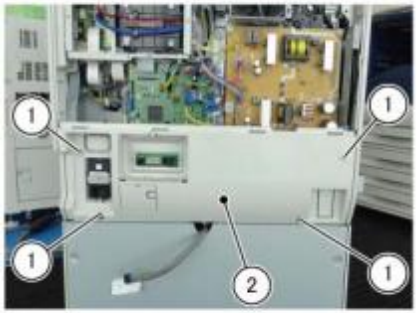


Figure 2 mb419008

35. ESS

REP 35.2.1 ESS PWB Chassis Assembly

Parts-list-on: PL 35.2

Removal

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION
Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.
Do not touch the Battery section. Do not peel off the protective tape.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Disconnect all cables that are connected to the ESS PWB Chassis Assembly.
3. Remove the Rear Cover. (REP 19.2.1)
4. Remove the Rear Cover of IIT. (PL 1.1)
   - Installation screw: x2 at the rear
5. [Devices with 1TM/3TM/STM]
   Disconnect the connector. (Figure 1)
   (1) Remove the STM Cover, and disconnect the connector.



Figure 1 j0mo402007

6. Remove the Rear Lower Cover Unit. (PL 19.2)
   - Installation screw: x4 at the rear
7. Remove the RH Top Cover. (PL 19.2)
   - Installation screw: x1 at the right
8. Remove the RH Rear Cover. (PL 19.2)
   - Installation screw: x1 at the right
9. Remove the Right Cover. (PL 19.1)
   - Installation screw: x2 at the right
10. [Devices with SSD]

    NOTE
    Check that the LED under the power connector is OFF. (If it is not OFF, do not perform the following procedure until it is OFF.)

    Remove the SSD. (Figure 2)
    (1) Disconnect the connector (x2).

(2) Remove the SSD.

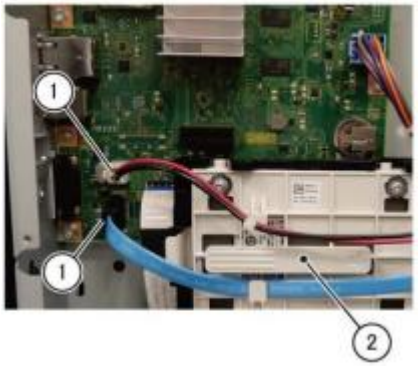


Figure 2 mbl435001

11. [Devices with SSD] (Figure 3)
    (1) Remove the screw.
    (2) Remove the HDD Bracket.

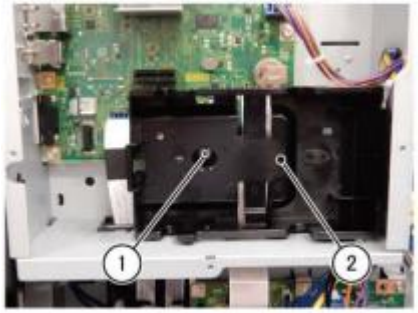


Figure 3 mbl435002

12. Disconnect the Flat Cable. (Figure 4)
    (1) Pull out and disconnect the Flat Cable in a straight motion.
    (2) Pull the Flat Cable downwards to disconnect.

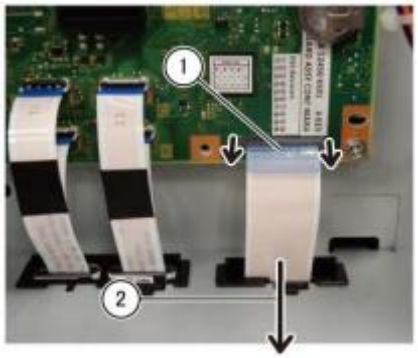


Figure 4 mbl435003

13. Disconnect the FFC Cable. (Figure 5)
    (1) Raise the Actuator in the direction of the arrow.
    (2) Disconnect the FFC Cable in a straight motion.
    (3) Pull the FFC Cable down to disconnect.

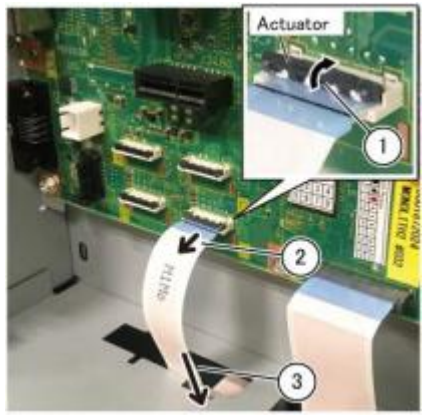


Figure 5 mnt402002

14. Disconnect the USB Cable, DADF I/F Cable, CIS Flat Cable, and UI Cable. (Figure 6)
    (1) Disconnect the USB Cable.
    (2) Disconnect the DADF I/F Cable.

(3) Disconnect the UI Cable.

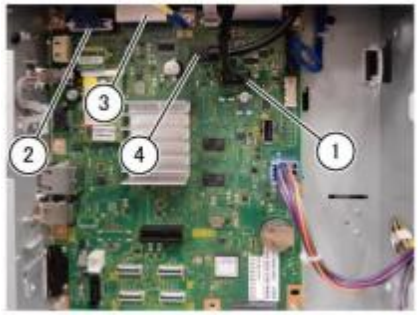


Figure 6 mbl435005

15. [Devices with Fax]
Disconnect the USB Cable and connector. (Figure 7)
(1) Disconnect the USB Cable.
(2) Remove the clamp of the USB Cable.
(3) Disconnect the connector.

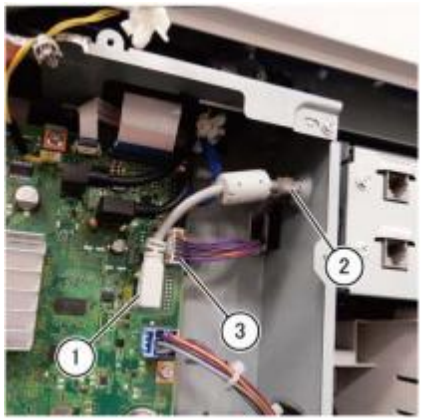


Figure 7 j0mbt435006

16. Disconnect the connector (x3). (Figure 8)
(1) Release the Push Tie (x2).
(2) Disconnect the connector (x3).

(3) Pull out and remove the Wire Harness through the hole on the Chassis.

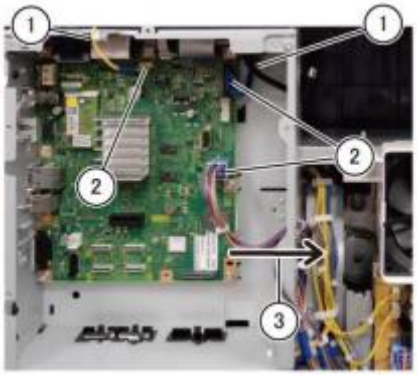


Figure 8 mbl435006

17. Disconnect the FFC LED Cable and CCD Flat Cable. (Figure 9)
(1) Pull out and disconnect the CCD Flat Cable in a straight motion.
(2) Disconnect the FFC LED Cable.

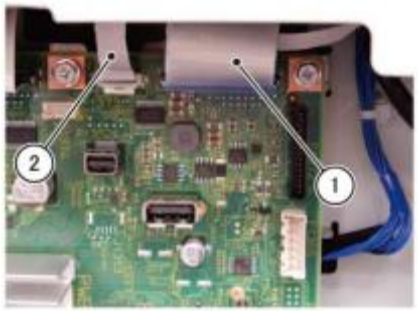


Figure 9 mbl435007

NOTE

While pressing the release lever at the bottom, pull out and disconnect the FFC LED Cable. (Figure10)

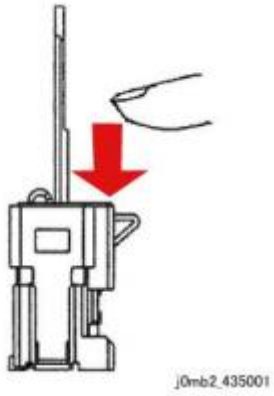


Figure 10 mb2_435001

18. Remove the ESS Upper Panel. (Figure 11)
    (1) Remove the screw (x2).
    (2) Pull out and disconnect the FFC and all cables though the hole.
    (3) Remove the ESS Upper Panel.

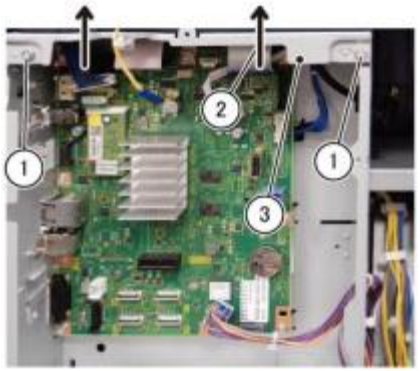


Figure 11 mbl435008

19. Remove the ESS PWB Chassis Assembly. (Figure 12)

NOTE

For machines with Fax, do not try to pull out ESS PWB Chassis Assembly forcibly as the USB Cable and connector are still secured by a clamp.

(1) Remove the screw (x6).
(2) Release the Wire Harness from the Clamp (x3).
(3) Remove the ESS PWB Chassis Assembly.

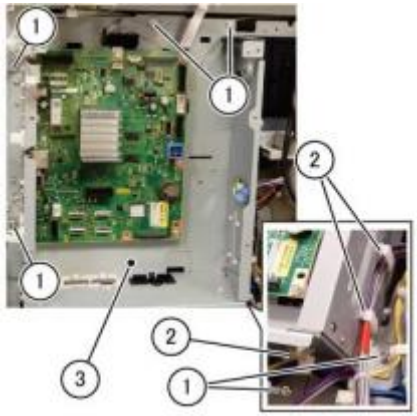


Figure 12 mbt435010

20. [Devices with Fax]
    Release the USB Cable and connector from the clamp. (Figure 13)
    (1) Release the USB Cable and connector from the clamp.

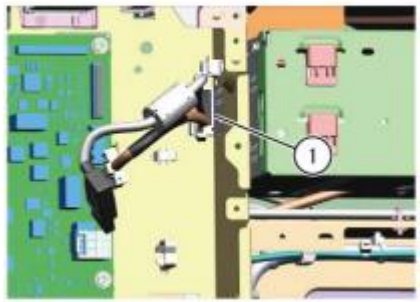


Figure 13 mbl435023

Installation

! CAUTION
Take note that inserting the harness at an angle may damage the PWB.

1. After replacing the ESS PWB, remove the SEEP ROM from the old ESS PWB and install it to the new one. (Figure 14)
2. After replacing the ESS PWB, remove the eMMC from the old ESS PWB and install it to the new one. (Figure 14)



Figure 14 mbt435011

3. Take note of the following points when connecting the FFC Cable and Flat Cable.
   (1) When connecting a cable, insert it straight into the Connector Housing until you hear the Lock sound.
   (2) Check the cable on the side where it remained connected and see whether it is connected properly.
4. When connecting the FFC LED Cable, insert it straight until you hear the Lock sound.
5. If something that originally had the ESS PWB was replaced with the new PWB, refer to the NVM Setting List that comes with the machine and change the IOT NVM.

REP 35.2.2 (SCC) (ISC)ESS PWB

Parts-list-on: PL 35.2

Removal

! WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION
Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Do not get yourself hurt by a soldered portion on the back of the PWB.

Do not touch the Battery section. Do not peel off the protective tape.

NOTE
The Serial Number, Product Number, and Billing Data are saved in the following parts.

- EEP ROM on the ESS PWB
- Memory on ESS PWB
- Memory on MCU Drive PWB

NOTE
Refer to DC132 for troubleshooting of FC 124-315 data mismatching.

NOTE
About the Diag screen (DC132) displayed after replacing the parts

Diag Screen (DC132)	Parts Targeted for Replacement
IOT	MCU Drive PWB
SYS1	ESS PWB
SYS2	ESS PWB

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.

2. Disconnect all cables that are connected to the ESS PWB Chassis Assembly.
3. Remove the Rear Cover. (REP 19.2.1)
4. [Devices with SSD]

NOTE
Check that the LED under the power connector is OFF. (If it is not OFF, do not perform the following procedure until it is OFF.)

Remove the SSD. (Figure 1)
(1) Disconnect the connector (x2).
(2) Remove the SSD.

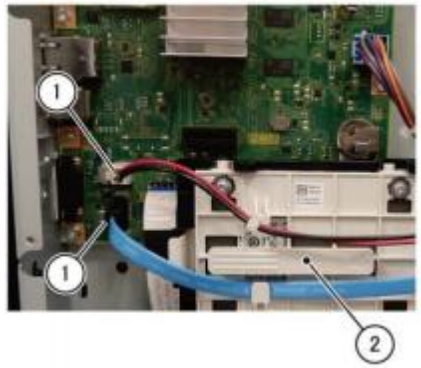


Figure 1 mbl435001

5. [Devices with SSD] (Figure 2)
(1) Remove the screw.
(2) Remove the HDD Bracket.

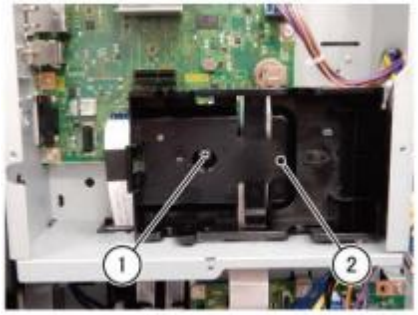


Figure 2 mbl435002

6. Disconnect the Flat Cable. (Figure 3)
(1) Pull out and disconnect the Flat Cable in a straight motion.
(2) Pull the Flat Cable downwards to disconnect.

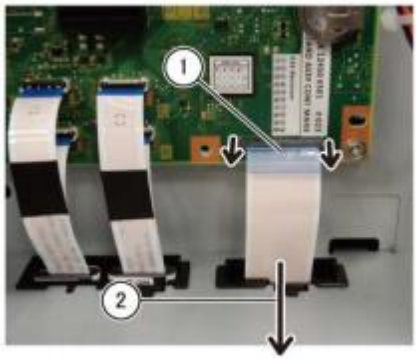


Figure 3 mbl435003

7. Disconnect the FFC Cable. (Figure 4)
(1) Raise the Actuator in the direction of the arrow.
(2) Disconnect the FFC Cable in a straight motion.

(3) Pull the FFC Cable down to disconnect.

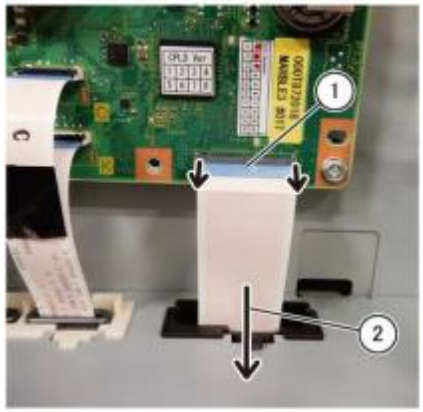


Figure 4 mbl435004

8. Disconnect the USB Cable, DADF I/F Cable, and UI Cable. (Figure 5)
   (1) Disconnect the USB Cable.
   (2) Disconnect the DADF I/F Cable.
   (3) Disconnect the UI Cable.

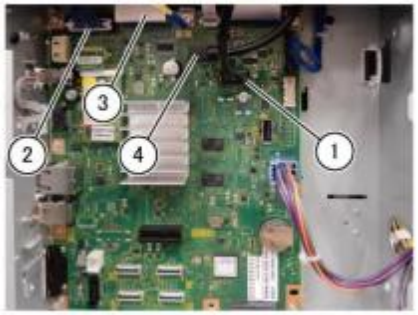


Figure 5 mbl435005

9. [Devices with Fax]
   Disconnect the USB Cable and connector. (Figure 6)
   (1) Disconnect the USB Cable.
   (2) Remove the clamp of the USB Cable.

(3) Disconnect the connector.



Figure 6 mbt435006

10. Disconnect the connector (x3). (Figure 7)
    (1) Disconnect the connector (x3).

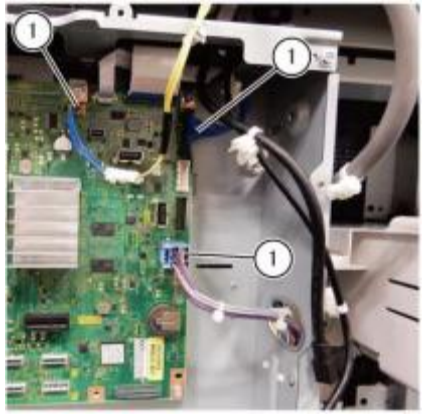


Figure 7 mbt435007

11. Disconnect the FFC LED Cable and CCD Flat Cable. (Figure 8)
    (1) Pull out and disconnect the CCD Flat Cable in a straight motion.

(2) Disconnect the FFC LED Cable.

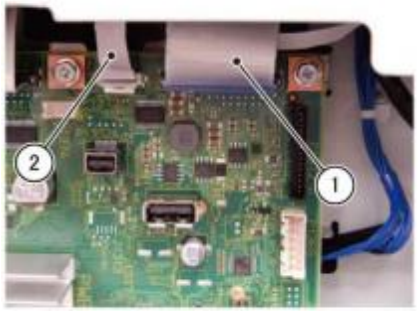


Figure 8 mbl435007

NOTE

While pressing the release lever at the bottom, pull out and disconnect the FFC LED Cable. (Figure 9)

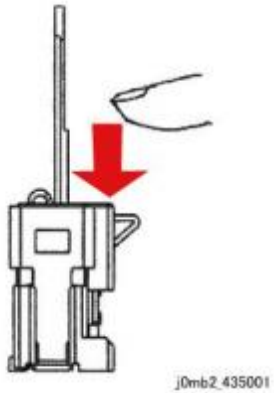


Figure 9 mb2_435001

12. Remove the ESS PWB. (Figure 10.11)
    (1) Remove the screw (x2).
    (2) Remove the Nut (x2).
    (3) Remove the screw (x7).
    (4) Remove the screw. (Devices without SSD only)

(5) Remove ESS PWB.

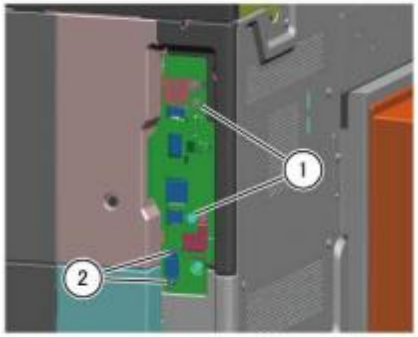


Figure 10 mbl435009

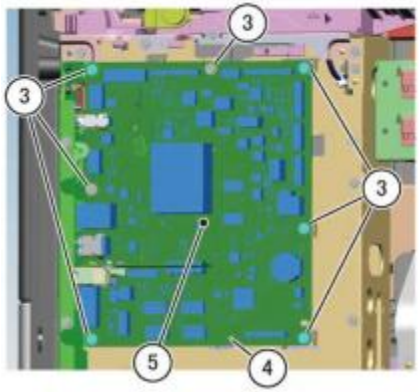


Figure 11 mbl435010

Installation

! CAUTION

Take note that inserting the harness at an angle may damage the PWB.

1. When installing the ESS PWB, insert the connector into the opening first before performing the installation. (Figure 12)

NOTE
Be careful not to damage the connector and PWB components.

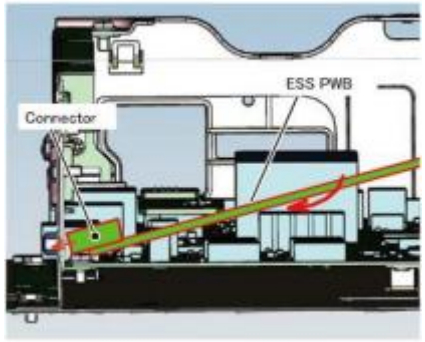


Figure 12 mbt435014

2. After replacing the ESS PWB, remove the SEEP ROM from the old ESS PWB and install it to the new one. (Figure 13)
3. After replacing the ESS PWB, remove the eMMC from the old ESS PWB and install it to the new one. (Figure 13)



Figure 13 mbt435011

4. Take note of the following points when connecting the FFC Cable and Flat Cable.
   (1) When connecting a cable, insert it straight into the Connector Housing until you hear the Lock sound.
   (2) Check the cable on the side where it remained connected and see whether it is connected properly.
5. When connecting the FFC LED Cable, insert it straight until you hear the Lock sound.
6. Refer to the NVM Setting List that comes with the machine and change the IOT NVM.

REP 35.2.3 (ISC) SSD / (ISC) HDD

Parts-list-on: PL 35.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Do not touch the Battery section. Do not peel off the protective tape.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. Remove the SSD. (Figure 1)

   NOTE

   To prevent damage, make sure you adhere to the order of removal.

   (1) Disconnect the connector (x2).
   (2) Release the hook and remove the SSD.

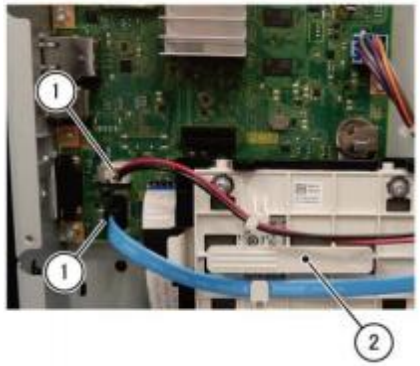


Figure 1 mbl435001

Installation

1. Execute [04. HDD FORMAT MODE] of the Special Boot item to perform forced formatting of SSD/HDD. (ADJ 35.1.4)

   NOTE

   If custom content is being used, it will need to be reinstalled.

   NOTE

   After replacing SSD (HDD), XCP plug-in contents bundled with the main unit can be used by forcibly formatting SSD/HDD using the Special Boot item [04. HDD FORMAT MODE].

56. DADF-110

REP 56.1.1 DADF (DADF-110)

Parts-list-on: PL 56.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the Rear Cover. (REP 19.2.1)
3. Remove the IIT Rear Cover. (PL 1.1)
4. Disconnect the connector. (Figure 1)
   (1) Remove the cable band.
   (2) Remove the harness from the wiring guide.
   (3) Disconnect the connector.
   (4) Remove the Wire Harness from the hole.

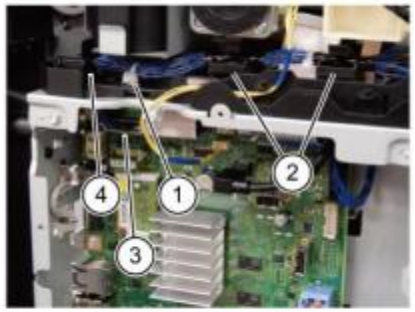


Figure 1 mbl456001

5. Remove the DADF. (Figure 2)
   (1) Tilt the Counter Balance in the direction of the arrow and remove it.

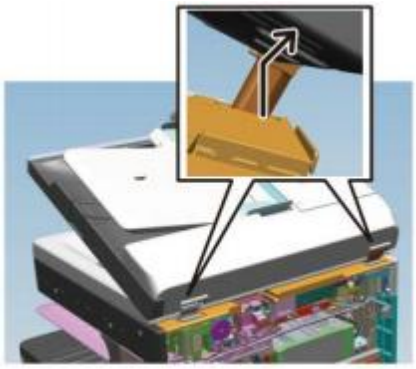


Figure 2 mbl456002

Installation

1. Install the DADF. (Figure 3)
   (1) Insert the tabs of the Counter Balance into the grooves of the installation holes.

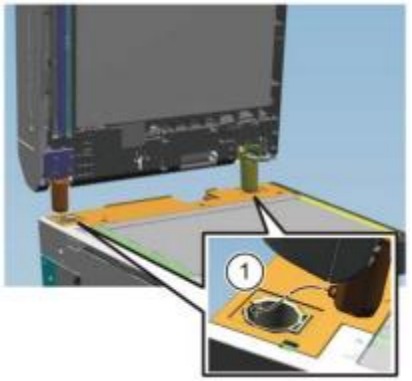


Figure 3 mbl456003

2. After replacement, enter CE mode and clear the following [HFSI Counter].
   Chain Link : 955-806
   Chain Link : 955-807
   Chain Link : 955-808
   Chain Link : 955-810
   Chain Link : 955-812

Chain Link : 955-826
Chain Link : 955-828

REP 56.1.2 DADF Platen Cushion

Parts-list-on: PL 56.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

The DADF Platen Cushion is pasted on with double sided adhesive tapes.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Peel off the DADF Platen Cushion. (Figure 1)
   (1) Peel off the DADF Platen Cushion.

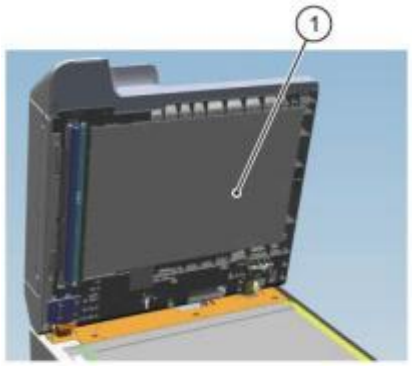


Figure 1 mbl456004

Installation

1. Affix the DADF Platen Cushion. (Figure 2)
   (1) Place the DADF Platen Cushion on the Platen Glass.

(2) Set up the gaps between it and the Regi Guide and Platen Guide.

(3) Slowly lower the DADF to affix the DADF Platen Cushion to it.

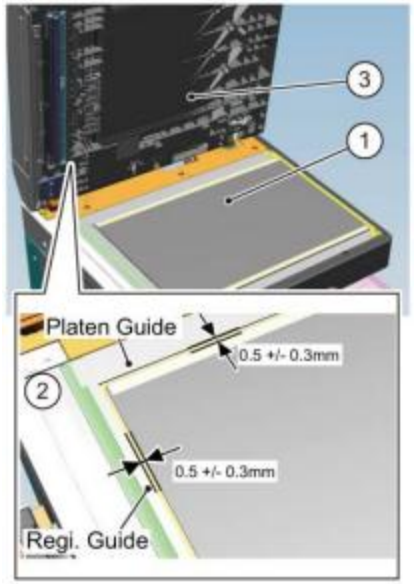


Figure 2 mbl456005

REP 56.2.1 DADF Front Cover

Parts-list-on: PL 56.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the Upper Feeder Assembly.
3. Open the DADF.
4. Remove the DADF Front Cover. (Figure 1)
   (1) Remove the Tapping Screw (x4).

(2) Remove the DADF Front Cover in the direction of the arrow.

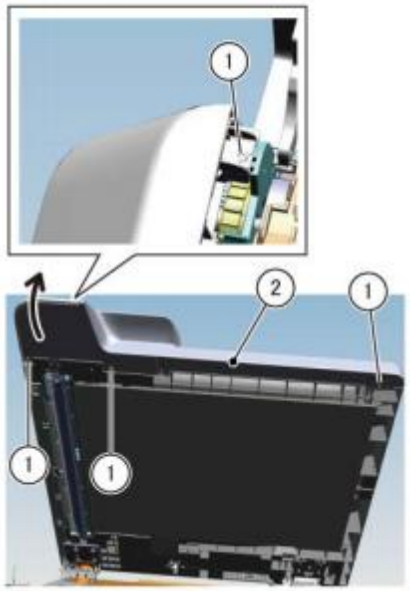


Figure 1 mbl456006

REP 56.2.2 (SCC) DADF Rear Cover

Parts-list-on: PL 56.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the screw that secures the DADF Rear Cover. (Figure 1)
   (1) Open the Upper Feeder Assembly.
   (2) Remove the Tapping Screw.

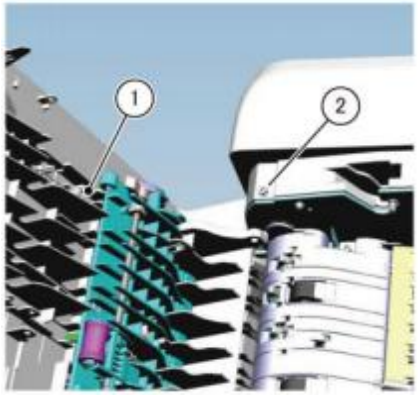


Figure 1 mbl456007

3. Remove the screw that secures the DADF Rear Cover. (Figure 2)
   (1) Open the DADF Document Tray.

(2) Remove the Tapping Screw.

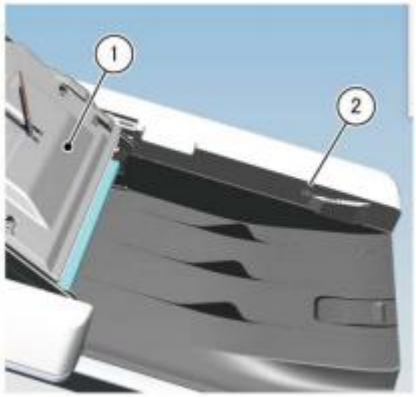


Figure 2 mbl456008

4. Release the hook (x3) of DADF Rear Cover. (Figure 3)
   (1) Release the hook (x3).

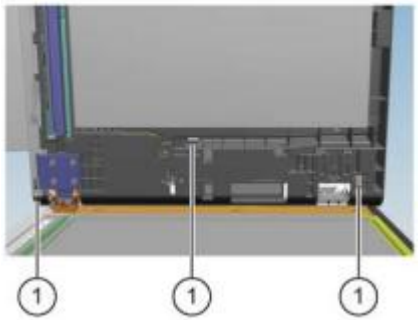


Figure 3 mbl456009

5. Remove the DADF Rear Cover. (Figure 4)

(1) Remove the DADF Rear Cover in the direction of the arrow.

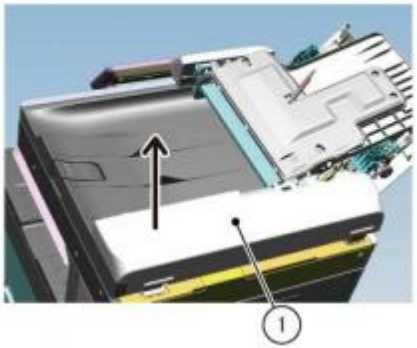


Figure 4 mbl456010

REP 56.2.3 (SCC) DADF PWB

Parts-list-on: PL 56.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Do not get yourself hurt by a soldered portion on the back of the PWB.

1. Before replacement, enter CE mode and record the values of the following NVM.

NVM	Type
711-140	Lead Regi Side1
711-141	Lead Regi Side2
711-142	Tail Edge Side1
711-143	Tail Edge Side2
711-144	Y %
711-272	Side Regi Side1
711-274	Side Regi Side2

2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
3. Remove the DADF Rear Cover. (REP 56.2.2)
4. Disconnect the connector. (Figure 1)
   (1) Disconnect the connector (x6).

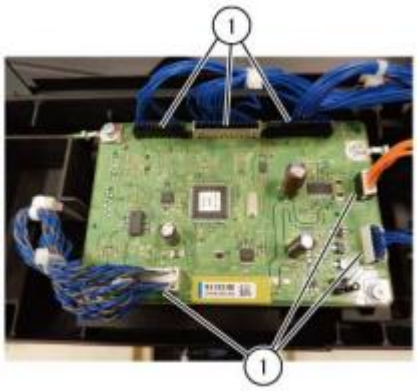


Figure 1 mbl456011

5. Remove the DADF PWB. (Figure 2)
   (1) Remove the Tapping Screw (x2) and disconnect the earth wire (x2).
   (2) Remove the Tapping Screw (x2).
   (3) Remove the DADF PWB.

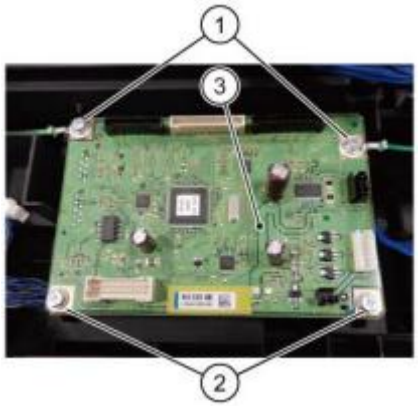


Figure 2 mbl456012

Installation

1. After replacing the DADF PWB, enter CE mode and write the values of the 7 NVMs that was recorded in Step 1.

NVM	Type
711- 140	Lead Regi Side1
711- 141	Lead Regi Side2
711- 142	Tail Edge Side1
711- 143	Tail Edge Side2
711- 144	Y %
711-272	Side Regi Side1
711-274	Side Regi Side2

REP 56.2.4 Upper Feeder Assembly

Parts-list-on: PL 56.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF Front Cover. (REP 56.2.1)
3. Remove the DADF Rear Cover. (REP 56.2.2)
4. Remove the Hinge Bracket at the front. (Figure 1)
   (1) Remove the Tapping Screw.
   (2) Remove the Hinge Bracket.

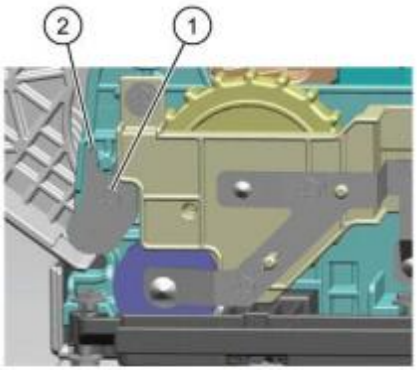


Figure 1 mbl456013

5. Remove the Hinge Bracket at the rear and remove the Upper Feeder Assembly. (Figure 2)
   (1) Remove the Tapping Screw.
   (2) Remove the Hinge Bracket.

(3) Remove the Upper Feeder Assembly.



Figure 2 mbl456014

REP 56.2.5 (SCC) DADF Feeder Assembly

Parts-list-on: PL 56.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF Front Cover. (REP 56.2.1)
3. Remove the DADF Rear Cover. (REP 56.2.2)
4. Remove the Upper Feeder Assembly. (REP 56.2.4)
5. Remove the DADF Document Tray. (REP 56.9.1)
6. Remove the Harness Guide and the Wire Harness. (REP 56.6.1)
7. Remove the screws that secure the DADF Feeder Assembly at the rear. (Figure 1)
   (1) Remove the Tapping Screw (x2).

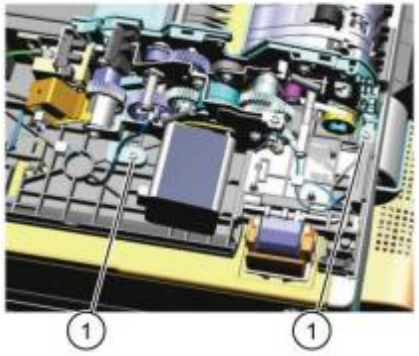


Figure 1 mbl456015

8. Remove the DADF Feeder Assembly. (Figure 2)

(1) Remove the Tapping Screw (x3).
(2) Remove the DADF Feeder Assembly.

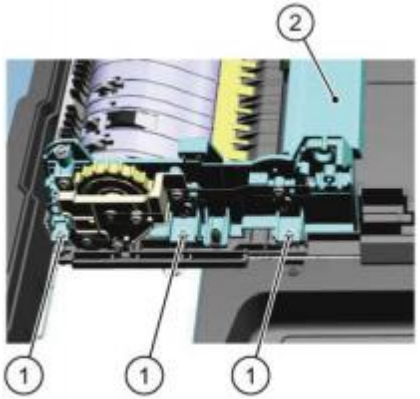


Figure 2 mbl456016

Reference: This shows the removed DADF Feeder Assembly. (Figure 3)

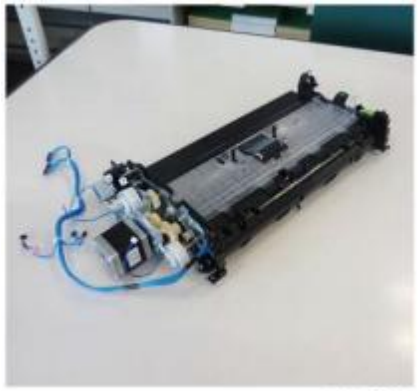


Figure 3 mb456014

REP 56.3.1 Left Counter Balance

Parts-list-on: PL 56.3

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF. (REP 56.1.1)
3. Turn the DADF upside down.
4. Remove the Left Counter Balance. (Figure 1)
   (1) Remove the Tapping Screw (x4).
   (2) Remove the Left Counter Balance.

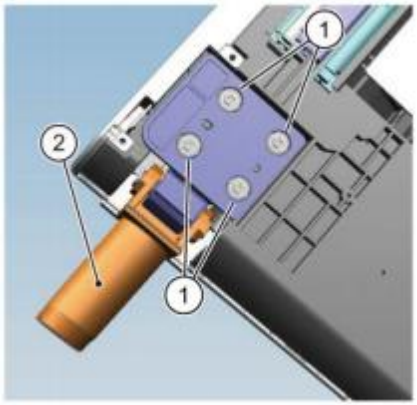


Figure 1 mbl456017

REP 56.3.2 Right Counter Balance

Parts-list-on: PL 56.3

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF Rear Cover. (REP 56.2.2)
3. Remove the DADF. (REP 56.1.1)
4. Record the position of the scale for the Right Counter Balance. (Figure 1)



Figure 1 j0mb456016

5. Remove the Right Counter Balance. (Figure 2)
   (1) Remove the Tapping Screw that secures the earth wire.
   (2) Remove the Tapping Screw (x4).
   (3) Remove the Right Counter Balance.

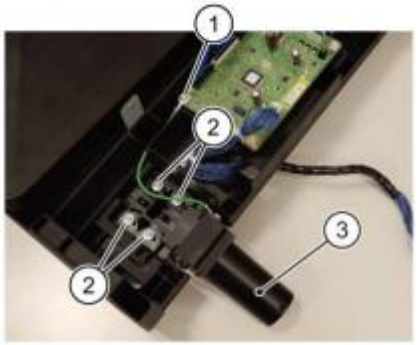


Figure 2 mbl456018

REP 56.5.1 Feed/Nudger Roll Assembly

Parts-list-on: PL 56.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

The Feed Roll Assembly (x2) and Retard Roll Assembly must all be replaced at the same time.

Refer to the following procedure to replace the Retard Roll Assembly.

REP 56.13.1 Retard Roll

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the Upper Feeder Assembly.
3. Remove the Feed/Nudger Roll Assembly. (Figure 1)
   (1) Release the hook of the Feed Front/Rear Handle.
   (2) Move the Feed/ Nudger Roll Assembly in the direction of the arrow and remove it.

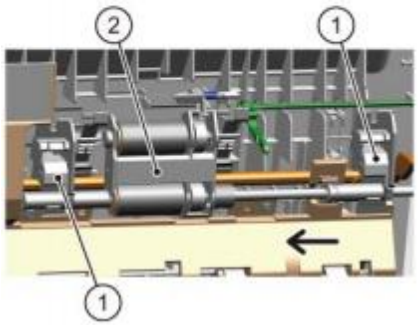


Figure 1 mbl456045

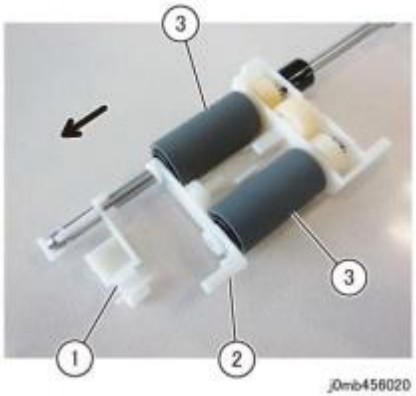
Reference: This shows the removed Feed/Nudger Roll Assembly. (Figure 2)



jOmb456019

Figure 2 mb456019

4. Remove the Feed Roll Assembly (x2). (Figure 3)
   (1) Release the hook and remove the Feed Front Handle.
   (2) Release the hook and remove the Nudger CRU Housing.
   (3) Remove the Feed Roll Assembly (x2).



jOmb456020

Figure 3 mb456020

Installation

1. When installing the Feed Roll Assembly (x2), install them such that the Feed Roll are rotating in the clockwise direction.

2. When installing the Feed/Nudger Roll Assembly, install it such that the Feed/Nudger Roll Assembly is at the inner side of the Set Link. (Figure 4)

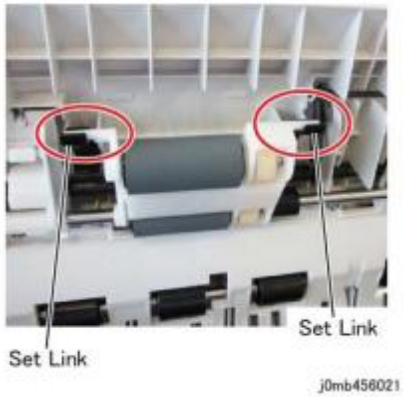


Figure 4 mb456021

3. After replacement, enter CE mode and clear the following [HFSI Counter].
Chain Link : 955-806

REP 56.6.1 Harness Guide and Wire Harness

Parts-list-on: PL 56.6

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF Front Cover. (REP 56.2.1)
3. Remove the DADF Rear Cover. (REP 56.2.2)
4. Remove the DADF Document Tray. (REP 56.9.1)
5. Remove the Wire Harness from the Harness Guide. (Figure 1)
   (1) Disconnect the connector (x3).
   (2) Disconnect the Sensor connector (x2).
   (3) Remove the Wire Harness from the Harness Guide.

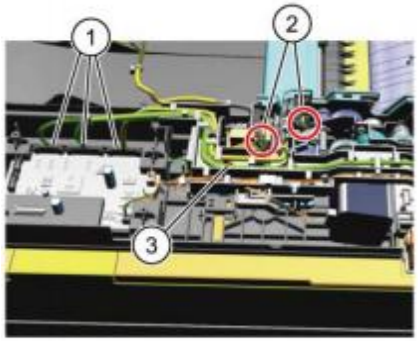


Figure 1 mbl456019

6. Disconnect the DADF PWB connector. (Figure 2)

(1) Disconnect the connector (x2).

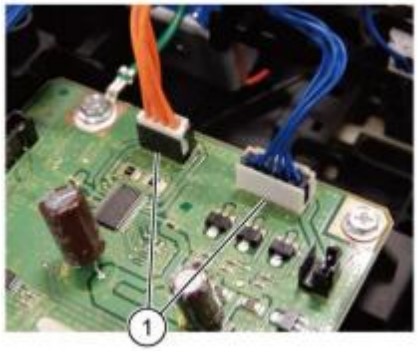


Figure 2 mbl456020

7. Disconnect the solenoid and remove the Wire Harness from the Harness Guide. (Figure 3)

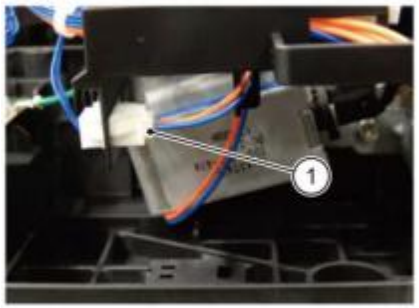


Figure 3 mbl456021

8. Disconnect the DADF Feed Clutch connector and remove the Wire Harness from the Harness Guide.
(Figure 4)

(1) Disconnect the connector.

(2) Remove the Wire Harness from the Harness Guide.

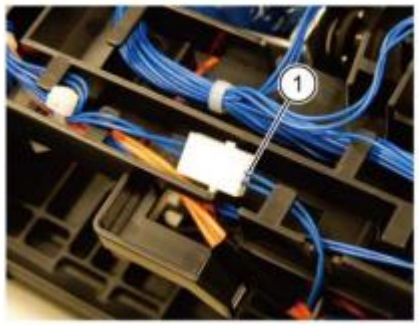


Figure 4 mbl456022

9. Disconnect the DADF Feed Motor Assembly connector. (Figure 5)

(1) Disconnect the connector.

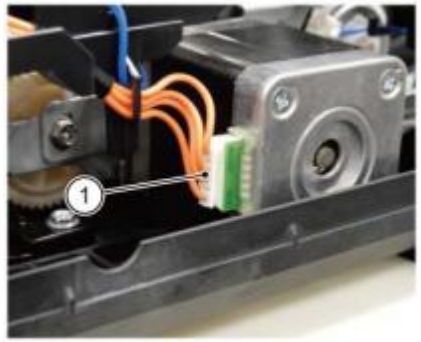


Figure 5 mbl456023

10. Disconnect the DADF T/A Clutch connector and remove the Wire Harness from the Harness Guide. (Figure 6)

(1) Disconnect the connector.

(2) Remove the Wire Harness from the Harness Guide.

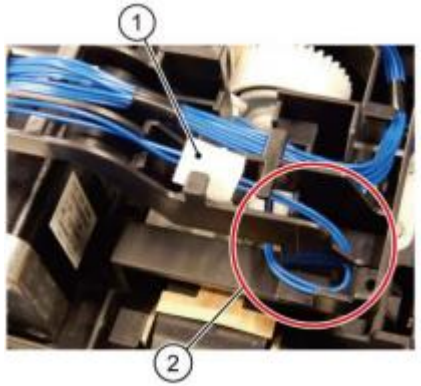


Figure 6 mbl456024

11. Remove the Harness Guide and the Wire Harness. (Figure 7)
    (1) Remove the screw and the disconnect the earth wire.
    (2) Remove the screw.
    (3) Remove the Harness Guide and the Wire Harness.

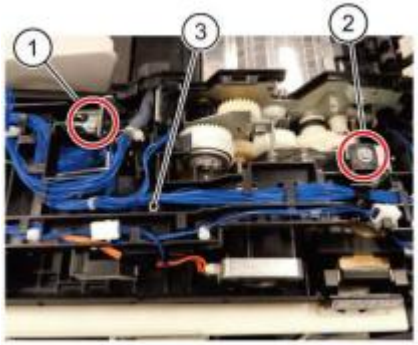


Figure 7 mbl456025

Reference: This shows the removed Harness Guide and Wire Harness. (Figure 8)

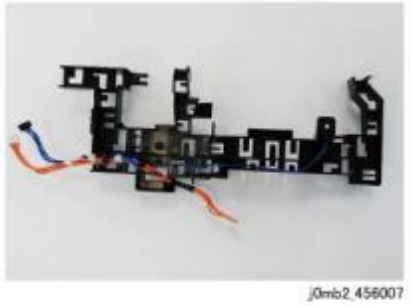


Figure 8 mb2_456007

REP 56.6.2 DADF Feed Motor Assembly

Parts-list-on: PL 56.6

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF Front Cover. (REP 56.2.1)
3. Remove the DADF Rear Cover. (REP 56.2.2)
4. Remove the DADF Document Tray. (REP 56.9.1)
5. Remove the Harness Guide and the Wire Harness. (REP 56.6.1)
6. Remove the DADF Feed Motor Assembly. (Figure 1)
   (1) Remove the screw (x3).
   (2) Remove the DADF Feed Motor Assembly.

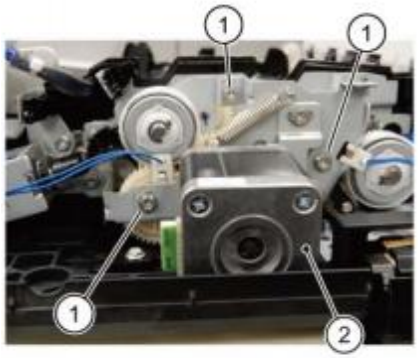


Figure 1 mbl456026

Installation

1. When installing the DADF Feed Motor Assembly, align the Cutout of the DADF Feed Clutch to the Tab at the Bracket of the DADF Feed Motor Assembly and the Cutout of the DADF T/A Clutch to the notch at the Bracket. (Figure 2)

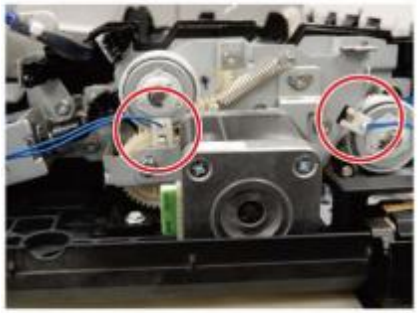


Figure 2 mbl456027

REP 56.7.1 DADF Drive Belt

Parts-list-on: PL 56.7

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF Front Cover. (REP 56.2.1)
3. Remove the DADF Rear Cover. (REP 56.2.2)
4. Remove the DADF Document Tray. (REP 56.9.1)
5. Remove the Harness Guide and the Wire Harness. (REP 56.6.1)
6. Remove the DADF Feed Motor Assembly. (REP 56.6.2)
7. Remove the Stopper Link. (Figure 1)
   (1) Remove the Stopper Link.

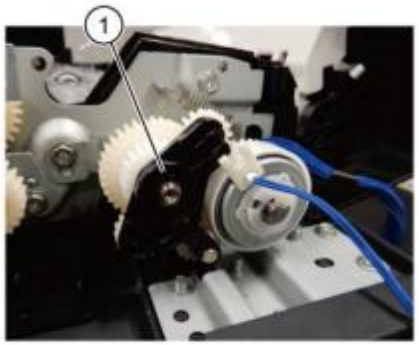


Figure 1 mbl456028

8. Remove the gear (x2) and the Idler Gear Bracket. (Figure 2)
   (1) Remove the washer.
   (2) Remove the gear (x2) and the Idler Gear Bracket.

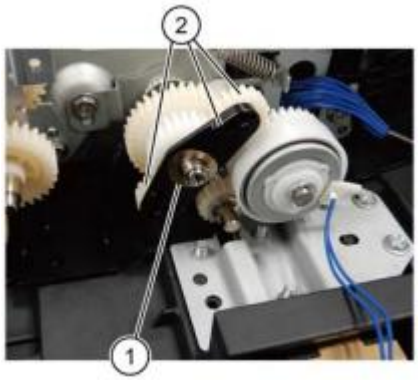


Figure 2 mbl456029

9. Remove the DADF T/A Clutch. (Figure 3)
   (1) Remove the E-Clip.
   (2) Remove the DADF T/A Clutch.

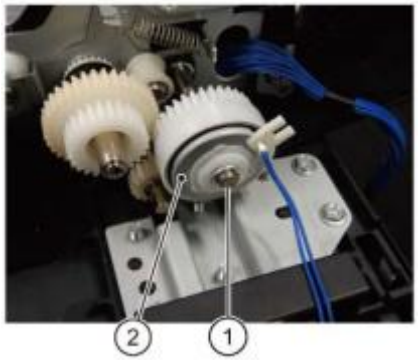


Figure 3 mbl456030

10. Remove the Gear Pulley. (Figure 4)
    (1) Loosen the screw.
    (2) Remove the Tension Spring.

(3) Remove the Gear Pulley.

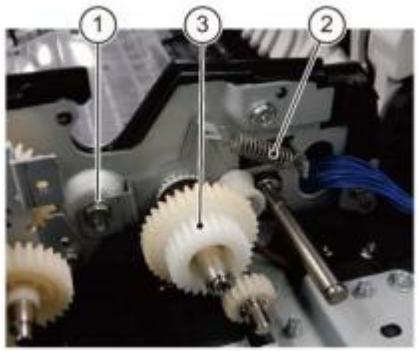


Figure 4 mbl456031

11. Remove the DADF Drive Belt. (Figure 5)
    (1) Remove the DADF Drive Belt.



Figure 5 mbl456032

REP 56.9.1 (SCC) DADF Document Tray

Parts-list-on: PL 56.9

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF Front Cover. (REP 56.2.1)
3. Remove the DADF Rear Cover. (REP 56.2.2)
4. Remove the Wire Harness of the DADF Document Tray from the Harness Guide. (Figure 1)
   (1) Disconnect the connector.
   (2) Remove the Wire Harness from the Harness Guide.

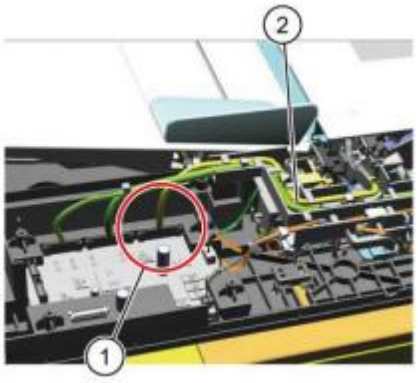


Figure 1 mbl456033

Reference: This shows the removed Wire Harness of the DADF Document Tray. (Figure 2)



Figure 2 mbl456034

5. Remove the DADF Document Tray. (Figure 3)
   (1) At the front, squeeze the boss of the DADF Document Tray in the direction of the arrow and remove it from the hole.
   (2) Remove the DADF Document Tray.

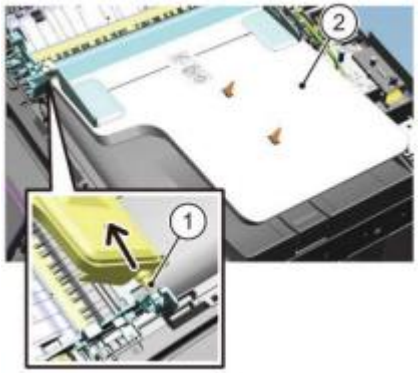


Figure 3 mbl456035

REP 56.9.2 Retard Chute Assembly

Parts-list-on: PL 56.9

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF Front Cover. (REP 56.2.1)
3. Remove the DADF Rear Cover. (REP 56.2.2)
4. Remove the DADF Document Tray. (REP 56.9.1)
5. Open the Retard Chute Assembly.
6. Remove the Retard Chute Assembly. (Figure 1)
   (1) Remove the Retard Chute Assembly in the direction of the arrow.



Figure 1 mbl456036

REP 56.9.3 Invert Chute Assembly

Parts-list-on: PL 56.9

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the Upper Feeder Assembly.
3. Open the Retard Chute Assembly.
4. Remove the Invert Chute Assembly. (Figure 1)
   (1) Remove the Tapping Screw (x2).
   (2) Remove the Invert Chute Assembly.

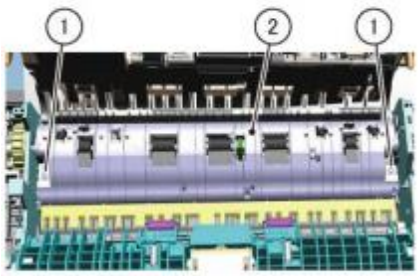


Figure 1 mbl456037

REP 56.10.1 DADF Takeaway Roll

Parts-list-on: PL 56.10

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF Front Cover. (REP 56.2.1)
3. Remove the DADF Rear Cover. (REP 56.2.2)
4. Remove the Upper Feeder Assembly. (REP 56.2.4)
5. Remove the Invert Chute Assembly. (REP 56.9.3)
6. Remove the DADF Document Tray. (REP 56.9.1)
7. Remove the Harness Guide and the Wire Harness. (REP 56.6.1)
8. Remove the DADF Feed Motor Assembly. (REP 56.6.2)
9. Remove the Stopper Link. (Figure 1)
   (1) Remove the Stopper Link.

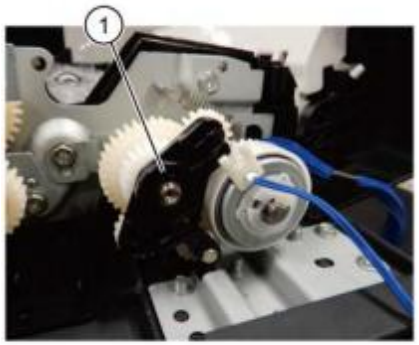


Figure 1 mbl456028

10. Remove the gear (x2) and the Idler Gear Bracket. (Figure 2)
    (1) Remove the washer.
    (2) Remove the gear (x2) and the Idler Gear Bracket.

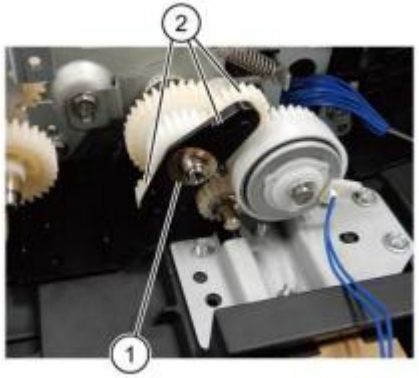


Figure 2 mbl456029

11. Remove the DADF T/A Clutch. (Figure 3)
    (1) Remove the E-Clip.
    (2) Remove the DADF T/A Clutch.

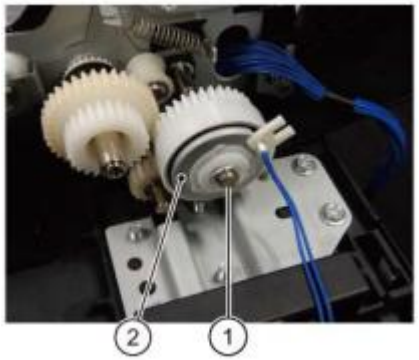


Figure 3 mbl456030

12. Remove the Gear Pulley. (Figure 4)
    (1) Loosen the screw.
    (2) Remove the Tension Spring.
    (3) Remove the Gear Pulley.

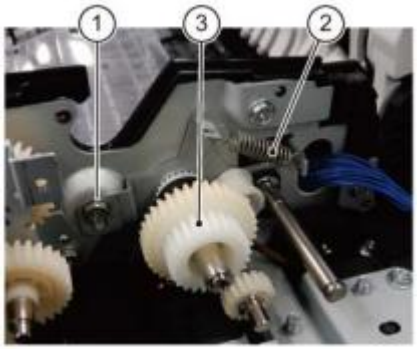


Figure 4 mbl456031

13. Remove the Handle Knob Bracket and Earth Roller Plate at the front. (Figure 5)
    (1) Remove the Tapping Screw (x2).
    (2) Loosen the screw.
    (3) Remove the Handle Knob Bracket and Earth Roller Plate.

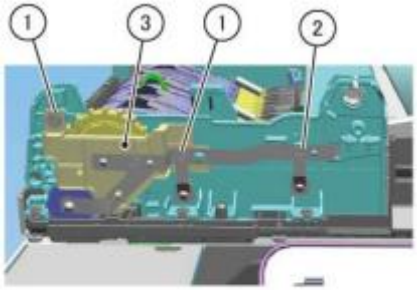


Figure 5 mbl456038

NOTE
Be careful so as to not lose the Gear at the back of the Handle Knob Bracket and Earth Roller Plate. (Figure 6)



Figure 6 mb456043

14. Remove the Handle Knob. (Figure 7)
    (1) Remove the gear.
    (2) Remove the Handle Knob.

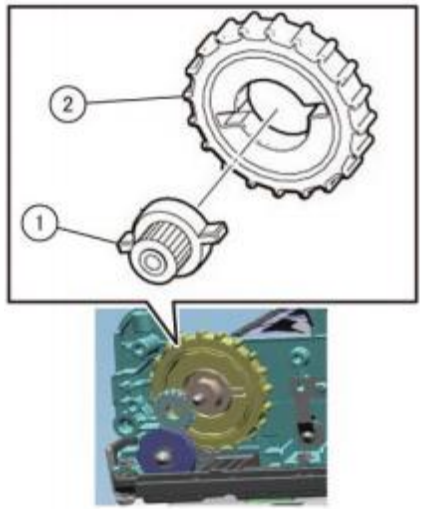


Figure 7 mbl456039

15. Remove the bearing at the front. (Figure 8)
    (1) Remove the KL-Clip.
    (2) Remove the Bearing.

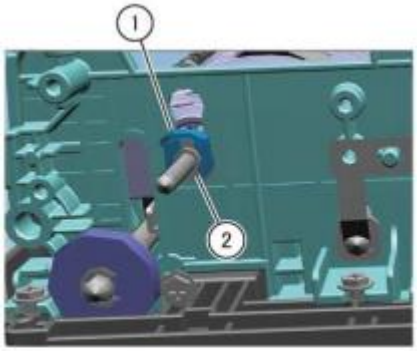


Figure 8 mbl456040

16. Remove the bearing at the rear and remove the DADF Takeaway Roll. (Figure 9)
    (1) Remove the E-Clip.
    (2) Remove the Bearing.
    (3) Remove the DADF Takeaway Roll.

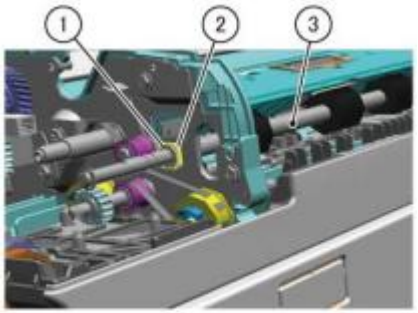


Figure 9 mbl456041

Installation

1. When installing the Handle Knob Bracket and Earth Roller Plate, install the Earth Roller Plate as shown in the figure. (Figure 10)

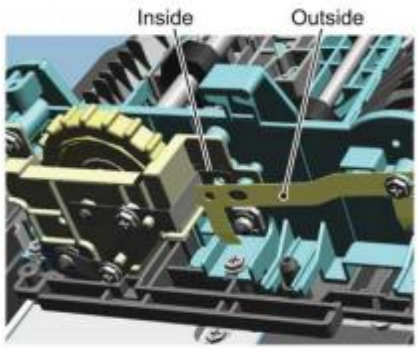


Figure 10 mbl456042

REP 56.10.2 Sensor Bracket Assembly (Regi./APS)

Parts-list-on: PL 56.10

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Remove the DADF Front Cover. (REP 56.2.1)
3. Remove the DADF Rear Cover. (REP 56.2.2)
4. Remove the DADF Document Tray. (REP 56.9.1)
5. Remove the Harness Guide and the Wire Harness. (REP 56.6.1)
6. Remove the Upper Feeder Assembly. (REP 56.2.4)
7. Remove the DADF Feeder Assembly. (REP 56.2.5)
8. Remove the Retard Chute Assembly. (REP 56.9.2)
9. Remove the Invert Chute Assembly. (REP 56.9.3)
10. Remove the DADF Feed Motor Assembly. (REP 56.6.2)
11. Remove the DADF Takeaway Roll. (REP 56.10.1)
12. Remove the Sensor Bracket Assembly (Regi./APS). (Figure 1)
    (1) Disconnect the connector.
    (2) Remove the Tapping Screw (x4).
    (3) Remove the Wire Harness from the hole.

(4) Remove the Sensor Bracket Assembly (Regi./APS).

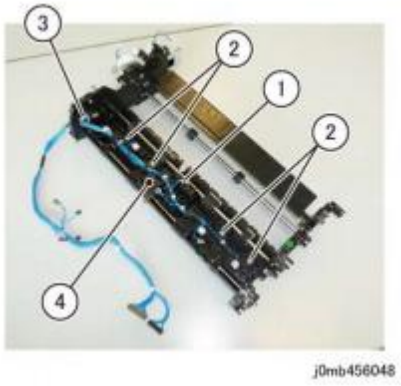


Figure 1 mb456048

Reference: This shows the removed Sensor Bracket Assembly (Regi./APS). (Figure 2)



Figure 2 mb456049

REP 56.13.1 Retard Roll

Parts-list-on: PL 56.13

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

The Feeder Roll Assembly (x2) and Retard Roll must all be replaced at the same time.

Refer to the following procedure to replace the Feed/Nudger Roll Assembly.

REP 56.5.1 Feed/Nudger Roll Assembly

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
2. Open the Upper Feeder Assembly.
3. Remove the Retard CRU Cover Assembly. (Figure 1)
   (1) Release the hook and open the Retard CRU Cover Assembly in the direction of the arrow.

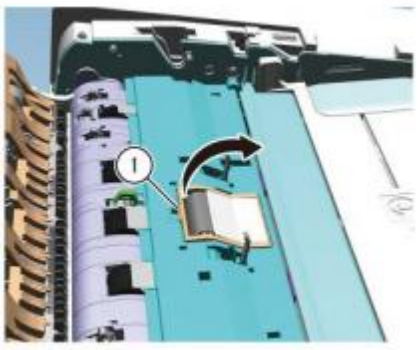


Figure 1 mbl456043

4. Remove the Retard Roll. (Figure 1)
   (1) Remove the Retard Roll.

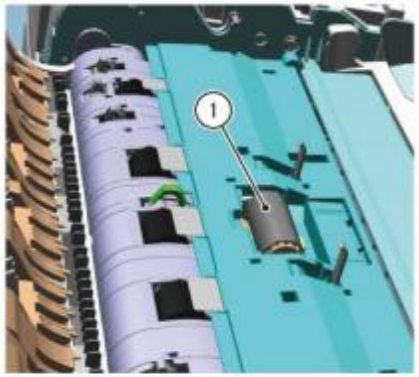


Figure 2 mbl456044

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   Chain Link : 955-806

REP 57.1.2 DADF Platen Cushion

Parts-list-on: PL 57.1

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

The DADF Platen Cushion is pasted on with double sided adhesive tapes.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Peel off the DADF Platen Cushion. (Figure 1)
   (1) Peel off the DADF Platen Cushion.



Figure 1 mbl457004

Installation

1. Affix the DADF Platen Cushion. (Figure 2)
   (1) Place the DADF Platen Cushion on the Platen Glass.

(2) Set up the gaps between it and the Regi Guide and Platen Guide.

(3) Slowly lower the DADF to affix the DADF Platen Cushion to it.

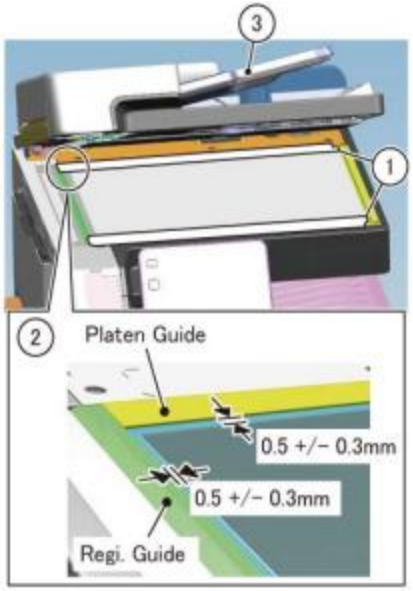


Figure 2 mbl457005

REP 57.2.1 DADF Front Cover

Parts-list-on: PL 57.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Open the Upper Feeder Assembly.
3. Open the DADF.
4. Remove the DADF Front Cover. (Figure 1)
   (1) Remove the Tapping Screw (x5).

(2) Remove the DADF Front Cover in the direction of the arrow.



Figure 1 shb457023

REP 57.2.2 (SCC) DADF Rear Cover

Parts-list-on: PL 57.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the screw that secures the DADF Rear Cover. (Figure 1)
   (1) Open the Upper Feeder Assembly.
   (2) Remove the screw.

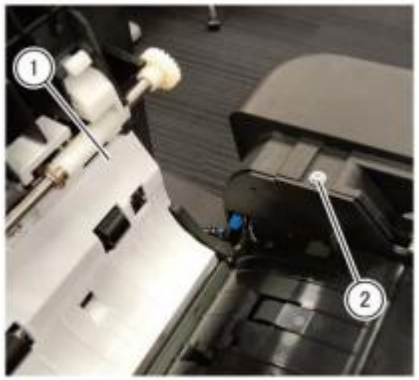


Figure 1 shb457005

3. Remove the screw that secures the DADF Rear Cover. (Figure 2)
   (1) Open the DADF Document Tray.

(2) Remove the Tapping Screw.

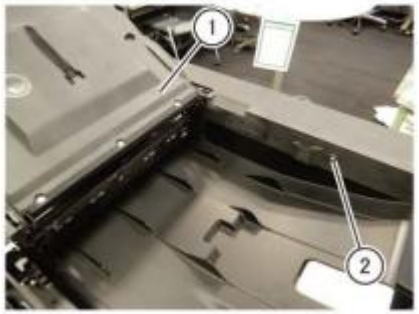


Figure 2 shb457006

4. Release the hook (x3) of the DADF Rear Cover. (Figure 3)
   (1) Release the hook (x3).

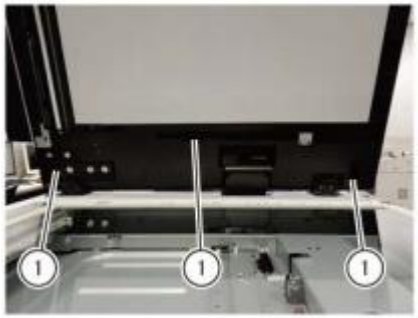


Figure 3 shb457007

5. Remove the DADF Rear Cover. (Figure 4)

(1) Remove the DADF Rear Cover in the direction of the arrow.

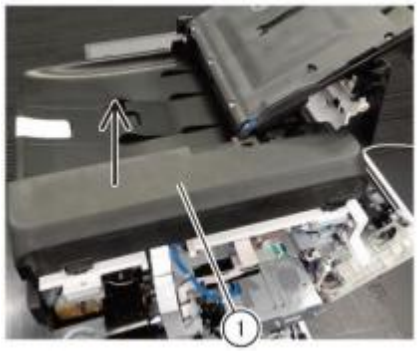


Figure 4 shb457008

REP 57.2.3 (SCC) DADF Feeder Assembly

Parts-list-on: PL 57.2

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Front Cover. (REP 57.2.1)
3. Remove the DADF Rear Cover. (REP 57.2.2)
4. Remove the Upper Feeder Assembly. (REP 57.3.2)
5. Remove the DADF Document Tray. (REP 57.3.1)
6. Remove the Harness Guide and the Wire Harness. (REP 57.12.2)
7. Remove the DADF PWB. (REP 57.4.3)
8. Disconnect the CIS cable from the top of the Controller PWB. (Figure 1)
   (1) Disconnect the connector.
   (2) Release the CIS cable from the Guide.

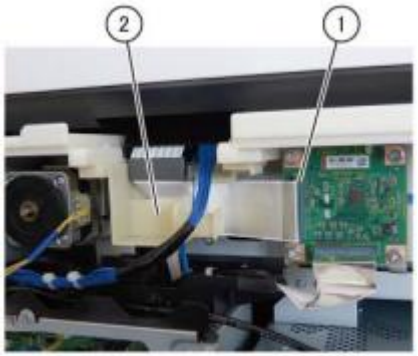


Figure 1 mbl457006

9. Remove the FFC Guide Cover. (Figure 2)
   (1) Remove the Tapping Screw (x3).
   (2) Remove the FFC Guide Cover.

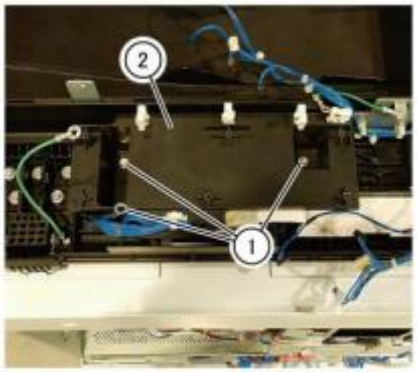


Figure 2 shb457048

10. Remove the FFC Holder Assembly, and release the CIS cable. (Figure 3)
    (1) Remove the KL-Clip (x2).
    (2) Remove the Plastic Sleeve Bearing (x2).
    (3) Remove the FFC Holder Assembly.

(4) Release the CIS cable from the FFC Holder Assembly.

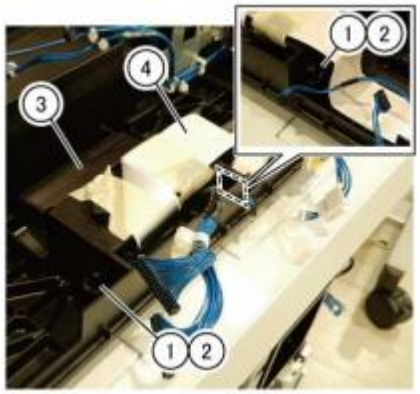


Figure 3 shb457049

11. Remove the DADF Feeder Assembly. (Figure 4)
    (1) Remove the screw (x7).
    (2) Remove the DADF Feeder Assembly.

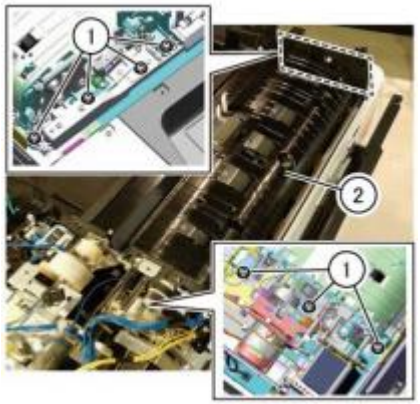


Figure 4 shb457050

Installation

1. When replacing the DADF Feeder Assembly, switch the Sonic Sensor Transmit installed on the existing DADF Feeder Assembly with the new DADF Feeder Assembly.

REP 57.3.1 DADF Document Tray

Parts-list-on: PL 57.3

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Front Cover. (REP 57.2.1)
3. Remove the DADF Rear Cover. (REP 57.2.2)
4. Remove the Wire Harness of the DADF Document Tray from the Harness Guide. (Figure 1)
   (1) Disconnect the connector (x2).
   (2) Remove the Wire Harness from the Harness Guide.

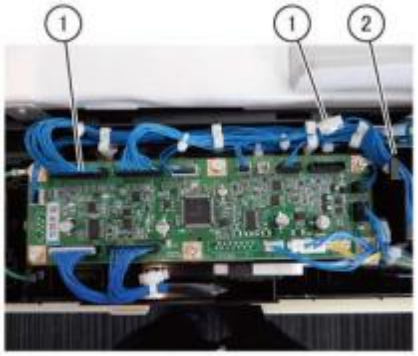


Figure 1 mbl457007

5. Remove the LED Bracket Assembly axis from the DADF Document Tray. (Figure 2)
   (1) Remove the Tapping Screw (x2).

(2) Remove the LED Bracket Assembly axis from the DADF Document Tray.

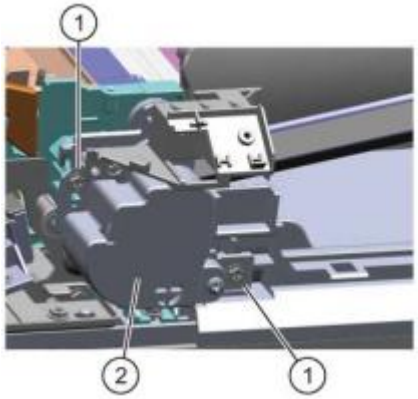


Figure 2 mbl457010

6. Remove the DADF Document Tray. (Figure 3)
   (1) Lift up the DADF Document Tray, and remove the Boss from the hole on the rear side.
   (2) Remove the DADF Document Tray.

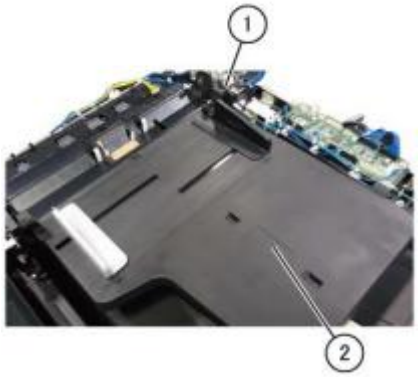


Figure 3 shb457032

REP 57.3.2 Upper Feeder Assembly

Parts-list-on: PL 57.3

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Front Cover. (REP 57.2.1)
3. Remove the DADF Rear Cover. (REP 57.2.2)
4. Remove the Hinge Bracket at the front. (Figure 1)
   (1) Remove the Tapping Screw.
   (2) Remove the Hinge Bracket.

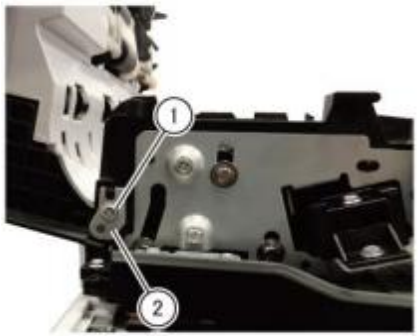


Figure 1 shb457011

5. Remove the Hinge Bracket at the rear and remove the Upper Feeder Assembly. (Figure 2)
   (1) Remove the Tapping Screw.

(2) Remove the Hinge Bracket.

(3) Remove the Upper Feeder Assembly.

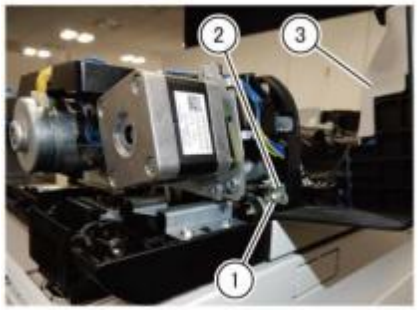


Figure 2 shb457012

REP 57.4.1 (SCC) Left Counter Balance

Parts-list-on: PL 57.4

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF. (REP 57.1.1)
3. Turn the DADF upside down.
4. Remove the Left Counter Balance. (Figure 1)
   (1) Remove the Tapping Screw (x5).
   (2) Remove the Left Counter Balance.

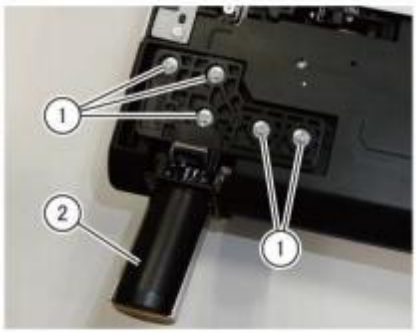


Figure 1 shb457013

REP 57.4.2 (SCC) Right Counter Balance

Parts-list-on: PL 57.4

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Rear Cover. (REP 57.2.2)
3. Remove the DADF. (REP 57.1.1)
4. Record the position of the scale for the Right Counter Balance. (Figure 1)



Figure 1 shb457014

5. Remove the Right Counter Balance. (Figure 2)
   (1) Remove the Tapping Screw that secures the earth wire.
   (2) Remove the Tapping Screw (x5).
   (3) Remove the Right Counter Balance.

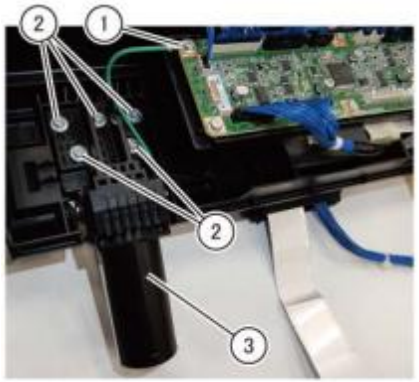


Figure 2 shb457015

REP 57.4.3 (SCC) DADF PWB

Parts-list-on: PL 57.4

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

Always wear a wrist band (anti-static tool) to protect electrical parts from static damage. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Do not get yourself hurt by a soldered portion on the back of the PWB.

NOTE

Backup the NVM data before replacing the circuit board. (Refer to 6.4.2.15 Back Up / Restore NVM in Chapter 6)

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Rear Cover. (REP 57.2.2)
3. Disconnect the connector. (Figure 1)
   (1) Disconnect the connector (x13).

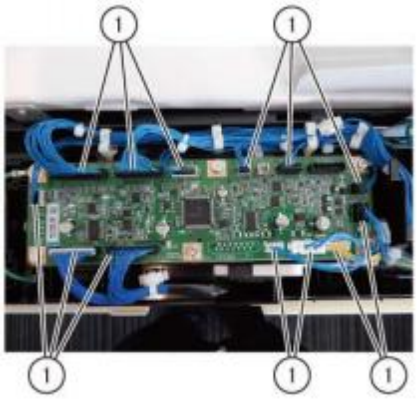


Figure 1 mbl457008

4. Remove the DADF PWB. (Figure 2)
   (1) Remove the Tapping Screw (x2) and disconnect the earth wire (x2).
   (2) Remove the Tapping Screw (x4).
   (3) Remove the DADF PWB.

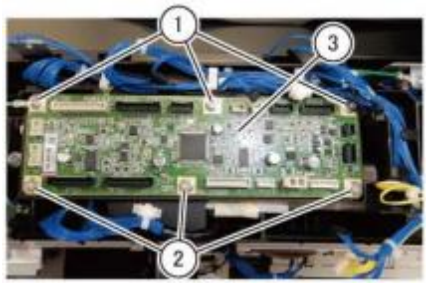


Figure 2 shb457010

Installation

1. After mounting the board, restore the NVM data that has been backed up previously. (Refer to 6.4.2.15 Back Up / Restore NVM in Chapter 6)
2. When replaced, perform the following adjustments.
   - Side 2 Shading Correction (DC945 IIT Calibration) (ADJ 1.1.9)
   - CCD Calibration - Side 2 (DC945 IIT Calibration) (ADJ 1.1.11)

REP 57.4.4 Regi. Chute Assembly

Parts-list-on: PL 57.4

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Open the DADF.
3. Remove the Regi Chute Assembly. (Figure 1)
   (1) Remove the screw.
   (2) Remove the Tapping Screw.
   (3) Remove the Regi Chute Assembly.

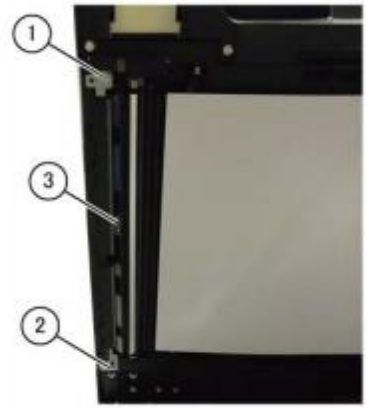


Figure 1 shb457040

Installation

NOTE

When installing the Regi. Chute Assembly, be careful not to damage the actuator.

1. Open the Upper Feeder Assembly, and insert paper. (Figure 2)

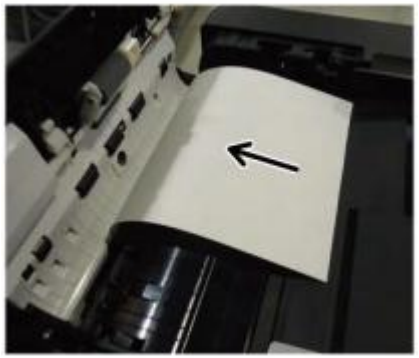


Figure 2 shb457041

2. Open the DADF, feed paper into the Device, and install the Regi. Chute Assembly with the actuator part protected. (Figure 3)

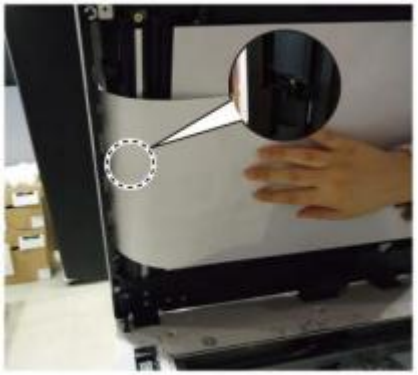


Figure 3 shb457042

REP 57.5.1 CIS

Parts-list-on: PL 57.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Front Cover. (REP 57.2.1)
3. Remove the DADF Rear Cover. (REP 57.2.2)
4. Open the Upper Feeder Assembly.
5. Remove the CIS. (Figure 1)
   (1) Disconnect the connector.
   (2) Remove the screw (x2).
   (3) Pull the CIS out to the front side and remove.

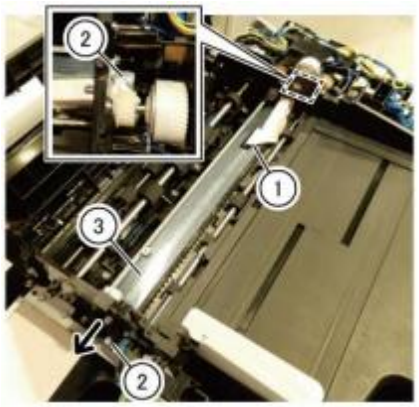


Figure 1 shb457043

REP 57.5.2 Retard Roll

Parts-list-on: PL 57.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

The Feeder Roll Assembly (x2) and Retard Roll must all be replaced at the same time.

Refer to the following procedure to replace the Feed/Nudger Roll Assembly.

REP 57.8.1 Feeder/Nudger Roll Assembly

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Open the Upper Feeder Assembly.
3. Remove the Retard Roll Cover. (Figure 1)
   (1) Release the hook, open the Retard Roll Cover in the direction of the arrow, and remove the Retard Roll.



Figure 1 shb457037

4. Remove the Retard Roll. (Figure 2)

(1) Remove the Retard Roll.



Figure 2 shb457038

Installation

1. After replacement, enter CE mode and clear the following [HFSI Counter].
   Chain Link : 955-806

REP 57.5.3 Retard Chute Assembly

Parts-list-on: PL 57.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Open the Upper Feeder Assembly.
3. Remove the Retard Chute Assembly. (Figure 1)
   (1) Remove the Tapping Screw (x4).
   (2) Remove the Retard Chute Assembly.

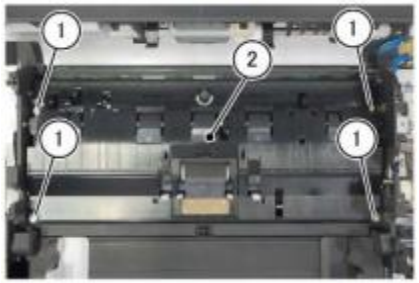


Figure 1 shb457033

REP 57.5.4 Sensor Bracket Assembly (Regi./APS)

Parts-list-on: PL 57.5

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Front Cover. (REP 57.2.1)
3. Remove the DADF Rear Cover. (REP 57.2.2)
4. Remove the Upper Feeder Assembly. (REP 57.3.2)
5. Remove the Retard Chute Assembly. (REP 57.5.3)
6. Remove the Sensor Bracket Assembly (Regi./APS). (Figure 1)
   (1) Disconnect the connector.
   (2) Remove the Tapping Screw (x4).
   (3) Remove the Wire Harness from the hole.
   (4) Remove the Sensor Bracket Assembly (Regi./APS).

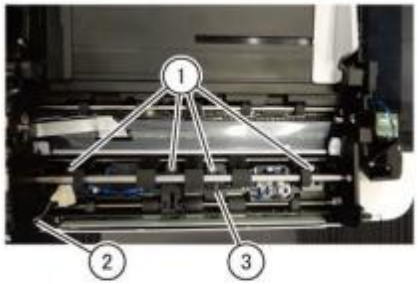


Figure 1 shb457020

Reference: This shows the removed Sensor Bracket Assembly (Regi./APS). (Figure 2)

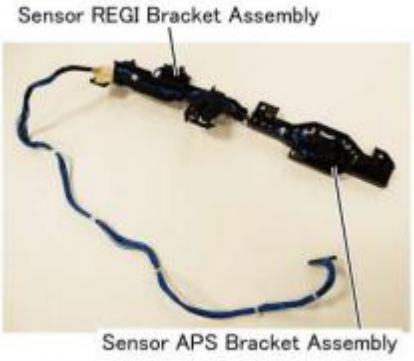


Figure 2 shb457021

REP 57.7.1 Takeaway Roller Assembly

Parts-list-on: PL 57.7

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Front Cover. (REP 57.2.1)
3. Remove the DADF Rear Cover. (REP 57.2.2)
4. Remove the Upper Feeder Assembly. (REP 57.3.2)
5. Remove the Retard Chute Assembly. (REP 57.5.3)
6. Remove the DADF Document Tray. (REP 57.3.1)
7. Remove the Harness Guide. (REP 57.12.2)
8. Remove the DADF Feed Motor Assembly. (REP 57.12.1)
9. Remove the DADF Regi. Motor Assembly. (REP 57.12.3)
10. Remove the DADF Pre Regi. Clutch. (Figure 1)
    (1) Remove the E-Clip.
    (2) Remove the Feed Gear Pulley.
    (3) Remove the E-Clip.
    (4) Remove the DADF Pre Regi. Clutch.

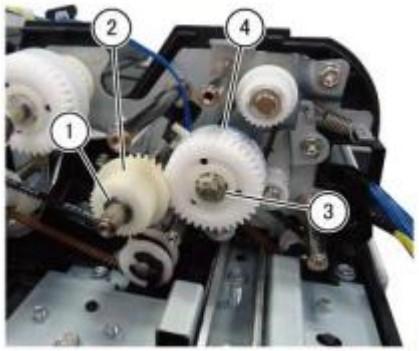


Figure 1 shb457034

11. Remove the Bearing at the rear. (Figure 2)
    (1) Remove the E-Clip.
    (2) Remove the Bearing.

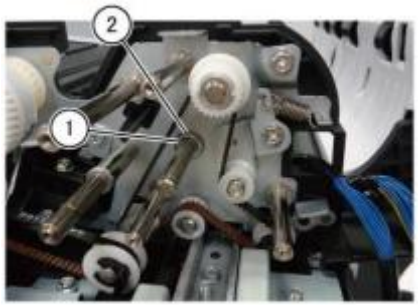


Figure 2 shb457035

12. Remove the bearing at the front and remove the DADF Takeaway Roll. (Figure 3)
    (1) Remove the E-Clip.
    (2) Remove the Bearing.

(3) Remove the Takeaway Motor Assembly.

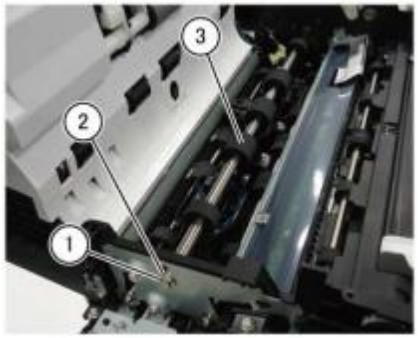


Figure 3 shb457036

REP 57.8.1 Feeder/Nudger Roll Assembly

Parts-list-on: PL 57.8

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NOTE

The Feeder Roll Assembly (x2) and Retard Roll Assembly must all be replaced at the same time.

Refer to the following procedure to replace the Retard Roll Assembly.

REP 57.5.2 Retard Roll

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Open the Upper Feeder Assembly.
3. Remove the Feeder/Nudger Roll Assembly. (Figure 1)
   (1) Release the hook of the Feed Front/Rear Handle.
   (2) Move the Feeder/Nudger Roll Assembly toward you and remove it.

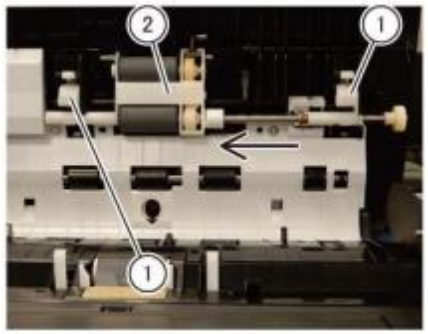


Figure 1 shb457016

Reference: This shows the removed Feeder/Nudger Roll Assembly. (Figure 2)



Figure 2 shb457017

4. Remove the Feeder Roll Assembly (x2). (Figure 3)
   (1) Release the hook and remove the Feed Front Handle.
   (2) Release the hook and remove the Nudger CRU Housing.
   (3) Remove the Feeder Roll Assembly (x2).

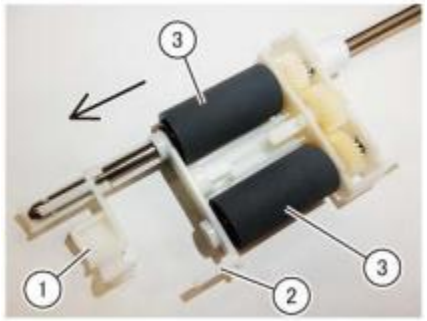


Figure 3 shb457018

Installation

1. When installing the Feeder Roll Assembly (x2), install them such that the Feed Roll are rotating in the clockwise direction.

2. When installing the Feeder/Nudger Roll Assembly, install it such that the Feeder/Nudger Roll Assembly is at the inner side of the Set Link. (Figure 4)

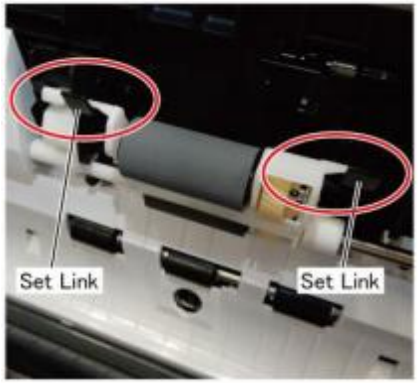


Figure 4 shb457019

3. After replacement, enter CE mode and clear the following [HFSI Counter].
   Chain Link : 955-806

REP 57.12.1 DADF Feed Motor Assembly

Parts-list-on: PL 57.12

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Rear Cover. (REP 57.2.2)
3. Remove the Harness Guide and the Wire Harness. (REP 57.12.2)
4. Remove the DADF Feed Motor Assembly. (Figure 1)
   (1) Remove the screw (x3).
   (2) Remove the DADF Feed Motor Assembly.

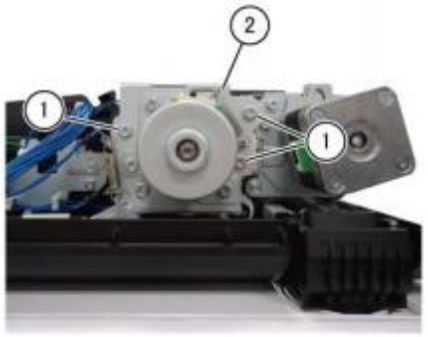


Figure 1 shb457029

REP 57.12.2 Harness Guide

Parts-list-on: PL 57.12

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Rear Cover. (REP 57.2.2)
3. Open the Upper Feeder Assembly. (REP 57.3.2)
4. Remove the Wire Harness from the Harness Guide. (Figure 1)
   (1) Disconnect the connector (x7).
   (2) Disconnect the Sensor connector (x2).
   (3) Remove the Wire Harness from the Harness Guide.

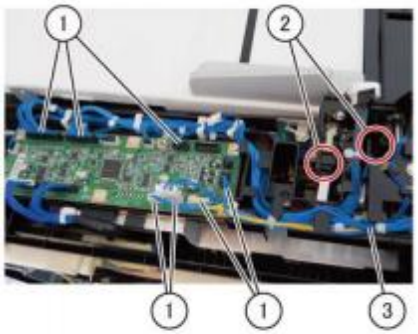


Figure 1 mbl457009

5. Disconnect the DADF Feed Clutch connector and remove the Wire Harness from the Harness Guide.
   (Figure 2)

(1) Disconnect the connector.

(2) Remove the Wire Harness from the Harness Guide.

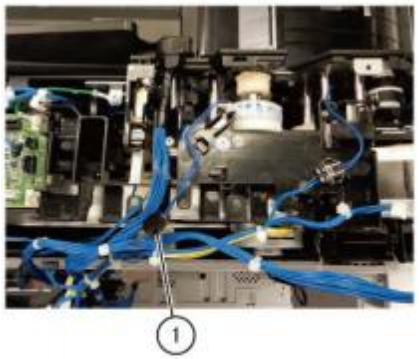


Figure 2 shb457026

6. Disconnect the DADF Feed Motor Assembly and DADF Regi. Motor Assembly connectors. (Figure 3)

(1) Disconnect the connector (x2).

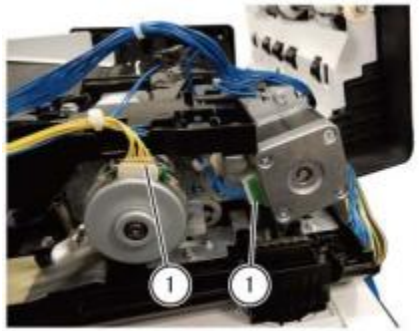


Figure 3 shb457027

7. Disconnect the DADF T/A Clutch connector and remove the Wire Harness from the Harness Guide. (Figure 4)

(1) Disconnect the connector.

(2) Remove the Wire Harness from the Harness Guide.

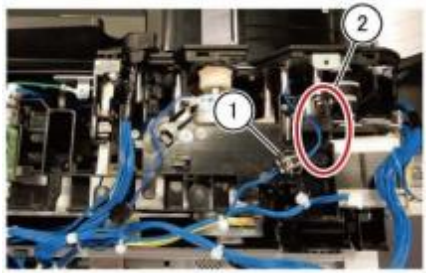


Figure 4 shb457028

8. Remove the Harness Guide. (Figure 5)

(1) Remove the screw and the disconnect the earth wire.

(2) Remove the screw.

(3) Remove the Harness Guide and the Wire Harness.

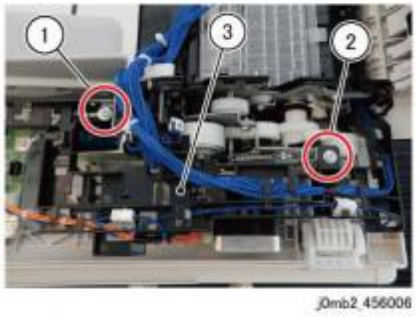


Figure 5 mb2_456006

REP 57.12.3 DADF Regi. Motor Assembly

Parts-list-on: PL 57.12

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Rear Cover. (REP 57.2.2)
3. Remove the Harness Guide and the Wire Harness. (REP 57.12.2)
4. Remove the DADF Feed Motor Assembly. (Figure 1)
   (1) Remove the screw (x3).
   (2) Remove the DADF Regi. Motor Assembly.

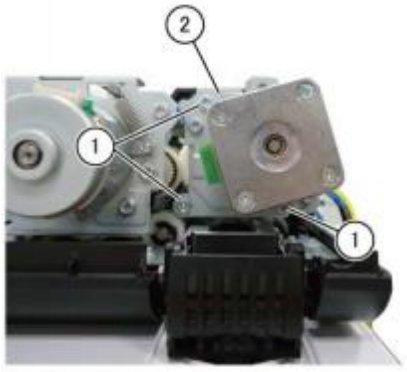


Figure 1 shb457030

REP 57.12.4 CIS Flat Cable

Parts-list-on: PL 57.12

Removal

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power supply and wait for about 30 seconds before starting to work.
2. Remove the DADF Front Cover. (REP 57.2.1)
3. Remove the DADF Rear Cover. (REP 57.2.2)
4. Open the Upper Feeder Assembly. (REP 57.3.2)
5. Remove the CIS. (REP 57.5.1)
6. Remove the Harness Guide and the Wire Harness. (REP 57.12.2)
7. Remove the DADF PWB. (REP 57.4.3)
8. Disconnect the CIS Flat Cable from the top of the Controller PWB. (Figure 1)
   (1) Disconnect the connector.
   (2) Release the CIS Flat Cable from the Guide.

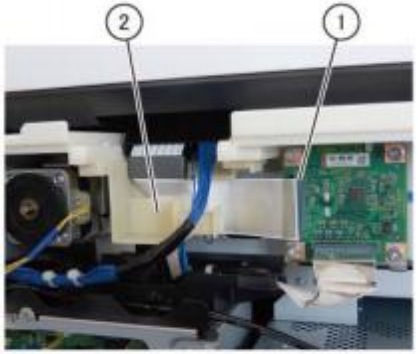


Figure 1 mbl457006

9. Remove the FFC Guide Cover. (Figure 2)
   (1) Remove the Tapping Screw (x3).
   (2) Remove the FFC Guide Cover.

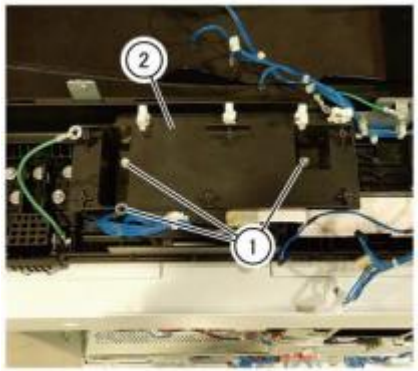


Figure 2 shb457048

10. Remove the FFC Holder Assembly, and release the CIS Flat Cable. (Figure 3)
   (1) Remove the KL-Clip (x2).
   (2) Remove the Plastic Sleeve Bearing (x2).
   (3) Remove the FFC Holder Assembly.
   (4) Release the CIS cable from the FFC Holder Assembly.

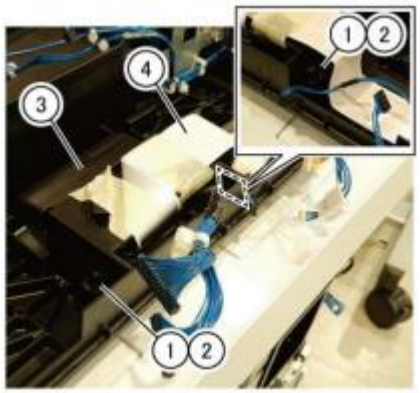


Figure 3 shb457049

Installation

NOTE

After installing the CIS Flat Cable in the reverse order of removal, install the shield gasket in the following procedure.

1. Peel off the seal of the shield gasket. (Figure 4)

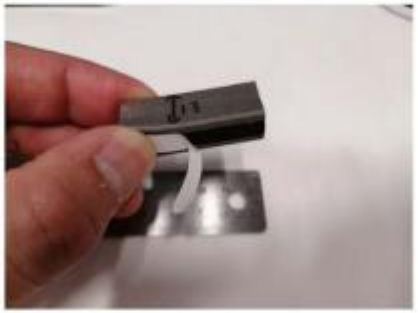


Figure 4 mbl457011

2. Attach the shield gasket to the CIS Flat Cable.
   (1) Position the shield gasket against the guide. (Figure 5)

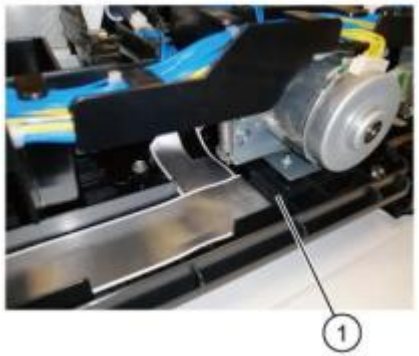


Figure 5 mbl457012

   (2) Attach the shield gasket to the CIS Flat Cable.

(3) The upper surface of the shield gasket is in contact with the sheet metal. (Figure 6)

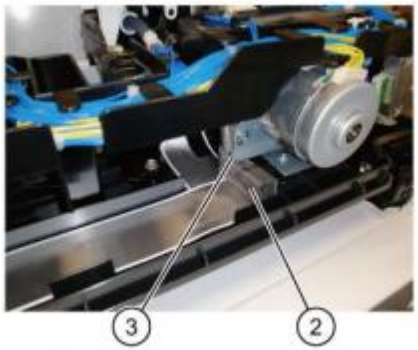


Figure 6 mbl457013

99 (SCC) Safety Critical Components

REP 99.1.1 (SCC) Safety Critical Components

! CAUTION

Any part marked with SCC is a Safety Critical Component. As to replacement of any SCC, the complete component unit must be replaced. It must never be disassembled or no individual internal parts of it must be replaced. However, even the parts specified as SCC can be disassembled if they include spare parts at the lower level.

Further, when a spare part is provided with the instructions, the CEs are required to follow them.

Installation of any part other than the ones designated by our company shall be strictly prohibited because it cannot be guaranteed in quality and safety.

4.3 Adjustment

1. IIT

ADJ 1.1.1 Adjust the position of the Full/Half Rate Carriage

Parts-list-on: PL 1.3

Purpose

To adjust the position of the Full/Half Rate Carriage.

Adjust

NOTE

Adjust the position of Full/Half Rate Carriage at the front and rear separately. Only the procedure for the rear side is described here. The procedure for the front side is the same as for the rear side.

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the power is ON, turn the power OFF, make sure the screen display has disappeared, and then unplug the power.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
2. Open DADF or the Platen Cover.
3. Remove the Right Plate. (PL 1.2)
4. Remove the Platen Glass. (PL 1.2)
5. Remove the jig pin from the CCD Lens Assembly. (Figure 1)

   NOTE

   When removing the jig pin, never remove screw (x4) that secures the Lens Base.

   (1) Remove the screw (x2).
   (2) Remove the jig pins (x2).



Figure 1 bi401507

6. Check that the pulley at the front side is firmly secured. If the pulley is loose, tighten the Set Screw (x2). (Figure 2)

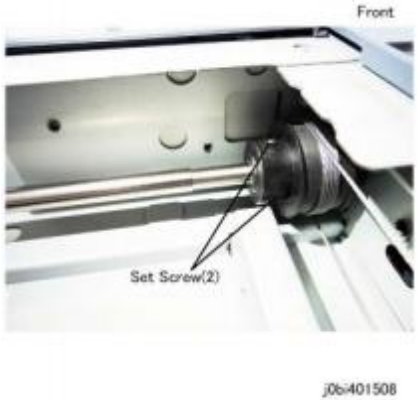


Figure 2 bi401508

7. Loosen the Set Screw (x2) that secures the pulley at the rear side. (Figure 3)

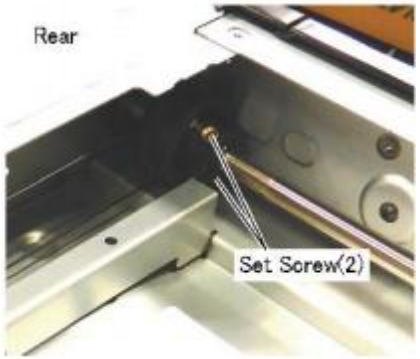


Figure 3 shb401501

8. Position the Half Rate Carriage. (Figure 4)
   (1) Move the Half Rate Carriage to the jig pin insertion position.
   (2) Set the jig pins (x2).

   NOTE
   Make sure the jig pins are aligned as shown in the figure.

   (3) Tighten the screw (x2).

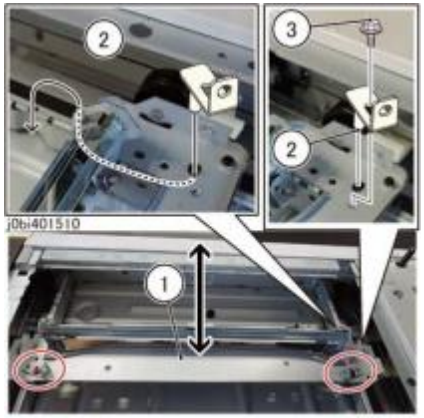


Figure 4 bi401510

9. Tighten one of the Set Screw (x2) (either side) that kept the pulley at the rear side loose. (Figure 5)

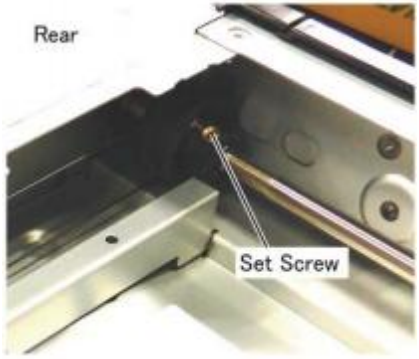


Figure 5 shb401502

10. Secure the cable to the Full Rate Carriage at the rear side. (Figure 6)
   (1) Remove the screw.
   (2) Set the jig pin that was placed at the rear side of the Half Rate Carriage to the front side of the Full Rate Carriage.
   (3) Tighten the screw.
   (4) Remove the screw.
   (5) Set the jig pin that was placed at the front side of the Half Rate Carriage to the rear side of the Full Rate Carriage.
   (6) Tighten the screw.

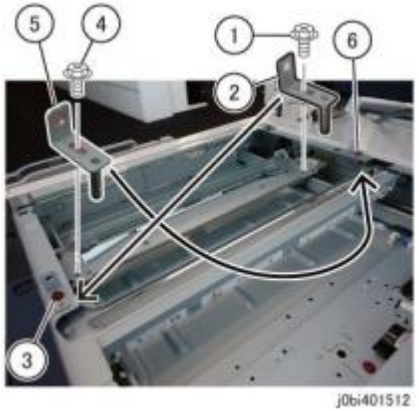


Figure 6 bi401512

11. Tighten the Set Screw that kept the pulley at the rear side loose. (Figure 7)

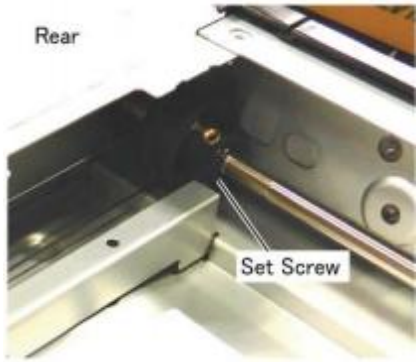


Figure 7 shb401503

12. Manually move the Full Rate Carriage to ensure that it moves smoothly.
13. Restore the jig pins to their original states.

ADJ 1.1.2 IIT Lead Registration

Purpose

To adjust the IIT scan timing in the Slow Scan direction and to correct the copy position.

! CAUTION

- This procedure should only be performed when the actual IIT magnification is not correct.
- Avoid making adjustments in this procedure as much as possible because it affects the accuracy of document size detection.

NOTE

Before performing this procedure, make sure that the IOT Lead Registration is correct. (Refer to ADJ 18.1.1 System Registration Adjustment.)

Check

1. Place the Test Chart (499T 00247) on the Platen Glass correctly and make a copy in the following copy mode:
   - Copy Mode: Black
   - Paper Size: A3
   - Reduce/Enlarge: 100%
   - No. of copies: 2
2. Check that the distance between the lead edge of the 2nd copy and the reference line is 10.0+/- 1.6 mm or the same as the dimension on the Test Chart. (Figure 1)

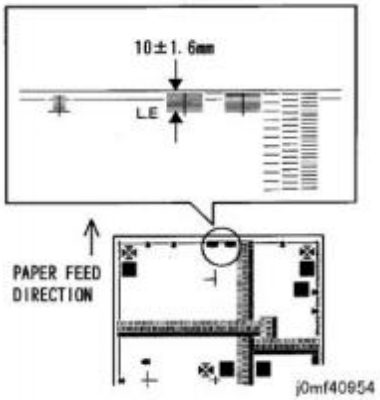


Figure 1 mf40954

3. If the value is not within the specified range, adjust it as follows:

Adjust

1. Enter the Diag Mode and select [DC131 NVM Read/Write].
2. Change the value of NVM [715-050].
   - 1 step: 0.037 mm
   - Increment of the value : Moves towards the Trail Edge.
   - Decrement of the value : The image moves towards the Lead Edge.

ADJ 1.1.3 IIT Side Registration

Purpose

To adjust the IIT scan timing in the Fast Scan direction and to correct the copy position.

CAUTION

- This procedure should only be performed when the actual IIT magnification is not correct.
- Avoid making adjustments in this procedure as much as possible because it affects the accuracy of document size detection.

NOTE

Before performing this procedure, make sure that the IOT Lead Registration is correct. (Refer to ADJ 18.1.1 System Registration Adjustment.)

Check

1. Load A3 paper into Tray 2.
2. Place the Test Chart (499T 00247) on the Platen Glass correctly and make a copy in the following copy mode:
   - Copy Mode: Black
   - Paper Tray: Tray 2
   - Reduce/Enlarge: 100%
   - No. of copies: 2
3. Check that the distance between the side edge of the 2nd copy is within specified value of 10.0 +/-2. 1 mm or the same as the dimension on the Test Chart. (Figure 1)

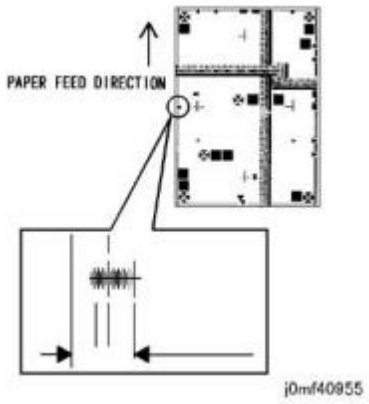


Figure 1 mf40955

4. If the value is not within the specified range, adjust it as follows:

Adjust

1. Enter the Diag Mode and select [DC131 NVM Read/Write].
2. Change the value of NVM [715-053].
   - 1 step: 0.0846mm
   - Increment of the value : The image moves to IN.
   - Decrement of the value : The image moves to OUT.

ADJ 1.1.4 IIT Horizontal/Vertical Reduce/Enlarge

Purpose

To correct the horizontal (fast scan)/vertical (slow scan) Reduce/Enlarge Ratio for a 100% copy.

! CAUTION

- It is carried out only when the magnification in IIT does not actually match.
- Avoid adjusting in this procedure as much as possible as it may affect the resolution and color shift.

NOTE

Before performing this procedure, make sure that the IOT horizontal/vertical Reduce/Enlarge ratios are correct.

Check

1. Place the Test Chart (499T 00247) on the Platen Glass correctly and make a copy in the following copy mode:
   - Copy Mode: Black
   - Original Type: Photo & Text
   - Paper: A3
   - Reduce/Enlarge: 100%
   - No. of copies: 2
2. Check the 2nd copy for the following:

   NOTE

   Refer to Figures 1 and 2 for this procedure.

   (1) Landscape Reduce/Enlarge: (Figure 1)
   Check that the distance between the two points is 200mm +/- 1mm or the same as the dimension on the Test Chart.
   If the value is not within the specified range, adjust it as follows:

   (2) Portrait Reduce/Enlarge: (Figure 2)
   Check that the distance between the two points is 300mm +/- 1.5mm or the same as the dimension on the Test Chart.
   If the value is not within the specified range, adjust it as follows:

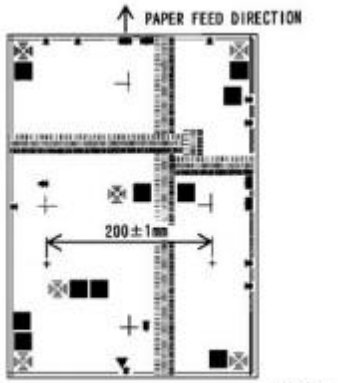


Figure 1 mf40955

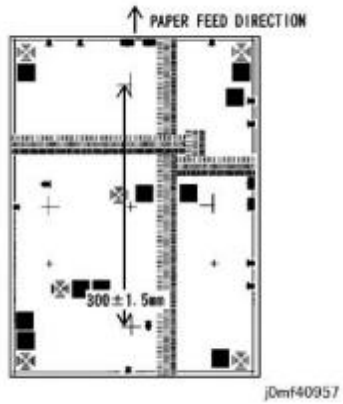


Figure 2 mf40957

Adjust

Horizontal Reduce/Enlarge Adjustment

NOTE

This adjustment may cause the following secondary problem to occur.

- Deterioration of resolution because of the ASIC digital correction.

1. Enter the Diag Mode and select [DC131 NVM Read/Write].
2. Change the value of NVM [715-702].
   - 1 step: 0. 1%
   - Increment of the value : Enlargement direction
   - Decrement of the value : Reduction direction

Vertical Reduce/Enlarge Adjustment

NOTE

This adjustment may cause the following secondary problem to occur.

- RGB does not overlap, causing a color shift.

1. Enter the Diag Mode and select [DC131 NVM Read/Write].
2. Change the value of NVM [715-051].
   - 1 step: 0. 1%
   - Increment of the value : Enlargement direction
   - Decrement of the value : Reduction direction

ADJ 1.1.5 DC945 IIT Calibration

There are a total of 6 adjustments for the IIT calibration - 3 for Side 1 and 3 for Side 2.

Purpose

1. <White Reference Adjustment>
   Calculates and sets the White Reference Correction Coefficient.
   When to perform: At shipment and after replacing the Platen Glass, Lamp Unit, Lens Unit, or CCD. Also, [CCD Calibration] is to be performed after performing the [White Reference Adjustment].
2. <CCD Calibration>
   Corrects the IIT sensitivity dispersion.
   When to perform: At shipment and after replacing the Platen Glass, Lamp Unit, Lens Unit, or CCD. Also, [CCD Calibration] is to be performed after performing the [White Reference Adjustment].
3. <Optical Axis Correction>
   Reads the glass registration position (lead/side) at the platen opening and calculates the amount of registration skew based on the variation from the target value.
   When to perform: After replacing the Lens Unit or CCD.

NOTE

Before carrying out the "White Reference Adjustment", "CCD Calibration", make sure that ADJ 1. 1.2/ADJ 1.1.3 IIT Lead/Side Registration is not OFF, and adjust if necessary.

If it does not meet the specs, perform ADJ 1.1.1 Full/Half Rate Carriage Position Adjustment. And, then perform [White Reference Adjustment] and [CCD Calibration].

NOTE

When the Lens Unit is to be replaced, check that ADJ 1.1.2 / ADJ 1.1.3 IIT Lead/Side Registration is correct before replacing the Lens Unit. Adjust if necessary.

If it does not meet the specs, perform ADJ 1.1.1 Full/Half Rate Carriage Position Adjustment.

Then, replace the Lens Unit and perform Optical Axis Correction. And, then perform [White Reference Adjustment] and [CCD Calibration].

Adjust

<White Reference Adjustment>

NOTE

Depending on the paper used before performing the White Reference Adjustment, the DC131 [715- 106] IIT Paper Code may have to be set. To support individual paper, it is also possible to set the item to "0: Use NVM individual paper coefficient" and enter the appropriate values in NVM 715-102 to 105 (correction value for each paper type) to perform the White Reference Adjustment.

The setting values are as follows:

DC131[715-106]

- Default setting: 3
- 0: Use NVM Individual Paper Coefficient (715- 102 to 105) (Default value during initialization)
- 1: J paper (Factory adjustment value: IIT standard)
- 2:P Paper
- 3: C2 Paper (standard blank paper) (FB/FBAP default setting: Factory default setting)
- 4:Green 100 Paper
- 5:-
- 6:-
- 7:-
- 8:-
- 9:Green70 paper A3*

NOTE

Initializing the NVM will cause the value of DC131 [715- 106] to revert to "3: C2 Paper" or the parameter value in "0: Use NVM Individual Paper Coefficient". When the NVM had been initialized, the value of DC131 [715- 106] will revert to "3: C2 Paper" or the setting value of the paper that is being used. Also, as the parameter values of DC131 [715- 102 to 105] will also be initialized when "0: Use NVM Individual Paper Coefficient" is used, record the parameter values that were set for each supported paper of DC131 [715- 102 to 105] in advance.

For the details on NVM initialization, refer to [Handling when NVM has been Initialized] at the end of this section.

1. Change the value of NVM [715- 106] to match the paper used. The default value is, 3: C2 paper.
2. Enter Diag Mode and select [DC945 IIT Calibration].
3. Select [White Reference Adjustment].
4. Stack 10 or more sheets of new blank paper (A3 or 11x17") on the Platen and press [Start].
5. The setting will be displayed on the White Reference Setup screen.

   NOTE

   The Device carries out the following operations:

   (1) Performs shading to stabilize the IIT state.

   (2) Obtains the shading data.

   (3) Performs sampling of the white paper data to calculate and set the White Reference Correction Coefficient. (DC131 [715-092 to 096] are set.)

(4) Carries out shading to reflect the result of the White Reference Adjustment.

<CCD Calibration>

1. Enter Diag Mode and select [DC945 IIT Calibration].
2. Select [CCD Calibration].
3. Place the Color Chart (499T 00276) on the Platen Glass and press [Start].
4. The settings and results are displayed in the CCD Calibration Settings screen.
5. If [NG] is displayed, check the chart's orientation and cleanliness, then clean the CCD and repeat the CCD Calibration.

<Optical Axis Correction>

1. Enter Diag Mode and select [DC945 IIT Calibration].
2. Select [Optical Axis Correction].
3. Open the Platen and press [Start] with nothing placed on the Platen Glass.
4. The following content will be displayed on the Optical Axis Correction Settings screen.

NOTE
The presence of indoor light on the Platen surface could cause interference and the edge detection may not be performed properly.

Optical Axis Correction Result: OK/NG
Front Nut Correction Angle: (numeric display)
Rear Nut Correction Angle: (numeric display)

- Front/Rear Nut Correction Angle shows a combination of +/- and a numeral.
- Front Nut items refer to the nuts at the front of the CCD Lens Assembly.
- Rear Nut items refer to the nuts at the rear of the CCD Lens Assembly.
- +: Refers to right rotation.
- -: Refers to left rotation.
- Numeral: Refers to the angle. (Unit: degrees)

E.g. When Front Nut Correction Angle: 90 Degree, Rear Nut Correction Angle: -45 Degree is displayed

Rotate the front nut 90 Degree to the right and the rear nut 45 Degree to the left.

REFERENCE
If the value is an abnormal number such as 990, clean the Platen Glass and the mirror, etc. and start again. This may be due to the light path being blocked.

5. If [NG] is displayed, rotate the nut according to the display to perform correction. (Figure 1) (Figure 2)

NOTE
As it is difficult to control the rotation amount, it is recommended to draw a line on a strip of paper and tape it to the tip of the Box Driver to make a mark as shown in the figure below.

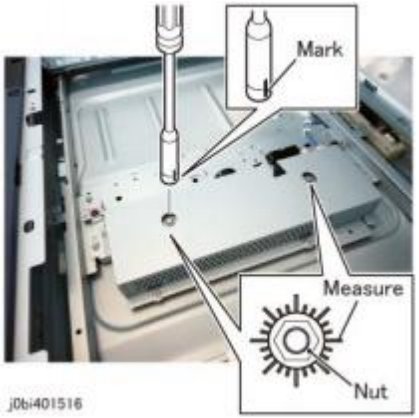


Figure 1 bi401516

6. After adjustment, perform [Optical Axis Correction] again.
7. Perform Steps 2 to 7 until the result is OK.

NOTE
If the result is [OK], the operation can be completed even if the number of rotations is still displayed.

<Side 2 Shading Correction>

Before carrying out the Side 2 Shading Correction, it is necessary to set the DC131 [716- 131] DADF paper code. If you implement White Reference Adjustment - Side 2 in advance, 716-131 is automatically switched to 0, and the calculated value was already entered into NVM 716- 132 to 134 (correction value for each paper type). However, even if White Reference Adjustment - Side 2 was performed in advance, [716- 131] should be set to "10", before performing Side 2 shading when using Inch series paper.

The setting values are as follows:

DC131[716-131]

Default setting: 1

- 0: NVM individual paper coefficient used (716- 132 to 134) (value when White Reference Adjustment - Side 2 has been performed)
- 1: J Paper (factory adjustment value: CIS standard) A3
- 2:P Paper A3

- 3:C2_Paper A3
- 4:Green 100 Paper A3*
- 5:-
- 6:-
- 7:-
- 8:-
- 9:Green70 paper A3*
- 10: If 11x17" paper is used in White Reference Adjustment - Side 2, it is set to this value.

*: Avoid the use of 4 and 9 as much as possible, as there is a possibility that the image will become streaky.

NOTE

Initializing the NVM will cause the value of DC131 [716- 131] to revert to "1: J Paper" or the parameter value in "0: Use NVM Individual Paper Coefficient". If you implement the NVM initialization, set it to the setting value of the paper to be used, or perform a White Reference Adjustment - Side 2.

1. Enter Diag Mode and select [DC945 IIT Calibration].
2. Select [Side 2 Shading Correction].
3. Load two sheets of new blank paper (A3 or 11x17") in DADF, and press [Start].

NOTE

During CIS replacement, use J paper and change [716- 131] to "1". When performing image quality adjustment, perform Side 2 Shading Correction using the same paper without changing [716- 131] after White Reference Adjustment - Side 2 is performed, or if the paper to be used can be selected in [716- 131], re-enter [716- 131] and perform Side 2 shading. However, even if White Reference Adjustment - Side 2 was performed in advance, [716- 131] should be set to "10", before Side 2 shading implementation when using inch-based paper.

4. After scanning is completed, [OK] or [NG] will be displayed depending on whether the Shading DATA retrieval has succeeded or failed.
5. If it has failed, clean the Color CIS and perform the [Side 2 Shading Correction] again.
6. Press the [End] button.

<White Reference Adjustment - Side 2>

1. Enter Diag Mode and select [DC945 IIT Calibration].
2. Select [White Reference Adjustment - Side 2].
3. Load a single new white sheet of A3 or 11x17" in DADF, and press [Start].

NOTE

If you run without any paper loaded, it will Abort.

NOTE

Even if it is a blank sheet do not use paper that is recycled or the Side 2 has been used.

4. When the scanning is complete, 1/10 the value of the Correction Coefficient for the paper used is displayed on White Reference Adjustment - Side 2 screen.

NOTE

When White Reference Adjustment - Side 2 is completed 716- 131 is set to 0, and the Correction Coefficient of the paper used in 716- 132 to 134 is stored.

<CCD Calibration - Side 2>

1. Enter Diag Mode and select [DC945 IIT Calibration].
2. Select [CCD Calibration - Side 2].
3. Load the Color Chart (499T 00276) face down in the DADF, and press [Start].

NOTE

If the Color Chart (499T 00276) is not loaded before the operation, the DADF will keep on rotating. In that case, turn the power OFF and ON.

4. The settings and results are displayed in the CCD Calibration - Side 2 settings screen.
5. If [NG] is displayed, clean the Side 2 Color CCD and repeat the CCD Calibration - Side 2.

[Handling when NVM has been Initialized]

1. The factory default adjustment values of the NVM (NVM data marked with O) can be found in the NVM Default Value Setting List that is bundled with the Device. Enter the appropriate values according to the NVM Default Value Setting List.
   NVM 715-92 to 94, 716-58 to 60, are most important.
2. NVM 715- 102 to 105 are rarely used in general.
   If it is being used, it is set to 715-106: 0. Record the values before initializing the NVM and enter the recorded values after the NVM initialization. Refer to the following NVM List (related to White Reference Adjustment) for the default values.

*1: The setting value at the time of NVM initialization.

*2: List containing the NVM factory default setting values that is bundled with the Device.

Table 1 NVM List (related to White Reference Adjustment)

Chain	Link	Description	Setting Range		Default Value *1	NVM Default Value Setting List *2 O: Recorded X: Not recorded	Remarks
			Minimum Value	Maximum Value			
White Reference Adjustment Related							
715	92	W-Ref Correction Coefficient Red	70	255	140	O	Factory Default
715	93	W-Ref Correction Coefficient Green	70	255	140	O	Factory Default
715	94	W-Ref Correction Coefficient Blue	70	255	140	O	Factory Default
715	102	W-Ref Correction Coefficient Red (Individual Paper)	0	127	63	X	Default value: 63 means +/-0. (No correction)
715	103	W-Ref Correction Coefficient Green (Individual Paper)	0	127	63	X	Default value: 63 means +/-0. (No correction)
715	104	W-Ref Correction Coefficient Blue (Individual Paper)	0	127	63	X	Default value: 63 means +/-0. (No correction)
715	106	IIT Paper Code	0	9	0	X	The factory default setting is "3: C2 Paper".
Related to White Reference Adjustment - Side 2							
716	58	Factory Default SD Data B Color Correction Coefficient	0	255	146	O	Factory Default
716	59	Factory Default SD Data G Color Correction Coefficient	0	255	144	O	Factory Default
716	60	Factory Default SD Data R Color Correction Coefficient	0	255	142	O	Factory Default
716	131	Paper Code Setting	0	10	0	X	The factory default setting is "1: J Paper".

ADJ 1.1.6 White Reference Adjustment (DC945 IIT Calibration)

Purpose

To perform automatic correction for IIT White Sensitivity Level and Gray Balance.

NOTE
Perform this when there are smears and gray contamination etc. of the IIT.

NOTE
This adjustment is to be performed at shipment and after replacing the Platen Glass, Illumination Unit, Lens Unit, or CCD.

REFERENCE
For detailed procedures, refer to "ADJ 1.1.5".

ADJ 1.1.7 CCD Calibration (DC945 IIT Calibration)

Purpose

To perform automatic correction for the CCD Color Sensitivity Dispersion.

NOTE
Perform this when the yellow component of the image looks abnormal.

NOTE
This adjustment is to be performed at shipment and after replacing the Platen Glass, Illumination Unit, Lens Unit, or CCD. Also, perform this after performing the White Reference Adjustment.

REFERENCE
For detailed procedures, refer to "ADJ 1.1.5".

ADJ 1.1.8 Optical Axis Correction (DC945 IIT Calibration)

Purpose

To automatically measure and adjust the skew for Platen and Side Regi.

NOTE
Perform this when something is clearly wrong with the skew of Platen Regi.

NOTE
Perform this adjustment after replacing the Lens Unit or CCD.

REFERENCE
For detailed procedures, refer to "ADJ 1.1.5".

18. Electrical

ADJ 18.1.1 DC126 System Registration Adjustment

Purpose

To align the IOT Registration using the printout result of Adjustment Test Pattern.

Feature

Manual System Registration Adjustment

Print the Controller built-in Adjustment Test Pattern and use a ruler etc. to perform the measurements for individually adjusting the alignment components. Several standard paper sizes are supported and they include measurement position indicator symbols that correspond to the UI display. Enter the measurement results on the UI screen and send the misalignment amount to the IOT.
<Adjustable Items>
Perform the adjustment in the following order.

- Slow Scan %
- Lead Registration
- Side Registration
- Side 1/Side 2 Registration

NOTE

- Supported Paper Size: A3 (SEF), A4 (LEF), 11x17" (SEF), 8.5x11" (LEF)
- Depending on the tray settings, there may be cases where output is not possible due to prioritized restrictions at the IOT.
- Before adjusting Side 1/Side 2 Registration, make sure that all the adjustable items other than the Side 1/Side 2 Registration have already been completed.
- The adjustment for Slow Scan % will be applied in common to both Side 1/Side 2.

Procedure

< Manual System Registration Adjustment>

Print Adjustment Chart-

1. Enter Diag mode and select [DC126 System Registration Adjustment].
2. Specify the following parameters and select [Print] to print the Adjustment Chart. (Figure 1)
   - [Number of Sheets]



Figure 1 mnt418501

NOTE
To differentiate Side 1 from Side 2, [Side 1] and [Side 2] will be printed on the top edge of the paper.

-Slow Scan % Adjustment-

1. Tap [Slow Scan %]. (Figure 2)



Figure 2 mnt418502

2. Measure Lss on Side 1 of the measurement chart. (Figure 3)

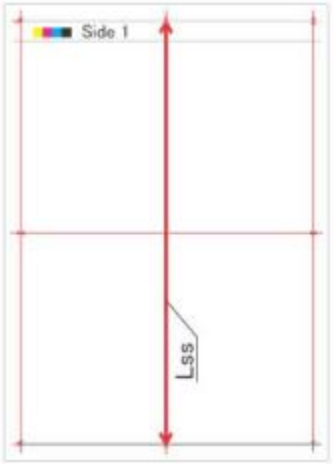


Figure 3 pr41875

3. Enter the measurement value. (Figure 4)



Figure 4 mbt418509

4. Tap [Adjust].

- Lead Registration Adjustment-

1. Tap [Lead Registration]. (Figure 5)



Figure 5 mnt418503

2. Tap [Side 1].
3. Measure B on Side 1 of the measurement chart. (Figure 6)

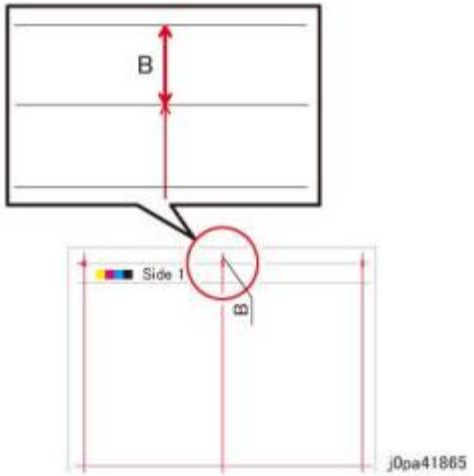


Figure 6 pa41865

4. Enter the measurement value. (Figure 7)



Figure 7 mbt418512

5. Tap [Adjust].
6. Select [Apply Value to All Paper Types] in order to add the same adjustment value to other paper types. (Figure 8)

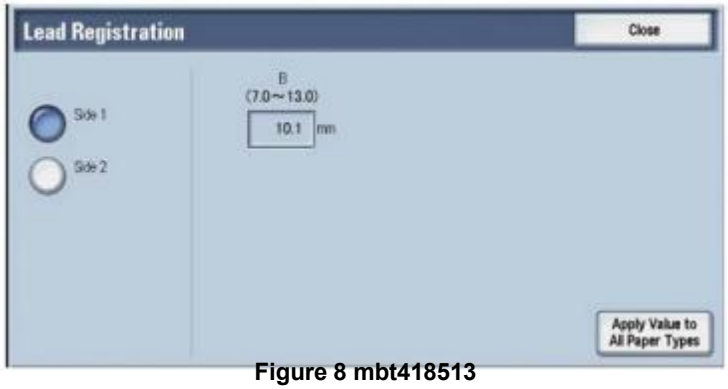


Figure 8 mbt418513

7. Tap [Side 2].
8. Measure B on Side 2 of the measurement chart.
9. Enter the measurement value.
10. Tap [Adjust].
11. Select [Apply Value to All Paper Types] in order to add the same adjustment value to other paper types.

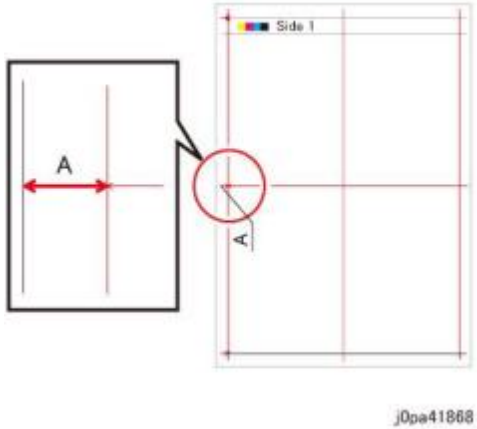
- Side Registration Adjustment-

1. Select [Side Registration]. (Figure 9)



Figure 9 mbt418504

2. Tap [Side 1].
3. Measure A on Side 1 of the measurement chart. (Figure 10)



j0pa41868

Figure 10 pa41868

4. Enter the measurement value. (Figure 11)



Figure 11 mbt418516

5. Tap [Adjust].
6. Tap [Side 2].
7. Measure A on Side 2 of the measurement chart.
8. Enter the measurement value.
9. Tap [Adjust].

- Side 1/Side 2 Registration Adjustment -

1. Print the Adjustment Chart again. (Required) (Figure 12)

   NOTE

   Same procedure as <Print Adjustment Chart>



Figure 12 mnt418505

2. Select [Side 1 / Side 2 Registration]. (Figure 13)



Figure 13 mnt418506

3. Measure A to D on Side 1/Side 2 of the reprinted measurement chart. (Figure 14)

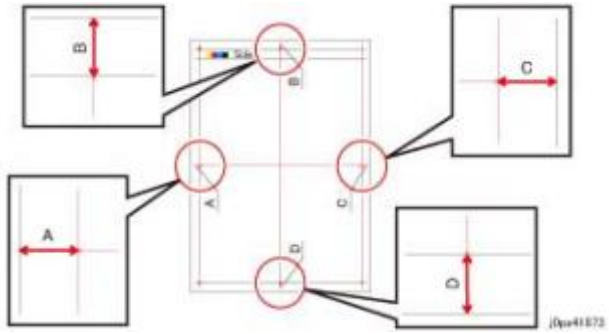


Figure 14 pa41873

4. Enter the measurement values for [Side 1] and [Side 2] respectively. (Figure 15)



Figure 15 mbt418520

5. Tap [Adjust].

ADJ 18.1.2 Edge Erase Amount Adjustment

Purpose

To correct both (Rear/Front) sides, Lead Edge and Trail Edge erase values of the image.

NOTE

The IOT Lead Edge/ Side Edge Registration must be adjusted.

Procedure

1. Enter Diag mode and perform [DC131 NVM Read/Write].
2. Specify a Tray loaded with paper. Make a black copy without using any originals and leaving the Platen Cover open.
3. Check that the margins are 4mm at the Lead Edge and 2mm at both the Side Edges and the Trail Edge.

Adjust

1. Enter Diag mode and perform [DC131 NVM Read/Write].
2. Adjust the following NVMs such that the measured value is 4mm at the Lead, and 2mm at the Sides/ End.
   If the setting value is increased, the erase value increases.

Table 1 NVM List

Chain-Link	Name	Min	Initial	Max	Step
998-035	Lead Image Loss Amount	40	40	255	0 . 1mm
998-036	Side Image Loss Amount	20	20	255	0 . 1mm
998-037	End Image Loss Amount	20	20	255	0 . 1mm

3. After adjustment, make another black copy without using any originals and leaving the Platen Cover open.
4. Adjust until the margin is 4mm at the Lead, and 2mm at the Sides/End.

ADJ 18.1.3 DC740 Tray 5 Guide Adjustment

Purpose

To check that the MSI Guide paper width detection is properly carried out.

Feature

To check that the MSI Guide paper width detection is properly carried out.

NOTE

This adjustment is performed during MSI Size Sensor replacement and when a size detection error occurs.

Procedure

1. Enter Diag mode and select [DC740 Tray 5 Guide Adjustment].
2. The Tray 5 Guide Position Adjustment default screen is displayed.
3. From the [Paper Guide Position] options on the screen, select [Minimum Size Position] or [Maximum Size Position].
4. When [Minimum Size Position] is selected
   (1) Follow the instructions on the screen and align the Paper Guides to the minimum size position.
   (2) Press [Start].
   - If the sensor output value is within the specified range, [OK] will be displayed. At the same time, the NVM [742-740] MSI Side Guide Minimum Position data is changed.
   - If the sensor output value is out of the specified range, [NG] will be displayed. If [NG], check the guide position and try again.
5. When [Maximum Size Position] is selected
   (1) Follow the instructions on the screen and align the Paper Guides to the maximum size position.
   (2) Press [Start].
   - If the sensor output value is within the specified range, [OK] will be displayed. At the same time, the NVM [742-741] MSI Side Guide Maximum Position data is changed.
   - If the sensor output value is out of the specified range, [NG] will be displayed. If [NG], check the guide position and try again.

ADJ 18.1.4 DC991 Adjust Toner Density

Purpose

To set the appropriate toner density for printing by determining the toner density in the Developer Unit from the difference between the Read value of the ATC Sensor and the reference value, and adjusting the toner level according to the result.

Check

1. Enter the Diag Mode, then perform [DC991 Adjust Toner Density].
2. Measure the state of the ATC Sensor.
3. Select [Measure Sensor State].
4. Press Start to start the ATC measurement.
5. After measurement ends, the measured value of the following items will be displayed.
   - TC Target: Numeric display
   - TC Value: Numeric display
   - TC Result: Displays "OK" or "NG" for the state of the ATC Sensor.
   - TC State: Displays the current state as "Normal", "Low", or "High".

6. Check the [TC State].
   The results for [TC State] are as follows:
   - Normal: ATC Target-70 =< ATC Output =<ATC Target+70
   - High: ATC Output < ATC Target-70
   - Low: ATC Output > ATC Target+70

Adjust

1. Press the [Adjust Toner Density] button and load paper into Tray 1. (Size is variable)
2. Depending on the "TC State" displayed in Step 6 of Check, perform one of the following procedures:
   (1) When “Low” is displayed (Toner density of the Developer Housing Assy is low)
   - Enter any number (1 to 99) to adjust the toner level (density up) and press [Start].

   (2) When “High” is displayed (Toner density of the Developer Housing Assy is high)
   - Enter any number (- 1 to -99) to adjust the toner level (density down) and press [Start].

(3) When "Normal" is displayed (Toner density in the Developer Housing Assy is appropriate)
- Procedure is completed. Exit from the Diag and check the copy quality.

NOTE
A blank sheet is output when [Up], and a solid image is output when [Down].

3. Select [Measure Sensor State] and press [Start]. Repeat Steps 2 to 5 until "TC State" becomes "Normal".
4. Exit Diag. and check the copy quality.

35. ESS

ADJ 35.1.1 Attention When Replacing Component Storing Important Information

Purpose

Once installed, the data registered by the customer is important and loss or leakage of the data is never allowed. To gain the trust of customers, it is essential for CE to be knowledgeable about the name of components that store these data. The CE must also have full understanding on how to handle these components when replacing them.

Procedure

This product stores important data in the following components. Perform the operation according to the following procedures.

NOTE
Japan) Collect/discard components according to the FTO (2-027) that is common to all models.
FBAP) Collect/discard components according to the separately pre-determined procedures.

	Component Name	Stored Information	Pre-replacement operation	Post-replacement operation
1	SSD/HDD	Remaining data (the data left behind) • Digital data saved in Folders (*) • Fax polling reserved document data (*) • Unsent Fax/Scan document data (*) • Unprinted Copy/Fax Receive/Print document data (*) • Data stored in the SMB folder • Font • Form • Logo/Secure Print (*) • Sample Print (*) • Delayed Print (*) • Job Templates • Job Flow Sheets • Job Log (stored in the HDD/SSD) • Debug log • Recipient data in the expanded address book • Audit Log (stored in the HDD/SSD) • User information (When user information is set to SSD / HDD save in net authentication aggregation mode, and when main unit authentication aggregation mode is used) • Account ID (In the case of network authentication mode and in the case of main unit authentication aggregation mode) • Application screen customization information of each user • Certificates (Device Certificate, Personal Certificate) Deleted Data (data that has been deleted but still physically remained in the HDD/SSD. Usually, this is difficult to recover.) • Temporarily saved image data for Copy/ Print/ Fax output. • Temporarily saved scan image data for extraction from the client PC. • Temporarily saved inputs from the network	• Procedures before servicing To restore the settings later, print the reports and back up the data by using tools. Also, check that the Documents Stored lamp on the panel is off. If the lamp is on, the stored document data (data with (*) listed to the left) are erased when the component is replaced. Ask for the customer's agreement to proceed.	• Handling of Replaced HDD/ SSD [Japan] Always notify the customer before you bring back the SSD/ HDD. Explain that the removed SSD/ HDD will be sent to an Recycling Station where it will either undergo the "Overwriting Process" or the "Destruction Process" in order to prevent security problems from occurring. If the customer wish to personally confirm that the removed HDD/ SSD is destroyed, destroy the HDD/ SSD on the spot (charges applies). Collect/ discard components according to the separately pre- determined procedures. • Procedures after servicing Restore data using the tools. Restore all settings by using the reports, etc.

	Component Name	Stored Information	Pre-replacement operation	Post-replacement operation
1		HDD/ SSD Spool Data • Data that is deleted after it is taken out from a Folder • Image data that is deleted after Secure Print/ Sample Set/ Delayed Print has been completed		
2	NVRAM(eMMC) on the Controller board	User-settable parameters (IP Address, etc.) • Speed dial data • Group dial data • Comments (or Fax Service) • Job Log • Error log (Fault History, Counters) • DV log/ Authentication aggregation settings/ PV aggregation information	• Procedures before servicing To restore the settings later, print the reports and back up the data by using tools. • Delete Data Operation If the NVM hardware is operating normally, perform special boot (03. NVRAM INIT MODE) to delete the data. • Total deletion Enter the KO Mode and perform [Device] -> [Reset] -> [Restore Factory Defaults]. Other than the NVM, the SSD/HDD/Fax, etc. are also initialized.	• Handling of replaced PWB [Japan] Always initialize the PWB before bringing it back. Inform the customer that even if it cannot be initialized at the customer's Device, it will be done in the Recycling Station, so there will be no security problems. Collect/ discard components according to the separately pre- determined procedures. • Procedures after servicing Restore data using the tools. Restore all settings by using the reports, etc.
3	Information recorded in the Fax Card (Fax equipped unit only)	• System Data	• Procedures before servicing To restore the settings later, print the reports. How to clear only information inside the Fax Card. • Total deletion Enter the KO Mode and perform [Device] -> [Reset] -> [Restore Factory Defaults]. The NVM/ SSD/ HDD, etc. of controllers other than the Fax Card are also initialized.	• Handling of replaced PWB [Japan] Always initialize the PWB before bringing it back. Inform the customer that even if it cannot be initialized at the customer's Device, it will be done in the Recycling Station, so there will be no security problems. Collect/ discard components according to the separately pre- determined procedures. • Restore settings according to the post-service reports.

ADJ 35.1.2 Firmware Version Upgrade

Purpose

This procedure is performed to update the machine firmware , or when reinstallation of the machine firmware is required due to failure of some sort.

NOTE

Firmware upgrade for Fax Card

1. When the firmware of the Fax Card is upgraded, the Activity Report that is stored in the Fax Card will be initialized.
   - Before performing the upgrade, print out the Activity Report in advance. After performing the upgrade, pass the Activity Report to the customer.

<Obtaining the Firmware>

Download the Firmware Version Upgrade Tool (FWDLMgr.exe) and the machine Firmware from the following location when upgrading the machine Firmware.

NOTE

Downloading both software from the web site may take some time (depending on the environment) because of the file size. Hence, download the software into the PC (PSW) in advance before visiting the customer.

NOTE

Connection Cables

- LAN Cable
- USB Cable

NOTE

Precautions during installation

The downloaded data is a compressed file. Decompress the data before downloading them into the printer.

Procedure

There are two ways to download the machine Firmware - the DLD method (USB3.0) and the PJL job method (Port9100: Network).

When downloading by DLD method (USB3.0), it is necessary to change to the download mode.

When downloading using the PJL method (Port9100), in Internet Services, set 'Download software over a network' to 'Allow'.

<Firmware Download>

1. Select a compressed file (download data) that is compatible with the printer specifications from the URL of the TSC, and download it into the desired folder on the PC.
2. Decompress the downloaded compressed file (download data).

<PJL job method (Port 9100: Network)>

1. Connect the PC to the printer with the LAN cable (Cross).
2. Turn the power of the PC and the printer ON. Check that the IP Address/Subnet Mask are already input so that they can communicate with each other.

   NOTE

   For IOT port settings, check that the SNMP and Port 9100 are enabled and the UDP of the SMP is running. (Start the Internet Services. Select [Properties], [Securities] and [Enable Port] in this order and insert check mark at the UDP of SNMP.)

   NOTE

   Check that the output destination of the default printer driver at the PC becomes LPT1.
3. Click to run the Firmware Version Upgrade Tool (FWDLMgr.exe).
4. Select [Agree] on the Firmware Version Upgrade Tool (License Agreement).
5. Select the Machine Model from the pull down menu of the Machine Model column on the selection screen for machine models and files.
6. Click the downloaded file from the Firmware column on the selection screen for machine models and files, and click [Next].
   Select detailed version to display each ROM version in the downloaded file.
7. Select the connection method between the printer and the PC on the Communication Interface selection screen, and select [Next]. (Servicing time: Approx. 15min)

   NOTE

   Check that the output destination of the default printer driver at the PC becomes LPT1.
8. Press the Search button on the selection screen on the Printer/MF machine to search for devices connected to this Network.
   The Scope of Search button is for searching in other networks.
9. The devices that can be specified on the selection screen for Printer/MF machines are displayed in the Printer/MF machines column. Insert check marks into the checkboxes and select [Next].
10. The Firmware update status appears on the 'Updating' screen.
    After completion, the results screen appears.
11. Select the [Close] button on the results screen. (Firmware upgrade complete.)

NOTE
After downloading ends, the IOT will automatically reboot.

<DLD method (USB3.0)>

1. Turn OFF the machine.
2. Connect the PC to the printer with the USB cable. (Figure 1)

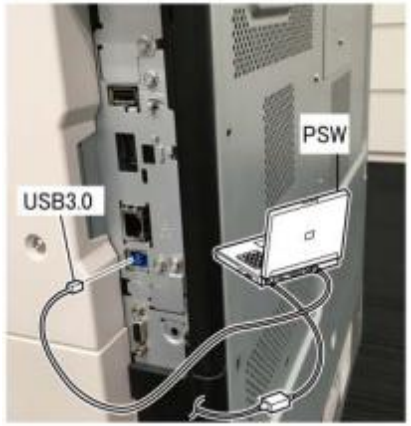


Figure 1 mb435501

3. Put the device into download mode.
   (1) Select [Home button] and hold it down, then select [Power button] and hold it down until [SPECIAL BOOT MENU] is displayed before releasing both buttons.



Figure 2 shb435502

   (2) Touch both [BOOT] and [MENU] and keep your fingers there while selecting [Home button] to enter Special Booting.



Figure 3 shb435503

   (3) When the [Keypad] screen is displayed, entering [1739#] brings up the [SPECIAL BOOT MENU 1/3] for CE.



Figure 4 shb435506

   (4) Select [DOWNLOAD MODE] and then select [YES] on the next screen.
4. Click to run the Firmware Version Upgrade Tool (FWDLMgr.exe).
5. Select [Agree] on the Firmware Version Upgrade Tool (License Agreement).
6. Select the Machine Model from the pull down menu of the Machine Model column on the selection screen for machine models and files.
7. Click the downloaded file from the Firmware column on the selection screen for machine models and files, and click [Next].
   Select detailed version to display each ROM version in the downloaded file .

8. Select the connection method between the printer and the PC on the Communication Interface selection screen, and select [Next].
(Servicing time: Approx. 15min)
9. The devices that can be specified on the selection screen for Printer/MF machines are displayed in the Printer/MF machines column. Insert check marks into the checkboxes and select [Next].
10. The Firmware update status appears on the 'Updating' screen.
After completion, the results screen appears.
11. Select the [Close] button on the results screen. (Firmware upgrade complete.)

NOTE

After downloading ends, the IOT will automatically reboot.

ADJ 35.1.3 Firmware Version Update (Firmware Update Service System)

Purpose

The Firmware Update Service is an enhancement to the existing Device UI Download feature, which provides a Firmware Version Update function that utilizes the EP-BB.

In this function, the device obtains the appropriate firmware from the firmware download center via the Internet and stores it in the device's SSD/HDD. After that, it will automatically transition to the Download Mode and perform the update.

Use Conditions

1. Complete the Firmware Update Service's [Firmware Update Service User Agreement] to accept the service usage conditions.
2. The Device has EP-BB temporarily installed*1 or completely installed*1.
3. At the EP-BB Service Parameters of the Device, the software refresh button (KO/CE) display flag is set to "Display".
4. The EP communication aggregation server has not been installed.
5. For Internet communication, the IP Address for communication is not restricted by IP filters, etc.
6. For Internet communication, HTTP communication using Port 80 is possible.

*1: The EP installation status come in the following types.

Not installed - the state where EP-BB installation procedure has not been performed.

Temporarily installed - the state where EP-BB installation procedure has completed, but the contract agreement is not activated yet.

(In this state, periodic communication is performed, but the various EP-BB features such as Alerts and notification of supplies are not operating)

Completely installed - The final state where the contract agreement has been activated and all EP-BB features are operating.

Difference in Performing Update in KO and CE Modes

The update operation using the Firmware Update Service is performed differently when the update is performed via the KO (System Administrator) mode and the CE mode as follows.

KO mode

- During the update, the required change in NVM settings (rewriting) is performed automatically.

- The update is possible as long as the combination of firmware that is installed in the Device is the same as the combination that is guaranteed by the Firmware Update Service.
- The update cannot be performed if the EPA- IF of the accessories that are connected to the Device is earlier than V2 .
- Other than the above, the update may also be not possible due to the combination of options, etc.
  * If the version update cannot be executed, the error code described in Table 1 of "Main error codes" below is displayed.

CE mode

- During the update, the required change in NVM settings (rewriting) is not performed automatically.
- The update is still possible even if the combination of firmware that is installed in the Device is not the same as the combination that is guaranteed by the Firmware Update Service. *1
- The update is possible regardless of the connected accessories and the combination of options. *1

*1: The update is at the same level as if it is performed from the PSW. Therefore, the changing of NVM settings (rewriting) must be performed after the update.

Procedure in KO (System Administrator) Mode

1. Enter the System Administrator Mode.
2. Select [Device] -> [Maintenance].
3. Select [Software Update] to execute.
   * If the [Software Update] button is not displayed, check Table 2 of [EP Service Parameters] settings below.
   * Do not turn OFF the power or open the Front Cover, etc. while this is in progress.
4. When the update has completed, the Device will restart automatically. When the [Home] screen is displayed, the update is complete.
   *If the NVM Settings Change (Rewriting) is set, the NVM settings will be changed after the restart and then the Device will restart once again after completing this.

Procedure in CE Mode

1. Enter the CE Mode.
2. Select [Device] -> [Maintenance] -> [Maintenance / Diagnostics] -> [Others].
3. Select [Software Update].
   * If the [Software Update] button is not displayed, check Table 2 of [EP Service Parameters] settings below.
4. Select [Standard Mode (Auto NVM Rewrite)] or [Standard Mode (No Auto NVM Rewrite)] to execute.
   * Do not turn OFF the power or open the Front Cover, etc. while this is in progress.
5. When the update has completed, the Device will restart automatically. When the [Home] screen is displayed, the update is complete.
   * If [Standard Mode (Auto NVM Rewrite)] was selected, the NVM settings will be changed after the restart and then the Device will restart once again after completing this. If [Standard Mode (No Auto NVM Rewrite)] was selected, enter CE mode again to change the NVM settings (rewriting) as required.

Main Error Codes

C-L Number	Cause	Actions
016-529	There was no response within the specified time (45 sec) when connecting to the Software Update Server	1. Wait for a while, then perform the same operation again 2. Escalation
021-509	Connected via an EP communication aggregation server	1. The Firmware Update Service does not support the EP communication aggregation server yet (Restricted)
021-529	The firmware is already the newest	
021-530	An internal error has occurred in the Software Update Server	1. Wait for a while, then perform the same operation again 2. Escalation
021-531	The Software Update Server is congested with high traffic	1. Wait for a while, then perform the same operation again 2. Escalation
021-532	The combination of firmware is not guaranteed	1. Perform the update via CE mode
021-533	The firmware you're trying to update is not set as updatable in KO	1. Perform the update via CE mode
021-534	Unsupported sub module is detected	1. Perform the update via CE mode
021-535	Unsupported accessory is detected	1. Perform the update via CE mode

EP Service Parameter Settings

* The [Software Update] button is set to be displayed/not displayed by the EP Service Parameters.

Settings	Chain-Link	Settings
Display Software Update Button (KO)	920-053	0 : Disabled (not displayed) * 1 1: Enabled (displayed)
Display Software Update Button (CE)	920-054	0 : Disabled (not displayed) * 1 1: Enabled (displayed)

*1: Default settings.

! CAUTION

Before changing any settings, get the customer to check the [Firmware Update Service User Agreement] to accept the usage conditions of this service.

ADJ 35.1.4 Special Boot

Purpose

By turning the power ON while pressing and holding down the buttons on the Panel, startup the Device in other than its usual mode

For details on the Special Boot used during Long Boot Diag and Backup/Restore Settings, refer to their respective operating procedures.

Procedure

1. With the power turned OFF, and while pressing and holding [Home], press and hold the <Power> button until the [SPECIAL BOOT MENU] screen is displayed before releasing all keys.



Figure 1 shb435502

2. To enter the special boot for CE, press the [Home] button while touching both [BOOT] and [MENU] at the same time.



Figure 2 shb435503

3. When the [Keypad] screen is displayed, entering [1739#] brings up the [SPECIAL BOOT MENU 1/3] for CE.

NOTE

Touch the Up and Down arrows to change the menu screen to [SPECIAL BOOT MENU 2/3] or [SPECIAL BOOT MENU 3/3].

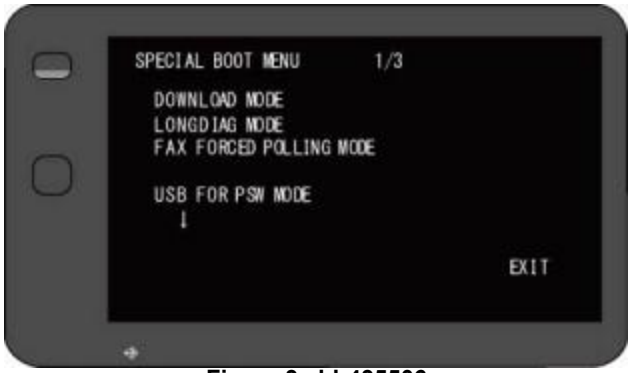


Figure 3 shb435506

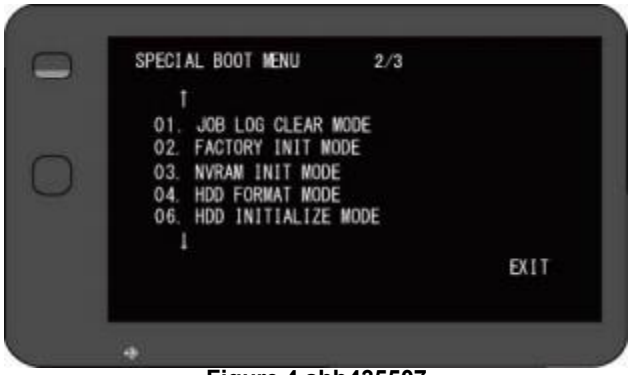


Figure 4 shb435507

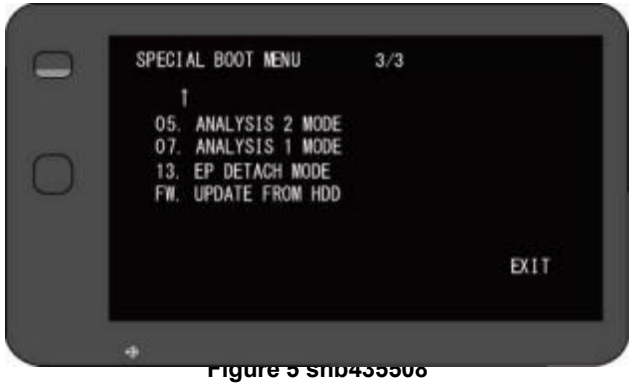


Figure 5 shb435508

4. Select the required MODE from the MENU. (Table 1)

Operation	Display on SPECIAL BOOT MENU	How to Use
Firmware Download Mode	-- BOOT MODE -- DOWNLOAD MODE	Use this to update the firmware version when the MFD does not start up normally, or when updating the firmware version from the USB memory stick.
Long Diag Mode	-- BOOT MODE -- LONGDIAG MODE	Performs a more detailed check than the usual Device diagnostic items at the start up of the Device.
Fax Forced Polling Mode	-- BOOT MODE -- FAX FORCED POLLING MODE	In the case the fax document cannot be printed out for some reason, it is possible to retrieve the fax document by forcing this operation.
Log Data Initialization	-- BOOT MODE -- 01. JOB LOG CLEAR MODE	Used when the log data has an error and a Fail such as 116-331 has occurred, or when the log data must be cleared for version update that involves a large change in versions.
Complete NVM Initialization (return it to the default factory shipment state)	-- BOOT MODE -- 02. FACTORY INIT MODE	Used when recovery is not achieved with Startup by Force NVM Initialization (03.NVRAM INIT MODE). When an initialization is performed with this method, billing mismatch etc. occurs as when the ESS PWBA is replaced.

Operation	Display on SPECIAL BOOT MENU	How to Use
Initialize NVM	-- BOOT MODE -- 03. NVRAM INIT MODE	Initializes the NVM of the configuration range (Printer Settings etc) inside the Controller by force and starts up.
SSD/ HDD Forced Formatting	-- BOOT MODE -- 04. HDD FORMAT MODE	Formats the SSD/HDD by force. This operation resets the HDD to partitions at factory settings.
Forced Spool Area (SSD/HDD) Initialization (for CE)	-- BOOT MODE -- 06. HDD INITIALIZE MODE	If an error, such as 116-324, has occurred when printing was set to be performed with the data spooled to storage and the Device cannot be started by turning it OFF and ON, this initializes the storage area in which the print data is stored before starting the Device.
Restore SSD/ HDD Backed Up File	-- BOOT MODE -- 05. ANALYSIS 2 MODE	Restore and start up the NVM (eMMC)/SSD/HDD user data inside the Controller that was backed up to SSD/HDD.
Restore USB Backed Up File	-- BOOT MODE -- 07. ANALYSIS 1 MODE	Restores the NVM (eMMC)/SSD/HDD User Data within the Controller that was backed up in the USB Memory stick and restart.
NVM Read/ Write Mode	-- BOOT MODE -- USB FOR PSW MODE	Connect NVM for Maintenance to USB Device port and enable it
No waiting for booting with the print server	-- BOOT MODE -- 13. EP DETACH MODE	It is possible to boot the device without having to wait for it to boot with the print server.
Re- download firmware using firmware stored in SSD/HDD.	-- BOOT MODE -- FW UPDATE FROM HDD	Performing this during a Finisher installation enables the versions that are stored in the SSD/HDD to be consistent.
Initialization of forced spool area (SSD/HDD) (for users)	HDD INITIALIZE MODE NOTE You can select after Step 3.	This special boot mode has been added so that a customer can also perform the "Startup by Forced Spool Area (SSD/HDD) Initialization" (06. HDD INITIALIZE MODE) like a CE.

ADJ 35.1.5 Back Up/Restore ESS

Purpose

Backup/Restore should be performed in the following cases.

No	Application	Purpose
1	When the Firmware has been updated	Restores the Firmware to the state before the update in cases where you want to revert the Firmware to its previous version for some reason (such as the operation becoming unstable). *
2	When the SSD/HDD or NVM PWB (eMMC) is malfunctioning	Restores the settings to the state when it was backed up. This reduces the operation time that is required for environmental recovery.
3	When identifying the cause of a difficult problem	Reduces the operation time that is required for environmental recovery by temporarily saving the current settings before initializing the SSD/HDD/NVM to isolate the cause of a failure.

The backup can be stored in the Device built-in SSD/HDD or in a USB memory stick (service tool).

Preparation

- Before performing backup into a USB memory stick, create a folder named [backup] in the USB memory stick.
- Make sure you print the Configuration Report before performing the operation.

NOTE

As the procedure differs by case as follows, make sure you are performing the required procedure.

No.	Backup/Restore Cases	Reference
1	Back Up to SSD/ HDD	Go to Procedure A
2	Restore from SSD/ HDD	Go to Procedure B
3	Restore From SSD/HDD Using Special Boot (such as when the UI screen is not displayed)	Go to Procedure C
4	Back Up to USB memory stick	Go to Procedure D
5	Restore from USB memory stick	Go to Procedure E
6	Restore from USB memory using Special Boot (such as when the UI screen is not displayed)	Go to Procedure F
7	Cloning (in customer mode)	Go to Procedure G

Back Up to/ Restore from SSD/ HDD

Procedure A (Back Up to SSD/ HDD)

1. Open the [Job Status] screen and check that there are no jobs being executed or in the queue.
2. Disconnect the Network Cable and the Fax line.
3. Enter the UI-Diag, and select [Device] -> [Maintenance] -> [Maintenance / Diagnostics] -> [EP Service] -> [Back Up/Restore ESS].
4. Select [Back Up Files] > [File Storage Location] = [Storage], and select [Start].
5. When [Are you sure you want to make a backup on the storage?] is displayed, press [Yes]. The backup starts and [Backing up files onto the storage.] is displayed.
6. When the backup is completed, [Successfully backed up to the storage.] is displayed. Press the [Confirm] button. Return to the [Back Up / Restore ESS] menu screen. The backup will take approx. 2 to 5 minutes.
7. Select [Close], [Exit (Clear History)], [Exit (Clear History)] in order and the Device will automatically restart.
   This completes the backup operation.
   Perform [Software Update] or other operations.
   After the operation, go to the following to restore the backup data as needed.
   If the UI screen does not start up after the operation, restore by referring to [Restore From SSD/ HDD Using Special Boot] that is described after the following procedure.

Procedure B (Restore from SSD/ HDD)

1. Open the [Job Status] screen and check that there are no jobs being executed or in the queue.
2. Disconnect the Network Cable and the Fax line.
3. Enter the UI-Diag, and select [Device] -> [Maintenance] -> [Maintenance / Diagnostics] -> [EP Service] -> [Back Up/Restore ESS].
4. Select [Restore Backed Up Files] -> [File Storage Location] = [Storage], and select [Start].
5. When [Are you sure you want to restore the backup file from the storage?] is displayed, press [Yes] to start restoring. At this time, the following message will be displayed.
   - Restoring backup files from the storage.
   - After the process is completed, Device will restart and update the software.
   - When the whole process is done, the default screen appears.
   - Until then, do not power off Device.
6. When the restore has completed successfully, the Device will restart and then enter the Download Mode. At this time, the screen will display [Download Mode], just as it usually does when downloading firmware via Port9100/USB connection.
7. When the process has completed successfully, the Device restarts automatically.

Procedure C (Restore From SSD/ HDD Using Special Boot)

1. Turn OFF the Device.
2. With the power turned OFF, and while pressing and holding [Home], press and hold the <Power> button until the [SPECIAL BOOT MENU] screen is displayed before releasing all keys.
3. Touch both [BOOT] and [MENU] and keep your fingers there while selecting the [Home] button.
4. When the [Keypad] screen is displayed, entering [1739#] brings up the [SPECIAL BOOT MENU 1/3] for CE. Touch the Down arrow twice to display the [SPECIAL BOOT MENU 3/ 3].
5. After selecting [ANALYSIS 2 MODE], select [YES] on the next screen.

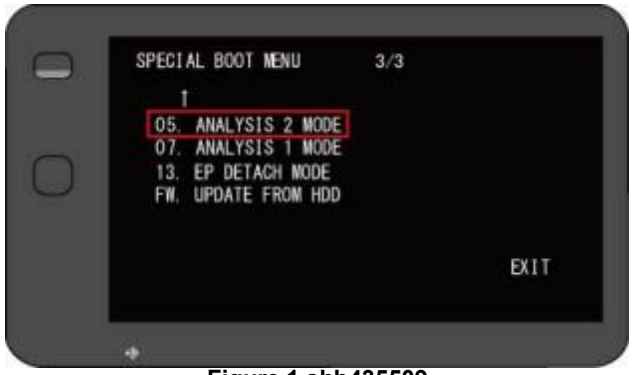


Figure 1 shb435509

6. The restore process will then run automatically, [SSD/HDD Initialization, Restore SSD/ HDD Settings, Restore NVM Setting Data] are performed, and the Device restarts automatically once the process is completed.
7. Next, the Firmware download starts and the Device restarts automatically after it has completed.
8. Verify that the Device has been restored to its original state and that copying is possible.

Back Up to/ Restore from USB Memory Stick

Back Up to/Restore from USB Memory is used in the following cases.

- Before replacing the SSD/HDD.
- If the SSD/ HDD replacement is still a few days away, back up the data and ask the customer to save it in their PC as a safety precaution. (At this time, explain to the

customer why the data is being backed up and that the CE is not allowed to take back the customer information.)

Procedure D (Backup to USB memory stick)

1. Turn OFF the Device, connect the USB memory stick, and then turn ON the Device.

   NOTE

   Due to removal of the Fax cable, [Failure or malfunction has occurred. Check the number to the right in the manual. (016-214)] is displayed. (Reference message)

2. Check that there are no jobs being executed or in the queue.
3. Disconnect the Network Cable.
4. Enter the UI-Diag, and select [Device] -> [Maintenance] -> [Maintenance / Diagnostics] -> [EP Service] -> [Back Up/Restore ESS].
5. Select [Back Up Files] -> [File Storage Location] = [USB Memory Stick], and select [Start].
6. [Are you sure you want to make a backup on the USB memory stick?]] will be displayed. Press [Yes]. Backup begins, [Backing up to the USB memory stick.] is displayed. The backup will take approx. 5 to 7 minutes.
7. When the backup is completed, [A backup was successfully made on the USB memory stick. Power off Device, make sure the screen is turned off, and remove the USB memory stick.] will be displayed, so turn OFF the power to the device.
8. If necessary, copy the whole "backup" directory into the customer's PC, and request that they keep it safe.
   After that, delete the backup data that is stored in the USB Memory.

If the UI screen does not start up after the operation, restore by referring to the [Restore from USB using Special Boot] that is described after the following procedure.

Procedure E (Restore from USB Memory Stick)

1. Turn OFF the Device, connect the USB memory stick, and then turn ON the Device.
2. Open the [Job Status] screen and check that there are no jobs being executed or in the queue.
3. Disconnect the Network Cable.
4. Enter the UI-Diag, and select [Device] -> [Maintenance] -> [Maintenance / Diagnostics] -> [EP Service] -> [Back Up/Restore ESS].
5. Select [Restore Backed Up Files] -> [File Storage Location] = [USB Memory Stick], and select [Start].
6. [Are you sure you want to restore backup files from the USB memory stick?] will be displayed. Press [Yes]. The restore starts and the following message is displayed.
   - Restoring the backup file from the USB memory stick.
   - After the process is completed, Device will restart and update the software.
   - When the whole process is done, the default screen appears.
   - Until then, do not power off Device.
7. The restore process will complete in approx 4 minutes, after which the Device will automatically restart and enter the Download Mode. The screen at this time will display [Download Mode] just like when downloading the Firmware via Port9100/USB connection.
8. After the series of processes have completed and it has rebooted normally, turn OFF the Device.
9. Disconnect the USB memory stick, turn ON the Device, and check that copying is possible.
10. When updating the Firmware, perform Backup to USB memory stick again after the update has completed.
11. Turn OFF the Device, and remove the USB.

Procedure F (Restore from USB Memory using Special Boot)

1. Turn OFF the Device and connect the USB memory stick.
2. With the power turned OFF, and while pressing and holding [Home], press and hold the <Power> button until the [SPECIAL BOOT MENU] screen is displayed before releasing all keys.
3. Touch both [BOOT] and [MENU] and keep your fingers there while selecting the [Home] button.
4. When the [Keypad] screen is displayed, entering [1739#] brings up the [SPECIAL BOOT MENU 1/3] for CE. Touch the Down arrow twice to display the [SPECIAL BOOT MENU 3/3].

5. After selecting [ANALYSIS 1 MODE], select [YES] on the next screen.

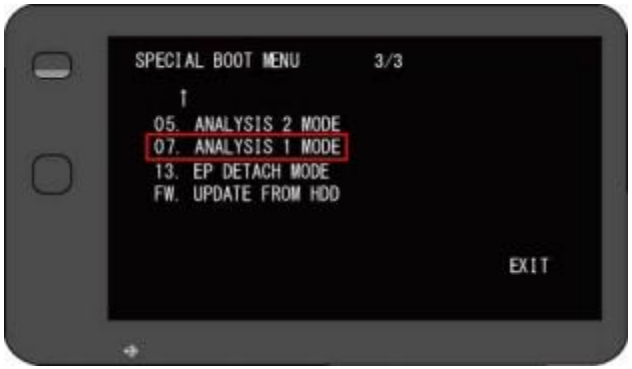


Figure 2 shb435510

6. The restore process will then run automatically, [SSD/HDD Initialization, Restore SSD/ HDD Settings, Restore NVM Setting Data] are performed, and the Device restarts automatically once the process is completed.
7. Next, the Firmware download starts and the Device restarts automatically after it has completed.
   Verify that the Device has been restored to its original state and that copying is possible.

Procedure G Cloning of setting information

Purpose

Although this is not a CE function, this can reduce the environmental settings workload when performing a mass-installation service. It is also a useful backup/restore function that a customer can use.
The only settings that can be duplicated are those that can be set with Internet Services.

1. Designate one device as the Master Device, and configure the settings on the normal device using [Control Panel, Internet Services]. Check the settings under Network Settings -> Enable Port. (This section cannot be copied)
2. Perform network settings for the target Device to clone according to the [Installation Order]. (IP Address, Subnet Mask, and Gateway Address)
3. Perform the same Network Settings > Enable Port settings as those on the master device, to the target clone device. If there are any differences, the related settings will not be not cloned.
4. Connect from the client to the Master Device via Internet Services.
5. Select [Properties] tab -> General Setup -> Cloning.
6. Right click on [Cloning.dat] under [Cloning Instructions] and download it to the PC.
7. Access the target clone device and select [Properties] tab -> General Setup -> Cloning.
8. Click [Browse] in the [Install Clone File], select the [Cloning.dat] that was imported in step 5, and then click [Install].
9. Wait while the setting information is being copied into the target Device to clone.
10. Verify that the setting information has been copied in the target Device to clone.

ADJ 35.1.6 Settings Recovery Tool (Freeware)

Procedure

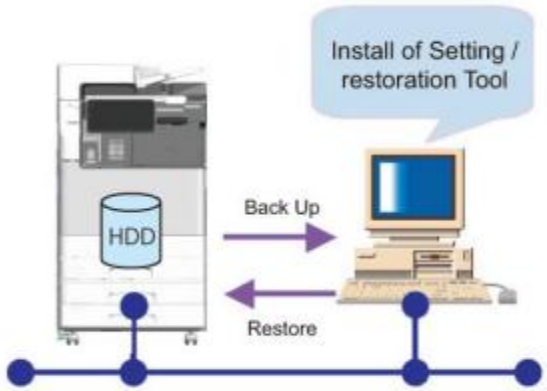


Figure 1 shb435511

1. Overview
The Settings Recovery Tool is a freeware for backing up the data that have been set in the multifunction device into a PC. This way, you can restore the backed up settings after a Storage replacement.

! CAUTION
The restoration of backed up settings can be done by changing the system data (Chain-Link) of the Main Unit after the CE has replaced the Storage.

2. Operation Conditions
PC
- Microsoft(R) Windows(R) 8.1 Pro Japanese version
- Microsoft(R) Windows(R) 10 Pro Japanese version

Operate using a computer with Intel x86 processor that is running the above OS.
Software
- Settings Recovery Tool Ver. 2.0.10 or later

3. Backed Up Data
The following are the data that can be backed up by using the Settings Recovery Tool.
- Attributes data of Folders (Folder Name, check Folder Passcode, Delete Files After Retrieval, Delete Expired Files, Link Job Flow Sheet to Folder)
- Speed dial data (Address Book)
- Destination data of Web Applications
- Job Flow Sheets
- Stored Programming
- Job Log (up to 15,000 items)
- Audit log
- Device authentication data (Device, Personal Certificate, etc.)
- Various items in the Configuration Report

! CAUTION
The document storage area is not backed up.

4. Restoration Procedure
(1) Replace the faulty Storage.
(2) Change the Chain-Link Settings (enable restore settings) as follows.
Chain-Link 700-529: 0 -> 1 (after restoration performed, automatically returns to 0)
(3) Request for the customer to restore the backed up data.
(Use the Settings Recovery Tool to restore the backed up data)
(4) As the restoration is in progress, the Device status will transition as follows:
(a) The Panel displays [An external device is operating this Device.] as the restoration data is being received.
(b) After receiving the restoration data, it will automatically reboot.
(c) The restoration will be performed at startup screen "3/6" and when completed, it will automatically reboot again.
(5) Check that the usual "Home" is displayed on the Panel and end the restoration.
Effect on Service Software: as the restored data is older data, the Service Software that uses/refers to the operationally changed data might exhibit the following behaviors.

Software	Details of Effect
ApeosWare Accounting Service History	All restored job files are re- collected. (Job record is doubled)
ApeosWare Accounting Service Accounting	After the restoration, new jobs will not trigger the collection process as long as the file number at the Device has not become larger than the job log file number that had been collected by the Serverless Accounting Service.
ApeosWare Accounting Service Output Restriction	If the user information of the main body of the data (net aggregation) to be restored is inconsistent with the current status, and the user is restricted without going through the AWAS output restriction print service, there will be cases where processing is possible without user restrictions that were previously restricted.

(6) Things to Note for Settings Recovery Tool

- Restoring the settings data causes the various logs, addresses, etc. (target backup data) to be reverted back to what they were at the point of backup (all data recorded after the backup will be deleted).
  Other data that will be lost upon restoring the settings data are as follows:
  All document data stored in the Device
  (Folder documents, Secure Print documents, Fax sending/received documents, etc.)
- The backed up settings data can only be restored back to the Device that it originates from and the software version has to be the same. Whenever the software version has changed or an option has been added, perform backup again.
- If the PC that is to store the backed up files runs a firewall, it may cause communication error. Add this software to the list of safe programs at the firewall settings.
- If this software was installed in a folder that requires a System Administrator Privilege (%programfiles% etc.) and a user without System Administrator Privilege attempts to run it, the software may fail to run. In such cases, reinstall this software in a folder that does not require System Administrator Privilege.
- Never turn OFF the Device while it is running back up or restoring settings.
- If the Device is being used, it is not possible to run back up or restore settings.
- For Microsoft(R) Windows Vista(R) and later, when the software is installed and run from %programfiles% or %systemroot% folder, the operation log, settings file, and etc. that are generated during the process might be created in virtualized folders and are not displayed. Also, even if the file storage destination had been specified during the back up, there might be cases where the backed up files are not displayed. Click the [Compatibility Files] button displayed at the explorer bar, in order to display them. The files in virtualized folders will be displayed.
- Depending on the size of the data, the back up or restore settings process may take more than 10 minutes.

56. DADF-110

ADJ 56.1.1 DADF Lead-Skew Adjustment

Parts-list-on: PL 56.1

Purpose

To correct the feeding of the original by adjusting the position of the DADF. (DADF Lead-Skew, Perpendicularity)

Check

1. Place the Test Chart (499T 00247) on the DADF.
2. Make a copy using the following settings in Copy mode.
   - Color Mode: Black
   - Paper Tray: A3
   - Reduce/Enlarge: 100%
   - No. of copies: 3
3. Check that the difference in the distance (A and B) from the side edges of the 3 copies is within 0 +/-0.5 mm. (Figure 1)

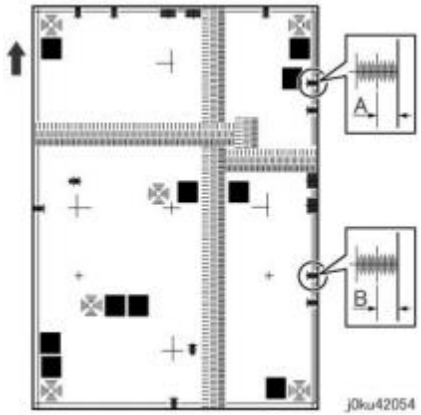


Figure 1 ku42054

Adjust

1. Remove the DADF Rear Cover. (REP 56.2.2)
2. Move the DADF in the A or B direction to adjust the position of the DADF. (Figure 2)
   (1) Loosen the screw (x4).
   (2) Move the DADF in direction A or B.
   (3) Tighten the screw (x4).

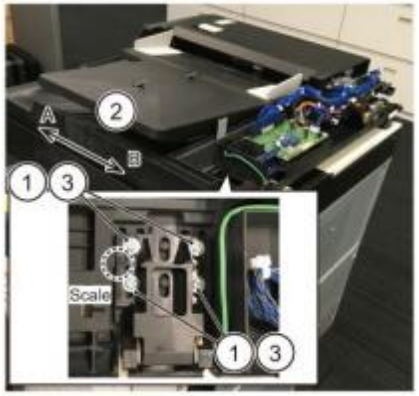


Figure 2 mbl456501

- When the DADF was moved in direction A (Figure 3)

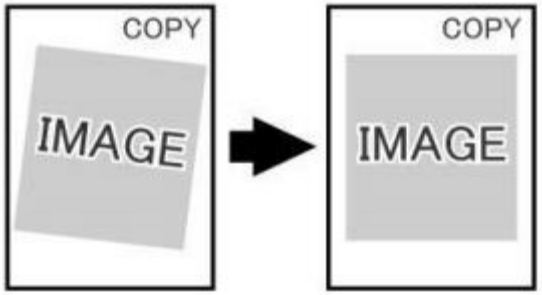


Figure 3 ku42044

- When the DADF was moved in direction B (Figure 4)

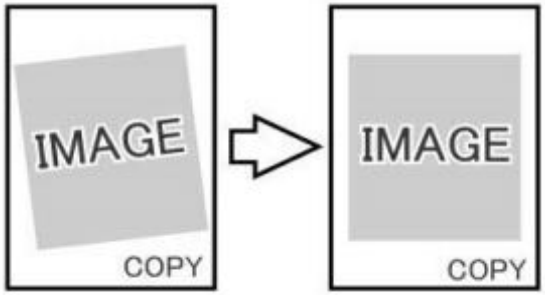


Figure 4 ku42043

3. Reinstall the DADF Rear Cover.
4. After adjustment, perform DADF Lead Edge Registration (ADJ 56.1.2) and DADF Side Registration (ADJ 56.1.3).

ADJ 56.1.2 DADF Lead Edge Registration

Purpose

To adjust the original to the proper position (original feed direction) on the Platen.

NOTE

The following adjustments must be made before carrying out checking and adjustment.

- System Registration Adjustment (ADJ 18. 1. 1)
- IIT Lead Registration (ADJ 1. 1.2)
- DADF Lead-Skew Adjustment (ADJ 56. 1. 1)
- DADF Slow Scan % Adjustment (ADJ 56.1.4)

NOTE

If there is a black line at the Trail Edge for non-standard sizes after Regi adjustment of the Lead Edge for Side 1 and Side 2, adjust the Trail Edge using the NVM [711-142] (Side 1) and NVM [711-143] (Side 2).

[1 Sided mode]

Check

1. Place the Test Chart (499T 00247) such that there is no gap between the chart and the DADF Guide.
2. Make a copy using the following settings in Copy mode.
   - Color Mode: Black
   - Paper Tray: A3
   - Reduce/Enlarge: 100%
   - No. of copies: 2
   - 1 to 1 Sided mode
3. Check that the distance between the Lead Edge and the reference value in the second copy is 10 +/-1.5 mm.

If it is not within the specified range, adjust to the specified range using the following procedure. (Figure 1)

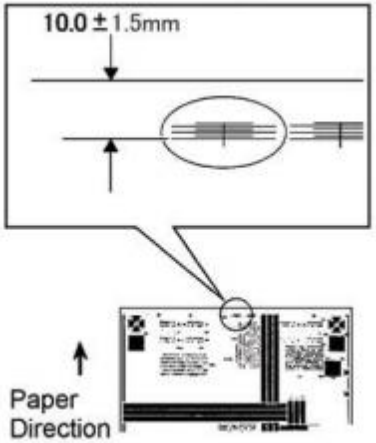


Figure 1 sr42053

Adjust

1. Enter the Diag Mode, select [DC131 NVM Read/Write], and enter [711- 140].
2. If the specified value is
   - 11.5mm or higher, increase the NVM value.
   - 8.5mm or lower, decrease the NVM value.

   (1 Step in NVM = 0.1 mm)
3. Repeat the procedure until the value is within the specified range (10 +/- 1.5 mm).
   As there will be differences in the Regi according to the feed transport speed, adjust the following NVM.

NVM	Transport Speed [mm/s]
NVM [711-002] DADF Lead Reg . Adjustment (Side 1)	330.0
NVM [711-003] DADF Lead Reg . Adjustment (Side 1)	220.0

[2 Sided Mode]

Check

1. Place the Test Chart (499T 00247) on the DADF with Side 1 facing down with the Test Chart fed from the trail edge.

2. Make a copy in the following mode:
   - Color Mode: Black
   - Paper Tray: A3
   - Reduce/Enlarge: 100%
   - No. of copies: 2
   - Mode: 2 to 1 Sided
3. Check that the distance between the Lead Edge and the reference value in the second copy is 10 +/- 1.9 mm.
   If it is not within the specified range, adjust to the specified range using the following procedure. (Figure 2)

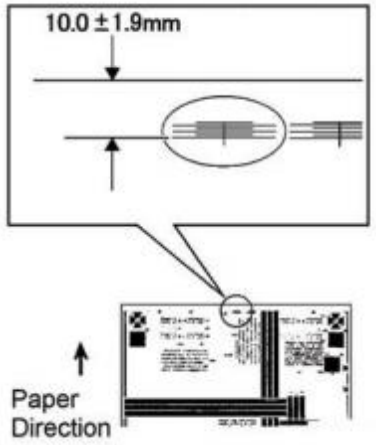


Figure 2 ku42053

Adjust

1. Enter the Diag Mode, select [DC131 NVM Read/Write], and enter [711- 141].
2. Adjust to the specified range (10 +/- 1.9 mm).
   If the distance between the Lead Edge and the reference value is
   - 12.0 mm or higher, increase the NVM value.
   - 8.0 mm or lower, decrease the NVM value.

   (NVM1Step=0.1mm)
3. Repeat the procedure until the value is within the specified range (10 +/- 1.9 mm).
   As there will be differences in the Regi according to the feed transport speed, adjust the following NVM.

NVM	Transport Speed [mm/s]
NVM [711-022] DADF Lead Reg . Adjustment (Side 2)	330.0
NVM [711-023] DADF Lead Reg . Adjustment (Side 2)	220.0

ADJ 56.1.3 DADF Side Registration

Purpose

To adjust the original to the proper position (drum shaft direction) on the Platen.

NOTE

The following adjustments must be made before carrying out checking and adjustment.

- System Registration Adjustment (ADJ 18. 1. 1)
- IIT Side Registration (ADJ 1. 1.3)
- DADF Lead-Skew Adjustment (ADJ 56. 1. 1)

NOTE

DADF Side Registration is adjusted using the NVM for every paper width.

Check

1. Place the Test Chart (499T 00247) such that there is no gap between the chart and the DADF Guide.
2. Make a copy using the following settings in Copy mode. Take this copy as the original.
   - 1 to 1 Sided mode
   - Paper Tray: A3
   - Reduce/Enlarge: 100%
   - No. of copies: 2
3. Mark the output copies as "1" and "2" in the order of their output.
4. Make a Single Fold on the second copy. Check the fold line with the reference line on the Test Chart. (Figure 1)

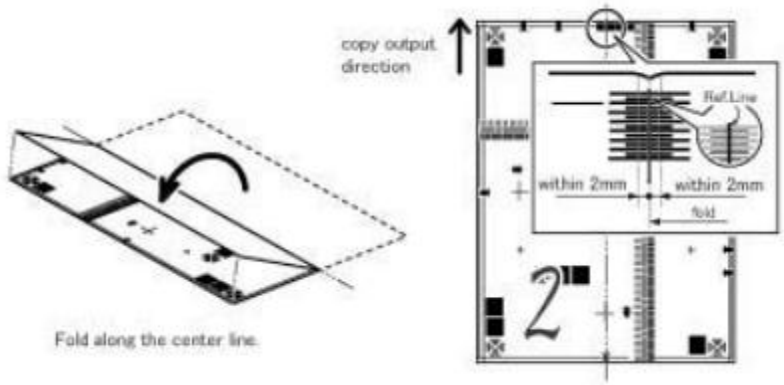


Figure 1 ku42048

5. Check that the fold line is within 2.0mm from the reference line.
   If the value is not specified, carry out the following adjustment procedure.
6. Place the Test Chart (499T 00247) on the DADF facing down with the Test Chart fed from the lead edge.
7. Make a copy using the following settings in Copy mode.
   - 2 to 1 Sided mode
   - Paper Tray: A3
   - Reduce/Enlarge: 100%
   - No. of copies: 2
8. Make a Single Fold on the two copies. Check the fold line with the reference line on the Test Chart. (Figure 2)

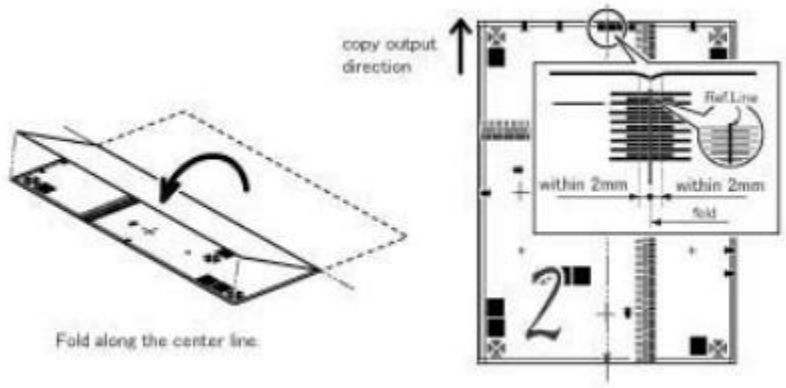


Figure 2 ku42048

9. Check that the fold line is within 2.0mm from the reference line.
   If the value is not specified, carry out the following adjustment procedure.

Adjust

- Side 1 Adjustment
  1. Enter the Diag Mode and select [DC131 NVM Read/Write] to perform correction for all sizes.
     Enter the value to perform correction for all sizes in the NVM [711-272].

Table 1 Side 1 of 1 Sided or 2 Sided mode

	NVM	Document Width	Document Size
1	711-272	For all sizes	For all sizes
2	715-056	139.7~148mm	A5 SEF, 5.5x8.5" SEF
3	715-058	182~194mm	B5 SEF, 16K SEF
4	715-060	203.2mm	8x10" SEF, 8x10.5" SEF

Table 1 Side 1 of 1 Sided or 2 Sided mode

	NVM	Document Width	Document Size
5	715-062	210mm	A4 SEF, A5 LEF
6	715-064	214.9~215.9mm	Letter SEF, Legal SEF, 5.5x8.5" LEF, 8.46x12.4" SEF, 8.5x13" SEF
7	715-066	254~257mm	B4 SEF, B5 LEF, 8x10" LEF
8	715-068	266.7~267mm	16K LEF, 8K LEF, 8x10.5" LEF
9	715-070	279.4mm	Letter LEF, 11x15" SEF, 11x17" SEF
10	715-072	297mm	A4 LEF, A3 SEF

2. Enter the value to perform correction for each size in the NVM [715-056 to 072].
3. If it is not within the specified range in Check Step 5, change the NVM value.
   - By increasing the NVM value, the image moves towards the right.

   (1 Step in NVM = 0.1 mm)
4. Repeat Check Steps 1 to 5 and Adjustment Steps 1 to 3 until the measurement is within the specified range.

- Side 2 Adjustment

1. After adjusting for 1 Sided copies, place Side 1 of the Test Chart face down and make copies using the following settings to check the Side Registration for 2 Sided copies.
   - Paper Tray: A3
   - Reduce/Enlarge: 100%
   - No. of copies: 2
   - 2 Sided: 2→ 1 Sided
2. Check the Side Regi of the 2 copies with the above-mentioned items in "Check".
3. If adjustment is required, enter the Diag Mode, select [DC131 NVM Read/Write] to perform correction for all sizes, and then adjust each document size width using the following NVM.
   Enter the value to perform correction for all sizes in the NVM [711-274].

Table 2 Side 2 of 2 Sided mode

	NVM	Document Width	Document Size
1	711-274	For all sizes	For all sizes
2	715-057	139.7~148mm	A5 SEF, 5.5x8.5" SEF
3	715-059	182~194mm	B5 SEF, 16K SEF
4	715-061	203.2mm	8x10" SEF, 8x10.5" SEF
5	715-063	210mm	A4 SEF, A5 LEF

Table 2 Side 2 of 2 Sided mode

	NVM	Document Width	Document Size
6	715-065	214.9~215.9mm	Letter SEF, Legal SEF, 5.5x8.5" LEF, 8.46x12.4" SEF, 8.5x13" SEF
7	715-067	254~257mm	B4 SEF, B5 LEF, 8x10" LEF
8	715-069	266.7~267mm	16K LEF, 8K LEF, 8x10.5" LEF
9	715-071	279.4mm	Letter LEF, 11x15" SEF, 11x17" SEF
10	715-073	297mm	A4 LEF, A3 SEF

4. Enter the value to perform correction for each size in the NVM [715-057 to 073].

ADJ 56.1.4 DADF Slow Scan % Adjustment

Purpose

To obtain the proper Slow Scan Direction Reduce / Enlarge ratio for 100% copy.

NOTE

The following adjustments must be made before carrying out checking and adjustment.

- System Registration Adjustment (ADJ 18. 1. 1)
- IIT Lead/Side Registration (ADJ 1. 1.2) (ADJ 1. 1.3)
- DADF Lead-Skew Adjustment (ADJ 56. 1. 1)

NOTE

For Side 2, just check after Side 1 adjustment.

Check

<Side1>

1. Load the Test Chart 499T 00247 (A3) with the scan side face up, and ensure that there is no gap between the test chart and the guide of the DADF.
2. Set the following conditions, and take a copy, and this will be the original.
   Output Color: Black
   Paper Tray: A3
   Reduce/Enlarge: 100% (No Reduce)
   No. of copies: 5
   2 Sided Copying: 1→ 1 Sided
3. Measure the length of the output 3rd copy and specified position of the test chart. (Figure 1)
   Compare the measured value to determine the magnification.
   Slow Scan Direction (Portrait) Reduce/Enlarge: Between 1-2, 2-3 and 1-3 in the figure.
   Magnification calculation: Length of the copy /Length of the test chart = xxx%

If the value is not within the specified value, follow the adjustment procedure below to adjust.
SS (slow scan direction) magnification Side1 specified value: 100+/-0.8 %, Side2 specified value: 100+/-0.8 %

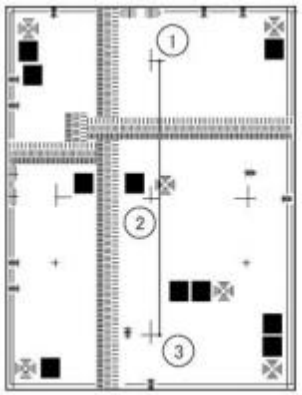


Figure 1 fu45448

Adjust

<Side1>

1. Enter the Diag Mode and select [DC131 NVM Read/Write].
2. Adjust "NVM711-144"+so the magnification value measured in the check step 3, is within specification.
   - When the magnification is large (the measured value of the copy is larger) :Increase the value of NVM
   - When the magnification is small (the measured value of the copy is smaller) :Decrease the value of NVM

   (1 Step of NVM = 0. 1%)
3. Check the adjustment result and perform a re-adjustment.
   Repeat Check Steps 1 to 3 and Adjustment Steps 1 to 2 until the measurement is within the specified range.
   When rewriting NVM711- 144, NVM711-041 to 043 are also rewritten to the same value. To change the correction value for each reading speed, enter a correction value for each reading speed to [NVM: 711-041 to 043]. The default setting does not have an adjustment for each speed.

No.	NVM	Scan Speed (mm/s)	Remarks
1	711-144	For all reading speeds	Does not affect the other adjustment values.

No.	NVM	Scan Speed (mm/s)	Remarks
2	711-082	330	It becomes the same value when 711- 144 is changed
3	711-083	220	It becomes the same value when 711- 144 is changed

Check

<Side2>

1. Load the Test Chart 499T 00247 (A3) with the scan side face down, and ensure that there is no gap between the test chart and the guide of the DADF.
2. Set the following conditions, and take a copy, and this will be the original.
   Output Color: Black
   Paper Tray: A3
   Reduce/ Enlarge: 100% (No Reduce)
   No. of copies: 5
   2 Sided Copying: 2→ 1 Sided
3. Measure the length of the output 3rd copy and specified position of the test chart. (Figure 2)
   Compare the measured value to determine the magnification.
   Slow Scan Direction (Portrait) Reduce/ Enlarge: Between 1-2, 2-3 and 1-3 in the figure.
   Magnification calculation: Length of the copy /Length of the test chart = xxx%
   Check the adjustment result.
   - SS (slow scan direction) magnification Side 2 specified value: 100+/-0.8 %

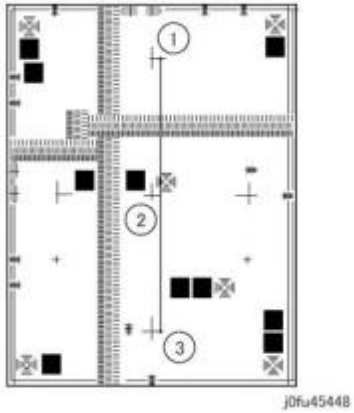


Figure 2 fu45448

Adjust

<Side2>

1. Side 2's Slow Scan % is adjusted automatically by adjusting Side1.
   If Side 2 cannot be adjusted by the above method, adjust in the same manner as"NVM716-069".

ADJ 56.1.5 DADF Trail Edge Registration Adjustment

Purpose

To set the DADF Scan Position (original scan position) Trail Edge (Slow Scan Direction).

NOTE

The following adjustments must be made before carrying out checking and adjustment.

- System Registration Adjustment (ADJ 18. 1. 1)
- IIT Lead/Side Registration (ADJ 1. 1.2) (ADJ 1. 1.3)
- DADF Lead-Skew Adjustment (ADJ 56. 1. 1)
- DADF Slow Scan % Adjustment (ADJ 56.1.4)

Check

<Side1>

1. Load the document correctly such that it is about 30 mm shorter than the standard size, and there is a reference point 10 mm from the trail edge of the document, with the scan side face up, and ensure that there is no gap between the document and the guide of the DADF.
2. Set the following conditions, and take a copy, and this will be the original.
   Output Color: Black
   Paper Tray: A3
   Reduce/Enlarge: 100% (No Reduce)
   Edge erase setting value: "0 mm"
   No. of copies: 5
   2 Sided Copying: 1→ 1 Sided
3. Measure the value from the image trail edge to the reference point (part A of the diagram) of the 3rd output sheet. (Figure 1)
   Check that the measured value is within the specified value.
   If the value is not specified, carry out the following adjustment procedure.
   Trail Regi Side1 specified value: 9+-0.5 mm

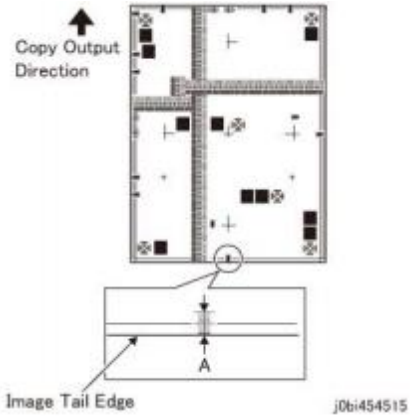


Figure 1 bi454515

Adjust

<Side1>

1. Enter the Diag Mode and select [DC131 NVM Read/Write].
2. Adjust "NVM711- 142"*so the Trail Edge (A) value measured in the check step 3, is within the specified value.
   - When the measured value is equal to or less than the specified value, increase the value of the NVM.
   - When the measured value is equal to or greater than the specified value, reduce the value of the NVM.

   (1 Step in NVM = 0.1 mm)
3. Check the adjustment result and perform a re-adjustment.
   Repeat Check Steps 1 to 3 and Adjustment Steps 1 to 2 until the measurement is within the specified range.
   *: In this DADF, when NVM711- 142 is rewritten, NVM711-021 to 023 are also rewritten to the same value.
   To change the correction value for each reading speed, enter a correction value for each reading speed. The default setting does not have an adjustment for each speed.

No.	NVM	Scan Speed (mm/s)	Remarks
1	711-142	For all reading speeds	Does not affect the other adjustment values.
2	711-042	330	It becomes the same value when 711-142 is changed
3	711-043	220	It becomes the same value when 711-142 is changed

Check

<Side2>

1. Load the document correctly such that it is about 30 mm shorter than the standard size, and there is a reference point 10 mm from the trailing edge of the document, with the scan side face down, and ensure that there is no gap between the document and the guide of the DADF.
2. Set the following conditions, and take a copy, and this will be the original.
   Output Color: Black
   Paper Tray: A3
   Reduce/Enlarge: 100% (No Reduce)
   Edge erase setting value: "0 mm"
   No. of copies: 5
   2 Sided Copying: 2→ 1 Sided
3. Measure the value from the image trail edge to the reference point (part A of the diagram) of the Side 2 copy of the 3rd output sheet. (Figure 2)
   Check that the measured value is within the specified value.
   If the value is not specified, carry out the following adjustment procedure.
   Trail Regi Side2 specified value: 9+/-0.5 mm

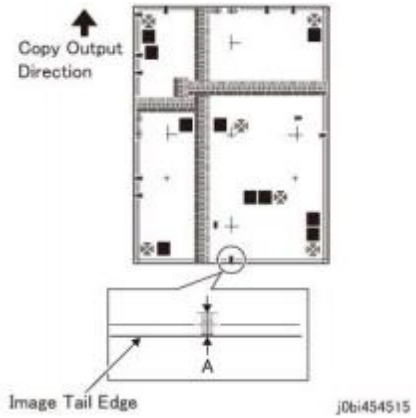


Figure 2 bi454515

Adjust

<Side2>

1. Enter the Diag Mode and select [DC131 NVM Read/Write].
2. Adjust [NVM 711-143]* so that the Lead Edge (A) value measured in the Check Step 3 is within specification.
   - When the measured value is equal to or less than the specified value, increase the value of the NVM.
   - When the measured value is equal to or greater than the specified value, reduce the value of the NVM.
     (1 Step in NVM = 0.1 mm)
3. Check the adjustment result and perform a re-adjustment.
   Repeat Check Steps 1 to 3 and Adjustment Steps 1 to 2 until the measurement is within the specified range.
   *: When rewriting NVM711-143, NVM711-062 and 711-063 are also rewritten to the same value.
   To change the correction value for each reading speed, enter a correction value for each reading speed. The default setting does not have an adjustment for each speed.

No.	NVM	Scan Speed (mm/s)	Remarks
1	711-143	For all reading speeds	Does not affect the other adjustment values.
2	711-062	330	It becomes the same value when 711-143 is changed
3	711-063	220	It becomes the same value when 711-143 is changed

ADJ 56.1.6 DC527 ADF Independent Operation

NOTE

For details, refer to ADJ 57.1.6.

Chapter 5 Parts List

(Please refer to the Excel version)

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6 General

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6.1 Specifications

6.1.1 Product Name/FWSS Code/Product Code/Serial No.

Table 1 [Main Unit]

Product Name	Model Name	PPM	Platen/DADF	SSD/eMMC	Product Code	FWSS Code	Serial No.
BM270	CP	25	Platen	SSD	NC200261	MB3060P2	220001~225000
BM270	CP	25	Platen	SSD	NC200261	MB3060P3	220001~225000
BM330	CP	30	Platen	SSD	NC200261	MB3060P4	220001~225000
BM330	CP	30	Platen	SSD	NC200261	MB3060P5	220001~225000
BM270	CPF	25	DADF-110	SSD	NC200262	MB3060A2	230001~240000
BM270	CPF	25	DADF-110	SSD	NC200262	MB3060A3	230001~240000
BM330	CPF	30	DADF-110	SSD	NC200262	MB3060A4	230001~240000
BM330	CPF	30	DADF-110	SSD	NC200262	MB3060A5	230001~240000
BM270	CPFS	25	DADF-110	SSD	NC200262	MB3060A6	230001~240000
BM270	CPFS	25	DADF-110	SSD	NC200262	MB3060A7	230001~240000
BM330	CPFS	30	DADF-110	SSD	NC200262	MB3060A8	230001~240000
BM330	CPFS	30	DADF-110	SSD	NC200262	MB3060A9	230001~240000
BM270	CPS	25	DADF-110	SSD	TL200729	-	450001~490000
BM330	CPS	30	DADF-110	SSD	TL200730	-	450001~490000
BM420	CPS	35	DADF-110	SSD	TL200731	-	450001~490000
BM270	CPS	25	DADF-110	SSD	TL200723	-	530001~550000
BM330	CPS	30	DADF-110	SSD	TL200724	-	550001~560000
BM420	CPS	35	DADF-110	SSD	TL200725	-	560001~580000

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6.1.2 Other Option Configurations

6.1.2.1 DADF/Tray/IIT/ Exit/Output Options

Option Product Name	Product Code	Functions provided/overview of required installation options	CP(eMMC)	CP	CPS	MOD
DADF	QC100195	Device for feeding multiple sheets of originals automatically. Inverts originals and performs 2 sided document scan. Able to stack up to 110 sheets.	Op.	Std.	Std.	151V
1 Tray Module *1	EC104653	Additional Tray Module . Up to 2 levels of Paper Tray is now possible .	Op.	Op .	Op.	168V
1 Tray Module with Cabinet *1	EC104654	Additional Tray Module with Cabinet . Up to 2 levels of Paper Tray is now possible.	Op.	Op .	Op.	167V
3 Tray Module *1	EC104655	Additional Tray Module . Up to 4 levels of Paper Tray is now possible .	Op.	Op .	Op.	170V
Side Tray	EC104657	For collated output .	Op.	Op .	Op.	190V
Exit Lower Full Stack Sensor Kit	EC103113	Exit 1 Lower Tray Full Stack Kit; Tray (Lower) Full Detection Kit	Op.	Op .	Op.	201V
Exit2 Tray*2	EC104656	For inner collated output .	Std.	Std.	Std.	200V
Finisher A2*2	QC100205	For Finisher A2 . Stack, Collate, Staple (single, 50 sheets) .	Op.	Op .	Op.	171V
Finisher-B4 *2 *3	QC100238	Stack, Collate, Staple (50 sheets) .	Op.	Op.	Op.	172V
Finisher-B5 *2 *3	QC100206	Stack, Collate, Staple (Staples/ Staple-Free) .	Op.	Op .	Op.	172V
Kit Finisher- B INST	EC104658	For Finisher B . Required when installing Finisher B.	Op. b	Op . b	Op. b	-
Booklet Maker Unit for Finisher- B	EC104194	For Finisher B series.	Op. b	Op . b	Op. b	182V
2 / 4 Hole Punch Kit for Finisher- B	EC104195	For Finisher B series. The gap between 2 holes is 80 mm.	Op. b	Op . b	Op. b	183V
US 2 / 3 Hole Punch Kit for Finisher- B	EC104196	For Finisher B series. The gap between 2 holes is 70 mm .	Op. b	Op . b	Op. b	184V
Wing Table	EC104201	Can be installed to the left side only. Required when installing the IC Card Reader. Can be used to mount accessories.	Op.	Op .	Op.	192V
Attention Light II	EC100639/ E9100211	Sound and light to notify the status of the MFD .	Op.	Op .	Op.	228V
Assist Handle	EC101037/ E9100212	Custom tool for closing the Platen Cover/ DADF.	Op.	Op .	Op.	156V
PowerCord (Aus/ NZL)	ED200145	Required option for Australia and New Zealand .	Op.	Op .	Op.	-
PowerCord (SIN/ MAS/ HKG)	ED200146	Required option for Singapore, Malaysia, and Hong Kong .	Op.	Op .	Op.	-
PowerCord (THA/ INA/ VIE)	ED200147	Required option for Thailand, Indonesia, and Vietnam .	Op.	Op .	Op.	-
PowerCord (PHI)	ED200148	Required option for the Philippines.	Op.	Op.	Op.	-
Power Cord (KOR)	ED200168	Required option for Korea.	Op.	Op.	Op.	-

- Std.: Standard
- Op.: Optional
- a : 1 Tray Module
- b : Finisher-B4/B5

NOTE

- *1: The 1 Tray Module, 1 Tray Module with Cabinet, and 3 Tray Module cannot be installed together.

- *2: The Exit 2 Tray, Finisher A2, Finisher B4, and Finisher B5 cannot be installed together.
- *3: Finisher B4/B5 can only be installed when either the 1 Tray Module with Cabinet or the 3 Tray Module option is installed.

6.1.2.2 Printer Options

Option Product Name	Product Code	Functions provided/overview of required installation options	SW Key	CP(eMMC)	CP	CPS	MOD
Secondary Ethernet Kit	EC103656	Enables connection to 2 different Ethernet Networks. Enables printing in 2 completely independent Network Environments.	-	Op .	Op .	Op .	238V
Adobe(R) PostScript(R) 3 TM Kit	EL201266	FBAP dedicated Adobe(R) PostScript(R) 3 TM Kit (without Font ROM) . (Common to ENG/ FBKR/ FBTW/ FBCN) . Requires the Adobe PostScript3 Label Kit.	Yes	Op . r	Op . r	Op . r	213V
Adobe PostScript3 Label Kit	ED201136	Label for PostScript. Required when ordering the Adobe(R) PostScript(R) 3 TM Kit (EL201266) . Affix this Label to the IOT.	-	Op .	-	-	-
Multi- Language Font Kit* 1	EC104208	Enables Japanese/ Korean/ Chinese 2 - byte character output by specifying UTF- 8 character encoding.	-	Op .	Op .	Op .	215V
Wireless Network Kit 2	EC104218	Adapter type . Wireless LAN that utilizes Bluetooth LE .	-	Op .	Op .	Op .	855V
TC/ SC Additional Fonts Kit	EL201267	TC/ SC 4 Font ROM Provided for Greater China Office. Includes 3 Chinese fonts: KaiTi, HeiTi, and FangSong that are required in MFD (Multi Function Display) of E/TC/SC/K. ShunSong font is standard for MFD of E/ TC/SC/K.	Yes	Op.	Op.	Op.	-

- Std.: Standard
- Op.: Optional
- r: Adobe PostScript3 Label Kit.

NOTE

*1: This product is to be installed by the customer.

6.1.2.3 Scanner Options

Option Product Name	Product Code	Functions provided/overview of required installation options	SW Key	DC	CP	CPS	MOD
Searchable PDF Kit	EL201268	When converting the scanned document data into PDF, this embeds transparent text data to create a PDF with text that can be searched (Searchable PDF). Enables printing using PC-PR201H, HP-GL, HP-GL2/RTL, PCL5, PCL6.	Yes	Op. g	Op. g	Op .	223V
High Compression Image Kit	EC103888	Required for High Compression Scan and Specific Color Scan . Requires the Scanner Kit.	Yes	Op. g	Op. g	Op .	222V
USB Memory Kit * 1	EL201270	This makes it possible to directly print image data or document format data that has been written into the media or USB memory stick from the MFD and also enables scanned documents to be saved directly into a USB memory stick. Scan to USB requires the Scanner Kit. USB Cable is an other bundled item.	Yes	Op. g u	Op. g u	Op .	241V
USB Memory Kit HW	EC104649	USB Cable of USB Memory Kit. Requires the USB Memory Kit .	-	Op. g	Op. g	Op .	-
External Access kit	EL201271	Enables direct access to web applications, downloading of scanned document, and direct printing of documents through a dedicated browser that is displayed on the Control Panel. Requires SSD storage. Requires Data Overwrite Kit (HW).	Yes	Op. o, s	Op. s	Op . s	224V

- Std.: Standard
- Op.: Optional
- g : Scanner Kit
- o : Storage(SSD)
- s : Data Overwrite Kit (HW)
- u : USB Memory Kit HW

NOTE

*1: Only one of the following can be installed: IC Card Reader B (Main Unit Embedded model), IC Card Reader B (Wing Embedded Model), IC Card Reader B (External Model), IC Card Reader D (Main Unit Embedded model), IC Card Reader D (Wing Embedded Model), IC Card Reader D (External Model), or 4Gnet-BOX.

6.1.2.4 FAX Options

Option Product Name	Product Code	Functions provided/overview of required installation options	SW Key	DC	CP	CPS	MOD
Fax Kit 3	EC103896	Standard G3 Fax, Paperless Fax, Mailbox, Address Book, Direct Fax, Internet Fax, Internet Fax Direct. Includes Internet Fax. Cannot be installed together with the Server Fax Kit.	-	Op .	Op.	Op.	250V
FAX Extension Board Kit3 * 1	EC103140	Required when installing the Additional G3 Port Kit 3 . Requires the Fax Kit 3 .	-	Op . e, f	Op. e, f	Op. e, f	263V
Additional G3 Port Kit 3 * 1	EC103129	Expansion for the G3 line. Up to 2 of these can be installed. Requires the Fax 3 Kit and the Fax Extension Board Kit 3 .	-	Op . e, f	Op. e, f	Op. e, f	251V
IP Fax (SIP) Kit	EL201272	Enables the sending of Fax via VoIP server. Also supports IP Fax transmission (SIP) to another IP Fax.	Yes	Op .	Op.	Op.	256V
Paperless Fax Delivery Kit	EC104367	Automatically sort incoming documents by number. Can be configured with schedule. Requires the Fax Kit 3 . Requires SSD storage.	-	Op . e, o	Op. e	Op.	854V
Stamp Kit	EC103141	For DADF- 110 Places a stamp on a document that has been scanned with the Duplex Automatic Document Feeder when sending Fax. Requires the Fax Kit 3 and the Duplex Automatic Document Feeder (110-sheet model).	-	Op. e,h	Op. e	Op.	258V

- Std.: Standard
- Op.: Optional
- e : Fax Kit 3
- f : FAX Extension Board Kit3
- h : DADF
- o : Storage(SSD)

NOTE

* 1 : Can be expanded up to 3 ports (G3 - 3 ports). Up to three lines can be connected and the number of ports indicates the number of channels that are available for communication.

6.1.2.5 Security Options

Option Product Name	Product Code	Functions provided/overview of required installation options	SW Key	DC	CP	CPS	MOD
Copy Management Expansion Kit	EL201273	Prevents data leakage due to illegal copying of copy/ print documents by printing watermark text. Prints the watermark text at custom position on the hardcopy when performing Copy/ Print. (Provision of Overwrite + Encryption features) Requires SSD storage.	Yes	Op . o	Op .	Op.	-
Remote Authentication Kit	EL201265	Enables authentication (LDAP, Kerberos, SMB, AWAA). Requires SSD storage.	Yes	Op . o	Op.	Op.	206V

- Std.: Standard
- Op.: Optional
- o : Storage(SSD)

6.1.2.6 Storage Options

Option Product Name	Product Code	Functions provided/overview of required installation options	SW Key	CP(eMMC)	CP	CPS	MOD
Storage(SSD)	EC103833	Added to eMMC device of CP Model .	-	Op .	Std.	Std .	203 V
Data Overwrite Kit	EC103914	HDD (160GB)	-	Op .	Op.	Op .	-

- Std.: Standard
- Op.: Optional

6.1.2.7 Authentication Related Options

Option Product Name	Product Code	Functions provided/overview of required installation options	CP(eMMC)	CP	CPS	MOD
Embedded IC Card Reader B* 1	EC104662	Supports multiple types of IC Card such as FeliCa, MiFare HID Prox, HID iClass, EM Prox, Indala Prox. Connects with OMNIKEY(R) 5127CK-Mini Reader Board made by HID Global. An IC Card Reader can be embedded in the left part of the color Control Panel. Requires SSD storage.	Op. o	Op.	Op.	883V
Embedded IC Card Reader B for Wing Table* 1	EC104663	Supports multiple types of IC Card such as FeliCa, MiFare HID Prox, HID iClass, EM Prox, Indala Prox. Connects with OMNIKEY(R) 5127CK-Mini Reader Board made by HID Global. Embed the IC Card Reader in front of the Wing Table. Requires SSD storage. Requires the Wing Table.	Op. o, c	Op. c	Op. c	883V
External IC Card Reader B* 1	EC104665	Supports multiple types of IC Card such as FeliCa, MiFare HID Prox, HID iClass, EM Prox, Indala Prox. Connects with OMNIKEY(R) 5127CK-Mini Reader Board made by HID Global. Requires SSD storage. Requires a mount, such as the Wing Table and the Kit Table Large.	Op. o, c or m	Op. c or m	Op. c or m	883V
Server- less Authentication Kit	EC104368	This is an option for sharing the User Information that is registered in one MFD with multiple MFDs that are linked to it. Up to a maximum of 31,500 users can be registered. Requires SSD storage.	Op. o	Op.	Op.	880V

- Std.: Standard
- Op.: Optional
- c : Wing Table
- m : Kit Table Large
- o : Storage (SSD)

NOTE

- *1: Only one of the following can be installed: Embedded IC Card Reader B, Embedded IC Card Reader B for Wing Table, External IC Card Reader B or 4Gnet-BOX.

6.1.2.8 Image Related Options

Option Product Name	Product Code	Functions provided/overview of required installation options	SW Key	DC	CP	CPS	MOD
Image Log Kit	EL201274	This adds a Job Log - such as the Job Owner, the Usage Time, the Quantity, etc. for the purpose of billing/management to the document images of the Job that was performed. Requires SSD storage.	Yes	Op. o	Op.	Op .	268V
Image Log Kit (Adobe PostScript)	EL201275	Supports Adobe PostScript . This adds a Job Log - such as the Job Owner, the Usage Time, the Quantity, etc. for the purpose of billing/management to the document images of the Job that was performed. When Adobe(R) PostScript(R) 3TM Kit is also installed, select Image Log Kit (Adobe PostScript). Requires SSD storage.	Yes	Op. o. d	Op . d	Op . d	268V

- Std.: Standard
- Op.: Optional
- d : Adobe(R)PostScript(R)3TM Kit
- o : Storage (SSD)

6.1.2.9 Condensation Prevention Kit/Other Options

Product Name	Product Code	Functions provided/overview of required installation options	CP(eMMC)	CP	CPS	MOD
KIT HEATER (IIT)	EC103274	100V/200V	Op .	Op .	Op .	292V
KIT HEATER (IOT)	EC101901	200V	Op .	Op .	Op .	293V
Anti Earthquake Kit * 1	ZB38	Floor Anchor Type.	Op.	Op.	Op.	290V

- Std.: Standard
- Op.: Optional

NOTE

* 1: Production will only start after we receive an order from the customer. Note that delivery will take some time.

6.1.2.10 EP Related Product Options

Product Name	Product Code	Remarks	MOD
4 Gnet- BOX	Q9100016/ Q9100020	This provides communication between the device and [FUJIFILM Business Innovation EP Center] through wireless (4 G). Due to the USB connection with the device, depending on the model, the USB Expansion Kit might be required.	374V
IC Card Cashier	Q9100007/ Q9100022	E- money Payment Terminal that supports University Co- Op IC Card / IC Card (Type A) / NEC common format IC Card / GCS format IC Card. Bundled with IC Card Cashier unit/ AC adapter/ Key.	322V
Connection BOX 1 for EM	Q9100009	Supports transport system e- money such as Suica and PASMO . This is a Small Amount Payment Terminal connecting device for relaying the R/ W of transport system e- money.	346V
Coin Cashier	Q9100021	Device I/ F : EPA	320V
Coin Cashier 9	Q9100012	Device I/ F : EPA	320V
Dispenser2	WU63/ E9100207	Device I/ F : EPA	321V
Adaptor- BOX type D	T9100059/ T9100095	Device I/ F : EPA	339V
Accessory Installation Kit A	EC104221	Install the Table (Large) on the Right side of the Main Unit .	-
Accessory Installation Kit B	EC104204	Install the Table (Small) on the Right side of the Main Unit.	-
Dispenser 2/ MC connection cable	E9100067/ E9100049	Use (E9100067(230 cm)) when placing table on the left. Use (E9100049(80 cm)) when placing table on the right.	-

6.1.3 Configuration

This IOT is a monochrome print engine that uses the tandem type electro-photographic method with LED print head.

The resolution of the IOT Engine is 1200 x 1200 dpi.

The resolution of the IOT Engine is 1200 x 1200 dpi.

This IOT is a Multi-Function System that comprises a combination of System Controller, UI, IIT, and DADF.

IOT Overview

The IOT systems are in the following states in each mode.

Photoreceptor Type	DUC Type K EX1.5GP
Photoreceptor Diameter	φ30
Development Method (1 component, 2 components, etc.)	Dry bi- component development method
Engine Method (4 cycles, tandem, etc .)	Direct transfer monochrome engine
Toner component (crush method, polymerization method)	Polymerization method (EA- ECO toner), 6.5μm (K)
Exposure System	LPH Method
Transfer Method (charger, etc .)	Direct Transfer Method
Fusing System	Thermal pressure fusing method by Heat Roll (belt nip method)
Cleaning Method	EPG: Blade Method

6.1.4 Operation Mode

The following 5 operation modes are available.

Mode	State
Running Mode	Data receiving/ image creation/ recording (printing) operation mode
Ready Mode	When the system can enter the Running Mode immediately
Low Power Mode	The mode that reduces the power consumption more than the Ready Mode
Sleep Mode*	The mode that reduces the power consumption further more than the Low Power Mode.
Power OFF Mode	The controller is maintained with the programs in running state.

* Applies to the International Energy Star Program.

IOT Status

The IOT systems are in the following states in each mode.

	Running Mode	Ready Mode	Low Power Mode	Sleep Mode	Power OFF
Fusing System (Fusing Unit)	Maintaining the operating temperature	Maintaining the standby temperature	Maintaining at low temperature	Stop state	Stop state
Recording system (Transfer/ Developer, etc.)	Operating state	Stop state	Stop state	Stop state	Stop state
Exposure system (LPH)	Operating state	Stop state	Stop state	Stop state	Stop state
Fusing Fan	Temperature control in Rotate (slow) or Rotate (fast)	Temperature control in Stop or Rotate (slow)	Temperature control in Stop or Rotate (slow)	Stop state	Stop state
Marking Fan	Stop or Rotate (slow speed, high speed) with Temperature Control	Temperature control in Stop or Rotate (slow)	Temperature control in Stop or Rotate (slow)	Stop state	Stop state

	Running Mode	Ready Mode	Low Power Mode	Sleep Mode	Power OFF
ESS (Reference)	Operating state	Standby	Standby	Ready to receive	Stop state (with the programs maintained in running state)

6.1.5 Device Dimension and Basis Weight

- The following are the sizes and weights of the individual product models. (excluding toner)

Device Size

Protruding parts such as label recesses are not included. The minimum dimensions for Bypass Tray/Output Tray.

The tolerance is +/-5 mm.

Product Configuration	Configuration		Device Size (mm)		
	IN	Tray	Width	Depth	Height
Model- 1T	Platen	(Desktop)	590	659	689
Model- 2 TS	Platen	STM + Caster	590	659	882
Model- 2 T	Platen	1TM	590	659	1040
Model- 4 T	Platen	3TM	590	659	1040
Model- 1T	DADF-110	(Desktop)	590	659	768
Model- 2 TS	DADF-110	STM + Caster	590	659	962
Model- 2 T	DADF-110	1TM	590	659	1119
Model- 4 T	DADF-110	3TM	590	659	1119

Machine Weight

- Measurement Conditions:
  Excluding Options, Output Tray, Paper, and New Toner Cartridges. Including Power Cord.

Configuration	Main Unit Weight
IOT (including DADF- 110/IIT/Tray 1 + 3TM)	79.4 kg or lighter
IOT (including Platen/ IIT/ Tray 1)	49. 1 kg or lighter
DADF(DADF-110)	6 .6 kg or lighter
Platen Cover	2 .0 kg or lighter
3TM	26 kg or lighter
Caster Board	9 .2 kg or lighter
Finsher A2	11 .3 kg or lighter
Finisher B (including H- Tra)	27.3 kg or lighter
Booklet (For Finisher B)	9 .2 kg or lighter
Hole Punch (For Finisher B)	0 .7 kg or lighter
Extra Center Tray (Exit 2 Tray)	0 .8 kg or lighter
Side Tray	0 .7 kg or lighter
FAX Kit 3	1.0 kg or lighter

- Max Floor Weight Capacity (Reference value): 120 kg
  = Main Unit + DADF + Finisher B4 + Booklet + Hole Punch + Fax Kit 3 + Toner x1 + margin

6.1.6 Installation Space

- IOT+ Platen (Minimum Configuration) (Figure 1)

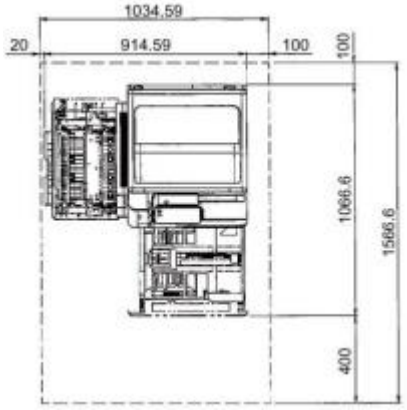


Figure 1 mbl610002

- IOT + STM + Caster Board (Figure 2)

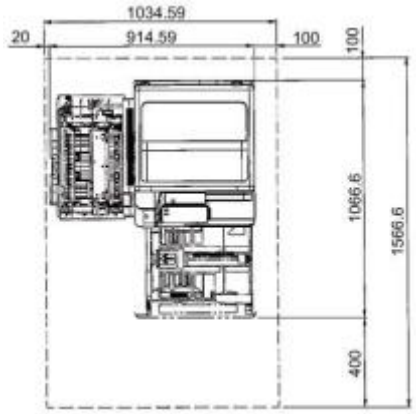


Figure 2 mbl610003

- IOT + 1TM + Tray Exit2 (Figure 3)

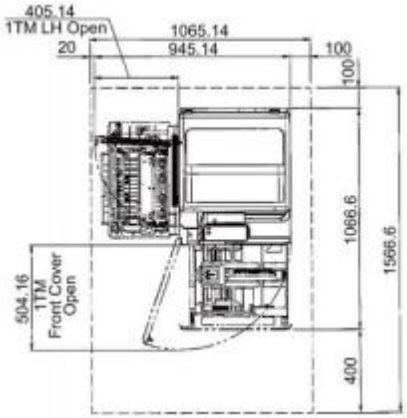


Figure 3 mbl610004

- IOT + FU Tray + 3TM (Figure 4)

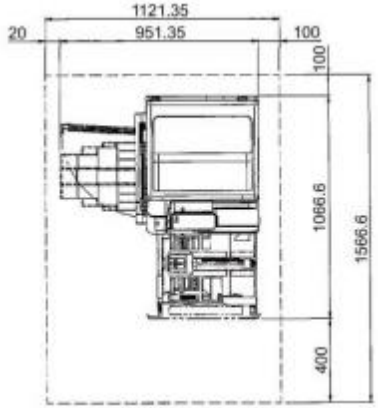


Figure 4 mbl610005

- IOT + DADF-110 + STM + Caster Board (Figure 5)

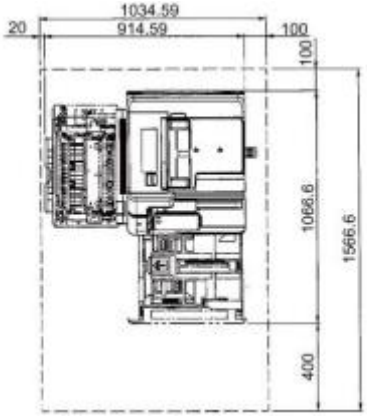


Figure 5 mbl610006

- IOT + DADF- 110 + 1TM + Tray Exit2 (Figure 6)

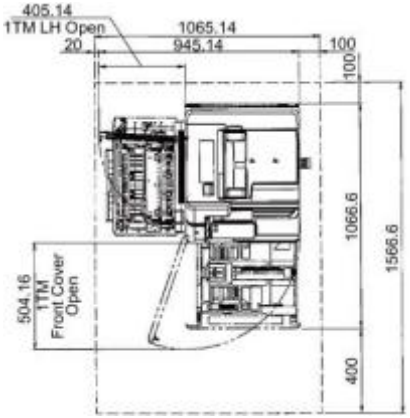


Figure 6 mbl610007

- IOT + DADF-110 + FU Tray + 3TM (Figure 7)

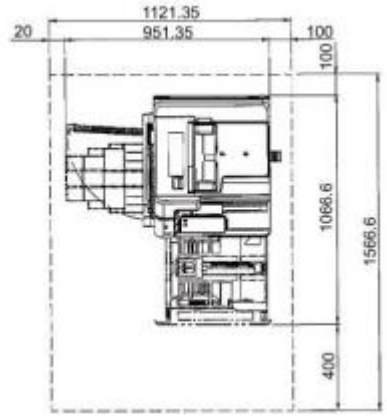


Figure 7 mbl610008

- IOT + DADF-110 + FU Tray + 3TM + A2 Finisher (Figure 8)

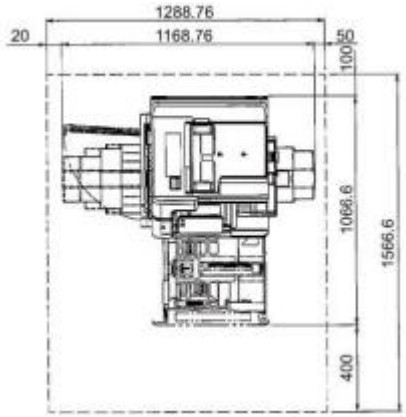


Figure 8 mbl610009

- IOT + DADF-110 + FU Tray + 3TM + B4 Finisher (Figure 9)



Figure 9 mbl610010

6.1.7 Occupied Space

- IOT+ Platen (Minimum Configuration) (Figure 1)

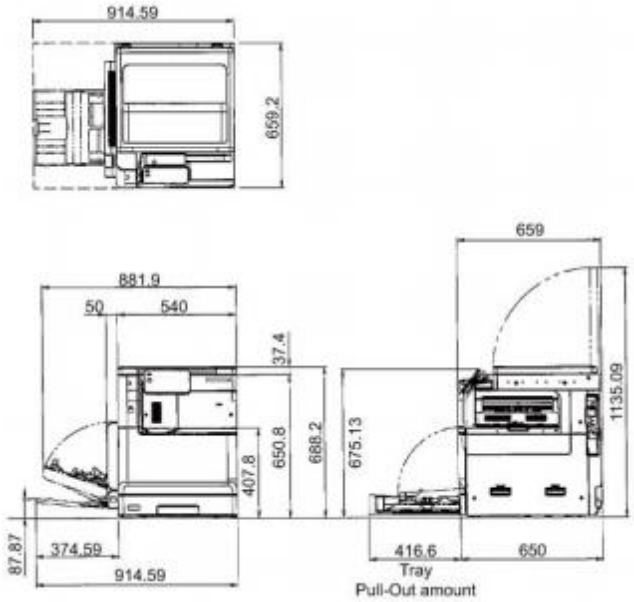


Figure 1 mbl610016

- IOT + STM + Caster Board (Figure 2)

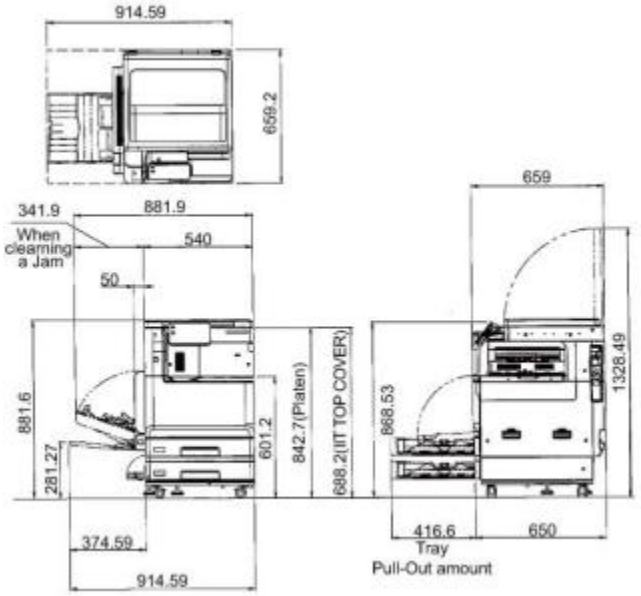


Figure 2 mbl610017

- IOT + 1TM + Tray Exit2 (Figure 3)

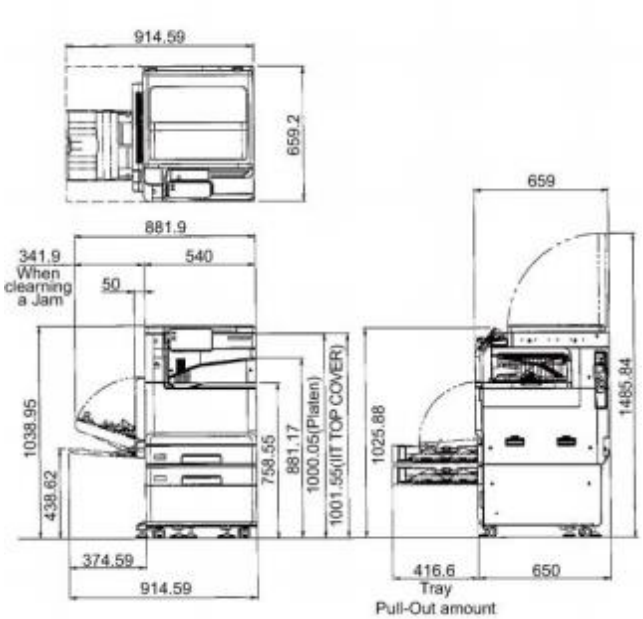


Figure 3 mbl610018

- IOT + FU Tray + 3TM (Figure 4)

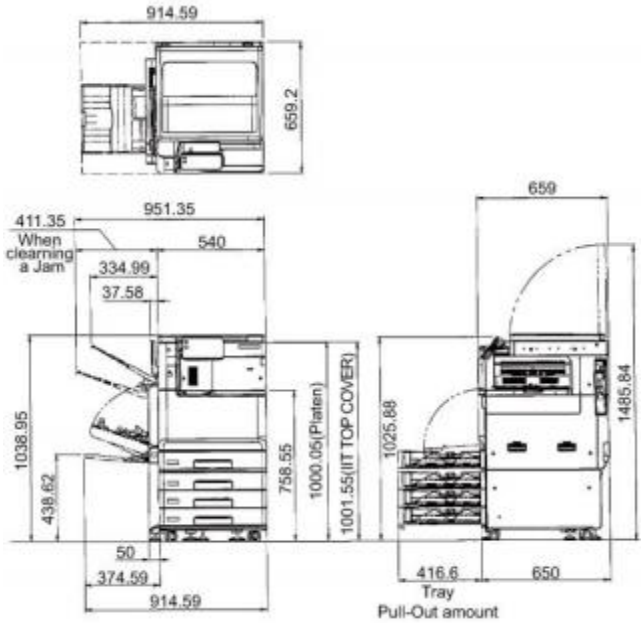


Figure 4 mbl610019

- IOT + DADF-110 + STM + Caster Board (Figure 5)

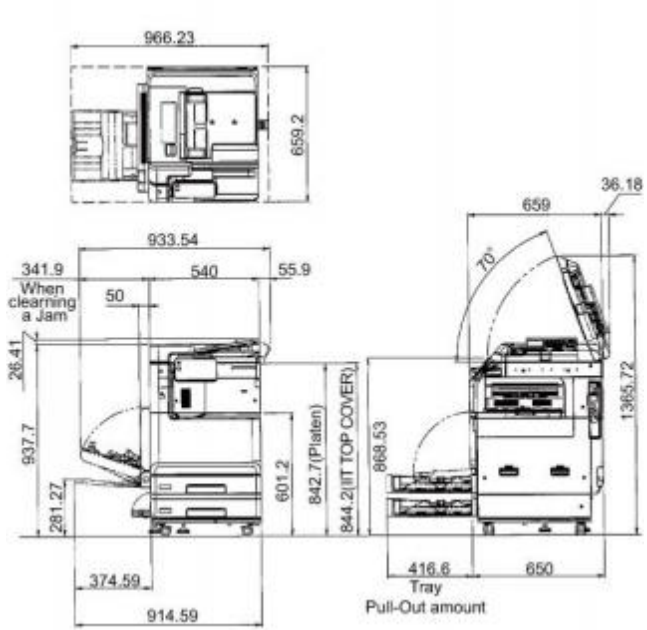


Figure 5 mbl610020

- IOT + DADF- 110 + 1TM + Tray Exit2 (Figure 6)

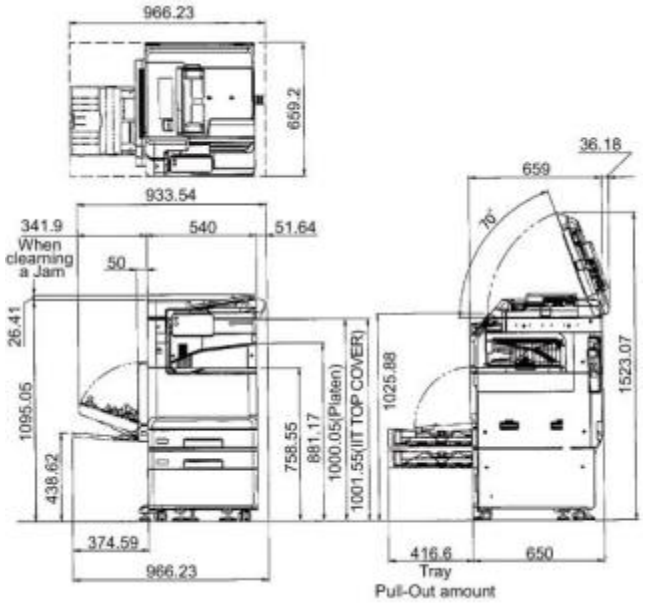


Figure 6 mbl610021

- IOT + DADF-110 + FU Tray + 3TM (Figure 7)

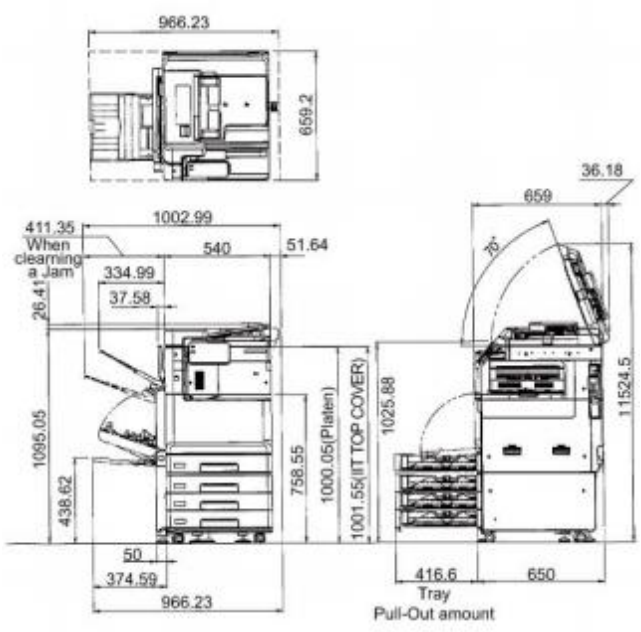


Figure 7 mbl610022

- IOT + DADF-110 + FU Tray + 3TM + A2 Finisher (Figure 8)

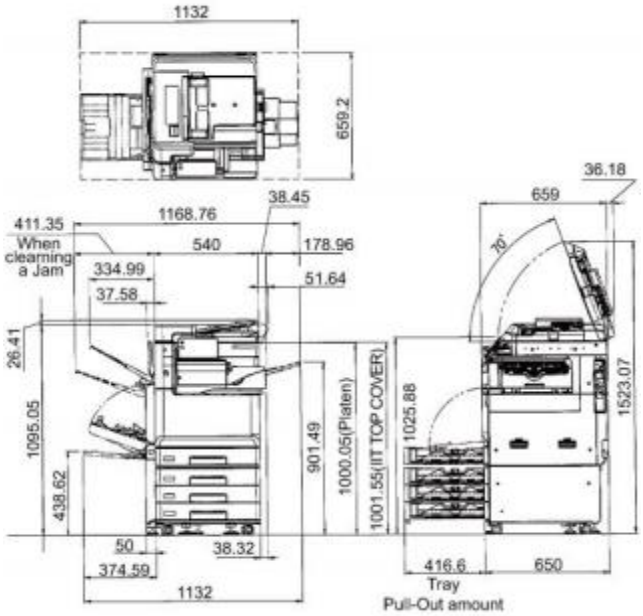


Figure 8 mbl610023

- IOT + DADF-110 + FU Tray + 3TM + B4 Finisher (Figure 9)

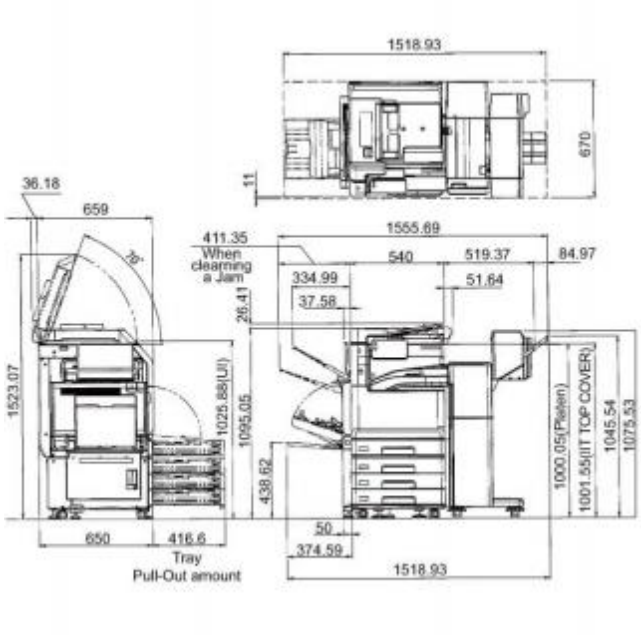


Figure 9 mbl610024

6.1.8 Levelness

As long as the machine is placed horizontally and the maximum difference under the Machine Cabinet (Casters) is within 5 mm between the front and the rear and 10 mm between the right and the left, there should not be any interference with its performance.

6.1.9 Operating Air Pressure

The machine operates normally in altitudes from 0 to 8,200 feet (0 to 2,500 m).

However, when the altitude exceeds 2,000 m, an adjustment in the field is required.

6.1.10 Electrical Properties

Specifies the power supply operating voltage/frequency and the power consumption.

6.1.10.1 Power-generated Voltage Frequency

Possessing an electric configuration that is applicable to the following power supply specifications:

Applicable Region	Source Voltage (V)	Rated Current (A)	Frequency (Hz)
FB	100V +/- 10%	15A	50/60+/-3%
FBAP	220 to 240V	20A	50/60+/-3%
FBTW	110V +/- 10%	15A	60+/-3%

6.1.10.2 Maximum Power Consumption

The maximum power consumptions with full system are as shown in the following table.

Applicable Region	Voltage (V)	Power Consumption (kW)
FB	100V	1 .5 or lower
FBAP	220 to 240V	220 V: 1.76 or lower 240V: 1.92 or lower
FBTW	110V	110V: 1.65 or lower

6.1.11 Noise

The noise levels during the product model evaluation are as follows.

(If there is a 60 Hz machine, it is performed using the 60 Hz machine)

The measurement was carried out with ISO7779.

1. 18PPM: FB, 25PPM: FB/FBAP

Table 1 18PPM/25PPM

Item	18PPM				25PPM			
	Main Unit *6		Full System*1		Main Unit *6		Full System*1	
	Measured Value *5	Target Value	Measured Value *5	Target Value	Measured Value *5	Target Value	Measured Value *5	Target Value
Declared A-weighted sound power level during Standby (Unit: B) *2	3.17	4.10	3.17	4.10	3.17	4.10	3.17	4.10
Surrounding A characteristic power level during operation (Unit: B) *2	6.45	6.53	7.20	7.38	6.66	6.70	7.29	7.58
Declared A-weighted sound pressure level during Standby (reference) (Bystander position) (Unit: dB) *3	14.0	-	14.0	-	14.0	-	14.0	-
Declared A-weighted sound pressure level during operation (reference) (Bystander position) (Unit: dB) *3	47.4	-	55.0	-	49.5	-	55.8	-

2. 30PPM: FB/FBAP, 35PPM: FBAP

Table 2 30PPM/35PPM

Item	30PPM				35PPM			
	Main Unit *6		Full System*1		Main Unit *6		Full System*1	
	Measured Value *5	Target Value	Measured Value *5	Target Value	Measured Value *5	Target Value	Measured Value *5	Target Value
Declared A-weighted sound power level during Standby (Unit: B) *2	3.17	4.10	3.18	4.10	3.10	4.10	3.18	4.10

Table 2 30PPM/35PPM

Item	30PPM				35PPM			
	Main Unit *6		Full System*1		Main Unit *6		Full System*1	
	Measured Value *5	Target Value	Measured Value *5	Target Value	Measured Value *5	Target Value	Measured Value *5	Target Value
Surrounding A characteristic power level during operation (Unit: B) *2	6.17	6.80	7.30	7.63	6.77	6.85	7.35	7.66
Declared A-weighted sound pressure level during Standby (reference) (Bystander position) (Unit: dB) *3	14.0	-	13.9	-	14.3	-	13.9	-
Declared A-weighted sound pressure level during operation (reference) (Bystander position) (Unit: dB) *3	50.0	-	56.0	-	49.9	-	56.3	-

*1: Full SYSTEM CONFIG: Main Unit + Option *4
*2: LwAd: Declared A-weighted sound power level = measured LwA (1 device) + 0.3 B
*3: LpAm: Declared A-weighted sound pressure level (bystander position)
*4: DADF, Tray Module, Finisher, etc. that are set as options
*5: Also indicates the actual measured value.
*6: OCT OFF (default setting)

6.1.12 Installation Environment

This machine can be operated under the following conditions:

- Temperature: 10 to 32°C
- Humidity: 15 to 85% (with no condensation)
- Altitude: 0 m to 2500 m

6.1.13 Warm Up Time

The time required before print operation can start after the power is turned ON or after the Sleep Mode and the Low Power Mode is canceled is as follows.

Measurement Conditions	Rated at 23°C/65% RH. Toner Recovery and Setup Cycle are not included. However, a setup sequence that is entered with no condition is included.
Basic Configuration	Standard Main Unit

[Time until start of printing] *1

Config		AC	Warm Up Time*1		Recovery Time@ LPD*3	Recovery Time@ Part9100*3
			When CS/XCP is ON*2	When CS/XCP is OFF*2		
18	DC/ CF/ CPF	100V	28 sec or less	22 sec or faster	12 sec or faster	12sec and below (230V when measuring Part 9100)
25	CP/ CPS/ CPFS	100V			12 sec or faster	
	CPS	110V/220V			14 sec or less	
30	CP/ CPS/ CPFS	100V			12 sec or faster	
	CPS	110V/220V			14 sec or less	
35	CPS	110V/220V			14 sec or less	

- *1: When the Finisher is installed, it may take longer than the stated time.
- *2: The Factory Default Setting is ON.
- *3: Specifications differ depending on the port settings of the printer driver. The default setting in Japan is LPD.

6.1.14 FCOT

<Definition>

The time that is required since [Start] is pressed until the trail edge of paper is output to the specified output destination.

The measurement result is rounded to the second decimal place.

<How to Measure>

The value obtained by measuring the time that is required since [Start] is pressed until the paper trail edge is output to the specified output destination. The measured value excludes some specific conditions.

- Setting Conditions:

Document/ Paper Size and Orientation	A4 LEF document and A4 LEF paper document sizes must be detected before [Start] is pressed.
IIT/ DADF Status	If the Platen is used, the document size is detected when the Platen Cover is closed. When using the DADF, the document must already be loaded.
Tray Used	Tray 1
Copy Side Settings	1 Sided Covers
Paper Quality Settings	Plain
Quantity Settings	1 set
Reduce / Enlarge	100% (excluding the case of 100% Fine Adjustment)
Output Color	Black & White Only
Output Tray	Exit1
Face Up/ Down Output	Auto (Face Down output)
State of Fusing Unit	Fusing Unit must be in Ready state
UI	7.0" FUI Color UI
Others	Other application functions or optional functions must not be set. This excludes jobs that are performed immediately after power ON and recovery from Low Power Mode/Sleep Mode under specific conditions. - Drum Replacement/Specified Number of Drum Rotation - IBT/2nd BTR/ROS Replacement - Jam clearing - Change in internal environment/Specified time has passed
Background Suppression	OFF
ACC	OFF

- 18-sheet models FCOT

Table 1 18-sheet models FCOT

No.	Document Set Platen/ DADF	Output Tray	BW (PS : 126mm/s)
1	Platen	Exit1	5.9 sec or faster
2	DADF (110-sheet models)	Exit1	8.8 sec or faster

- 25-sheet models FCOT

Table 2 25-sheet models FCOT

No.	Document Set Platen/ DADF	Output Tray	BW (PS : 175mm/s)
1	Platen	Exit1	4.5 sec or faster
2	DADF (110-sheet models)	Exit1	7.5 sec or faster

- 30-sheet models FCOT

Table 3 30-sheet models FCOT

No.	Document Set Platen/ DADF	Output Tray	BW (PS : 175mm/s)
1	Platen	Exit1	4.5 sec or faster
2	DADF (110-sheet models)	Exit1	7.5 sec or faster

- 35-sheet models FCOT

Table 4 35-sheet models FCOT

No.	Document Set Platen/ DADF	Output Tray	BW (PS : 175mm/s)
1	Platen	Exit1	4.5 sec or faster
2	DADF (110-sheet models)	Exit1	7.5 sec or faster

6.1.15 Copy Speed

Continuous speed (ppm) of the print engine is defined as follows:

During output to Face Down Tray, taking the time from when the trail edge of the 1st sheet is output from the IOT exit area until the trail edge of the 11th sheet is output from the MC exit area to be t seconds, the no. of sheets that is printed in 1 minute is given by the formula: [(60/t)x10 for 1 Sided and (60/t)x20 for 2 Sided] as shown in the following table.

The numerical value for Duplex is IPM (Images Per Minute).

Limitations:

- This does not include the time for setup/cleaning/sagging.
- When automatic recognition of paper size at the MSI is in operation, it prints at the corresponding productivity rate of that paper size.
  However, if automatic recognition of paper size is in operation, the very first sheet will be printed at the same productivity rate as A3S or 17". After performing the cleaning of the 2nd BTR right after that, the second sheet onwards will be printed at the productivity rate of the paper sized determined from the first sheet.

IOT 18 Tray/Exit 1 (Paper Supply/Output)

Unit: ppm (1 Sided) or ipm (2 Sided)

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.1 mm or longer in the FS direction		216.1 to 297.0 mm in the SS direction and 182.1 mm or longer in the FS direction		297.1 to 364.0 mm in the SS direction and 182.1 mm or longer in the FS direction		364.1 to 432.0 mm in the SS direction and 182.1 mm or longer in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	18.0	18.0	14.0	15.0	12.0	9.0	10.0	8.0	126
Lightweight Cardstock Group *2	BW	18.0	18.0	14.0	15.0	12.0	9.0	10.0	8.0	126
Cardstock Group *3 *4	BW	9.9	-	7.2	-	6.3	-	5.4	-	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	8.0	7.1	8.0	7.1	8.0	7.1	8.0	7.1	126
Lightweight Cardstock Group *2	BW	8.0	7.1	8.0	7.1	8.0	7.1	8.0	7.1	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Cardstock Group *3 *4	BW	5.4	-	5.4	-	5.4	-	5.4	-	63

*1: Plain group = Bond, Plain, Recycled, Blank Side (2 Sided not available for Blank Side)
*2: Lightweight Cardstock group = Lightweight Cardstock, Lightweight Glossy Cardstock, Labels (2 Sided not available for Lightweight Cardstock Side 2, Lightweight Glossy Cardstock Side 2, Labels)
*3: Cardstock Group [Tray Feed]: Cardstock/Heavyweight Cardstock, Glossy Cardstock/ Heavyweight Glossy Cardstock, Heavyweight Labels/Extra Heavyweight Labels
*4: Cardstock Group [MSI Feed]: Cardstock, Glossy Cardstock, Heavyweight Labels, Envelope, Postcard

IOT 18 MSI/Exit 1 (Paper Supply/Output)

Unit: ppm (1 Sided) or ipm (2 Sided)

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.1 mm or longer in the FS direction		216.1 to 297.0 mm in the SS direction and 182.1 mm or longer in the FS direction		297.1 to 364.0 mm in the SS direction and 182.1 mm or longer in the FS direction		364.1 to 432.0 mm in the SS direction and 182.1 mm or longer in the FS direction		432.1 to 483.0 mm in the SS direction and 182.1 mm or longer in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	17.0	18.0	13.0	15.0	11.0	8.0	9.6	7.1	8.0	6.3	126
Lightweight Cardstock Group *2	BW	17.0	18.0	13.0	15.0	11.0	8.0	9.6	7.1	8.0	6.3	126
Cardstock Group *3 *4	BW	9.5	-	7.0	-	6.1	-	5.4	-	4.4	-	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		432.1 to 483.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	8.0	7.1	8.0	7.1	8.0	7.1	8.0	7.1	8.0	6.3	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		432.1 to 483.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Lightweight Cardstock Group *2	BW	8.0	7.1	8.0	7.1	8.0	7.1	8.0	7.1	8.0	6.3	126
Cardstock Group *3 *4	BW	5.4	-	5.4	-	5.4	-	5.4	-	4.4	-	126

*1: Plain group = Bond, Plain, Recycled, Blank Side (2 Sided not available for Blank Side)

*2: Lightweight Cardstock group = Lightweight Cardstock, Lightweight Glossy Cardstock, Labels (2 Sided not available for Lightweight Cardstock Side 2, Lightweight Glossy Cardstock Side 2, Labels)

*3: Cardstock Group [Tray Feed]: Cardstock/Heavyweight Cardstock, Glossy Cardstock/ Heavyweight Glossy Cardstock, Heavyweight Labels/Extra Heavyweight Labels

*4: Cardstock Group [MSI Feed]: Cardstock, Glossy Cardstock, Heavyweight Labels, Envelope, Postcard

IOT 25 Tray/Exit 1 (Paper Supply/Output)

Unit: ppm (1 Sided) or ipm (2 Sided)

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.1 mm or longer in the FS direction		216.1 to 297.0 mm in the SS direction and 182.1 mm or longer in the FS direction		297.1 to 364.0 mm in the SS direction and 182.1 mm or longer in the FS direction		364.1 to 432.0 mm in the SS direction and 182.1 mm or longer in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	25.0	26.0	19.0	20.0	16.0	10.0	14.0	9.4	175
Lightweight Cardstock Group *2	BW	25.0	25.0	19.0	19.0	16.0	10.0	14.0	9.4	126
Cardstock Group *3 *4	BW	12.0	-	9.0	-	8.0	-	7.0	-	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	11.0	8.3	11.0	8.3	11.0	8.3	11.0	8.3	175
Lightweight Cardstock Group *2	BW	11.0	8.3	11.0	8.3	11.0	8.3	11.0	8.3	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Cardstock Group *3 *4	BW	7.0	-	7.0	-	7.0	-	7.0	-	126

*1: Plain group = Bond, Plain, Recycled, Blank Side (2 Sided not available for Blank Side)
*2: Lightweight Cardstock group = Lightweight Cardstock, Lightweight Glossy Cardstock, Labels (2 Sided not available for Lightweight Cardstock Side 2, Lightweight Glossy Cardstock Side 2, Labels)
*3: Cardstock Group [Tray Feed]: Cardstock/Heavyweight Cardstock, Glossy Cardstock/ Heavyweight Glossy Cardstock, Heavyweight Labels/Extra Heavyweight Labels
*4: Cardstock Group [MSI Feed]: Cardstock, Glossy Cardstock, Heavyweight Labels, Envelope, Postcard

IOT 25 MSI/Exit 1 (Paper Supply/Output)

Unit: ppm (1 Sided) or ipm (2 Sided)

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.1 mm or longer in the FS direction		216.1 to 297.0 mm in the SS direction and 182.1 mm or longer in the FS direction		297.1 to 364.0 mm in the SS direction and 182.1 mm or longer in the FS direction		364.1 to 432.0 mm in the SS direction and 182.1 mm or longer in the FS direction		432.1 to 483.0 mm in the SS direction and 182.1 mm or longer in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	21.0	240	16.0	19.0	14.0	9.9	13.0	9.1	11.0	8.3	175
Lightweight Cardstock Group *2	BW	21.0	22.0	16.0	17.0	14.0	9.9	13.0	9.1	11.0	8.3	126
Cardstock Group *3 *4	BW	11.0	-	8.7	-	7.8	-	7.0	-	5.9	-	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		432.1 to 483.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	11.0	8.3	11.0	8.3	11.0	8.3	11.0	8.3	11.0	8.3	175

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		432.1 to 483.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Lightweight Cardstock Group *2	BW	11.0	8.3	11.0	8.3	11.0	8.3	11.0	8.3	11.0	8.3	126
Cardstock Group *3 *4	BW	7.0	-	7.0	-	7.0	-	7.0	-	5.9	-	126

*1: Plain group = Bond, Plain, Recycled, Blank Side (2 Sided not available for Blank Side)

*2: Lightweight Cardstock group = Lightweight Cardstock, Lightweight Glossy Cardstock, Labels (2 Sided not available for Lightweight Cardstock Side 2, Lightweight Glossy Cardstock Side 2, Labels)

*3: Cardstock Group [Tray Feed]: Cardstock/Heavyweight Cardstock, Glossy Cardstock/ Heavyweight Glossy Cardstock, Heavyweight Labels/Extra Heavyweight Labels

*4: Cardstock Group [MSI Feed]: Cardstock, Glossy Cardstock, Heavyweight Labels, Envelope, Postcard

IOT 30 Tray/Exit 1 (Paper Supply/Output)

Unit: ppm (1 Sided) or ipm (2 Sided)

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.1 mm or longer in the FS direction		216.1 to 297.0 mm in the SS direction and 182.1 mm or longer in the FS direction		297.1 to 364.0 mm in the SS direction and 182.1 mm or longer in the FS direction		364.1 to 432.0 mm in the SS direction and 182.1 mm or longer in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	30.0	30.0	23.0	23.0	20.0	12.0	17.0	11.0	175
Lightweight Cardstock Group *2	BW	25.0	25.0	19.0	19.0	16.0	10.0	14.0	9.4	126
Cardstock Group *3 *4	BW	12.0	-	9.0	-	8.0	-	7.0	-	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	13.0	9.1	13.0	9.1	13.0	9.1	13.0	9.1	175
Lightweight Cardstock Group *2	BW	13.0	9.1	13.0	9.1	13.0	9.1	13.0	9.1	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Cardstock Group *3 *4	BW	7.0	-	7.0	-	7.0	-	7.0	-	126

*1: Plain group = Bond, Plain, Recycled, Blank Side (2 Sided not available for Blank Side)
*2: Lightweight Cardstock group = Lightweight Cardstock, Lightweight Glossy Cardstock, Labels (2 Sided not available for Lightweight Cardstock Side 2, Lightweight Glossy Cardstock Side 2, Labels)
*3: Cardstock Group [Tray Feed]: Cardstock/Heavyweight Cardstock, Glossy Cardstock/ Heavyweight Glossy Cardstock, Heavyweight Labels/Extra Heavyweight Labels
*4: Cardstock Group [MSI Feed]: Cardstock, Glossy Cardstock, Heavyweight Labels, Envelope, Postcard

IOT 30 MSI/Exit 1 (Paper Supply/Output)

Unit: ppm (1 Sided) or ipm (2 Sided)

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.1 mm or longer in the FS direction		216.1 to 297.0 mm in the SS direction and 182.1 mm or longer in the FS direction		297.1 to 364.0 mm in the SS direction and 182.1 mm or longer in the FS direction		364.1 to 432.0 mm in the SS direction and 182.1 mm or longer in the FS direction		432.1 to 483.0 mm in the SS direction and 182.1 mm or longer in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	26.0	260	21.0	21.0	18.0	11.0	15.0	10.0	14.0	9.0	175
Lightweight Cardstock Group *2	BW	21.0	22.0	16.0	17.0	14.0	9.9	13.0	9.1	11.0	8.3	126
Cardstock Group *3 *4	BW	11.0	-	8.7	-	7.8	-	7.0	-	5.9	-	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		432.1 to 483.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	13.0	9.1	13.0	9.1	13.0	9.1	13.0	9.1	11.0	8.3	175

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		432.1 to 483.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Lightweight Cardstock Group *2	BW	13.0	9.1	13.0	9.1	13.0	9.1	13.0	9.1	11.0	8.3	126
Cardstock Group *3 *4	BW	7.0	-	7.0	-	7.0	-	7.0	-	5.9	-	126

*1: Plain group = Bond, Plain, Recycled, Blank Side (2 Sided not available for Blank Side)

*2: Lightweight Cardstock group = Lightweight Cardstock, Lightweight Glossy Cardstock, Labels (2 Sided not available for Lightweight Cardstock Side 2, Lightweight Glossy Cardstock Side 2, Labels)

*3: Cardstock Group [Tray Feed]: Cardstock/Heavyweight Cardstock, Glossy Cardstock/ Heavyweight Glossy Cardstock, Heavyweight Labels/Extra Heavyweight Labels

*4: Cardstock Group [MSI Feed]: Cardstock, Glossy Cardstock, Heavyweight Labels, Envelope, Postcard

IOT 35 Tray/Exit 1 (Paper Supply/Output)

Unit: ppm (1 Sided) or ipm (2 Sided)

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.1 mm or longer in the FS direction		216.1 to 297.0 mm in the SS direction and 182.1 mm or longer in the FS direction		297.1 to 364.0 mm in the SS direction and 182.1 mm or longer in the FS direction		364.1 to 432.0 mm in the SS direction and 182.1 mm or longer in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	35.0	35.0	26.0	26.0	22.0	13.8	19.0	12.7	175
Lightweight Cardstock Group *2	BW	25.0	25.0	19.0	19.0	16.0	10.0	14.0	9.4	126
Cardstock Group *3 *4	BW	12.0	-	9.0	-	8.0	-	7.0	-	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	13.0	9.1	13.0	9.1	13.0	9.1	13.0	9.1	175
Lightweight Cardstock Group *2	BW	13.0	9.1	13.0	9.1	13.0	9.1	13.0	9.1	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Cardstock Group *3 *4	BW	7.0	-	7.0	-	7.0	-	7.0	-	126

*1: Plain group = Bond, Plain, Recycled, Blank Side (2 Sided not available for Blank Side)
*2: Lightweight Cardstock group = Lightweight Cardstock, Lightweight Glossy Cardstock, Labels (2 Sided not available for Lightweight Cardstock Side 2, Lightweight Glossy Cardstock Side 2, Labels)
*3: Cardstock Group [Tray Feed]: Cardstock/Heavyweight Cardstock, Glossy Cardstock/ Heavyweight Glossy Cardstock, Heavyweight Labels/Extra Heavyweight Labels
*4: Cardstock Group [MSI Feed]: Cardstock, Glossy Cardstock, Heavyweight Labels, Envelope, Postcard

IOT 35 MSI/Exit 1 (Paper Supply/Output)

Unit: ppm (1 Sided) or ipm (2 Sided)

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.1 mm or longer in the FS direction		216.1 to 297.0 mm in the SS direction and 182.1 mm or longer in the FS direction		297.1 to 364.0 mm in the SS direction and 182.1 mm or longer in the FS direction		364.1 to 432.0 mm in the SS direction and 182.1 mm or longer in the FS direction		432.1 to 483.0 mm in the SS direction and 182.1 mm or longer in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	28.0	28.0	23.0	23.0	20.0	13.0	18.0	12.0	16.0	11.0	175
Lightweight Cardstock Group *2	BW	21.0	22.0	16.0	17.0	14.0	9.9	13.0	9.1	11.0	8.3	126
Cardstock Group *3 *4	BW	11.0	-	8.7	-	7.8	-	7.0	-	5.9	-	126

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		432.1 to 483.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Plain Group *1	BW	13.0	9.1	13.0	9.1	13.0	9.1	13.0	9.1	11.0	8.3	175

Paper Type Settings	Output Color	216.0 mm or shorter in the SS direction and 182.0 mm or shorter in the FS direction		216.1 to 297.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		297.1 to 364.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		364.1 to 432.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		432.1 to 483.0 mm in the SS direction and 182.0 mm or shorter in the FS direction		Process Speed
		1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	1 Sided	2 Sided	
Lightweight Cardstock Group *2	BW	13.0	9.1	13.0	9.1	13.0	9.1	13.0	9.1	11.0	8.3	126
Cardstock Group *3 *4	BW	7.0	-	7.0	-	7.0	-	7.0	-	5.9	-	126

*1: Plain group = Bond, Plain, Recycled, Blank Side (2 Sided not available for Blank Side)

*2: Lightweight Cardstock group = Lightweight Cardstock, Lightweight Glossy Cardstock, Labels (2 Sided not available for Lightweight Cardstock Side 2, Lightweight Glossy Cardstock Side 2, Labels)

*3: Cardstock Group [Tray Feed]: Cardstock/Heavyweight Cardstock, Glossy Cardstock/ Heavyweight Glossy Cardstock, Heavyweight Labels/Extra Heavyweight Labels

*4: Cardstock Group [MSI Feed]: Cardstock, Glossy Cardstock, Heavyweight Labels, Envelope, Postcard

6.1.16 Paper Supply Tray

6.1.16.1 Paper Trays

Paper Trays refer to the type of trays, excluding the MSI, that are pulled out towards the front.

The standard installation for the MSI is on the left side of the IOT.

6.1.16.2 Paper Tray Characteristics

IOT/TM	TrayNO.	Supported Paper (Standard Size)	Supported Paper (Custom) (W x L) mm	Supported Paper Weight (gsm)	Storage Capacity *1	Remarks
IOT	NO. 1	Min: A5 S Max:A3S,11x17S	Min:139 .7 x 182.0 Max:297.0 x 431.8	60-256	560*2 500*3	Stack height: 54 mm
STM	NO.2	Min: A5 S Max:A3S,11x17S	Min:139 .7 x 182.0 Max:297.0 x 431.8	60-256	560*2 500*3	Stack height: 54 mm
1TM	NO.2	Min: A5 S Max:A3S,11x17S	Min:139 .7 x 182.0 Max:297.0 x 431.8	60-256	560*2 500*3	Stack height: 54 mm
3TM	NO.2	Min: A5 S Max:A3S,11x17S	Min:139 .7 x 182.0 Max:297.0 x 431.8	60-256	560*2 500*3	Stack height: 54 mm
	NO.3	Min: A5 S Max:A3S,11x17S	Min:139 .7 x 182.0 Max:297.0 x 431.8	60-256	560*2 500*3	Stack height: 54 mm
	NO.4	Min: A5 S Max:A3S,11x17S	Min:139 .7 x 182.0 Max:297.0 x 431.8	60-256	560*2 500*3	Stack height: 54 mm
IOT	NO.5 (MSI)	Min: Postcard *4, Envelope Max:A3S,11x17S	Min:88.9 x 98.4 Max:297.0x431.8*5	60-216	100*2 96*3	Stack height: 10mm The feed performance for paper with Feed direction length of shorter than 140 mm (Fusing Unit Jam removal performance) is not guaranteed.

*1: B Zone/Fresh Paper

*2: P Paper

*3: Standard for FBAP is 80 gsm

*4: The optimum output pattern will be applied only when [Heavyweight 2A] is selected for Paper Type and the specified Postcard Size is selected.

*5: Although the size that can be fed goes up to 297.0x482.6 mm, the performance is not guaranteed for paper with lengths exceeding 431.8 mm.

6.1.16.3 Remaining Paper Amount Detection

Tray	Detection & Notification	Remarks
Tray1-4	5 levels - 0%, 25%, 50%, 75%, and 100%	The MSI does not have this function

When the power is turned OFF during lift-up, if the power is turned ON again without removing the Tray or the Tray is inserted again while the Bottom Plate has not dropped, the remaining paper amount cannot be detected correctly.

6.1.17 Tray Size Factory Settings

The factory default size settings are as follows:

Tray		FB	FBAP
IOT Main Unit	NO . 1 Tray	Not defined * 1	Not defined * 1

*1: As long as the Tray Guide is set to a standard paper size, the size itself is not defined.

6.1.18 Classifications and Paper Types

Plain/Bond/Recycled/Blank Side/Custom Type 1 to 5/Lightweight Cardstock/Cardstock/ Heavyweight Cardstock are further classified into the following paper types.
The following tables show to which paper the various paper types are applied.

[FB/FBAP]

- Plain/Bond/Recycled/Blank Side/Custom Type 1 to 5:

Classification	Paper Type	Overview
Plain A	[60 to 79 gsm] (Normal)	The default [Plain] for FB/ FBAP
Plain B	[60 ~ 79gsm]	
Plain C	[60 to 79 gsm] (Recycled)	The default [Recycled] for FB/ FBAP
Plain D	[80 to 89 gsm] (Normal)	-
Plain E	[80 ~ 89gsm]	
Plain F	[90 to 105 gsm] (Normal)	The default for [Bond]
Plain G	[90 to 105 gsm] (Smear Countermeasure Mode) *1	
Plain S	[-] (No notation) For special settings (Custom)	NVM settings can be made for PH, Xfer, Fusing Unit

- Lightweight Cardstock

Classification	Paper Type	Overview
Heavyweight 1A	106 ~ 169gsm	The default value for [Lightweight Cardstock]
Heavyweight 1B	Custom(106 ~ 169gsm)	-
Heavyweight 1C	Custom(106 ~ 169gsm)	-
Heavyweight 1S	Custom(106 ~ 169gsm)	NVM settings can be made for PH, Xfer, Fusing Unit

- Cardstock/Heavyweight Cardstock

Classification	Paper Type	Overview
Heavyweight 2A	170 ~ 256gsm	The default value for [Cardstock] [Heavyweight Cardstock]
Heavyweight 2B	Custom(170 ~ 256gsm)	-

Classification	Paper Type	Overview
Heavyweight 2C	Custom(170 ~ 256gsm)	-
Heavyweight 2D	Custom(170 ~ 256gsm)	-
Heavyweight 2S	Custom(170 ~ 256gsm)	NVM settings can be made for PH, Xfer, Fusing Unit Smear Countermeasure Mode *1

*1: Smear Countermeasure Mode
Enabled when the applicable NVM is turned ON. The default value for [FB] is OFF. The default value for [FBAP] is ON. As the operation will always be in FC mode when the applicable NVM is turned ON, the productivity/FCOT during BW document output will be the same value as in FC mode.

- The factory default Paper Type Settings are as follows:

UI Paper Classification	FB	FBAP	Remarks
Bond	Plain F	Plain F	-
Plain	Plain A	Plain A	-
Recycled	Plain C	Plain C	-
Blank Side	Plain A	Plain A	-
Punched	-	Plain A	-
Letterhead	-	Plain A	-
PrePrinted	-	Plain A	-
Other	-	Plain A	-
Custom Type 1	Plain A	Plain A	-
Custom Type 2	Plain A	Plain A	-
Custom Type 3	Plain A	Plain A	-
Custom Type 4	Plain A	Plain A	-
Custom Type 5	Plain A	Plain A	-
Lightweight Cardstock	Heavyweight 1 A	Heavyweight 1 A	-
Cardstock	Heavyweight 2 A	Heavyweight 2 A	-
Heavyweight Cardstock	Heavyweight 2 A	Heavyweight 2 A	-
Labels	Labels	Labels	-
Heavyweight Labels	Heavyweight Labels	Heavyweight Labels	-
Extra Heavyweight Labels	Heavyweight Labels	Heavyweight Labels	-
Envelope	Envelope	Envelope	-

6.1.19 Auto 2-Sided Print

For the Paper Type and Paper Weight that can be used for Auto 2 Sided Print from all Trays including the MSI, refer to "6.1.18 Classifications and Paper Types".

The paper sizes that can be used for 2 sided print are as follows.

- Fast Scan Direction: 128.0 mm to 297.0 mm
  Slow Scan Direction: 139.7 mm to 431.8 mm (Tray), 139.7 mm to 482.6 mm (MSI)

Manual 2 Sided:

1 Sided print can be performed on the non-printed side of 1 Sided printed paper.

6.1.20 Output Function

6.1.20.1 Center Tray

Supported Size: All paper sizes handled by the machine

Capacity: The average values of the no. of sheets that can be accommodated are as follows (using fresh paper)

Configuration	Output Tray	Paper Type	B Zone	
			OCT Off	OCT On
Exit 2 Tray not available	Exit1	P Paper - A4 LEF	400	200
Exit 2 Tray available (option*)	Exit1	P Paper - A4 LEF	250	125
	Exit2	P Paper - A4 LEF	250	-

*: The availability of Exit 2 Tray is set at the NVM

The above is Simplex print

Capacity for A4 SEF and Letter SEF is not defined.

Full Stack Detection: Available for Exit 1 only (optional), Exit 2: None

Capacity: Able to align paper easily without errors in folding or collating.

(Sizes with paper width shorter than 177 mm may have errors in folding or collating.)

Output orientation: Face Down

6.1.20.2 OCT (Standard)

Paper width for operation: 297 mm

Paper length for operation: 432 mm

* Performance is not guaranteed for paper exceeding the above sizes

Roller movable distance: 26 mm (REF)

Capacity: Able to align paper easily without errors in folding or collating.

6.1.21 Resolution/Gradation

6.1.21.1 IOT Unit

- Resolution
  Fast Scan: 1200 dots/25.4 mm, Slow Scan: 1200 dots/25.4 mm
- Tone Characteristics
  256 Tone

6.1.21.2 At Printing

1. ART-EX (PCL), PostScript
   - Data resolution (Processing resolution in ESS)

Printing Type		Standard (Standard)	High Resolution (High Resolution)
BW	Data Resolution (dpi) Depth	600x600 1bit	1200x1200 1bit
	Gradation	256	256
	Process Speed (mm/ s) *1	175mm/s(30,35ppm) 126mm/s(18,25ppm)	175mm/s(30,35ppm) 126mm/s(18,25ppm)
IE (only black text) *1		ON	OFF (Not selectable)

   - Output Resolution (Printing resolution of IOT on receiving the above ESS data)

Printing Type		Standard (Standard)	High Resolution (High Resolution)
BW	Data Resolution (dpi) Depth	600x600 1bit	1200x1200 1bit
	Gradation	256	256
	Process Speed (mm/ s) *1	175mm/s(30,35ppm) 126mm/s(18,25ppm)	175mm/s(30,35ppm) 126mm/s(18,25ppm)

*1: IE = Image Enhancement

6.1.22 Paper Supply Feature

For the paper tray selection function, there is Auto Paper Selection (APS) and Auto Tray Switching (ATS).

Auto Paper Selection (APS): The system automatically selects a paper that matches the image size that is determined by the document size and reduce/enlarge ratio.

Auto Tray Switching (ATS): When the selected tray has run out of paper, the system automatically switches to another tray and continues to copy.

6.1.23 Image Loss

Each paper size has the following image loss.

- Lead edge: 4mm or less
- Side edge: 2 mm or less
- Tail edge: 2 mm or less

  * The amount of image loss edge erase can be changed by a CE.

6.1.24 Print Area

6.1.24.1 Paper Sizes that Can be Transported

The minimum and maximum paper sizes that can be fed to the Main Unit are as follows:

- Minimum feed paper size: 88.9 mm wide x 98.4 mm long
- Maximum feed paper size: 297.0 mm wide x 482.6 mm long (*)

*: The guaranteed paper size is up to 431.8 mm in length

6.1.24.2 Maximum Print Area

The printable area defines the area where the image can be printed. The maximum printable area of the Main Unit is as follows.

- Maximum printable area for Print Job: 293.0mm wide x 476.6 mm long
- Maximum printable area for Copy Job (both Platen/DADF): 293.0mm wide x 425.8 mm long

6.1.24.3 Guaranteed Print Area

The area where the image quality is guaranteed is referred to as Print Guaranteed Area. The Print Guaranteed Area of the Main Unit is as follows.

[Common for Print/Copy]

- Maximum print guaranteed area for Print Job: 289.0 mm wide x 423.4 mm long
- Maximum print guaranteed area for Copy Job (both Platen/DADF): 289.0 mm wide x 423.4 mm long

However, this print area is fully applied only when the Copy Job and Print Job use paper with size A3 SEF in width direction or 11x17" SEF in length direction.

6.1.25 Print Alignment Specification

Defines the specifications for Trays 1 to 4 and MSI.

Alignment Measurement Method and Specification (Calculated for 100%)

Alignment (Calculated for 100%)

"-" means a deviation in the Lead direction while "+" means a deviation in the Tail direction.

NOTE

Effect of paper elongation and shrinkage due to environmental changes is not included.

Table 1 (Upper Cassette IOT Side 1, Lower Cassette IOT Side 2)

Item	Tray	MSI*1	Conditions
Lead Registration	+/- 1.9mm +/- 2.3mm	+/- 2 .6mm -	
Side Registration	+/- 2.0mm +/- 2.4mm	+/- 3 .0mm -	
Lead Skew (200 mm)	+/- 1.5mm +/- 2.0mm	+/- 2 .0mm -	
Side Skew (400 mm)	+/- 3.0mm +/- 4.0mm	+/- 4 .0mm -	
Horizontal R/E Precision (All area) (100%)	+/- 0.6% +/- 0.6%	- -	100%
Vertical R/E Precision (All area) (100%)	+/- 0.6% +/- 0.6%	- -	100%
Linearity (Vertical)	0.8mm 0.8mm	- -	
Linearity (Horizontal)	0.8mm 0.8mm	- -	
Linearity (Diagonal)	0.8mm 0.8mm	- -	
Perpendicularity (400 mm)	+/- 2.1mm*2 +/- 2.5mm*2	- -	
Parallelism (400mm)	+/- 2.0mm +/- 2.0mm	- -	
Image Loss (LE/TE/SIDE) *1 Nominal	4.0mm/2.0mm/2.0mm 4.0mm/2.0mm/2.0mm	- -	100%

*1: Specified in the state where the Side Guide is set correctly.

*2: This specification should be applied on the assumption that it is adjustable by the operation on UI after set up.

After adjustment - Simp: +/-1.7 mm, Dup:+/-2. 1 mm

IOT Test Pattern / Measurement Point

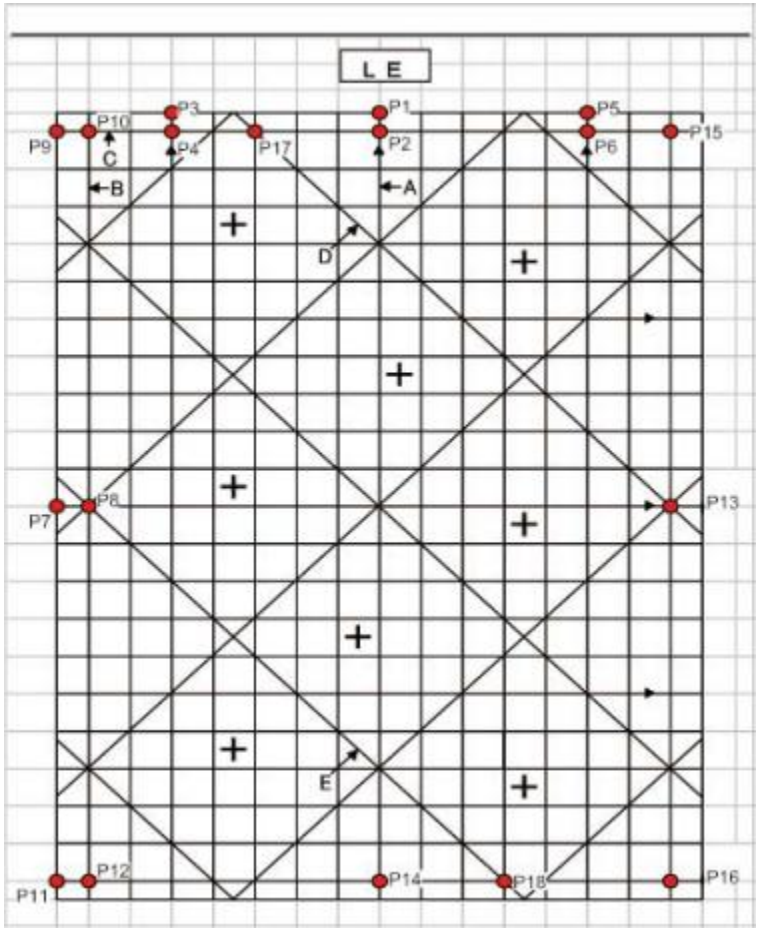


Figure 1 orc610006

Measurement Item	How to Measure
Lead Regi [mm]	(P1 to P2) - Reference Value*
Side Regi [mm]	(P7 to P8) - Reference Value*
Lead Skew (200 mm) [mm]	(P5~P6)-(P3~P4)
Side Skew(400 mm) [mm]	(P9~P10)-(P11~P12)
Horizontal R/E Precision (All Area) [%]	((P8~P13)-280)/280x100**
Vertical R/E Precision (All Area) [%]	((P2~P14)-400)/400x100**
Perpendicularity [mm]	The shift between P14 and the extended perpendicular line from the intersection of the line connecting P4 and P6 with the line A.
Linearity (Vertical) (400 mm) [mm]	The maximum shift between the intersections of the vertical line B with the various horizontal lines and the straight line connecting P10 and P12.
Linearity (Horizontal) (280 mm) [mm]	The maximum shift between the intersections of the horizontal line C with the various vertical lines and the straight line connecting P10 and P15.
Linearity (Diagonal) (280 mm) [mm]	The maximum shift between the intersections of the diagonal line D with the various lines and the straight line connecting P17 and P13, or the maximum shift of the intersections of the diagonal line E with the various lines and the straight line connecting P8 and P18, whichever is larger.
Parallelism [mm]	(P15~P16)-(P10~P12)

*: The length at the corresponding location in the built-in PG pattern (grid) is set as the standard value in the table.

**: This is a nominal value. Measure the length at the applicable position of the built-in PG pattern (grid) and use it for calculation.

6.1.26 Controller Specifications

6.1.26.1 Controller I/F Layout Sketch

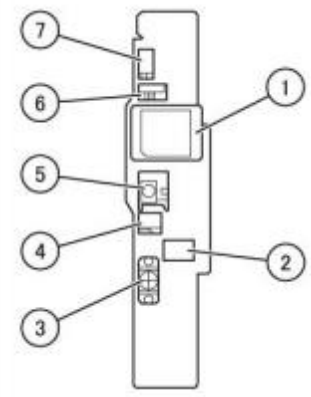


Figure 1 mbl610001

No.	Controller I/F Layout
1	WiFi
2	Secondary Ethernet Kit
3	EP I/F
4	USB Device
5	Ethernet
6	USB Host
7	Debug Serial

6.1.26.2 USB Host Specification

Configuration Contents

USB Host Number	Usage	SW Key	Market Support *2		Remarks
			FB	FBAP	
1	USB Memory *1 [Scan To USB, USB Direct Print]	Required	Opt (25/30 ppm only standard)	Opt	Mutually exclusive with other USB storage Operation is guaranteed only when using USB memory stick with the USB port on the UI panel.
2	IC Card Reader (Embedded/ External)	Not required	Std	Std	CE Registration 1 port for reader
	Voice Navigator	Not required	Std	Std	CE Registration
3	Dedicated for Fax Kit 3	Not required	Std	Std	Operation is not guaranteed when an option other than Fax Kit 3 is connected.

*1: Only one USB Storage (USB Memory) can be in use at any time.

*2: Contains the Opt/Std for USB Host (USB Slot) (Not the Opt/Std for usage by Card Reader, etc.)

6.1.26.3 FPOT

FPOT is calculated by IOT FPOT + a ('a' is PDL generation time + Transmission time + Decompose time).

FB Measurement Conditions:

- Client PC :
  - CPU: Intel Core i3-3120M Processor 2.50 GHz
  - Number of Cores: 2
  - Memory: 2 GB
- Connection Interface: lpr direct connection (100BASE-TX). No hub is used.
- PDL: measured by ART EX. PS is reference value.
- Driver setting: No changes are required except for the output color.
- Test Chart (for Color Devices, both Color/Black & White are measured):
  - [Color FPOT]
    J6 (1P)
    IOT: BW Priority, Color Priority, Driver: Auto Mode
  - [Black & White FPOT]
    J4 (1P)
    OT: BW Priority, Driver: BW Mode

FBAP (ENG)/FBKR/FBTW/FBCN Measurement Conditions:

- Client PC :
  - CPU: Intel Core i3-3120M Processor 2.50 GHz
  - Number of Cores: 2
  - Memory: 2 GB
- Connection Interface: lpr direct connection (100BASE-TX). No hub is used.
- PDL: measured by PC6. PS is reference value.
- Driver setting: No changes are required except for the output color.
- Test Chart (for Color Devices, both Color/Black & White are measured):
  - [Color FPOT]
    SDPT- 172c_E(1P)/SDPT- 172c_K(1P)/SDPT- 172c_TC(1P)/SDPT- 172c_SC(1P)
    IOT: BW Priority, Color Priority, Driver: Auto Mode
  - [Black & White FPOT]
    SDPT- 172_E(1P)/SDPT- 172_K(1P)/SDPT- 172_TC(1P)/SDPT- 172_SC(1P)
    IOT: BW Priority, Driver: BW Mode

- FB

PDL	ART EX	PS (Reference value)
Output Color	**B&W**	**B&W**
Chart	**J4(1P)**	**J4(1P)**
Normal (High Speed in the case of PS) - QCI-F(ARTEX) - 600x600x1bit(PS)	35 ppm: -, 30 ppm: 9.1 sec or less (Measured Value: 5.56 sec), 25 ppm: (FB, FBAP) 10.4 sec or less (Measured Value: 5.36 sec), 18 ppm: 10.4 sec or less (Measured Value: 6.89 sec)	35 ppm: -, 30 ppm: - sec, 25 ppm: - sec, 18 ppm: - sec

- FBAP

PDL	PCL6	PS (Reference value)
Output Color	**B&W**	**B&W**
Chart	**BW SDTP -172_E (1P)**	**BW SDTP-172_E (1P)**
Normal (High Speed in the case of PS) - 600x600x8bit(PCL) - 600x600x1bit(PS)	35 ppm: - (Measured Value: 6.58 sec), 30 ppm: 9.1 sec or less (Measured Value: 5.88 sec), 25 ppm: (FB, FBAP) 10.4 sec or less (Measured Value: 5.78 sec)	35 ppm: - sec, 30 ppm: - sec, 25 ppm: - sec

- FBCN

PDL	PCL6
Output Color	**B&W**
Chart	**BW SDTP-172c_SC (1P)**
Normal (High Speed in the case of PS) - 600x600x8bit(PCL) - 600x600x1bit(PS)	35 ppm: 9.1 sec or less (Measured Value: 5.75 sec), 30 ppm: 9.1 sec or less (Measured Value: 5.61 sec), 25 ppm: (FB, FBAP) 10.4 sec or less (Measured Value: 5.62 sec)

- FBTW

PDL	PCL6
Output Color	**B&W**
Chart	**BW SDTP-172c_TC (1P)**
Normal (High Speed in the case of PS) - 600x600x8bit(PCL) - 600x600x1bit(PS)	35 ppm: 9.1 sec or less (Measured Value: 5.57 sec), 30 ppm: 9.1 sec or less (Measured Value: 5.63 sec), 25 ppm: (FB, FBAP) 10.4 sec or less (Measured Value: 5.55 sec)

- FBKR

PDL	PCL6
Output Color	**B&W**
Chart	**BW SDTP-172c_K (1P)**
Normal (High Speed in the case of PS) - 600x600x8bit(PCL) - 600x600x1bit(PS)	35 ppm: 9.1 sec or less (Measured Value: 5.76 sec), 30 ppm: 9.1 sec or less (Measured Value: 5.6 sec), 25 ppm: (FB, FBAP) 10.4 sec or less (Measured Value: 5.66 sec)

6.1.26.4 Line Reproducibility

The minimum line width at Printer Driver Default state is 1 dot/600 dpi.

However, a function is provided to increase the minimum line width to 2 dots/600 dpi or higher.

6.2.26.5 Total Weight Regulations (Cin)

ART EX	Total toner weight after color conversion is set to 280%. However, this is practically restricted below 240% by the TRC after color conversion.
PS	Total amount control value after TRC is set to 240%.

6.1.27 Scan Feature

Item		Description
Format		Color Scanner
Scan Size		Conforms with the Basic Feature/ Copy Feature
Resolution		600 x 600 dpi, 400 x 400 dpi, 300 x 300 dpi, 200 x 200 dpi
Scan Tone		10 bit input and 8 bit output for each color of RGB
Document Scan Speed * 1		Monochrome: 55 sheets/ minute, Color: 55 sheets/ minute [Up to our standard document (A4 LEF), 200 dpi, Folder]
Interface		Ethernet 100 BASE- TX/ 10 BASE- T/ 1000 Base- T(Std)
Store to Folder	Supported Protocols	Supported Protocols: TCP/ IP (WebDAV, HTTP)
	Output Format	• Monochrome 2 Value: TIFF, DocuWorks Document *2, PDF *2 • Grayscale: TIFF, JPEG *3, DocuWorks Document *2, PDF *2 • Full Color: TIFF, JPEG, DocuWorks document*2, PDF*2, DocuWorks High Compression document*2*3, PDF High Compression*2*3
	Driver	TWAIN
	Supported OS*4	• Windows (R) 8.1 (32 Bit) • Windows (R) 8.1 (64 Bit) • Windows (R) 10 (32 Bit) • Windows (R) 10 (64 Bit) • Windows Server (R) 2012 (64 Bit) • Windows Server (R) 2012 R2 (64 Bit) • Windows Server (R) 2016 (64 Bit) • Windows Server (R) 2019 (64 Bit) [Mac OS X Driver] • macOS 11/10. 15/10. 14/10.13/10. 12

Item		Description
Scan (PC)	Supported Protocols	TCP/ IP (SMB, FTP, SFTP)
	Supported OS*4	• Windows (R) 8.1 (32 Bit) • Windows (R) 8.1 (64 Bit) • Windows (R) 10 (32 Bit) • Windows (R) 10 (64 Bit) • Windows Server (R) 2012 (64 Bit) • Windows Server (R) 2012 R2 (64 Bit) • Windows Server (R) 2016 (64 Bit) • Windows Server (R) 2019 (64 Bit) [Mac OS X Driver] • macOS 11/10. 15/10. 14/10. 13/10. 12
	Output Format	• Monochrome 2 Value: TIFF, DocuWorks Document, PDF • Grayscale/Full Color: TIFF, JPEG, DocuWorks Document, PDF, DocuWorks Document High Compression, PDF High Compression
Email	Supported Protocols	TCP/IP(SMTP)
	Output Format	• Monochrome 2 Value: TIFF, DocuWorks Document, PDF • Grayscale/Full Color: TIFF, JPEG, DocuWorks document, PDF, DocuWorks High Compression document*5, High Compression PDF*5

*1: The scan speed differs depending on the document.

*2: When Internet Services is removed.

*3: When the [Image Compression Kit] option is installed

*4: The latest supported OS information can be found on our website.

*5: Only FTP is supported.

6.1.28 searchable PDF

6.1.28.1 Guarantee Conditions - Black & White

The conditions to guarantee character recognition (OCR) performance are as follows.

Item	Conditions
Measurement Environment	Temperature 22 °C, Humidity 55 %
Device Status	Normal
File Format	PDF
Resolution	300dpi
Recognition Language	Set for each document.

Output Color/Original Type/MRC (High Compression):

Output Color	Original Type	MRC (High Compression)
Black & White	Characters	-
Collar	Photo & Text	ON (Perform High Compression)

6.1.28.2 Chart

Use standard print on P paper as the chart. Do not use something that has extreme skews or registration shifts.

6.1.28.3 Recognition Rate/Accuracy Rate of Upright Image (Reference Value)

How to Measure

For the measurement of recognition rate, perform sampling 5 times, then discard the worst and best values and use the average of the three remaining values for comparison.
However, ignore the false recognition of upper/lower case alphabets in all languages.
For the accuracy rate of upright images, perform sampling 10 times in the 4 directions (total 40 times) and calculate by: accuracy / 40 x 100.

No	Mode	Language	Chart	Recognition Rate	Accuracy of Upright Image
1	Black & White Text Mode 300dpi	Japanese	OCR004JP	91+/- 11%	97 .5% or higher
2		English	OCR004EN	90+/- 11%	
3		Korean	OCR004KR	89+/- 11%	
4		Chinese (Traditional)	OCR004TC	85+/- 11%	
5		Chinese (Simplified)	OCR004SC	90+/- 11%	
6		Thai	OCR004TH	92+/- 11%	
7		Vietnamese	OCR004VN	91+/- 11%	
8		Indonesian	OCR004ID	99+/- 11%	
9	Collar Photo & Text 300dpi PDF High Compression	Japanese	OCR004JP	96+/- 11%	
10		English	OCR004EN	92+/- 11%	
11		Korean	OCR004KR	90+/- 11%	
12		Chinese (Traditional)	OCR004TC	85+/- 11%	
13		Chinese (Simplified)	OCR004SC	92+/- 11%	
14		Thai	OCR004TH	92+/- 11%	
15		Vietnamese	OCR004VN	91+/- 11%	
16		Indonesian	OCR004ID	97+/- 11%	

NOTE
If the recognition rate or accuracy rate of upright image is not within the above ranges, perform IIT and DADF related adjustments before measuring again.

6.1.29 FAX Kit 3

6.1.29.1 Fax Kit 3

The following describes the specifications for Fax Kit 3.

Fax Kit 3 does not have any option that supports G4.

6.1.29.2 Maximum Configuration

[FAX kit 3]

Configuration	Standard Configuration	Maximum number of lines	Maximum number of channels
G3 only	G3:1	G3:3	3

6.1.29.3 Connectable Communication Networks

The connectible communication networks are as follows.

Communication Network	G3 circuit board
Public Telephone Network (PSTN)	O
PBX (Private Branch eXchange)	O
Leased Line (3 .4 kHz/2-line method) (Japan only)	O
ISDN Network	X

6.1.29.4 Adjust Paper Registration

The Adjust Paper Registration for Platen/DADF are as follows.

- These are not applicable during DADF 2 Sided and Platen B5 scan.

Item	Apply	Platen	DADF
Registration	Lead Edge	4 +/- 2.0mm	4 +/- 2 .5mm
Registration	Side Edge	+/- 2 .5mm	+/- 3 .5mm

6.1.29.5 Tone Characteristics

Resolution	Standard	High Quality	Superfine (400 dpi)	Superfine (600 dpi)
Data resolution (dpi)	200x100 (Inch series) / 8x3.85 (mm series)	200x200 (Inch series) / 8x7.7 (mm series)	400x400 (Inch series) / 16x15.4 (mm series)	600 x 600 (Inch series)
Pixel Split Number	1bit	1bit	1bit	1bit

6.1.29.6 Starting Rate

G3

- Device unique mode/ITU-T mode
  When Device with the device mode are communicating among themselves, the communication will be performed using the device unique protocol.
  For other cases, the communication will be performed using the ITU-T mode.

The priority for communication method during a communication is as follows.

1. Super G3 communication (V.34)
2. ECM communication (V. 17 and earlier)
3. G3 communication (V. 17 and earlier + Non ECM)

6.1.29.7 Resolution

[G3] The Pixel Transmission Density at which communication is possible on the transmission line are as follows.

- 8 pixels/mm x 3.85 lines/mm
- 8 pixels/mm x 7.7 lines/mm
- 16 pixels/mm x 15.4 lines/mm
- 200 pixels/25.4 mm x 100 pixels/25.4 mm
- 200 pixels/25.4 mm x 200 pixels/25.4 mm
- 400 pixels/25.4 mm x 400 pixels/25.4 mm
- 600 pixels/25.4 mm x 600 pixels/25.4 mm

6.1.29.8 Communication Image Size

[G3]

The Communication Image Sizes in Fast Scan direction at which communication is possible on the transmission line are as follows.

A3 width (SEF), B4 width (SEF), A4 width (SEF)

6.1.29.9 Encoding Method

[G3]

MH/MR/MMR/JBIG

6.1.29.10 Communication Control Method

[G3]

ITU-T recommendation is used as the procedure for sending document faxes.

6.1.29.11 Minimum Transmission Periods

[G3]

The minimum transmission times at which communication is possible are as follows.

- 0ms/l
- 5ms/l
- 10ms/l
- 20ms/l
- 40ms/l

6.1.29.12 Image Information Transmission Period

[G3]

The transmission time (TP) of the image information at G3 are as follows.

This data is obtained when resolution conversion at sending is not performed and density is normal.

Chart	Resolution	Transmission Time (Tp)		
		V.29 9600BPS	V.17 14.4KBPS	V.34 28.8KBPS
Pantum sales English document	8 pixels/mm x 3.85 lines/mm equivalent	8 sec or less	6 sec or less	3 sec or less

NOTE

Conditions: ECM (No data error), JBIG, and Platen Input

6.1.29.13 Reception Attributes

The signal level at which communication is possible depends on the receiving level at the connection point with the line as follows:

Image signal -6 dBm to -43 dBm (however, you have to ensure that there is no line distortion.)

6.1.30 Print Feature

Item		Description
Format		Built- in Type
Continuous Print Speed * 1		Conforms with the Basic Feature/ Copy Feature
Resolution	Output Resolution	• Standard: 600x600 dpi • High Quality: 1200x1200 dpi
	Data Processing Resolution	• Standard: 600x600 dpi • High Quality: 1200x1200 dpi
Page Description Language	Standard	ART EX
	Options	Adobe(R) PostScript(R) 3 TM
Supported Protocols	Ethernet (Standard)	TCP/ IP (lpd, IPP, Port9100, WSD, BMLinkS(R), ThinPrint(R))

Item		Description
Supported OS *2	Standard	[ATR EX Driver] • Windows (R) 8.1 (32 Bit) • Windows (R) 8.1 (64 Bit) • Windows (R) 10 (32 Bit) • Windows (R) 10 (64 Bit) • Windows Server (R) 2012 (64 Bit) • Windows Server (R) 2012 R2 (64 Bit) • Windows Server (R) 2016 (64 Bit) • Windows Server (R) 2019 (64 Bit) [Mac OS X Driver] • Mac OS X 11/10. 15/10. 14/10. 13/10. 12
	Options	[Adobe(R) PostScript(R) 3TM Driver] • Windows (R) 8.1 (32 Bit) • Windows (R) 8.1 (64 Bit) • Windows (R) 10 (32 Bit) • Windows (R) 10 (64 Bit) • Windows Server (R) 2012 (64 Bit) • Windows Server (R) 2012 R2 (64 Bit) • Windows Server (R) 2016 (64 Bit) • Windows Server (R) 2019 (64 Bit) [Mac OS X Driver] • Mac OS X 11/10. 15/10. 14/10. 13/10. 12
Built- in Fonts	Standard	• Outline Fonts (Heisei Mincho (TM) W3, Heisei Kaku Gothic (TM) W5, 19 European Fonts)
	Options	[Adobe(R) PostScript(R) 3TM Kit] • Heisei 2 Font Family: 2 Japanese Fonts (Heisei Mincho TM W3, Heisei Kaku Gothic TM W5), JIS2004 Supported 2 Japanese Fonts (Heisei Mincho StdN W3, Heisei Kaku Gothic StdN W5), 136 European Fonts [Emulation Kit] • Stroke Fonts (Japanese Fonts, European Fonts: for HP-GL), 82 European Fonts, 37 Symbol Sets

Item		Description
Emulation	Standard	ART IV, ESC/P (VP- 1000), BMLinkS(R), PDF, XPS, DocuWorks, TIFF, JPEG
	Options	[Emulation Kit or Adobe(R) PostScript(R) 3 TM Kit] • PC-PR201H, HP-GL (HP7586B), HP-GL2/RTL (HP DesignJet 750C Plus), PCL5 / PCL6
Interface	Standard	Ethernet 1000BASE-TX/100BASE-T/10BASE-T, USB 3.0

*1: The speed may also drop due to Image Quality adjustment. The print speed may also drop depending on the document.

*2: The latest supported OS information can be found on our website.

NOTE

WSD stands for Web Services on Devices.

NOTE

XPS stands for XML Paper Specification.

6.1.31 Billing meter

Type	Description
Meter 1	Total Number of Sheets
Meter 2	-
Meter 3	-

6.2 Tools/Service Supplies/Supplies/Modifications

6.2.1 Tools

The following tools can be stored in the CE Basic Tool Set as standard.

No.	TOOL No.	TOOL NAME
1	499T 00247	Test Pattern (A3)
2	499T 00276	Test Pattern (color A3)
3	499T 00281	Facsimile Test Pattern
4	499T 00301	Screw Driver (-) 3 x5 0
5	499T 00351	Screw Driver (+) No . 1
6	499T 00355	Screw Driver (+) 1 0 0 mm
7	499T 01423	Box Driver with Magnet (5 . 5 mm)
8	499T 01901	Side Cutting Nipper
9	499T 02005	Round Nose Plier- Safety
10	499T 02320	Digital Multi- Meter Set
11	499T 02601	Silver Scale 1 5 0 mm
12	499T 06201	Cristal Earphone Set
13	499T 07761	RS-232C Cable (D-Sub25)
14	499T 07765	D- Sub Adapter
15	499T 07773	UTP Cable (Network Cross Cable)
16	499T 08104	Flash Light (U-3)
17	499T 08902	Brush
18	499T 09507	Test Leadwire Hook (Red)
19	499T 09508	Test Leadwire Hook (Black)
20	499T 09588	Needle Adapter
21	499T 07776	USB CABLE For PSW
22	499T 08263	USB Memory (For DL DIAG/ Backup : 2 GB)

6.2.2 Service Supplies

There are no Service Supplies unique to this model.

Whenever special supplies for the Device are required, it will be notified in a separate technical information.

For the supplies catalogs refer to the following:

- For Sales Companies: http://fp.tsc.ksp.fujixerox.co.jp/cgi-bin/cons.cgi
- For distributors by prefecture: http://stars11.knt.fujixerox.co.jp/guest/manual/tool.htm

6.2.3 Supplies

Region	Supplies Name	Product Code	CRU/ ERU	Normal Print Number of Sheets
FB	Toner Cartridge 5k (KIT)	CT203704	CRU	5,000PV*2
FB	Toner Cartridge 5k (SSC)	CT203706	CRU	5,000PV *2
FB	Toner Cartridge 9k (KIT)	CT203705	CRU	9,000PV*2
FB	Toner Cartridge	CT203707	CRU	9,000PV*2
FB	Toner Cartridge Long 18/25/30_TSC	CT203708	CRU	25,000PV*2
FB	Toner Cartridge Conversion 18/25/30_TSC	CT203709	ERU	25,000PV*2
FBAP	Toner Cartridge- Black Standard	CT202507	CRU	9,000PV*2
FBAP (excluding FBCN)	Toner Cartridge- Black Long	CT202508	CRU	25,000PV*2
FBCN	Toner Cartridge- Black Long for China	CT202509	CRU	25,000PV*2
FBAP	T and M Std Toner (9.0k)	CT202725	CRU	9,000PV*2
FBAP	T and M Long Life Toner (25.0k)	CT202726	CRU	25,000PV*2
FBAP	Conversion Toner (25.0k)	CT202727	CRU	25,000PV*2
FB/FBAP	FB: Drum Cartridge FBAP : Drum Cartridge	CT351357	ERU	*1 18PPM : 65.9 kPV 25PPM : 70.4 kPV 30PPM : 82.7 kPV 35PPM : 95.3 kPV
FB/FBAP	FB: Stamp Replacement Kit (Red) FBAP : Stamp replacement kit	F451	CRU	Replacement Ink for Bypass Stamp Kit 2000 times x 3 units
FB/FBAP	FB: 50-Sheet Staples Type XE (2 PCS) FBAP : Staple cartridge for Finisher A/B	CWAA0856	CRU	For 50 sheets, 5000 Staples x 2/Box For Side Stitching with Finisher A/B
FB/ FBAP	FB: Saddle Stitch Staples Type XG (4 PCS) FBAP : Staple cartride for Finisher B Booklet	CWAA0728	CRU	2000 Staples x 4/ Box For Saddle Stitching when Booklet Maker is installed to Finisher B
FB	Initial Pack	ZPAA0184	CRU	-
FB	Antibacterial film for the touch panel (7-inch)	CWAA1023	CRU	-

*1: Reference value for usage under the condition of A4 (LEF) size, 1 Sided, and 3 sheets of continuous print quantity in one print. Since the actual number of sheets fluctuates depending on the usage conditions, such as the number of continuous prints per print job, the paper size, the paper feed direction, the initialize operation at Device power OFF/ON, and the mode selection, it may noticeably differ from the reference values.

*2: Reference value when using A4 size document with 6% image density for each color. Since the actual number of printable sheets varies depending on the usage methods, type of documents, and the print density, use these as a guide.

6.2.4 Modification

The Mod (Tag) number can be registered in the NVM. With this registration, Mod information can be confirmed remotely as NR data via EPSV, etc.

When Mod is performed, access the NVM and change the data because the Mod (Tag) No. 1 to 32 correspond to 001 to 032 of NVM (900).

NOTE

Those with blank Product Codes are not handled as MOD.

Modification List

No.	Mod No.	Name	Product Code
1	151V	Duplex Automatic Document Feeder	QC100244
2	156V	Assist Handle	EC101037/ E9100212
3	166V	Caster	EC104642
4	167V	1 Tray Module with Cabinet	EC104654
5	168V	1 Tray Module	EC104653
6	170V	3 Tray Module	EC104655
7	171V	Finisher A2	QC100205
8	172V	Finisher B4 / B5	QC100238
9	-	Finisher B Installation Kit	EC104658
10	182V	Finisher B Booklet Maker	EC104194
11	183V	Finisher B 2 / 4 Hole Punch Unit	EC104195
12	184V	Finisher B 2 / 3 Hole Punch Unit (US Standard)	EC104196
13	190V	Side Tray	EC104657
14	192V	Wing Table	EC104201
15	193V	Attention Light II	EC100639/ E9100211
16	195V	Scanner Kit	EL201247
17	200V	Extra Center Tray (Exit 2 Tray)	EC104656
18	203V	Storage (SSD)	EC104659
19	204V	Data Overwrite Kit	EC103914
20	206V	Remote Authentication Kit	EL201244
21	213V	Adobe(R) PostScript(R) 3 TM Kit (Heisei 2 Font)	EL201246
22	215V	Multi- Language Font Kit	EC104208
23	223V	PDF Searchable Image Kit	EL201248
24	224V	Web Applications Kit	EL201250
25	853V	Server- less On- Demand Print Kit	EC104377
26	238V	Secondary Ethernet Kit	EC103656
27	241V	USB Memory Kit	EC104602
28	250V	Fax Kit 3	QC100243
29	251V	G3 Expansion Port Kit 3	QC100166
30	263V	Fax Port Expansion Kit 3	EC103140
31	256V	IP Fax (SIP) Kit	EC104604
32	258V	Bypass Stamp Kit (Red) (For DADF- 110)	EC103141/ EC104212
33	259V	Handset	EC104224
34	260V	Tel/ Fax Switching Kit	QC100220
35	854V	Paperless Fax Sorting Kit	EC104367
36	265V	Watermark Extension Kit	EC104605
37	268V	Image Log Kit	EC104606
38	268V	Image Log Kit (Adobe PostScript 3 TM)	EC104607
39	820V	Simple Scan Pro for Each Industry	EC104366
40	883V	IC Card Reader B (Main Unit Embedded model)	EC104662
41	883V	IC Card Reader B (Wing Embedded Model)	EC104663
42	883V	IC Card Reader B (External Model)	EC104665
43	855V	Wireless Kit	EC104218
44	885V	IC Card Reader D (Main Unit Embedded Model)	EC104644
45	885V	IC Card Reader D (Wing Embedded Model)	EC104645
46	885V	IC Card Reader D (External Model)	EC104664
47	880V	Serverless Authentication Link Kit	EC104368
48	293V	Condensation Prevention Kit (Device Heater)	EC102930
49	294V	Condensation Prevention Kit (Tray Heater)	EC103108
50	294V	Condensation Prevention Kit (Tray 1 / 2 In- Between Heater for Curl Prevention) for 100V	EC103182
51	292V	Condensation Prevention Kit (For Scanning Section)	EC103274
52	299V	Condensation Prevention Installation Kit (For Main Unit/ Tray/ Scanning Section)	EC103110
53	343V	Accessories AC Kit	EC103111
54	-	GFI Power Cord	EC103194
55	321V	Dispenser2	WU63/ E9100207
56	339V	Adaptor- BOX type D	T9100059/ T9100095

No.	Mod No.	Name	Product Code
57	322V	IC Card Cashier	Q9100007/ Q9100022
58	346V	Connection BOX 1 for EM	Q9100009
59	320V	Coin Cashier9 / Coin Cashier	Q9100012/ Q9100021
60	374V	4 Gnet- BOX	Q9100016/ Q9100020
61	390V	Earthquake Preparedness KIT IOT/ M	-
62	391V	Earthquake Preparedness KIT FIN- SB	-
63	447V	Caster Locked	-
64	448V	Caster Locked/ Motion Prevention Stopper Affixed	-
65	290V	Earthquake Preparedness Kit	ZB38
66	890V	Face Authentication System Type A Camera Set	EC104234
67	891V	Face Authentication System Type A Server Set	EC104235

6.3 Service Data

6.3.1 DC330 Component Check List

- For Edoc, refer to 6.3.1 DC330 Input Component Check List.
  - 6.3.1. 1 DC330 Component Check List (IOT)
  - 6.3.1.2 DC330 Component Check List (IPoC)
  - 6.3.1.3 Component Check List (DADF)
- For PDF, refer to the separate Service Data (Excel) document.

6.3.2 DC140 Analog Monitor List

- For Edoc, refer to 6.3.2 DC140 Analog Monitor List.
- For PDF, refer to the separate Service Data (Excel) document.

6.3.3 DC135 HFSI Counter List

- For Edoc, refer to 6.3.3 DC135 HFSI Counter List.
  - 6.3.3.1 DC135 HFSI Counter List (IOT)
  - 6.3.3.2 DC135 HFSI Counter List (IPoC)
  - 6.3.3.3 DC135 HFSI Counter List (DADF)
- For PDF, refer to the separate Service Data (Excel) document.

6.3.4 NVM List

- For Edoc, refer to 6.3.4 NVM List.
  - 6.3.4. 1 IOT NVM List
  - 6.3.4.2 IPoC NVM List
  - 6.3.4.3 DADF NVM List
  - 6.3.4.4 Controller NVM List
- For PDF, refer to the separate Service Data (Excel) document.

Chain	Description	Reference File
100	Finisher/ Marking related item	IOT NVM List
503	Process Control related item	IOT NVM List
510	LPH/ ROS related item	IOT NVM List
513	EPG Cleaner related item	IOT NVM List
700	Controller related item	Controller NVM List
701	Controller related item	Controller NVM List
702	Controller related item	Controller NVM List
703	Controller related item	Controller NVM List
709	Controller related item	Controller NVM List
710	IPoC related item	IPoC NVM List
711	DADF related item	DADF NVM List
715	IPoC related item	IPoC NVM List
716	IPoC related item	IPoC NVM List
717	IPoC related item	IPoC NVM List
719	IPoC related item	IPoC NVM List
720	Controller related item	Controller NVM List
730	Controller related item	Controller NVM List
740	IOT Manager related item	IOT NVM List
741	Drive NOHAD related item	IOT NVM List
742	Paper Handling related item	IOT NVM List
743	Paper Handling related item	IOT NVM List
744	Fusing Unit related item	IOT NVM List
746	Transfer related item	IOT NVM List
750	EPG Cleaner related item	IOT NVM List
751	EPG Cleaner related item	IOT NVM List
752	Process Control related item	IOT NVM List
753	Process Control related item	IOT NVM List
754	Process Control related item	IOT NVM List

Chain	Description	Reference File
755	Process Control related item	IOT NVM List
757	LPH/ ROS related item	IOT NVM List
759	Regi Control related item	IOT NVM List
761	Developer related item	IOT NVM List
764	Output related item	IOT NVM List
765	Fusing Unit related item	IOT NVM List
766	Finisher/ Marking related item	IOT NVM List
770	Controller related item	Controller NVM List
771	Controller related item	Controller NVM List
772	Controller related item	Controller NVM List
780	Controller related item	Controller NVM List
785	Controller related item	Controller NVM List
790	Controller related item	Controller NVM List
791	Controller related item	Controller NVM List
800	Controller related item	Controller NVM List
810	Controller related item	Controller NVM List
820	Controller related item	Controller NVM List
823	Controller related item	Controller NVM List
826	Controller related item	Controller NVM List
830	Controller related item	Controller NVM List
840	Controller related item	Controller NVM List
850	Controller related item	Controller NVM List
870	Controller related item	Controller NVM List
880	Controller related item	Controller NVM List
901	Controller related item	Controller NVM List
910	Controller related item	Controller NVM List
920	Controller related item	Controller NVM List
981	Process Control related item	IOT NVM List
984	Process Control related item	IOT NVM List
987	Fusing Unit related item	IOT NVM List
988	CRUM related item	IOT NVM List
998	Marking System related item	IOT NVM List

6.4 Service Mode

6.4.1 How to Use the Service Mode

6.4.1.1 UI Diagnostic Mode Structure

The Maintenance screen exists in the UI Diag.

The UI Maintenance screen structure is as follows.

- Maintenance / Diagnostics
- Support Pages
- Image Quality

[Maintenance / Diagnostics screen]

The UI Maintenance/Diagnostics Screen structure is as follows.

Enter the CE Mode and select [Maintenance / Diagnostics]. The following buttons are displayed.

1. EP Service
   - EP Registration/Cancel Registration
   - Delete EP Certificate
   - 4G/3Gnet-BOX Connection Diagnostics
   - Back Up/Restore ESS

2. Diagnostics
   - DC118 Jam Counter
   - DC120 Failure Counter
   - DC122 Fault History
   - DC125 Current Faults
     - Jam Counter
     - Failure Counter
     - Shutdown History
   - DC126 System Registration Adjustment
   - DC131 NVM Read/Write
   - DC135 HFSI Counter
   - DC140 Analog Monitor
   - DC301 Initialize NVM
     - IOT
     - Finisher
     - IISS(IIT/IPS)
     - Input Device
     - Sys-SYSTEM
     - Sys-USER
   - DC330 Component Control
   - DC355 Storage Diagnostics
     - Storage Failure Prediction Test
     - Initialize Storage
   - DC363 Back Up / Restore NVM
     - IOT
     - IIT
   - DC500 Blank Page Threshold Value (models with Fax)
   - DC527 ADF Independent Operation
   - DC612 Print Test Pattern
     - Pattern Number
     - Copies
     - Paper Supply
     - Cin%
     - Select Screen
   - DC740 Tray 5 Guide Adjustment
   - DC945 IIT Calibration
     - White Reference Adjustment
     - CCD Calibration
     - Optical Axis Correction
     - White Reference Adjustment - Side 2
     - CCD Calibration - Side 2
     - Side 2 Shading Correction
   - DC991 Adjust Toner Density
   - DC1010 Signals Sending Test (models with Fax)
   - DC1011 Relay On/Off Test (models with Fax)

3. Others
   - Quick Setup Home

- Screen/Button Settings
- IP Address Settings
- Fax Settings

- Software Options
- Software Options - USB
- Software Update (Device UI Method)
- Power On Self-Test
  - Off
  - On
- Delete All Certificates/Initialize Settings

[Support Pages Screen]

Enter the CE mode and select [Support Pages]. The following buttons are displayed.

- Folder List
- Job Counter Report
- Accounting Reports
- Sample Bar Code GS1-128
- CE

[Image Quality Screen]

The adjustment items related to Image Quality for this model are as follows.

- 2 Sided Color Scanning Calibration

6.4.1.2 How to Enter the CE Mode / UI Diag Screen

This explains how to operate the UI screen.

1. How to Enter the CE Mode
   (1) Press and hold down [Home] for 5 seconds or longer and then release it. (Figure 1)



Figure 1 mnl640001

   (2) Within 2 seconds after releasing it, press and hold down [Home] for 5 seconds or longer and then release it again. (Figure 2)



Figure 2 mnl640002

(3) Within 2 seconds after releasing it, tap the bottom left area of the screen. (Figure 3)



Figure 3 mbl640003

(4) When the CE Entry screen opens, enter the password [7686] and select [OK] (Figure 4)

.



Figure 4 mbl640004

2. How to Enter the UI Diag Screen

(1) On the CE Mode screen, tap [>] and move to the second page. (Figure 5)

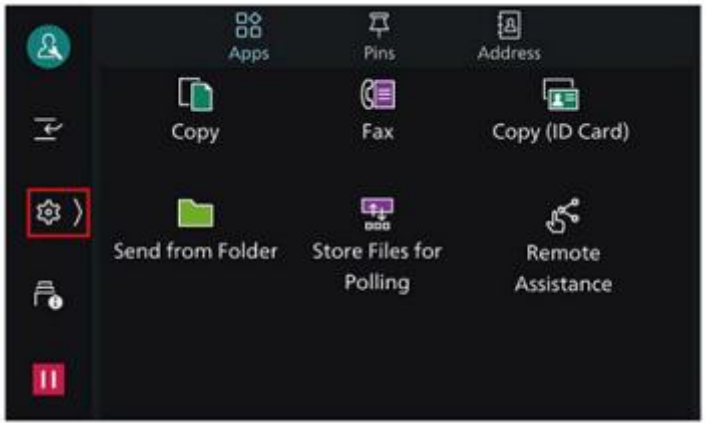


Figure 5 mnl640003

(2) Select [Device]. (Figure 6)

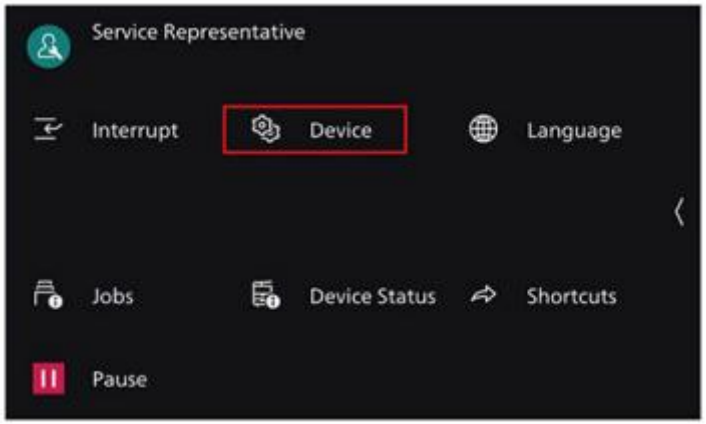


Figure 6 mbl640006

(3) Select [Maintenance]. (Figure 7)

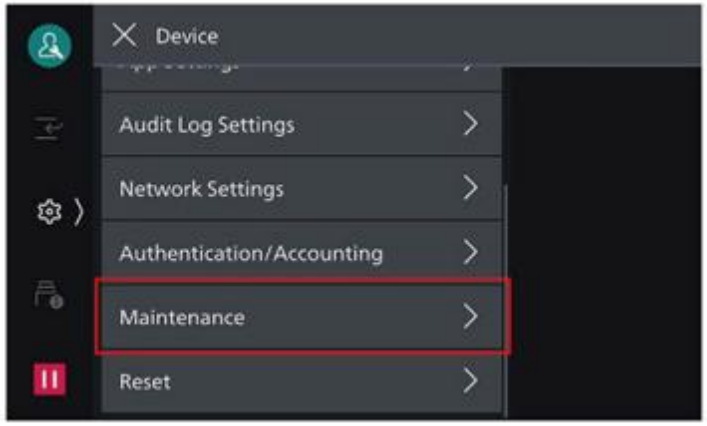


Figure 7 mbl640007

(4) On the Maintenance screen, the following 3 sub-menus are displayed. (Figure 8)

- Maintenance / Diagnostics
- Support Pages
- Image Quality

Select [Maintenance / Diagnostics].

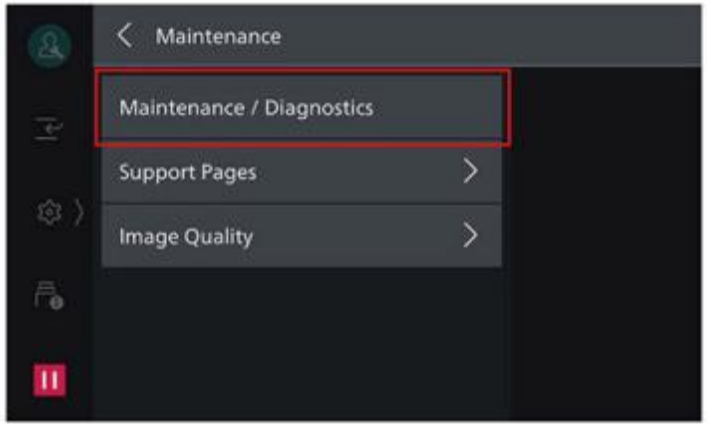


Figure 8 mbl640008

(5) From Maintenance/Diagnostics screen, select [Diagnostics]. (Figure 9)

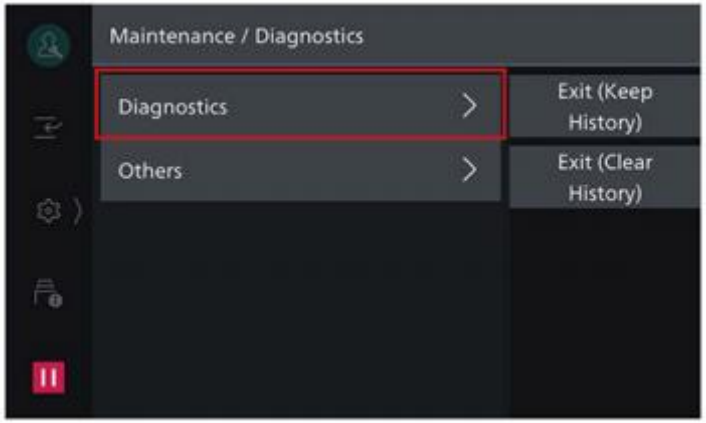


Figure 9 mnl640004

(6) On the Diagnostics screen, various diagnostic items are displayed. (Figure 10)

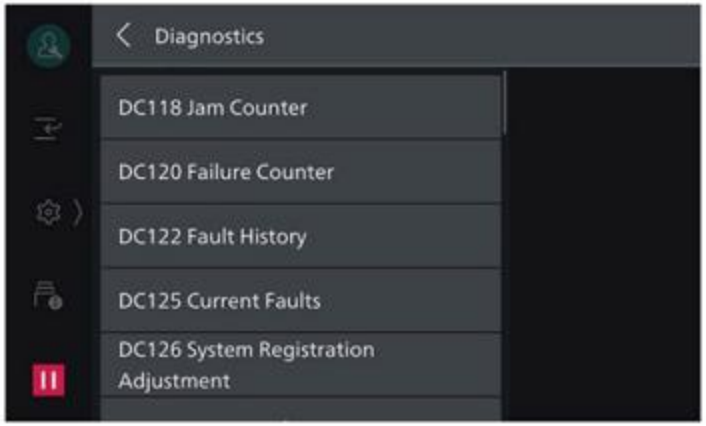


Figure 10 mbl640010

(7) Selecting [Others] displays the Others screen with the following menu. (Figure 11)

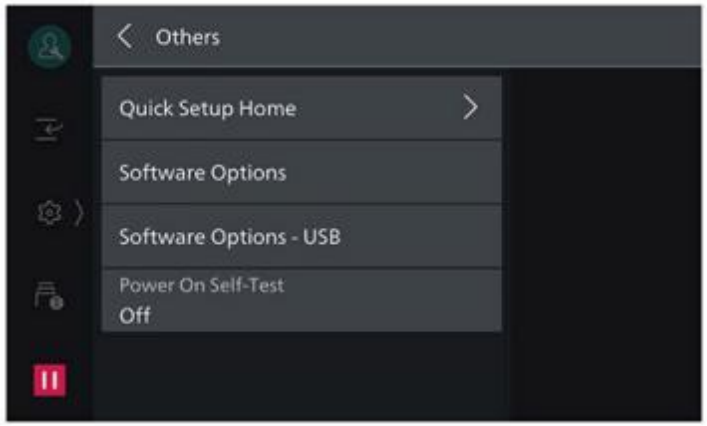


Figure 11 mnl640005

6.4.1.3 How to Exit from the CE Mode

This section describes how to exit from the CE Mode.

1. Press and hold down [Home] for 3 seconds or longer and then release it. (Figure 1)



Figure 1 mnl640006

NOTE

If [Clear Error Log History] or [Keep Error Log History] is selected at the Maintenance/Diagnostics screen, and the Device is restarted, it will exit from the CE Mode.

6.4.1.4 How to Display the Keypad/Start Button

This section describes how to display the Keypad/Start button.

1. Select the button framed in red. (Figure 1)

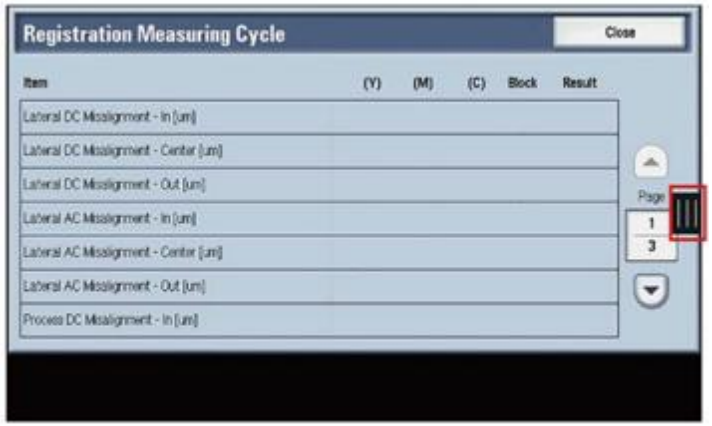


Figure 1 mbl640013

2. Keypad/Start button is displayed. (Figure 2)

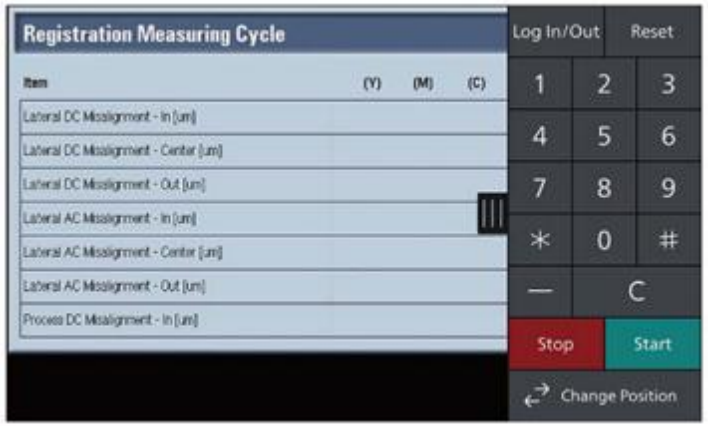


Figure 2 mbl640014

6.4.1.5 How to Print Various Reports (Support Pages)

1. Enter the CE Mode.
2. On the [CE Mode] screen, select [Device].
3. Select [Maintenance].
4. On the Maintenance screen, select [Support Pages].
5. The [Support Pages] screen is displayed. (Figure 1)

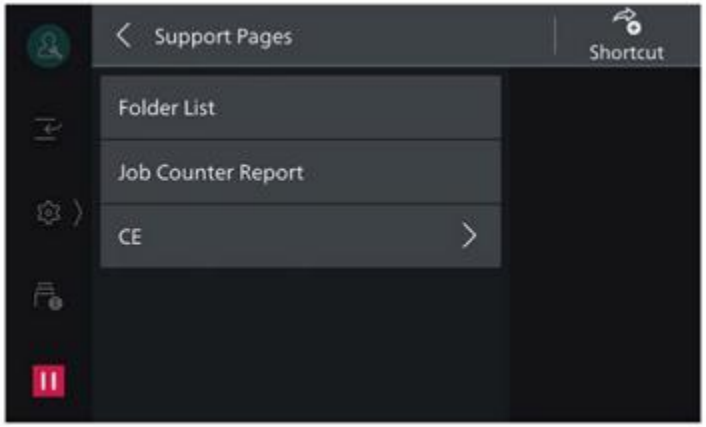


Figure 1 mfm640007

6. Select the button for the report you want to print. The Print screen will open. Press [Print] to start printing.
After printing out, return to the Support Pages screen by pressing [X] at the top left hand corner of the screen of the output report.

- [Folder List]
- [Job Counter Report]
- [Accounting Reports]
  Meter Report (Print Jobs)
- [Sample Bar Code GS1- 128]
  A4 Bar Code Mode OFF
  A4 Bar Code Mode ON
  A3 Bar Code Mode OFF
  A3 Bar Code Mode ON
- [CE]
  Debug Log Report
  HFSI Report
  Jam Report
  Shutdown Report
  Failure Report

Protocol Monitor Report (models with Fax)
Supplies Replacement History Report
NVM Read/Write History Report

(1) Press the [CE] button to move to the CE screen, and then move to the screen for selecting various reports. (Figure 2)

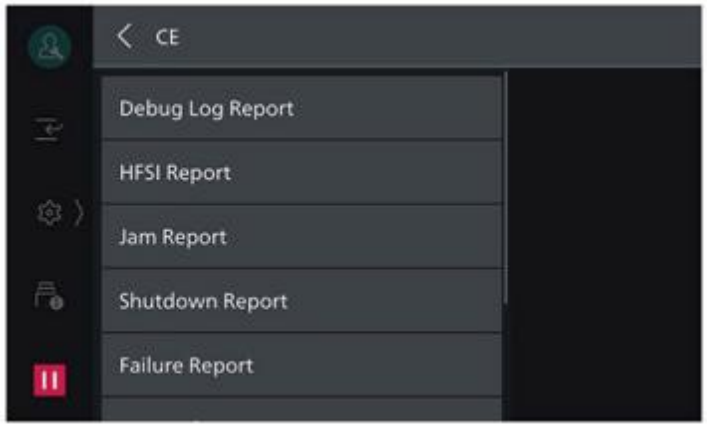


Figure 2 mbl640016

(2) Select the button for the report you want to print. The Print screen will open. Press [Print] to start printing.

(3) Press [X] at the top left corner of the screen to return to the CE screen after printing out.
Clicking the button of the printed report displays the various reports in a list.

(4) Return to the Support Pages screen by clicking on the [<] at the top left corner of the CE screen.

6.4.1.6 How to Print Various Reports (Device Status/Reports)

1. Enter the CE Mode.
2. In the CE Mode screen, select [Device Status].
3. The Device Status screen is displayed.
4. Select [Print Reports].
5. Select the button for the report you want to print. The Print screen will open. Press [Print] to start printing.
   - [PCL Font List]
   - [Job Status / Activity Report]
     Job History Report, Error History Report, Activity Report, Stored File List.
   - [Copy Reports]
     Configuration Report (Common Items)
   - [Printer Reports]
     Configuration Report, TIFF/JPEG Logical Printers List, ART EX Form List, ESC/P Settings List, ESC/P Stored Programming List, PDF Settings List, TIFF/JPEG Settings List, ART IV, ESC/P User Defined List, Font List, DocuWorks Print Settings List.
   - [Scan Reports] button
     Reports, Address Book
   - [Fax Reports]
     Reports, Address Book, Fax Comments List
   - [Job Counter Report]
   - [Folder List] button
   - [Error History Report]
   - [NVM Read/Write History Report]

6.4.1.7 Main Reports

6.4.1.7.1 Debug Log Report

- Purpose of the report:
  To reduce the CE's workload when repairing failures by printing out the debug messages recorded in the NV Memory (eMMC) for CE maintenance.
- Contents of the printout
  Prints out the debug messages recorded in the NV Memory (eMMC) with the time when the data was stored.
  The output format is as follows.
  YYYY/MM/DD HH:MM:SS "xxxxx" (Recorded message)

6.4.1.7.2 HFSI Report

- Purpose of the report:
  To display the HFSI information that is stored in the IOT.
- Contents of the printout
  Report Name: HFSI Report
  Serial Number xxxxxx
  Date of last service call YYYY/MM/DD

Chain-Link	Current Value	Spec Life	Average per month	Operation History (P1)	Operation History (P2)	Operation History (P3)
xxx-xxx 6-digit Display For Chain Link, refer to 6.3.3.	xx Displays a numeric value.	xx Displays a numeric value.	xx Displays the value accumulated from the previous service call up to now and the frequency within 30 days calculated by the number of days.	Displays the reason for replacement using U: UM, S: SM, or O: Others. P1: Means the life before the last replacement	Displays the reason for replacement using U: UM, S: SM, or O: Others. P2: Means the life before the second last replacement	Displays the reason for replacement using U: UM, S: SM, or O: Others. P3: Means the life before the third last replacement

6.4.1.7.3 Jam Report

- Purpose of the report:
  To check the frequency of jams that were registered in advance.
- Contents of the printout
  Report Name: [Jam Report]

Chain-Link	Counter Value
xxx- xxx 6-digit Display For the Chain-Link, search using the search function.	xx Displays a numeric value.

6.4.1.7.4 Shutdown Report

- Purpose of the report:
  To output the registered history for the purpose of CE maintenance.
- Contents of the printout
  Out of the contents recorded in the System Fail, Paper Jam, and Document Jam logs, up to 50 items will be displayed for each. If there is no log, only the item names are displayed and the log is not displayed.
  Report Name: [Shutdown Report]

- System Fail History

Date & Time	Chain-Link	Number of Sheets
Displays the date & time of occurrence. YYYY/MM/DD HH:MM	xxx- xxx 6-digit Display Maximum 50 items For the Chain-Link, search using the search function.	xx Displays a numeric value.

- Paper Jam History

Date & Time	Chain-Link	Number of Sheets
Displays the date & time of occurrence. YYYY/MM/DD HH:MM	xxx- xxx 6-digit Display Maximum 50 items For the Chain-Link, search using the search function.	xx Displays a numeric value.

- Document Jam History

Date & Time	Chain-Link	Number of Sheets
Displays the date & time of occurrence. YYYY/MM/DD HH:MM	xxx- xxx 6-digit Display Maximum 50 items For the Chain-Link, search using the search function.	xx Displays a numeric value.

6.4.1.7.5 Failure Report

- Purpose of the report: To display the number of fails that have been registered in advance for CE maintenance.
- Contents of the printout
  Report Name: [Failure Report]
  The following reports are displayed.

Chain-Link	Counter Value
xxx- xxx 6-digit Display For the Chain-Link, search using the search function.	xx Displays a numeric value.

6.4.1.7.6 Protocol Monitor Report (models with Fax)

- Purpose of the report:
  Prints the Fax Activity History to analyze the cause of communication errors. To provide with a simple measure to identify the cause of communication errors by adding the protocol monitor function into the Fax terminal itself.
- Contents of the printout
  Report Name: [Protocol Monitor]
  The following reports are displayed.

Protocol Monitor	Item	Setting Value	Description
Common (header) section	G3-ID	xxxxxxxx	Displays the local G3 - ID.
	Local Name	xxxxxxxx	Displays the local name.
	Company Name	xxxxxxxx	Displays the local Fax Name.

Protocol Monitor	Item	Setting Value	Description
Protocol Monitor (Continued)	No.	xxx	Sequential number (zero suppression)
	Document No.	xxxx	A file number that is appended automatically upon the receipt of an operation. As this number is also issued for files that are used in the system, it is not continued on the report.
	Recipient	xxxxxxxxxxxxxxxxxxx	If this has exceeded 40 digits, only the first or last 20 digits (System data: Display position of remote terminals on Activity Report) will be displayed.
	Start Time	xx-xx Month Day xx:xx Hour Minute xx-xx; xx : xxAM[PM]	xx-xx Month Day xx:xx Hour Minute xx-xx Month Day xx:xx Hour Minute If the system data [Time display mode] is on 12 Hour Clock, "AM" or "PM" will be added at the end.
	Duration	xx minutes xx seconds	Display in minutes (3 digits, zero suppression) and seconds (2 digits, no zero suppress when there are minute digits, zero suppression for second single digit).
	No. of pages	xxx/ xxx	When sending Zero suppression (display without zero suppression when the number of display digits are exceeded, such as during Direct Fax) The number "0" is recorded by "-".
		xxx	When receiving (display only the number of sheets for successfully sent documents) Zero suppression (display without zero suppression when the number of display digits are exceeded, such as during Direct Fax) The number "0" is recorded by "-".

Protocol Monitor	Item	Setting Value	Description
Protocol Monitor (Continuation)	Mode		Display in minutes (3 digits, zero suppression) and seconds (2 digits, no zero suppress when there are minute digits, zero suppression for second single digit).
	Communication Contents	The priority of displayed contents, starting with the highest, is as follows.	
		Remote maintenance xxxxxxxxxxxxxx	The 2 nd row indicates the details code.
		Remote service xxxxxxxxxxxxxx	The 2 nd row indicates the details code.
		Resend	
	Communication Contents	Folder xxx	xxx is the Folder number. There is a possibility duplicate display with Broadcast, Multi-Polling, Remote Polling, and Relay Broadcast.
		Broadcast	There is a possibility duplicate display with Folder and Relay Broadcast. (Folder xxx Broadcast) (Broadcast Relay Broadcast)
		Multi- Polling	There is a possibility duplicate display with Folder (Folder xxx Multi- Polling)
		Remote Polling	There is a possibility duplicate display with Folder (Folder xxx Remote Polling)
		Relay Broadcast	There is a possibility duplicate display with Folder and Broadcast (Folder xxx Relay Broadcast) (Broadcast Relay Broadcast)
		Transfer Fax Folder xxx	xxx is the Folder number
		Dial- In Folder xxx	xxx is the Folder number
		Sending Fax Number Folder xxx	xxx is the Folder number
		Receiving Fax Number Folder xxx	xxx is the Folder number
	Communication Result		The 1st row indicates the Chain-Link No., 2nd row indicates the mode (either one of G3/ECM/SG3/IP Fax/IP Fax-ECM/IP Fax-SG3), and the next right-justified position indicates the communication speed (highest transmission rate, lowest transmission rate).

Protocol Monitor	Item	Setting Value	Description
Protocol Monitor (Continued)	TRACE		Trace Type
		G3	
	LAPTIME LOCAL REMOTE FCF/FIF		History of send and receive commands
		xxxxxxxxx	The content displays the command history that is stored in the Fax Controller as a character string.
	---System Data List--	Chain/ Link = Value(Default)	E .g . 826/128 = 11 (11)

6.4.1.8 Image Quality

6.4.1.8.1 2 Sided Color Scanning Calibration

Follow the instructions on the screen to perform color calibration for the Duplex Automatic Document Feeder.

6.4.2 How to Use the DC Codes

6.4.2.1 EP-BB Registration (EP Service)

The EP-BB connection is:

A feature to establish EP communication using broadband through the Internet. Unlike the conventional EP connection, this service enables you to receive EP Service just by directly connecting the Device using a network cable. (It does not require a converter box to be connected between the Device and the network.)

This connection is called "Direct Internet Connection". (It directly connects to FUJIFILM Business Innovation servers)

For more details, refer to the Next-gen EP System Service Guidance.

NOTE

When installing a 4Gnet-BOX, perform [Installation of 4Gnet-BOX (9.2.28)] in Chapter 9.

EP- BB Registration

Purpose

To perform the Registration/Cancellation/Relocation operations for the Device.

NOTE

The EP-BB Registration receives requests from the Service Representative and performs configuration based on the [EP-BB Installation Order]. This Installation Order must be obtained in advance from the Service Representative.

NOTE

The EP-BB Registration must be performed on a Device that has undergone a complete Network Settings and hence is capable of operating normally over the network.

1. Check that the "Settings during Installation > Network Settings" based on "EP-BB Installation Order" or "Installation Order" of the Device has been completed.

	Setting Item	Remarks
1	IP Address (IPv4)	
2	IP Subnet Mask (IPv4)	
3	Gateway Address (IPv4)	

	Setting Item	Remarks
4	DNS Server Address	(1) There is no need to register the DNS Server when using a Proxy Server to perform EP Registration and the Proxy Server Address is set as the IP Address. (2) If setting two or more DNS, configure the settings in Internet Services.

NOTE

If the EP-BB Registration of 4Gnet-BOX has been performed, there is no need to specify a proxy server as the 4Gnet-BOX connects to the EP Center by using 4G communication line.

2. Set the EP Proxy Server based on the [EP-BB Installation Order] by using any of the following methods.
   - UI Diag [NVM Read/Write]
   - [Device] → [Network Settings] → [EP Proxy Server Setup] (Figure 1)
   - Internet Services ([System] → [EP Service] → [EP Proxy Server Setup]) (Figure 1) (this setting is not required when the Proxy Server is directly specified or when the Proxy Server is not used)

Chain-Link	Setting Value	Remarks
920-067 EP-BB Proxy Detection Method Setting	0: Specify proxy address directly (Default)	Set the Proxy Server directly by using the IP Address or Host Name.
	1: Specify the URL of Proxy Settings File	Specify this to set the EP Proxy Server automatically using the PAC (Proxy Auto Configuration) file. If this was selected, the URL of the PAC file must be set in the [Proxy Settings File] (Chain-Link: 920-068).
	2: Automatically Detect the Proxy Settings File	Specify this to set the EP Proxy Server automatically using WPAD (Web Proxy Auto Discovery Protocol).
920-068 PAC File Storage URL	Proxy Settings File (URL)	Up to 255 one byte characters can be set in the following format. http://[Host Name or IP Address]/[File Path + PAC File Name] Sample settings: http://192. 168.1. 1/jp/proxy.pac

- <Internet Services Settings Screen>

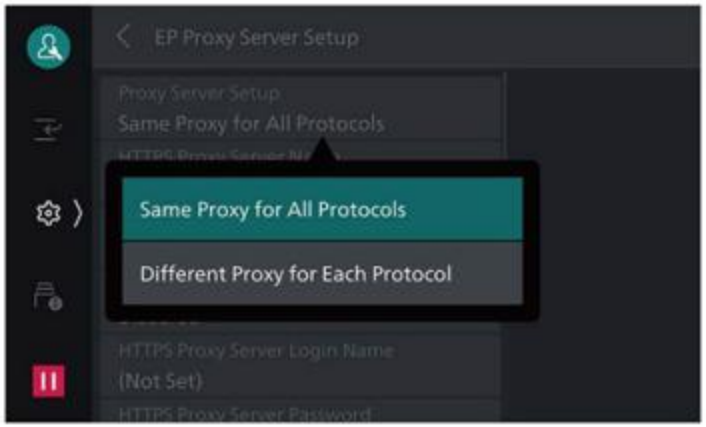


Figure 1 mbl640017

3. Set the Proxy Server for EP-BB communication based on the [EP-BB Installation Order] by using any of the following methods.
   - System Administrator Mode ([Device] → [Network Settings] → [EP Proxy Server Setup])
   - Internet Services ([System] → [EP Service] → [EP Proxy Server Setup]) (This setting is not required when the Proxy Server is automatically set or when the Proxy Server is not used)

	Setting Item		Remarks
1	Proxy Server Setup		When different Proxy Servers or port numbers are specified for HTTPS (Secure) and HTTP respectively, select [Different Proxy for Each Protocol].
2	HTTPS Proxy Server	Server Name	Specify the Server Name or the IP Address. HTTPS (Secure) is used for the usual communication with the EP center.
3		Port Number	
4		Authentication	
5		Login Name	
6		Password	

	Setting Item		Remarks
7	HTTP Proxy Server	Server Name	Specify the Server Name or the IP Address. HTTP is used for communication when obtaining the Firmware using the Firmware Update Service. This setting is not required when the Proxy Servers for HTTPS (Secure) and HTTP are the same.
8		Port Number	
9		Authentication	
10		Login Name	
11		Password	

4. Enter the UI Diag and select [Maintenance / Diagnostics] → [EP Service] → [EP Registration / Cancel Registration] → [BB Registration]. (Figure 2)
Set each item and [Staff ID] (Company Identifier + 5 digits) based on the [EP-BB Installation Order].
The settings for [Proxy Server] that was set in Step 3 is displayed as is.

NOTE

To register the usage of 4Gnet-BOX, put a checkmark at [Use 4G/3Gnet-BOX], enter the [Staff ID] (Company Identifier + 5 digits), and select [Start]. This will invalidate any proxy server related settings. For more details on installation of 4Gnet-BOX, refer to "Installation of 4Gnet-BOX (9.2.28)" in Chapter 9. (Figure 2)

NOTE

If the checkbox for [Use 4G/3Gnet-BOX] is not displayed on the EP Registration / Cancel Registration screen, it means that the 4Gnet-BOX is not recognized by the Device. Stop the installation and registration procedure, check the connection of the USB Cable between the Device and the 4Gnet-BOX, and check the Status LED of the 4Gnet-BOX.

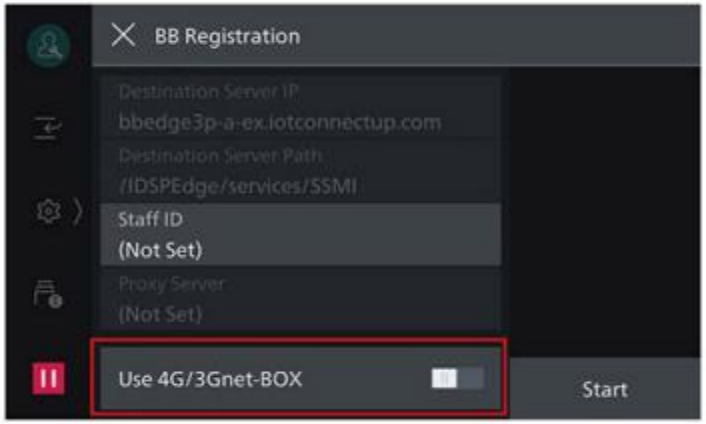


Figure 2 mbl640018

5. Selecting [Start] will display the settings confirmation screen. Check the contents and then select [Start].
6. The message: [Registration is in progress.] is displayed and, within approx. 1 minute, [Registration is successfully completed.] will be displayed.
If the registration has failed, a Fault Code will be displayed. Refer to the Service Manual to solve the problem.
7. Check the [Firmware Update Feature Disabled] checkbox based on the [EP Service License Application Form].

NOTE

If there is a check mark at the [Firmware Update Feature Disabled] checkbox, exit from the UI Diag to complete the EP-BB Registration. (Do not perform Step 8 onwards.)

8. Set the NVM of the following Chain-Link from "0" → "1" using the NVM Read/Write of UI Diag mode.

Chain-Link	Setting Value	Setting Data
920-053: Software Update (KO) Flag	0 (Default)	Do not display
Displays the [Software Update] button on the System Administrator's Maintenance screen.	1	Display
920-054: Software Update (CE) Flag	0 (Default)	Do not display
Displays the [Software Update] button on the UI Diag's Maintenance screen.	1	Display

9. From the UI Diag, select [Maintenance / Diagnostics] → [EP Service] → [EP Service Parameters], and check whether the following settings items are [Enabled].
   - [Display Software Update Button (KO)] → [Enabled]
   - [Display Software Update Button (CE)] → [Enabled]
10. After checking the service parameters, select [Send Settings to Server] and exit from the UI Diag mode. (The Device will automatically restart.)
11. In the System Administrator Mode, select [Device] → [Maintenance] → [Software Update].
12. When the message is displayed on the Panel, perform the following actions.

Message	Actions
The Device has already been updated to the latest version.	(1) Exit from the System Administrator Mode to finish the EP- BB Registration.
Software version verified .	(1) Select [Start Update]. When the confirmation screen appears, select [Yes]. (2) When the Firmware download has completed, check the progress of the software update. (3) Finish the EP-BB Registration.
An error has occurred. Unable to retrieve the software version. (021-532 or 021-533)	(1) From the UI Diag, select [Maintenance / Diagnostics] → [Others] → [Software Update]. (2) Select [Start Update]. When the confirmation screen appears, select [Yes]. (3) When the Firmware download has completed, check the progress of the software update. (4) After the update has completed, change the required NVM settings. (5) Finish the EP- BB Registration. the to the
An error has occurred . Unable to retrieve the software version. (For other than the above error codes)	(1) Troubleshoot problem by referring Service Manual and finish the EP- BB Registration.

NOTE
If Fail Code 117-341 occurred during EP-BB registration, it is usually because the certificate in use has a different encryption method.
In this case, perform [Cancel EP- BB Registration] then perform [Maintenance / Diagnostics] → [EP Service] → [Delete EP Certificate], and then register again.

Registration Through EPA-Server (EP Communication Aggregation Server)

NOTE
The EPA Server Registration must be performed on a Device that has undergone a complete Network Settings and hence is capable of operating normally over the network.

NOTE
When performing a registration through EPA Server for DMP-X Devices, the operation requires that an EPA Server Ver 1.1 or later has been installed and in operation.

1. Check that the "Settings during Installation > Network Settings" based on "EP-BB Installation Order" or "Installation Order" of the Device has been completed.

	Setting Item	Remarks
1	IP Address (IPv4)	
2	IP Subnet Mask (IPv4)	
3	Gateway Address (IPv4)	
4	DNS Server Address	(1) There is no need to register the DNS Server when the EPA Server Address is set as the IP Address. (2) If setting two or more DNS, configure the settings in Internet Services.

2. Enter the UI Diag and select [Maintenance / Diagnostics] → [EP Service] → [EP Registration / Cancel Registration] → [EPA Server Registration]. (Figure 3)
   Set each item and [Staff ID] (Company Identifier + 5 digits) based on the [EP-BB Installation Order].



3. Selecting [Start] will display the settings confirmation screen. Check the contents and then select [Yes].
4. The message: [Registration is in progress.] is displayed and, within approx. 1 minute, [Registration is successfully completed.] will be displayed.
   If the registration has failed, a Fault Code will be displayed. Refer to the Service Manual to solve the problem.
5. Check the [Firmware Update Feature Disabled] checkbox based on the [EP Service License Application Form].

   NOTE

   If there is a check mark at the [Firmware Update Feature Disabled] checkbox, exit from the UI Diag to complete the EP-BB Registration. (Do not perform Step 6 onwards.)

6. Set the NVM of the following Chain-Link from "0" → "1" using the NVM Read/Write of UI Diag mode.

Chain-Link	Setting Value	Setting Data
920-053: Software Update (KO) Flag Displays the [Software Update] button on the System Administrator's Maintenance screen.	0 (Default)	Do not display
	1	Display
920-054: Software Update (CE) Flag Displays the [Software Update] button on the UI Diag's Maintenance screen.	0 (Default)	Do not display
	1	Display

7. From the UI Diag, select [Maintenance / Diagnostics] → [EP Service] → [EP Service Parameters], and check whether the following settings items are [Enabled].
   - [Display Software Update Button (KO)] → [Enabled]
   - [Display Software Update Button (CE)] → [Enabled]
8. After checking the service parameters, select [Send Settings to Server] and exit from the UI Diag mode. (The Device will automatically restart.)
9. In the System Administrator Mode, select [Device] → [Maintenance] → [Software Update].
10. When the message is displayed on the Panel, perform the following actions.

Message	Actions
The Device has already been updated to the latest version.	(1) Exit from the System Administrator Mode to finish the EP-BB Registration.
Software version verified.	(1) Select [Start Update]. When the confirmation screen appears, select [Yes]. (2) When the Firmware download has completed, check the progress of the software update. (3) Finish the EP-BB Registration.
An error has occurred. Unable to retrieve the software version. (021-532 or 021-533)	(1) From the UI Diag, select [Maintenance / Diagnostics] → [Others] → [Software Update]. (2) Select [Start Update]. When the confirmation screen appears, select [Yes]. (3) When the Firmware download has completed, check the progress of the software update. (4) After the update has completed, change the required NVM settings. (5) Finish the EP-BB Registration. the to the
An error has occurred. Unable to retrieve the software version. (For other than the above error codes)	(1) Troubleshoot problem by referring Service Manual and finish the EP-BB Registration.

NOTE

If Fail Code 117-341 occurred during EP-BB registration, it is usually because the certificate in use has a different encryption method. In this case, perform [Cancel EP-BB Registration] then perform [EP Service] → [Delete EP Certificate], and then register again.

Cancel EP-BB Registration 1 (Normal Cancellation)

- The cancellation procedure when it is possible to communicate with the EP Center is as follows.

1. Enter the UI Diag and select [Maintenance / Diagnostics] → [EP Service] → [EP Registration / Cancel Registration].
2. Select [Cancel Registration] and select [Start].
3. When the settings confirmation screen is displayed, check the contents and select [Yes].
4. Exit from the UI Diag.

Cancel EP-BB Registration 2 (Forced Cancellation)

- The forced cancellation procedure for a Device that is unable to communicate with the EP Center is as follows.

1. Enter the UI Diag and select [Maintenance / Diagnostics] → [Diagnostics] → [DC131 NVM Read/Write].
2. Change Chain-Link 920-001 from [2] → [0].
3. Exit from the UI Diag.
4. The applicable Device is remotely canceled* via the EP Web Client (Maintenance) on the internal eHUB system.
   *: When an EP-BB Registered Device has had its NVM PWB (eMMC) undergone NVM Initialization, the cancellation can only be performed remotely.

Relocate EP-BB Registration 1 (Normal Relocation)

- The relocation procedure for a Device that is already registered to a different network is as follows.

1. Check that the network settings at the destination and the EP Proxy Server settings have already been completed.
2. Enter the UI Diag and select [Maintenance / Diagnostics] → [EP Service] → [Check EP Connection].
3. When the Confirm screen is displayed, select [Yes].
   If the communication has failed, a Fault Code will be displayed. Refer to the Service Manual to solve the problem.
4. Exit from the UI Diag.

Relocate EP-BB Registration 2 (Relocation via EPA Server)

- The relocation procedure for a Device that is already registered by changing it via an EPA Server is as follows.

1. Perform cancellation according to Cancel EP-BB Registration.
2. Perform EP-BB Registration according to the registration procedure that goes through the EPA Server (EP Communication Aggregation Server).

6.4.2.2 DC118 Jam Counter

Purpose

Displays the number of times jams had occurred since the previous reset due to [Exit when work completed] up to now.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC118 Jam Counter].
3. The following Items are displayed on the [Jam Counter] screen.
   - Chain-Link
   - Count

   NOTE
   - Displays the history of paper/ document jams based on the data obtained from the Device.
   - Select [Clear Error Log History] from the previous Diagnosis Completion screen to display the time from when you exited the CE mode to the present.
   - The Count is reset when exiting using [Clear Error Log History].
4. Select [Close] to return to the Diagnostics screen.

6.4.2.3 DC120 Failure Counter

Purpose

To display the Count for failures that have occurred since the previous reset due to [Exit when work completed] up to now.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC120 Failure Counter].
3. The following Items are displayed on the [Failure Counter] screen.
   - Chain-Link
   - Count

   NOTE
   - Displays the history of failures based on the data obtained from the Device.
   - Select [Clear Error Log History] from the previous Diagnosis Completion screen to display the time from when you exited the CE mode to the present.
   - The Count is reset when exiting using [Clear Error Log History].
4. Select [Close] to return to the Diagnostics screen.

6.4.2.4 DC122 Fault History

Purpose

To display the history in 4 categories: Document Feeder Jam, Paper Jam, Last 40 Faults, and Other Failures.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC122 Fault History].
3. The following items are displayed on the [Fault History] screen.
   The Chain-Link, Date & Time, and Total CV of the selected items are displayed on the screen.
   - Paper Jam
   - Document Jam
   - Failure
   - Latest 40 Faults

   NOTE
   - Displays the history of failures based on the data obtained from the Device.
   - Select [Clear Error Log History] from the previous Diagnosis Completion screen to display the time from when you exited the CE mode to the present.
   - The Count is reset when exiting using [Clear Error Log History].
4. Selecting any of [Paper Jam], [Document Jam], [Failure], [Last 40 Faults] displays the Chain-Link, Date & Time, and Total CV.
5. Select [Close] to return to the Diagnostics screen.

6.4.2.5 DC125 Current Faults

Purpose

Displays all currently occurring faults in a list to assist a CE that is performing diagnostics/ repair in Diag mode.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC125 Current Faults].
3. The following items are displayed on the Fault screen.
   - Fault in occurrence
   - Jam Counter
   - Failure Counter
   - Shutdown History
4. The latest 40 faults are displayed in [Current Faults].
5. Selecting [Jam Counter] or [Failure Counter] displays the Chain-Link and the number of occurrences.
6. Selecting [Shutdown History] displays the Chain-Link, Date & Time, and Total CV for [Paper Jam], [Document Jam], [Fail], and [Last 40 Faults].
7. Return to the Faults screen and select [Close] to return to the Diagnostics screen.

6.4.2.6 DC126 System Registration Adjustment

NOTE

For details, refer to ADJ 18.1.1 in Chapter 4.

6.4.2.7 DC131 NVM Read/Write

Purpose

Makes reference to, or sets up/changes the NVM data.

NOTE
All the NVM data including the NVM for the Key Operator are accessible. However, the billing, authentication/ accounting function, and admin password cannot be rewritten.

NOTE
For details on NVM No. (Chain-Link), refer to 6.3.4.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC131 NVM Read/Write].
3. Entering a Chain-Link No. displays the current setting value.

   NOTE
   E.g. The Device does not accept [700-6] as an abbreviation of [700-006]. When a number starts with "0", the "0" must be entered.

4. Select [Change], enter the value that you wish to change to into the [New Value] field using the Keypad and select [Save].
   The entered value can be cleared with the [X] button.

   NOTE
   If the entered value is invalid, the following message is displayed.
   [Incorrect value. Please re-enter.]

5. The entered number is displayed in the [Current Value] column.
6. Select [Close] to return to the Diagnostics screen.

6.4.2.8 DC132 Device ID / Billing Data

Purpose

To repair the mismatch Serial No., Product No., and Billing Counter Value among the PWB when MCU Drive PWB or ESS PWB is replaced, set those values stored in non-replaced PWB to the replaced PWB.

DC132 can be performed when one of the following failures occurs:

- 124-324 (Billing Data is mismatched at 3 locations)
- 124-325 (Billing Data is mismatched at 1 locations)
- 124-312 (Any Product No. mismatched)
- 124-313 (Any Serial No. mismatched)
- 124-315 (DC132 System Fail-2)
- 124-317 (DC132 System Fail-4)
- 124-319 (DC132 System Fail-8)
- 124-326 (Unregistered IOT Speed)
- 124-341 (CRUM Market fail IOT)
- 124-342 (CRUM Market fail SYS1)
- 124-343 (CRUM Market fail SYS2)
- 124-351 (CRUM OEM fail IOT)
- 124-352 (CRUM OEM fail SYS1)
- 124-353 (CRUM OEM fail SYS2)
- 124-361 (CRUM validation fail IOT)
- 124-362 (CRUM validation fail SYS1)
- 124-363 (CRUM validation fail SYS2)
- 124-381 (CRUM Market fail IOT (2))
- 124-382 (CRUM Market fail SYS1 (2))
- 124-383 (CRUM Market fail SYS2 (2))
- 124-391 (CRUM OEM fail IOT (2))
- 124-392 (CRUM OEM fail SYS1 (2))
- 124-393 (CRUM OEM fail SYS2 (2))
- 124-344 (Billing Meter Type Fail (different at all 3 locations))
- 124-345 (Billing Meter Type Fail (at least 1 location is mismatched, unable to correct automatically))
- 124-346 (Billing Count Type Fail (different at all 3 locations))

- 124-347 (Billing Count Type Fail (at least 1 location is mismatched, unable to correct automatically))
- 124-348 (Modal Break Point Fail (different at all 3 locations))
- 124-349 (Modal Break Point Fail (at least 1 location is mismatched, unable to correct automatically))

NOTE

The Serial No., Product No. and Billing Information are held at the following 3 locations respectively.

1. EEPROM on the ESS PWB
2. Memory on ESS PWB
3. Memory on MCU Drive PWB

- The IOT displayed on UI screen represents the MCU Drive PWB, while SYS1/SYS2 represents the ESS PWB.

NOTE

- This function can only be used when failure has occurred.
  (This function is supposed to be available with the failure active.)
- When exiting the Service Mode after setting the Serial Number, the failure will be cancelled.
  (The Print Test Pattern is not available with the failure active.)

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC132 Device ID / Billing Data].
3. The [Device ID/Billing Data] screen is displayed.
4. Follow the instructions on the screen, select the PWBA that was not replaced or the PWBA with the correct data and select [Start].
5. Enter the Serial Number and select [Confirm].
6. Select [Close] to return to the Diagnostics screen.

6.4.2.9 DC135 HFSI Counter

Purpose

To display the Spec Life (threshold value) and the Current Value (usage status) of the periodic replacement parts. You can change the Spec Life and reset the Current Value.

The Job History can be used to record/check the previous 3 replacements.

NOTE

For details on the HFSI Counter Codes, refer to 6.3.3 in Chapter 6.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC135 HFSI Counter].
3. The HFSI Counter screen is displayed.
4. Select the parts to be replaced and select [Details].
5. The [Details] screen appears to display the [Chain-Link] and the [Part Name] of the parts to be replaced, as well as the [Spec Life], [Current Value], [Last Replacement], [Second Last Replacement], and [Third Last Replacement] counters.
6. If you want to reset the Current Value, select [Reset Current Value]. The Reset Current Value screen is displayed.
   - Following the message and selecting [Reset] will update the previous 3 replacement records in the HFSI Counter as follows.
   (1) The [Second Last Replacement] value is moved to [Third Last Replacement].
   (2) The [Last Replacement] value is moved to [Second Last Replacement].
   (3) The [Current Value] value is moved to [Last Replacement].
   (4) The [Current Value] value is set to "0".
7. If you want to change the Spec Life, select [Change Spec Life]. The [Change Spec Life] screen is displayed.
8. Set the new Spec Life (Max. 8 digits) using the selection buttons or the keyboard and select [Save] to confirm.
   - The [Spec Life] value is overwritten with the new [Spec Life] value.
9. Print and verify the HFSI Report as required.
10. Select [Close] to return to the Diagnostics screen.

6.4.2.10 DC140 Analog Monitor

Purpose

To monitor the Analog value of the A/D converted sensor by operating the various components (such as C.C). You can temporarily change the output value.

NOTE
For details on Analog Monitor Code, refer to 6.3.2 in Chapter 6.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC140 Analog Monitor].
3. The [Analog Monitor] screen is displayed.
   - [Input/Output] column: Component type (Input/Output component)
   - [Enabled/Disabled] column: Operation states - Enabled (Checking in progress), Disabled (Checking stopped)
   - [Level] column: Displays the received output level value. (Level: 0 to 65535)
   - [Change Output Level] button: To temporarily change the output level of an Output component for checking purposes, enter the component which output level you want to change. Select [Change Output Level], enter the value using either the Keypad on the screen or the arrow keys and select [Save].
   - [Enter Number] button: Refer to Step 4
   - [Show Current Status] button: Refer to Step 4
4. Enter the Chain-Link No. of the analog Input/Output components using the Keypad.
   - To proceed, select [Enter Number] on the screen, enter the Chain-Link No. and press Start.

     NOTE
     The status of the latest turned ON component is displayed on the screen.

   - To check the status of a previously turned ON component, select [Enter Number], enter the Chain-Link No. of that component and select [Show Current Status]. The status of the previously turned ON component is displayed.
5. Select [Stop Current Component] or [Stop All Components] to stop the component operation.
6. Select [Close] to return to the Diagnostics screen.

6.4.2.11 DC301 Initialize NVM

Purpose

To perform initialization for any NVM area.

NOTE
At NVM Initialize, do not initialize the settings for Billing Counter, Device Serial No., Market, HFSI, Shutdown History, and Jam/Failure Counter. The values of Shutdown History and Jam/Failure Counter are cleared by the process that is specified at Diag Exit (Exit Diagnostics). The user-specified Fax speed dial registered data, folder registered data, and user-managed authentication/accounting functions and passwords can be deleted using the KO Tool

NOTE
NVM Initialization Precautions

- After initializing the NVM, take out the inspection sheet that comes with the Device and input the NVM values ([ATC Setup Coefficient], [ATC Setup Offset], [ATC_Barcode_No], and [deltaATC target Setup correction]) that are listed for each color. If you did not perform this operation, toner density control may not be carried out properly and may cause problems.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC301 Initialize NVM].
3. The [Initialize NVM] screen is displayed.
4. Select the area to be initialized.

Target Area	Description
IOT	IOT Main
FINISHER	-
IISS (IIT/IPS)	-
Input Device	DADF
Sys- SYSTEM	System area that can be set in CE Mode
Sys- USER	System area that can be set by a User

5. Select [Start].
6. Follow the message shown on the [Initialize NVM] screen and select [Yes] or [No].
7. Select [Close] to return to the Diagnostics screen.

6.4.2.12 DC330 Component Control

Purpose

To display the logic state of Input Component input signals and operates the Output Components.

NOTE
For details on Component Control (Chain-Link) Code, refer to 6.3.1 in Chapter 6.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC330 Component Control].
3. Enter the Chain-Link No. (6 digits) of the Input/Output components using the Keypad.

   NOTE
   E.g. The Device does not accept [001-300] as an abbreviation of [1-300]. When a number starts with "0", the "0" must be entered.

4. Press Start. The component will start operating.
   - To proceed, select [Enter Number] on the screen, enter the Chain-Link No. and press Start.

     NOTE
     The status of the latest turned ON component is displayed on the screen.

   - To check the status of a previously turned ON component, select [Enter Number], enter the Chain-Link No. of that component and select [Show Current Status]. The status of the previously turned ON component is displayed.
   - If [Cycle Motion] is selected, the operation is repeated for the component.
   - A beep will sound according to the status of input components. The volume can be set by selecting [Volume] and toggling through the Loud, Normal, Soft, Off sequence. The default volume is [Off] and the changed volume will be effective until the Power is turned OFF.
5. [Input / Output] column (component type), [Status] column (Operation status: High/Low), and [Counter] column (Operation Count) are displayed on the [Component Control] screen.
6. Select [Stop Current Component] or [Stop All Components] to stop the component operation.
7. Select [Close] to return to the Diagnostics screen.

6.4.2.13 DC355 Storage Failure Prediction Test (Storage Diagnostics)

Purpose

To perform failure prediction test for the SSD.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC355 Storage Diagnostics].
3. Select [Storage Failure Prediction Test].
4. The Storage Failure Prediction Test screen is displayed.
5. Follow the instructions on the screen and press Start.
6. The result is displayed on the Storage Failure Prediction Test screen.
7. If the result is [NG], a Fault Code will be displayed.
   Take action according to the message and select [Confirm].
8. Select [Close] to return to the Diagnostics screen.

6.4.2.14 DC355 Initialize Storage (Storage Diagnostics)

Purpose

To initialize Storage Partition A only.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC355 Storage Diagnostics].
3. Select [Initialize Storage].
4. The Initialize Storage screen is displayed.
5. Select [Partition A] and press [Start].
6. When the confirmation message is displayed, select [Yes].
   Storage Partition A is initialized.
7. [Initialization of Partition A is successfully completed.] - is displayed, select [Confirm].
8. Select [Close] to return to the Diagnostics screen.

6.4.2.15 DC363 Back Up / Restore NVM

<110-sheet DADF>

Purpose

To back up/restore the NVM data of the IIT/IOT to the eMMC of the ESS PWB. To prevent NVM data from being lost when the IIT/IOT device is replaced.

NOTE
The IIT and IOT devices described here indicate the following. In addition, when the following devices are replaced, NVM data must be backed up/restored.

[IIT]

NOTE
IIT-related NVM data storage destination: EEPROM of the following devices

- CCD Assembly(IIT NVM)
- DADF PWB

[IOT]

NOTE
IOT-related NVM data storage destination: EEPROM of the following devices

- MCU Drive PWB

Precautions

- Do not turn OFF the power during Backup. Otherwise, the NVM data that has been backed up in the eMMC of the ESS PWB may be damaged. If the power is turned OFF, the NVM data is not guaranteed.
- Do not turn OFF the power during Restore. Otherwise, the EEPROM of the CCD Assembly and the eMMC of the ESS PWB will be damaged. If the power is turned OFF, the NVM data and normal operation after power-ON are not guaranteed.
- If NVM Backup has never finished successfully for some reason, NVM Restore will also be completed with error.
- Since NVM Restore function returns the NVM value to the previous NVM Save state, the count data (HFSI, Recycle, Diagnostics data, etc.) will also return to the value at the time of NVM Save.
- The IIT processes up to three NVM (IIT/CVT/Extension) data during a single Backup/Restore. When all NVM Backup/Restore have been performed and one or more of them have been completed successfully, "Completed" is notified.

- If the IIT/DADF configuration is changed after installation, NVM Restore after the first power-ON is not guaranteed.
- If the IIT/DADF Firmware is updated and NVM configuration is changed after installation, NVM Restore after the first power-ON is not guaranteed. (When a new NVM value is added, the new NVM value must be set manually after NVM Restore.)

Procedure

[Back Up]

1. On the [Maintenance / Diagnostics] screen, select [Diagnostics].
2. Select [DC363 Back Up / Restore NVM].
3. Select [IOT] or [IIT] and select [Back Up Files].
   - Back up the NVM data from the NVM (EEPROM) of the selected IOT or IIT device to the eMMC of ESS PWB.
   - When NVM data is backed up, the NVM data that was backed up in the previous process is deleted and replaced with the current NVM data.
4. When the confirmation message is displayed, select [Yes].
5. When [NVM backup is successfully completed.] or [NVM backup has completed with an error.] is displayed, press the [Confirm] button.
6. Select [Close] to return to the [Diagnostics] screen.

[Restore]

1. On the [Maintenance / Diagnostics] screen, select [Diagnostics].
2. Select [DC363 Back Up / Restore NVM].
3. Select [IOT] or [IIT] and select [Restore].
   - The NVM data that was backed up to the eMMC of the ESS PWB is restored to the NVM (EEPROM) of the selected IOT or IIT device.
4. When the confirmation message is displayed, select [Yes].
5. When [NVM restoration is successfully completed.] or [NVM restoration has completed with an error.] is displayed, press the [Confirm] button.
6. Select [Close] to return to the [Diagnostics] screen.

6.4.2.16 DC500 Blank Page Threshold Value (models with Fax)

Purpose

To set the threshold value used to determine blank pages when performing blank page detection for Fax Devices.

(For Devices that are frequently used by visually impaired users, the CE performs document background settings using this tool)

NOTE

The UI Diag adjustment will always be performed immediately after [Blank Page Threshold Value]. (The Fax Skip Blank Pages Feature becomes valid when the NVM: 820- 123 value is set to "1")

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC500 NVM Blank Page Threshold Value].
3. The Blank Page Threshold Value screen is displayed.
4. Follow the message and load the document in the DADF. (A4LEF)
5. Select [Start].
6. 1 Sided Scan is performed by the DADF, the [Threshold Value Coefficient] is displayed and set.
7. Select [Close] to return to the Diagnostics screen.

[System Data Adjustment]

1. Blank Data Prediction Correction Coefficient (NVM: 820- 127)
   The adjustment range is from 1000 to 1500 (Default: 1000). Increasing this value may cause even non-blank documents to be detected as blanks, while lowering it results in only document that are practically blank papers to be detected as blanks.
2. Blank Detection Threshold Correction Coefficient (NVM: 820- 128)
   The adjustment range is from 0 to 500 (Default: 250). Increasing this value will cause non-blank originals to be detected as blank, while lowering it will cause only originals that are nearly blank to be detected as blank.

6.4.2.17 DC527 ADF Independent Operation

NOTE
For details, refer to ADJ 57.1.6 in Chapter 4.

6.4.2.18 DC612 Print Test Pattern

Purpose

To perform image quality check and isolate the problems by printing the Test Pattern in the Device.

Performs No Paper Run.

NOTE
Perform this operation after verifying that there is enough paper loaded in the Tray to be used. (If No Paper condition occurs during the execution, printing failure may occur on the paper that is being fed. The paper being used here are not counted.)

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC612 Test Pattern Print.].
3. Set a Test Pattern Number.
   - If the Pattern Number prerequisite is wrong, it cannot be executed. Refer to the following table for the prerequisites for each pattern.
4. Select the following Setting Items and set the Setting Values.
   - Pattern Number
   - Copies
   - Paper Supply
   - Output Color
   - Cin%
   - Select Screen
5. Press Start.

   NOTE
   When Pattern Number is set to [71: No Paper Run], empty rotation is performed as many times as the number set in Quantity (1 to 99). Press the [Stop] button to stop.
6. Select [Close] to return to the Diagnostics screen.

[DC612 Print Test Pattern (IOT: Halftone)]

- * indicates the default display.

Table 1 DC612 Print Test Pattern (IOT_LPH: MCU Drive PWB)

No.	Name	Purpose/Overview	Number of Sheets	Image Size	Tray	When Using MSI - Paper Size	When Using MSI - Paper Type	Simp/ Dup	Color Mode	Screen	Cin (%)	Resolution	Image Built-in Sub
1	Grid	For isolating problems (Cannot be used for regi adjustment)	1-999	Not fixed (*1)	1-4 MSI	A3* A4LEF Letter LEF (8.5x11") Ledger (11x17")	(*2)	Simp* / Dup	BW	150Dot, 200Dot, 200Line, 300Dot, 600Dot (*3)	-	-	IOT
2	LPH Chart LM	For LPH line detection	Same as above	A3	Same as above	A3	Same as above	Simp	Same as above	Same as above	-	-	IOT
3	LPH Chart IBY	For LPH line detection and for isolating causes of Video data failure	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	-	-	LPH

*1: This is the paper size in the selected tray.

*2: All the paper types for IOT can be set.

*3: Although these screen can be specified from the UI, it actually uses the fixed screen that are available in the IOT.

[DC612 Print Test Pattern (Controller)]

- * indicates the default display.

Table 2 Controller

No.	Name	Purpose/Overview	Quantity	Image Size(*5)	Tray(*4)	When Using MSI - Paper Size(*4)	Paper Types when using MSI	Simp/Dup	Color Mode	Screen	Cin[%]	Resolution	Tone
51	Total_ Pattern_ 6 0 0 _ A3	For adjustment and determining problems during development/ evaluation/ production/ at the market	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600 x 600	Binary
52	Total_ Pattern_600_ 11x17	For adjustment and determining problems during development/ evaluation/ production/ at the market	1-999	11x17	1-4 MSI	A3/A4L/11x17*/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600 x 600	Binary
53	Total_ Pattern_ 1 2 0 0 _ A3	For adjustment and determining problems during development/ evaluation/ production/ at the market	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	1200 x 1200	Binary
54	Total_ Pattern_ 1 2 0 0 _ 11x17	For adjustment and determining problems during development/ evaluation/ production/ at the market	1-999	11x17	1-4 MSI	A3/A4L/11x17*/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	1200 x 1200	Binary
55	HT_600	For adjustment and determining problems during development/ evaluation/ production/ at the market	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	0-100	600 x 600	Binary
56	HT_1200	For adjustment and determining problems during development/ evaluation/ production/ at the market	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	0-100	1200 x 1200	Binary
57	Total_ Chart(Line) BW_ A3	For adjustment and determining problems during development/ evaluation/ production/ at the market	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600 x 600	Binary
58	Total Chart(Line) BW_ 1 1 x1 7	For adjustment and determining problems during development/ evaluation/ production/ at the market	1-999	11x17	1-4 MSI	A3/A4L/11x17*/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600 x 600	Binary
59	IN- OUT Adjustment (Primary Color) _ A3	For adjustment and determining problems during development/ evaluation/ production/ at the market	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600 x 600	Binary

Table 2 Controller

No.	Name	Purpose/Overview	Quantity	Image Size(*5)	Tray(*4)	When Using MSI - Paper Size(*4)	Paper Types when using MSI	Simp/Dup	Color Mode	Screen	Cin[%]	Resolution	Tone
60	SDTP123600_A3	For alignment adjustment and isolating problems during development/ evaluation/ production/ at the market	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp*/ Dup	BW	Gradation/ Fineness	-	600 x 600	Binary
61	Procon PG_600	For tone characteristics, defect detection	1-999	A4L	1-4 MSI	A3/A4L*/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600 x 600	Binary
62	Procon PG_ 1200	For tone characteristics, defect detection	1-999	A4L	1-4 MSI	A3/A4L*/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	1200x 1200	Binary
63	Density_ Adj	For ejecting deteriorated toner to recover from image quality failure (low density) at the market.	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600 x 600	Binary
64	HT5 0 K Ladder	For defect detection/ banding (K color)	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp*/ Dup	BW	Gradation/ Fineness	-	600 x 600	Binary
65	ATCNBW_0600_A3	For tone characteristics, defect detection	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600 x 600	Binary
66	ATCNBW_0600_11x17	For tone characteristics, defect detection	1-999	11x17	1-4 MSI	A3/A4L/11x17*/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600 x 600	Binary
67	ATCNBW_1200_A3	For tone characteristics, defect detection	1-999	A3	1-4 MSI	A3/A4L/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	1200 x 1200	Binary
68	ATCNBW_1200_11x17	For tone characteristics, defect detection	1-999	11x17	1-4 MSI	A3/A4L/11x17*/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	1200 x 1200	Binary
71	No Paper Run	For specifying the DC710 No Paper Run function	1-99	A4L/ 8.5x11L	Tray1	-	-	Simp	BW	-	-	-	-
280	Market Support Batch Output (A3)	TS batch output area	1-999	A3	1-4 MSI	A3*/A4L/11x17/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600x600	Binary
281	Market Support Batch Output (11x17)	TS batch output area	1-999	11x17	1-4 MSI	A3/A4L/11x17*/ 8.5x11L	Custom	Simp	BW	Gradation/ Fineness	-	600x600	Binary
282	TS Batch Output 03	TS batch output area	-	-	-	-	-	-	-	-	-	-	-
283	TS Batch Output 04	TS batch output area	-	-	-	-	-	-	-	-	-	-	-
284	TS Batch Output 05	TS batch output area	-	-	-	-	-	-	-	-	-	-	-
285	TS Batch Output 06	TS batch output area	-	-	-	-	-	-	-	-	-	-	-
286	TS Batch Output 07	TS batch output area	-	-	-	-	-	-	-	-	-	-	-
287	TS Batch Output 08	TS batch output area	-	-	-	-	-	-	-	-	-	-	-
288	TS Batch Output 09	TS batch output area	-	-	-	-	-	-	-	-	-	-	-
289	TS Batch Output 10	TS batch output area	-	-	-	-	-	-	-	-	-	-	-
290	Line Batch Output 01	Line batch output area	-	-	-	-	-	-	-	-	-	-	-

Table 2 Controller

No.	Name	Purpose/Overview	Quantity	Image Size(*5)	Tray(*4)	When Using MSI - Paper Size(*4)	Paper Types when using MSI	Simp/Dup	Color Mode	Screen	Cin[%]	Resolution	Tone
291	Line Batch Output 02	Line batch output area	-	-	-	-	-	-	-	-	-	-	-
292	Line Batch Output 03	Line batch output area	-	-	-	-	-	-	-	-	-	-	-
293	Line Batch Output 04	Line batch output area	-	-	-	-	-	-	-	-	-	-	-
294	Line Batch Output 05	Line batch output area	-	-	-	-	-	-	-	-	-	-	-
295	Line Batch Output 06	Line batch output area	-	-	-	-	-	-	-	-	-	-	-
296	Line Batch Output 07	Line batch output area	-	-	-	-	-	-	-	-	-	-	-
297	Line Batch Output 08	Line batch output area	-	-	-	-	-	-	-	-	-	-	-
298	Line Batch Output 09	Line batch output area	-	-	-	-	-	-	-	-	-	-	-
299	Line Batch Output 10	Line batch output area	-	-	-	-	-	-	-	-	-	-	-

*4: Paper Size:

- If the selected paper size is not supported by Image Size, the default image size will be used. In that case, the area out of the paper size being set for Image Size will be cut.

*5: Image Size

- For items such as A3/11x17, which orientation is not listed, SEF will be specified.

[DC612 Print Test Pattern (IISS: IIT Trans PWB)]

- * indicates the default display.

Table 3 IISS

No.	Name	Tray	When Using MSI - Paper Size	When Using MSI - Paper Type	Simp/Dup	Color Mode	Screen	Resolution	Tone	C-TRACS LUT	IOT LUT
112	IIT Analog Gradation BW	1-4 MSI	A3* A4LEF Letter LEF (8.5x11") Ledger (11x17")	Custom	Simp	BW	CopyED	600x600	Binary	-	-
115	Pre IPS/ FS Increment BW	Same as above	Same as above	Custom	Same as above	BW	CopyED	600x600	Binary	-	-
119	Pre IPS/ SS Increment BW	Same as above	Same as above	Custom	Same as above	BW	CopyED	600x600	Binary	-	-
120	Even Density of the Whole Page			Custom		BW			Binary		
123	Pre IPS/ Shading Data BW	Same as above	Same as above	Custom	Same as above	BW	CopyED	600x600	Binary	-	-
128	Post IPS/ Grid/ BW	Same as above	Same as above	Custom	Same as above	BW	CopyED	600x600	Binary	-	-
170	Copy ED 24 Tone Patch BW	Same as above	Same as above	Custom	Same as above	BW	CopyED	600x600	Binary	On* , Off	On* , Off

[Test Pattern Image Information Flow (Overall)]

NOTE

Each PG No. in the following image information flow corresponds to the pattern No. in Print Test Pattern.

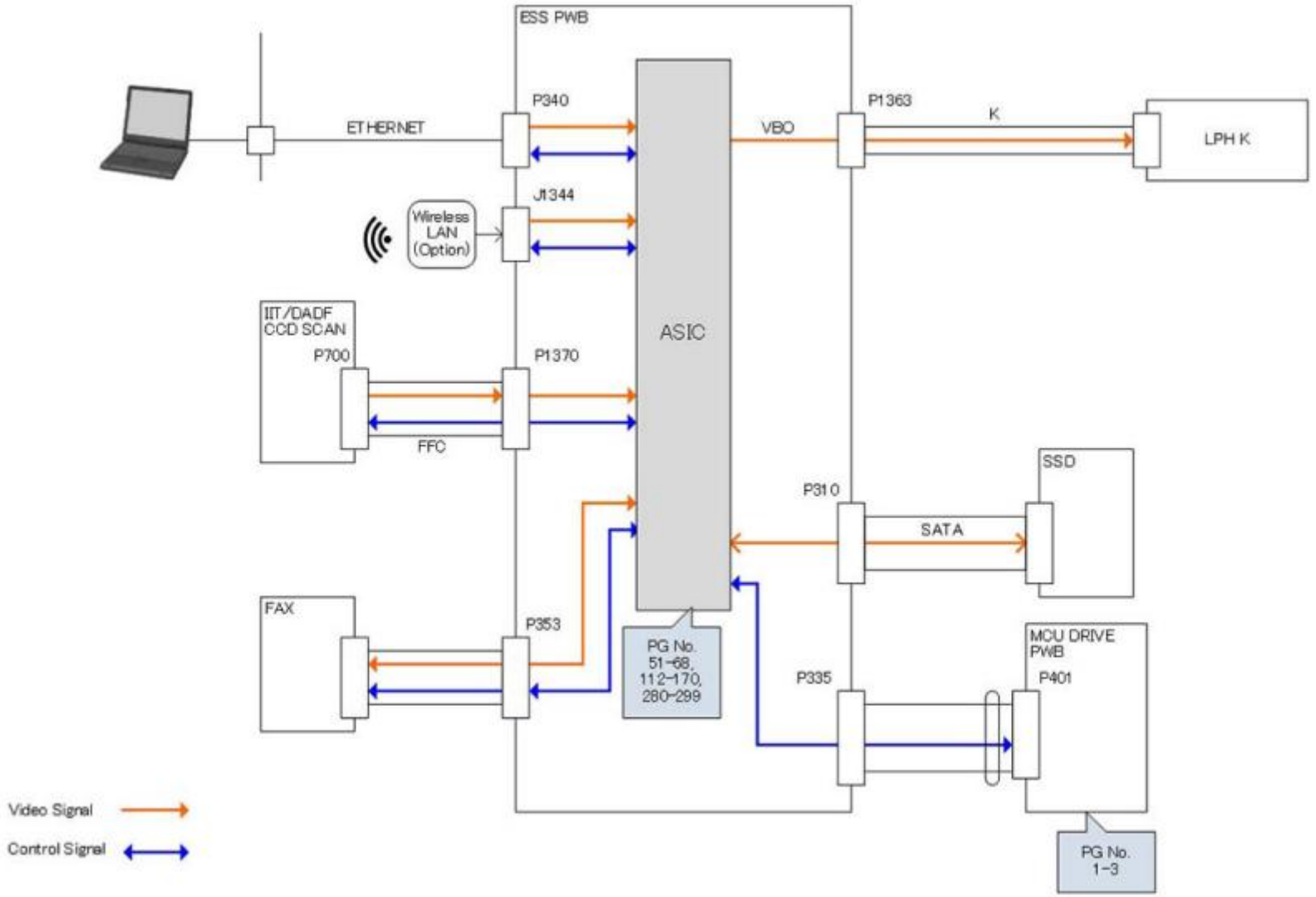


Figure 1 mnt640001

6.4.2.19 DC740 Tray 5 (Bypass) Guide Adjustment

NOTE

For details, refer to ADJ 18.1.3 in Chapter 4.

6.4.2.20 DC945 IIT Calibration (White Reference Adjustment)

NOTE

For details, refer to ADJ 1.1.6 in Chapter 4.

6.4.2.21 DC945 IIT Calibration (CCD Calibration)

NOTE

For details, refer to ADJ 1.1.7 in Chapter 4.

6.4.2.22 DC945 IIT Calibration (Optical Axis Correction)

NOTE

For details, refer to ADJ 1.1.8 in Chapter 4.

6.4.2.23 DC945 IIT Calibration (Side 2 Shading Correction)

NOTE

For details, refer to ADJ 1.1.9 in Chapter 4.

6.4.2.24 DC945 IIT Calibration (White Reference Adjustment - Side 2)

NOTE

For details, refer to ADJ 1.1.10 in Chapter 4.

6.4.2.25 DC945 IIT Calibration (CCD Calibration - Side 2)

NOTE

For details, refer to ADJ 1.1.11 in Chapter 4.

6.4.2.26 DC991 Adjust Toner Density

NOTE

For details, refer to ADJ 18.1.4 in Chapter 4.

6.4.2.27 DC1010 Signals Sending Test (models with Fax)

Purpose

To test whether signals are sent or not and how the sending level is adjusted by sending various signals to each channel.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC1010 Signals Sending Test].
   - The Fax Diagnostic screen appears.
3. Select [Signals Sending Test].
   The following buttons appear.

Button Names	Description
Line	The lines 1, 2, 3, and ALL are selectable.
Signal Number	Enter numbers using the Keypad on the Control Panel.

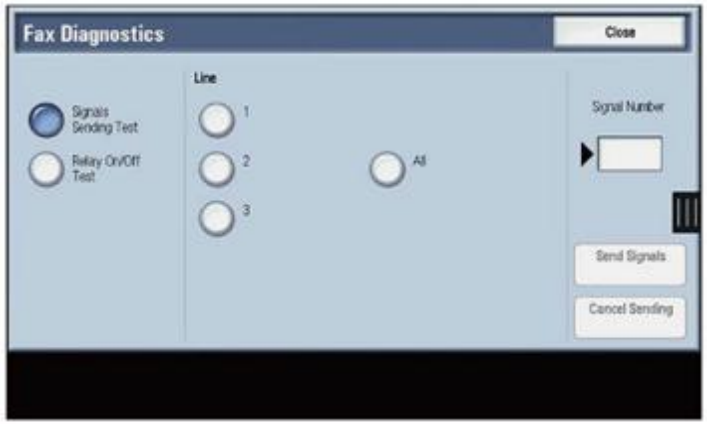


Figure 1 mbl640020

4. Select the Line Number and enter [Signal Number]. Then, select [Send Signals].
   - To stop sending signals, select [Cancel Sending].
   - If an error occurs, the Chain-Link No. will be displayed.

Table 1 Signal Sending Test

Signal Number	Signal Type	Signal Content
11	Sending of Tonal Signal	462Hz
12	Sending of Tonal Signal	1080Hz
13	Sending of Tonal Signal	1100Hz
14	Sending of Tonal Signal	1300Hz
15	Sending of Tonal Signal	1650Hz
16	Sending of Tonal Signal	1850Hz

Table 1 Signal Sending Test

Signal Number	Signal Type	Signal Content
17	Sending of Tonal Signal	2100Hz
21	Sending of DTMF Signal	Dual Tone "1"
22	Sending of DTMF Signal	Dual Tone "2"
23	Sending of DTMF Signal	Dual Tone "3"
24	Sending of DTMF Signal	Dual Tone "4"
25	Sending of DTMF Signal	Dual Tone "5"
26	Sending of DTMF Signal	Dual Tone "6"
27	Sending of DTMF Signal	Dual Tone "7"
28	Sending of DTMF Signal	Dual Tone "8"
29	Sending of DTMF Signal	Dual Tone "9"
30	Sending of DTMF Signal	Dual Tone "0"
31	Sending of DTMF Signal	Dual Tone "*"
32	Sending of DTMF Signal	Dual Tone "#"
33	Sending of DTMF Signal	Dual Tone "A"
34	Sending of DTMF Signal	Dual Tone "B"
35	Sending of DTMF Signal	Dual Tone "C"
36	Sending of DTMF Signal	Dual Tone "D"
41	Sending of V.21 (H) Signal	300bps
42	Sending of V.27ter Signal	2400bps
43	Sending of V.27ter Signal	4800bps
44	Sending of V.29 Signal	7200bps
45	Sending of V.29 Signal	9600bps
46	Sending of V.17 Signal	7200bps
47	Sending of V.17 Signal	9600bps
48	Sending of V.17 Signal	12000bps
49	Sending of V.17 Signal	14400bps
61	Sending of V.8 Signal	ANSam
62	Sending of V.8 Signal	CM
71	Sending of V.34 Signal	2400bps
72	Sending of V.34 Signal	4800bps
73	Sending of V.34 Signal	7200bps
74	Sending of V.34 Signal	9600bps
75	Sending of V.34 Signal	12000bps
76	Sending of V.34 Signal	14400bps
77	Sending of V.34 Signal	16800bps
78	Sending of V.34 Signal	19200bps

Table 1 Signal Sending Test

Signal Number	Signal Type	Signal Content
79	Sending of V.34 Signal	21600bps
80	Sending of V.34 Signal	24000bps
81	Sending of V.34 Signal	26400bps
82	Sending of V.34 Signal	28800bps
83	Sending of V.34 Signal	31200bps
84	Sending of V.34 Signal	33600bps

NOTE

Do not input anything other than the above values.

5. Select [Close] to return to the Diagnostics screen.

6.4.2.28 DC1011 Relay On/Off (models with Fax)

Purpose

To test for trouble of the relay, voltage value, and current value by turning ON/OFF various relays that are used in the NCU.

Procedure

1. On the Maintenance/Diagnostics screen, select the Diagnostics screen.
2. Select [DC1011 Relay On/Off Test].
   - The Fax Diagnostic screen appears.
3. Select [Relay On/Off Test].
   The following buttons appear.

Button Names	Description
Line	The lines 1, 2, 3, and ALL are displayed.

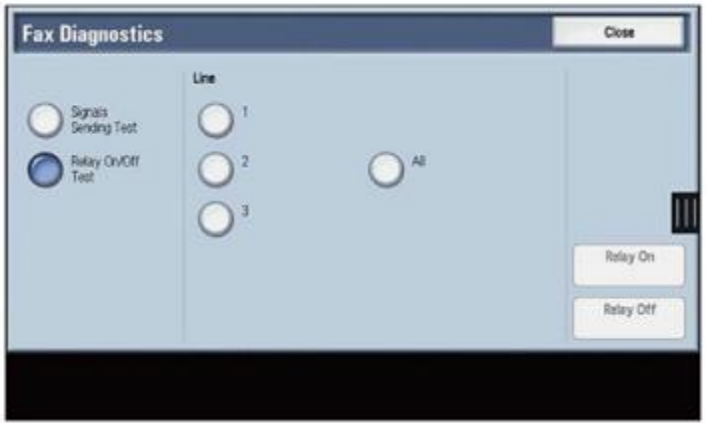


Figure 1 mbl640021

4. Select the Line Number and select [Relay On].
   - To turn OFF a relay, select [Relay Off].
   - If an error occurs, the Chain-Link No. will be displayed.
5. Select [Close] to return to the Diagnostics screen.

6.4.2.29 Quick Setup Home (KO/CE Common Function)

Purpose

1. This settings is also available in the KO Menu, and it provides the same menu as in the installation wizard that activates during the Device installation.
2. This menu is provided so that the System Administrator can perform maintenance on the installed Device by using the same setup operation (menu) as when the Device was first installed.

Procedure

1. On the Maintenance/Diagnostics screen, select [Others].
2. On the Others screen, select [Quick Setup Home].
3. The following [Items] are displayed. (Figure 1)
   - Screen/Button Settings
   - IP Address Settings
   - Fax Settings

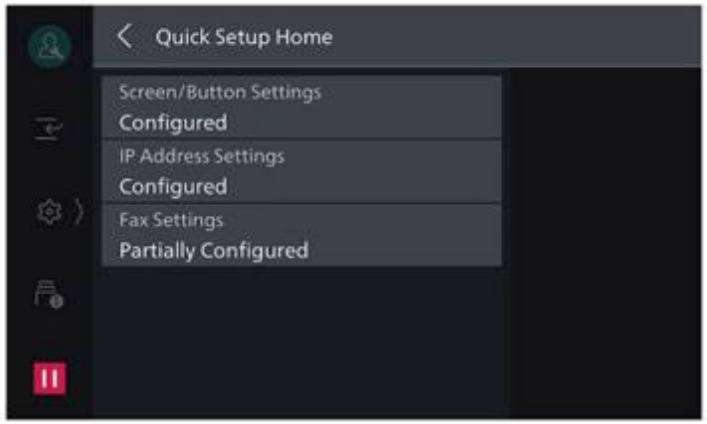


Figure 1 mbl640022

4. Check the [Current Settings] and perform the necessary settings.

6.4.2.30 Software Options

Purpose

To enter the software key (password) to enable the optional functions installed in the Device. (Can also be set in the System Administrator Mode)

Procedure

1. On the Maintenance/Diagnostics screen, select [Others].
2. On the Others screen, select [Software Options].
3. On the [Software Options] screen, use [Keyboard] to enter the password of the software option.



Figure 1 mbl640023

NOTE

Software key (password) error will occur in the following situations.

- Input mistake
- Mismatched model code and Device number
- Issuance mistake (Wrong software key (password) number)

4. Select [Restart].
5. Select [Close] to return to the Diagnostics screen.

6.4.2.31 Software Options - USB

Purpose

To enter the software key (password) to enable the optional functions installed in the Device. (Can be set in the System Administrator Mode) <revision needed>

Procedure

1. On the Maintenance/Diagnostics screen, select [Others].
2. On the Others screen, select [Software Options - USB].
3. After inserting the USB media, follow the instructions on the screen and select [Enable Feature] or [Disable Feature]. (Figure 1)

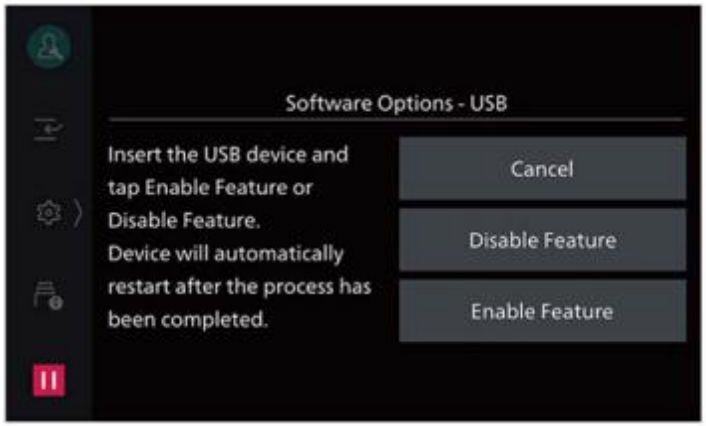


Figure 1 mbl640024

4. After the process has completed, it will automatically restart.

6.4.2.32 Back Up/Restore ESS

Purpose

The Back Up Files/Restore Files feature is provided so that the Device can be restored to its operational state at the point when it was backed up in case its operation has become unstable, etc.

The backup can be stored in the Device built-in SSD/HDD or in a USB memory (service tool).

NOTE

For details on the procedure, refer to ADJ 35.1.5 in Chapter 4.

Preparation

- Before performing backup into a USB memory, create a folder named [backup] in the USB memory stick.
- Make sure you print the Configuration Report before performing the operation.

Table 1 Data that can be backed up

Data list	When backing up to SSD/ HDD	When backing up to USB memory stick
Firmware download file	O	O
NVRAM (eMMC) of ESS (Controller)	O	O
SSD/ HDD resource area	O	X
SSD/ HDD folder area	O	Only when SSD/HDD is installed. Document data is excluded.
SSD/ HDD management information area	O	Only when SSD/ HDD is installed.

Procedure

1. Turn OFF the Device and disconnect the Network Cable and Telephone Line that are connected to the Device.
2. The following procedure will differ according to the backup destination.
   - When backing up to storage
     (1) Turn ON the power.
     (2) On the Maintenance/Diagnostics screen, select the Diagnostics screen.
     (3) From the EP Service, select [Back Up / Restore ESS].
   - When backing up to USB memory stick
     (1) Connect the USB and turn ON the power.

(2) On the Maintenance/Diagnostics screen, select the Diagnostics screen.

(3) From the EP Service, select [Back Up / Restore ESS].

3. The following buttons are displayed.

- Back Up Files
  - Storage
  - USB Memory Stick
- Restore Backed Up Files
  - Storage
  - USB Memory Stick
- Delete Backed Up Files
  - Storage
  - USB Memory Stick

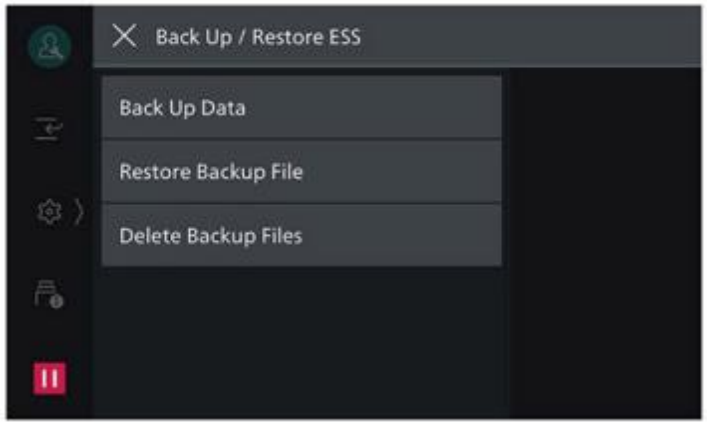


Figure 1 mbl640025

[Backing Up Files]

1. Select [Back Up Files], select either [Storage] or [USB Memory Stick], and select [Start].

Option	Process detail
When Storage is selected	Data is backed up into the log image area in the SSD/ HDD.
When USB Memory Stick is selected (for Devices with SSD/HDD)	A backup file is created in the backup area of the SSD/HDD and the Firmware is encrypted and stored in a folder named [backup] in the USB Memory Stick.
When USB Memory Stick is selected (for Devices without SSD/HDD)	The firmware is encrypted and stored in a folder named "backup" in the USB memory stick.

The file name when saving to the USB Memory is defined as follows.
"BACKUP_" + "Product Code" + "_" + "Serial Number" + "_" + "yymmddhhmm" + ".AES".
E.g. BACKUP_NC100229_185123_0610031651.AES

[Restoring Backed Up Files]

1. Select [Restore Backed Up Files], select either [Storage] or [USB Memory Stick], and select [Start].

NOTE

(1) If the SSD/HDD does not contain any SSD/HDD backup file, the restore instruction will result in error.

(2) When the backup file and the serial number do not match (the restore was not performed for the same Device), it will result in error.

(3) When the "backup" folder of the USB memory stick contains multiple backup files, the latest backup file (based on the file name) will be used in the restoration.

(4) When backup files can be found in both the USB memory stick and storage, those in the USB memory stick will have a higher priority to be used in the restoration.

Option	Process detail
When Storage is selected	The restoration is done in the following Steps: (1) The SSD/HDD backup target areas of the SSD/HDD are initialized. (2) The SSD/HDD backup target areas of the SSD/HDD are updated. (3) The NVRAM (eMMC) of ESS (Controller) is updated. (4) The system will automatically restart and update the Firmware. (5) After the Firmware is updated, it will automatically restart.

Option	Process detail
When USB Memory Stick is selected (for Devices with SSD/HDD)	The restoration is done in the following Steps: (1) The USB backup target areas and folder areas of the SSD/HDD will be initialized. (2) The USB backup target areas of the SSD/HDD are updated. (3) The NVRAM (eMMC) of ESS (Controller) is updated. (4) The system will automatically restart and update the Firmware. (5) After the Firmware is updated, it will automatically restart. restoration is done in the following Steps:
When USB Memory Stick is selected (for Devices without SSD/HDD)	(1) The NVRAM (eMMC) of ESS (Controller) is updated. (2) The system will automatically restart and start up.

2. After Restore is complete, remove the USN Memory Stick, print out the Function Setting List and check the Version.

[Delete Backed Up Files]

1. Select [Delete Backed Up Files], select either [Storage] or [USB Memory Stick], and select [Start].

Option	Process detail
When Storage is selected	Instructing the deletion of SSD/HDD backup files erases the SSD/HDD backup files in the SSD/HDD.
When USB Memory Stick is selected	Instructing the deletion of USB backup files erases the USB backup files in the SSD/HDD.

6.4.2.33 Software Update (Device UI Method) (models with EP-BB)

Purpose

The Device UI Download feature is aimed to simplify the Firmware update operation. It is a feature that makes it no longer necessary to have a PC or USB memory stick, which is currently needed, to perform Firmware update. This feature obtains the Firmware update file from a server that is connected to the network, stores it in the storage disk within the Device, and then automatically transitions to the Download Mode to perform the Firmware update.

NOTE
If the EP-BB Registration of 4G/3Gnet-BOX has been performed, the EP-BB Service firmware update function (the Device's firmware update function) cannot be used.

From among the following software update methods, this feature is called the Device UI method.

Method	Overview
Device UI method	Update by using a Network.
DLD method	Update by using a Parallel Cable or USB Cable.
PJL method	Update by using a LAN Cross Cable.

NOTE
For details on the procedure, refer to ADJ 35.1.3 in Chapter 4.

Preparation

Store the Firmware in a Web Server that is operating on the customer's intranet.

Procedure

1. On the Maintenance/Diagnostics screen, select Others.
2. From the Others screen, select [Software Update].

   NOTE
   If the [Software Update] button is not displayed, check [EP Service Parameters] settings under ADJ 35.1.3 in Chapter 4.

3. Select [Standard Mode (Auto NVM Rewrite)] or [Forced Mode (No Auto NVM Rewrite)] to execute.

   NOTE
   Do not turn OFF the power or open the Front Cover, etc. while this is in progress.

4. When the update has completed, the Device will restart automatically.

6.4.2.34 Power On Self-Test (KO/CE Common Function)

Purpose

1. To set whether to perform program (Firmware) diagnostics at the time the Device is powered ON and started up.
2. If any intentional program rewriting or abnormalities is found during the program diagnostics, the startup will be aborted and it will be recorded in the audit log.

Procedure

1. On the Maintenance/Diagnostics screen, select [Others].
2. On the [Others] screen, select [Power On Self-Test]. (Figure 1)

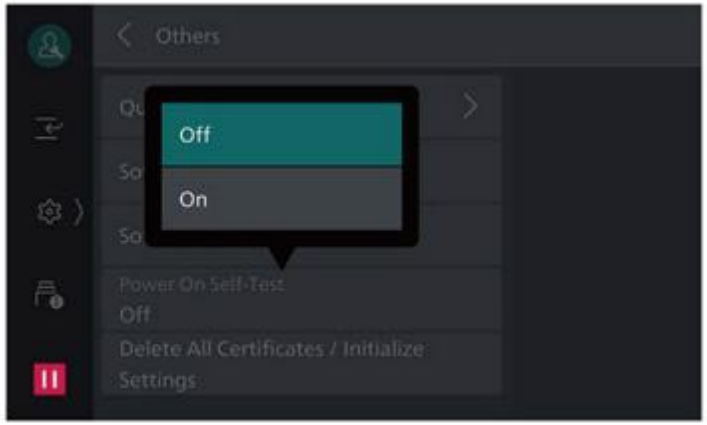


Figure 1 mbb640027

3. On the [Power On Self-Test] screen, select [On].

6.4.2.35 ESS-related Hardware Diagnostic Function

The Long Boot Diag function is provided as the ESS-related Hardware Diagnostics function.

The function descriptions are as follows.

Long Boot Diag

To diagnose any failures in the ESS PWB, installed memory, etc. The Diag takes approx. 2 minutes.

[Diagnostic Procedure]

1. Press the [Power] button while pressing the [Home] button. Release both buttons when the SPECIAL BOOT MENU screen is displayed. (Figure 1)

NOTE

Make sure to press Home first before pressing Power.

The screen turns OFF during operation, but continue to press and hold down the button. (Approx. 1 to 2 min)

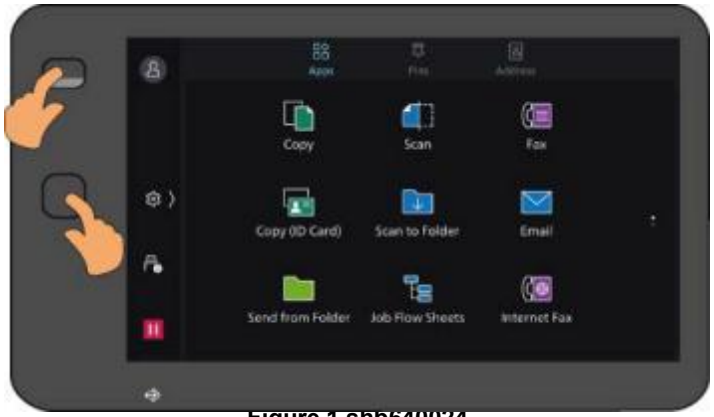


Figure 1 shb640024

2. Touch both [BOOT] and [MENU] and keep your fingers there while selecting the [Home] button to enter Special Booting. (Figure 2)



Figure 2 shb640025

3. When the [Keypad] screen is displayed, enter [1739#]. The Special Boot's [SPECIAL BOOT MENU 1/3] screen is displayed.
   - On the [SPECIAL BOOT MENU 1/3] screen, select [LONGDIAG MODE]. (Figure 3)

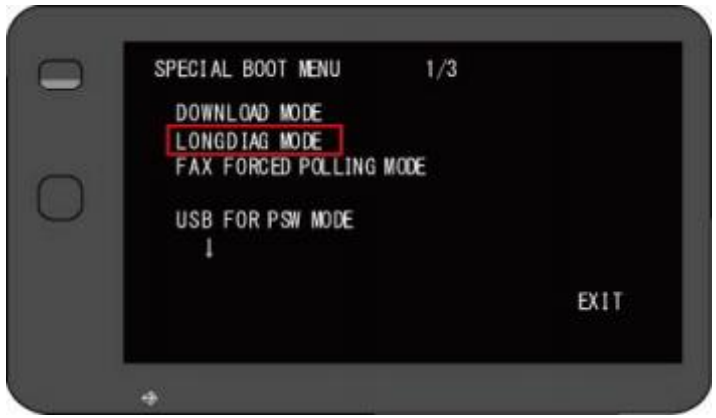


Figure 3 shb640026

4. When the [LONGDIAG MODE] screen of BOOT MODE is displayed, selecting [YES] starts the LONGDIAG MODE. (Figure 4)

NOTE

If an error is detected, the Error Code (Chain-Link) will be displayed on the screen. (Unlike in the DOWNLODE MODE, the diagnostic result of each item is not displayed.)



Figure 4 shb640027

5. When the Diag has completed successfully, [---BOOT MODE---] and then [ALL OK] are displayed at the upper left. Turn OFF the Device. (Figure 5)
   - Press Power.
     - The Power button will flash while shutdown is in progress.
   - Make sure that the [Power] button is not lit and the power is turned OFF.



Figure 5 shb640028

[Diagnostic Contents]

The following shows the Diag Items and the Fail Codes that are displayed for [NG] diagnostic results.

	Test Name	Test Contents (Overview)	UI Panel Display (Fault Code)
1	Standard RAM Test	Standard RAM read/ write/ verify test	116-315
2	Standard ROM Test	Standard ROM checksum test	116-317
3	NVRAM test	NVRAM read/ write/ verify test	116-323
4	BP PWB Disconnect Detection	Disconnect detection of BP PWB	016-327
5	UI Cable Disconnect Detection	Disconnect detection of UI Cable	016-326
6	MCU Cable Disconnect Detection	Detection of MCU Cable disconnection	016-328
7	PciE Option Detection	Detects the connection of a Device with unknown PciE Option	117-337
8	SEEPROM Test	SEEPROM read/ write/ verify test	016-351
		SEEPROM expected value data test	016-350
9	Timer/ RTC Test	Timer (RTC) operation check test	016-342, 343
10	USB 2.0 Host Test	USB 2.0 Host Device test	016-364
11	USB 2.0 Device Test	USB 2.0 Target Device test	016-365
12	HDD/ SSD test	HDD/ SSD Device test	016-366
13	HDD/ SSD test	UFS test	016-367
	PDF High Compression Test	Image COMP PWB test	016-369
14	UI Test	UI Device test	016-362
15	Ethernet Test	Ethernet phy test	016-349
16	eMMC Test	eMMC UFS test	117-320, 321, 323, 324
17	IOT Communication Test	Test for communication establishment with the IOT	016-353
18	IIT Communication Test	Test for communication establishment with the IIT (not performed in P models)	016-354
19	I/O ASIC Test	Test of Copy path and Scan path (not performed in P models)	016-355
20	EP Accessory Communication Test	Test for checking connection and communication with EP devices	016-357
21	USB Hub Diagnostics Test	USB Hub connection check test	016-359
22	USB3 .0 Diagnostics Test	Test for UDC register check	016-361
23	Communication Diagnostics Test Between OS	Test for checking communication between Linus and vxWorks	016-383
24	Page Memory Test	Reading test for Page Memory	016-317
25	Video ASIC Test	VIDEO ASIC Operation Check Test	016-356
26	Wi- Fi Diagnostics Test	Wi- Fi connection check test	117-365
27	A4 Fax Diagnostics Test	A4 Fax test	016-346

Revision History

Creation Date/ Revision Date	Edition	Description
2021/7/**	K3	-

6.5 Fax Related Information

6.5.1 Activity Report (User Mode)

Send

No	Document No.	Recipient	Start Time	Time used	No. of pages	Mode	Communication Contents	Communication Result
1	xx	xxx	xx: xx	x min xx sec	x	xx	xxx	xxxx
2	xx	xxx	xx: xx	x min xx sec	xx	xx	xxx	xxxx

Receive

No	Document No.	Recipient	Start Time	Time used	No. of pages	Mode	Communication Contents	Communication Result
1	xx	xxx	xx: xx	x min xx sec	x	xx	xxx	xxxx
2	xx	xxx	xx: xx	x min xx sec	xx	xx	xxx	xxxx

In the following order, 1 Remote Station is recorded.

Transmission Method	Transmission Order
During Registration Dialing	Outgoing Call: Recipient Name > Remote Terminal Name > Remote ID > Telephone Number > Starting Rate Incoming Call: Remote Terminal Name > Remote ID > Starting Rate
For Full Dial	Outgoing Call: Remote Terminal Name > Remote ID > Telephone Number > Starting Rate Incoming Call: Remote Terminal Name > Remote ID > Starting Rate
For Email Address	Recipient Name > Email Address

Only one communication result is recorded in the three types of modes: G3, ECM, and SG3

Communication Result	Description
Ready	Print or store to folder completes without any errors .

Communication Result	Description
Line Busy	The specified number of redials was exceeded
Auto Resend	Call for resend without exceeding the limit on resending
Disconnect	The operator forced a specific call to stop on the Control Panel
Recipient Verification Required	Error during communication caused by the recipient or the network
User Resend	Number of resends exceeded the specified value
Receive Failed	Error during reception
XXX-XXX	Error Code has occurred (Chain- Link Code)
Cable Verification Required	Line is not connected

6.5.2 Activity Report (CE Mode)

Send

No	Document No.	Recipient	Start Time	Time used	No. of pages	Mode	Communication Contents	Communication Result
1 2	xx xx	xxx xxx	xx: xx xx: xx	x min xx sec x min xx sec	x xx	xx xx	xxx xxx	xxxx xxxx

Receive

No	Document No.	Recipient	Start Time	Time used	No. of pages	Mode	Communication Contents	Communication Result
1 2	xx xx	xxx xxx	xx: xx xx: xx	x min xx sec x min xx sec	x xx	xx xx	xxx xxx	xxxx xxxx

Mode Display Contents

- FAX Kit 3

Mode: Port Setting No.	Channel No.	Description	Calling Control CL
1	ch 1	Outside Line (Standard G3 Port)	820-211
2	ch 2	Expansion G3 Port	820-212
3	ch 3	Expansion G3 Port	820-213

1. Fax Kit 3 device does not have the extension feature.

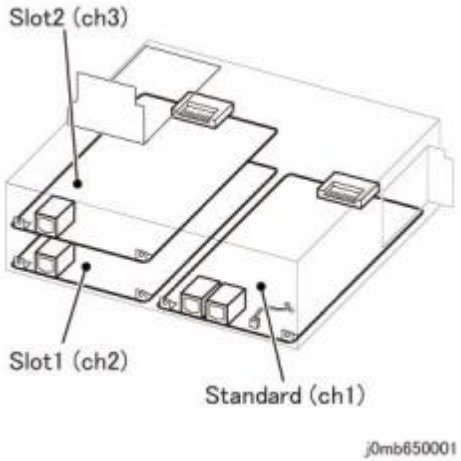


Figure 1 j0mb650001

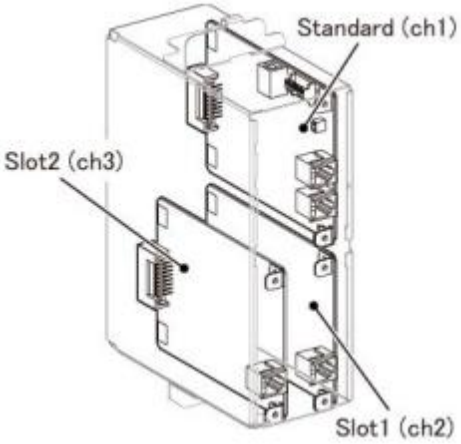


Figure 2 j0ils650001

6.5.3 Fax Protocol

Format Overview

The implication of the symbol which appears in the arrow

- In G3 mode, the command for displaying added information in the arrow is displayed.
- < [Added Information] -
- Example)
  - < @- , < #-
  - Implication of added information

Added Information Code	When sending	When receiving
-	Normal signal	Normal signal
@	Undefined	Undefined
X	Undefined	CRC Error Detection
#	Undefined	Undefined
!	Undefined	Carrier disconnected for 1 sec in image information
=	Undefined	Intermittent discontinuity in image information
/	Undefined	Undefined
*	Undefined	Undefined
+	Undefined	Undefined
:	Undefined	Undefined
A	Undefined	Undefined
B	Undefined	Undefined
C	Undefined	Undefined
D	Undefined	Undefined
E	Undefined	Undefined
F	Undefined	Undefined

Recorded G3 Signal Name and Implication

Signal Name	Meaning
CED	Called Station Identification Signal
CNG	Outgoing Calling Tone
CI	Function Display Signal
ANSam	Varied Answering Tone
CM	Calling Menu Signal
JM	Common Menu Signal
CJ	CM Terminal Signal
NSF	Non- standard Features
CSI	Called Station Identification
DIS	Digital Identification Signal
NSC	Non- Standard Function Command
CIG	Calling Terminal Identification
DTC	Digital Send Command
SEP	Selection Polling
PSA	Polling Sub- Address
PWD	Password
NSS	Non- Standard Function Settings
TSI	Transmission Terminal Identification
DCS	Digital Command Signal
SUB	Sub Address
SID	Sending Station Identification
TCF	Training Check
CFR	Reception Preparation Verification
FTT	Training Failed
CTC	Correction Continuation (ECM)
CTR	Correction Continuation Response (ECM) [Response for CTC]
PIX	Image Information
TRN	Training
CPIX	Image Information (ECM)
EOM	Note
EOP	Message Ends
EOS	Procedure Ends
MCF	Message Confirmation
MPS	Multi- Page Signal
PIN	Procedure Disruption Reject
PIP	Procedure Disruption Affirmation
PRI-EOM	Procedure Disruption EOM
PRI-MPS	Procedure Disruption MPS
PRI-EOP	Procedure Disruption EOP
RTN	Retraining Reject
RTP	Retraining Affirmation
EOR. EOM	Resend Ends / Message Ends (ECM)

Signal Name	Meaning
EOR. EOP	Resend Ends / Procedure Ends (ECM)
EOR. MPS	Resend Ends / Multi- Page Signal (ECM)
EOR.NULL	Resend Ends / Partial Page Boundary (ECM)
EOR.PEOM	Resend Ends / Procedure Disruption EOM (ECM)
EOR.PEOP	Resend Ends / Procedure Disruption EOP (ECM)
EOR.PMPS	Resend Ends / Procedure Disruption MPS (ECM)
ERR	Resend Completion Response (ECM) [Response for EOR]
PPR	Partial Page Request (ECM)
PPS. EOM	Partial Page Signal / Message Ends (ECM)
PPS. EOP	Partial Page Signal / Procedure Ends (ECM)
PPS. MPS	Partial Page Signal / Multi- Page Signal (ECM)
PPS. NULL	Partial Page Signal / Partial Page Boundary (ECM)
PPS. PEOM	Partial Page Signal / Procedure Disruption EOM (ECM)
PPS. PEOP	Partial Page Signal / Procedure Disruption EOP (ECM)
PPS. PMPS	Partial Page Signal / Procedure Disruption MPS (ECM)
RNR	Reception Not Allowed (ECM)
RR	Reception Allowed (ECM)
CRP	Command Resend
DCN	Disconnection Command
FNV	Invalid Field Signal
???	Undefined Signal

6.5.4 Protocol Trace

6.5.4.1 Protocol Trace

T.30 PROTOCOL TRACE DIS/DCS (2000 Version)

Due to recommendation for 2000 version of ITU-T (formerly CCITT), the allocation of FIF bits for DIS, DCS, and DTC signals was changed to a maximum of 12 bytes (96 bits). According to the new recommendation (F Code / Color Fax / Internet Fax functions, etc), the assignment of individual Bits is displayed as follows. (DIS FIF=20EEFAC4801F is used as an example)

Hexadecimal number	Binary
0	0000
1	0001
2	0010
3	0011
4	0100
5	0101
6	0110
7	0111
8	1000
9	1001
A	1010
B	1011
C	1100
D	1101
E	1110
F	1111

Link is provided inside each Bit in the following illustration described in the Electronic Manual. Press the button of the item to link to its contents description.

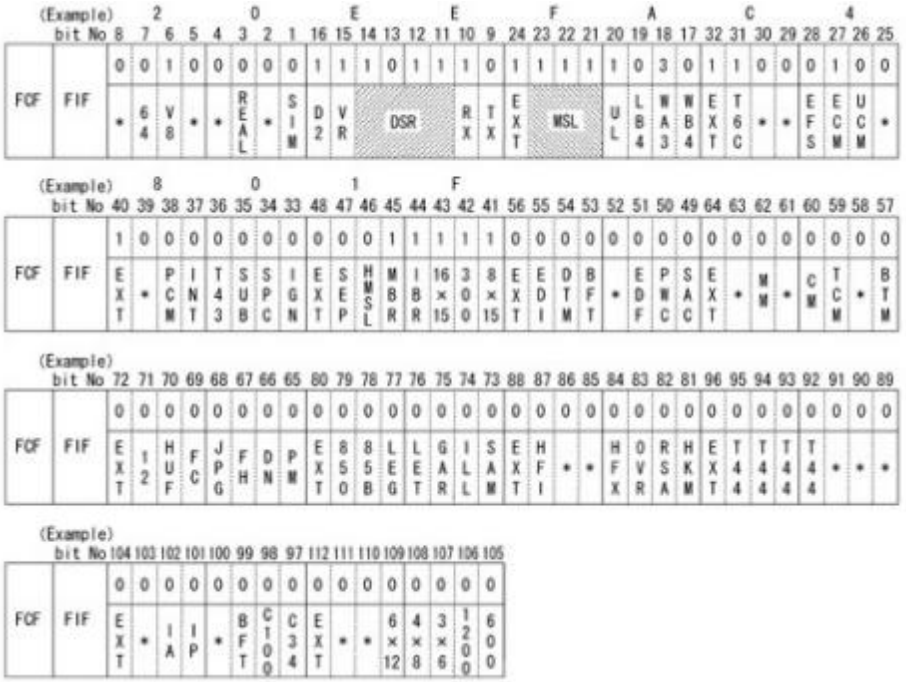


Figure 1 j0mf2701

NOTE

*The stamp sets the reserved Bit to "0".

REFERENCE

- JBIG: Joint Bi-level Image Coding Experts Group…Binary Image Encoding Method, Reversible (can be restored to original data after compression/expansion), for BW Fax Use
- JPEG: Joint Photographic Coding Experts Group…Multi-Value Natural Image Encoding Method, Non-Reversible (cannot be restored to original data once compressed or expanded), for Color Fax Use

6.5.4.2 FCF/FIF Description

DIS: 80

DCS: 82/83

DTC: 81

Frame (Signal) List Table sent by Sending Station during F-Code Communication. Frame Name is printed in protocol

Frame Name	FCF	Name/Contents
PWD	C1	Password . Enter password in FIF. Sending permitted only when Bit 50 of DIS is 1.
SEP	A1	Selective Polling . Enter the Sub Address in FIF. Displays the specific document number when used with PSA concurrently. Sending permitted only when Bit 47 of DIS is 1.
PSA	61	Polling Sub Address. Enter the Sub Address in FIF. Sending permitted only when Bit 35 of DIS is 1.
SUB	C2/C3	Sub Address. Enter the Sub Address of the called party in FIF. Sending permitted only when Bit 49 of DIS is 1.
SID	A2/A3	Sending Station ID. Enter the identification number (Local Station ID) of the Sending Station in FIF. Sending permitted only when Bit 50 of DIS is 1.

The frame (signal) that can be used is decided according to the capability of the Receiving Station declared by DIS.

Each frame in the table must be sent to DCS in advance.

When sending, bits 49 and 50 of DCS or bits 35, 47, and 50 of DTC must be set to "1".
Enter 20 characters for Password in ASCII code (0-9, #, *) and 20 characters for Sub Address in ASCII code (0-9).

6.5.4.3 Bit 7 Description

64: ECM Frame size (DCS is disabled)

- 0→256 Octet
- 1→64 Octet
- Refer to "EFS" of Bit 28 (6.5.4.15)

6.5.4.4 Bit 6 Description

V8: V.8 Capability (28.8Kbps MODEM Function, SG3)

- 0→ OFF
- 1→ ON (DCS is disabled)

6.5.4.5 Bit 16 Description

D2: Two Dimension Coding (Encoding Capability)

- 0→ MH only
- 1→ MH and MR

6.5.4.6 Bit 15 Description

VR: Vertical Resolution (Slow Scan Linear Density)

- 0→3.85 l/mm, 1→3.85 l/mm and 7.7 l/mm

Also see Bit 44 and 45

- Bit 44: Refer to 6.5.4.22
- Bit 45: Refer to 6.5.4.21

6.5.4.7 Explanation of Bit 14 to 11

DSR: Data Signaling Rate (Electrical Transmission Speed), [ ] corresponds to the past Device only

14	13	12	11	DIS/DTC	DCS
0	0	0	0	V27ter Fall Back	2400 bit/s:V27ter
0	0	1	0	V27ter	4800 bit/s:V27ter
0	0	0	1	V29	9600 bit/s:V29
0	0	1	1	V27ter and V29	7200 bit/s:V29
0	1	0	0	Not Used	Invalid [14400 Bit/s: V33]
0	1	1	0	Preset	Invalid [12000 Bit/s: V33]
0	1	0	1	Not Used	Preset
0	1	1	1	Invalid [V27ter, V29, V33]	Preset
1	0	0	0	Not Used	14400 bit/s:V17
1	0	1	0	Preset	12000 bit/s:V17
1	0	0	1	Not Used	9600 bit/s:V17
1	0	1	1	V27ter,V29,[V33] V17	7200 bit/s:V17
1	1	0	0	Not Used	Preset
1	1	1	0	Preset	Preset
1	1	0	1	Not Used	Preset
1	1	1	1	Preset	Preset

6.5.4.8 Bit 10 Description

RX: Receive Ability

- 0→ OFF
- 1→ ON

6.5.4.9 Bit 9 Description

TX: Preparation of Send Originals or Documents for Public Polling

- 0→ No document to send (DCS is fixed at 0)
- 1→Ready

6.5.4.10 Bit 24, 32, 40, 48, 56, 64, 72, 80, 88, 96, 104, 112 Description

EXT: Extend Field (Extended Field)

- 0→ Indicates that there is no data in the subsequent byte
- 1→ Indicates that there is data in the subsequent byte

6.5.4.11 Bit 21 to 23 Description

MSL: Minimum Scan Line (Minimum Scan Line Electrical Transmission Time Capability)

23	22	21	DIS (Minimum Scan Line Time Capability)	DCS (Minimum Scan Line Time)
0	0	0	20ms(3 .85l/mm):T7 .7=T3 .85	20 ms
1	0	0	40ms(3 .85l/mm):T7 .7=T3 .85	40 ms
0	1	0	10ms(3 .85l/mm):T7 .7=T3 .85	10 ms
0	0	1	5ms(3.85l/mm):T7 .7=T3.85	5 ms
1	1	0	10ms(3 .85l/mm):T7 .7=1/2 T3 .85	Not Used
0	1	1	20ms(3 .85l/mm):T7 .7=1/2 T3 .85	Not Used
1	0	1	40ms(3 .85l/mm):T7 .7=1/2 T3 .85	Not Used
1	1	1	0ms(3.85l/mm):T7.7=T3.85	0 ms

- Displays the minimum scanning time per scan line for 7.7l/mm (High Quality) and 3.85l/mm (Standard) Slow Scan Linear Density of T7.7 and T3.85 respectively.
- T7.7=1/2 T3.85 means that the scanning time in High Quality mode is reduced to half of the scanning time in Standard Mode.
- MSL is being ignored at ECM Communication.

6.5.4.12 Bit 19, 20 Description

UL: Unlimited (Unlimited length=Roll Paper)

LB4: Length of B4 (B4 length)

UL	LB4	Maximum Record Length (Slow Scan Length)
0	0	A4 length (297 mm)
0	1	B4 length (364 mm) and A4 length (297 mm)
1	0	Unlimited length (Roll Paper)
1	1	Invalid (Selection not allowed)

6.5.4.13 Bit 17, 18 Description

WA3: Width of A3 (A3 Width)

WB4: Width of B4 (B4 Width)

WA3	WB4	Maximum Record Width (Fast Scan Width)
0	0	A4 width (215 mm)
0	1	Below B4 width (255 mm) (A4 included)
1	0	Below A3 width (303 mm) (B4 and A4 included)
1	1	Invalid (Selection not allowed)

6.5.4.14 Bit 31 Description

T6:T.6 Coding(MMR Coding)

- 0→MMR Coding Disabled
- 1→MMR Coding Enabled

6.5.4.15 Bit 28 Description

EFS: ECM Frame size (ECM Frame Octet Count)

- 0→256 Octet (DIS is fixed at 0)
- 1→64 Octet

NOTE

Among Bit 7 data, when DIS Bit 7 is "1", DCS Bit 28 will be declared as "1", and ECM frame will become 64 Octet mode. (For Description of Bit 7, refer to 6.5.4.3)

6.5.4.16 Bit 27 Description

ECM:Error Correction Mode

- 0→ ECM Disabled
- 1→ ECM Enabled

6.5.4.17 Bit 26 Description

UCM: Uncompressed Mode

- 0→ OFF
- 1→ ON

6.5.4.18 Bit 25 Description

HSM:2400BPS Handshaking

- 0→OFF
- 1→ON

HSM is pertinent to past models. New recommended Device is set to "0".

6.5.4.19 Bit 1, 3, 33 to 38, 47, 49 to 51, 53 to 55, 57, 59, 60, 62, 65 to 71, 73 to 75, 81 to 84, 87, 92 to 95, 97 to 99, 101, 102 Description

Division	bitNo	Item Name	Content [For DIS/DTC→ 1: With capability, 0: Without capability; For DCS→ 1: Send relevant signal, 0: Do not send]
I	Bit1	SIM	Internet Fax Simple Mode Capability
I	Bit3	REAL	Internet Fax Real time Internet Fax
-	Bit33	IGN	Invalid Field Signal Capability
F	Bit34	SPC	F Code Multiple Selection Polling Capability. DCS is set to 0. (Refer to the table in 6.5.4.2)
F	Bit35	SUB	F-Code Polling Sub Address Capability DCS is set to 0. (Refer to the table in 6.5.4.2)
C	Bit36	T43	Color Fax T.43 Encoding Capability. Select T.43 or JPEG (Bit 68) as the Encoding Method
C	Bit37	INT	Color Fax Plain Interleave Capability. Valid only when Bit 36 is 1.
F	Bit34	SPC	F Code Multiple Selection Polling Capability. DCS is set to 0. (Refer to the table in 6.5.4.2)
F	Bit47	SEP	F Code Selection Polling Capability. DCS is set to 0. (Refer to the table in 6.5.4.2)
F	Bit49	SAC	F Code Sub Address Capability (Refer to the table in 6.5.4.2)
F	Bit50	PWC	F Code Password Capability (Refer to the table in 6.5.4.2)
-	Bit51 ~ 51	-	File Transfer Capability
-	Bit59 ~ 65	-	Mixed Mode / Bit 66 and 67
C	Bit68	JPG	Color Fax JPEG Encoding Capability. Bit 27 (ECM) is set to 1 if this is set to 1.
C	Bit69	FC	Color Fax Full Color Capability. Valid only when Bit 68 is 1.
C	Bit70	HUF	Huffman Code Table Command. Valid when Bit 68 is 1. DIS is set to 0. (Change the compression rate based on the Code Table)
C	Bit71	12	12bit/pixel Capability. For 0, image data is 8 bit/pixel. Valid only when Bit 68 is 1.
C	Bit73	SAM	Color Fax Sub Sampling Disabled (L*, a*, b*→1:1:1). 0 is 4:1:1. Valid only when Bit 68 is 1.
C	Bit74	ILL	Color Fax Non-Standard Irradiated Light. 0 uses CIE Standard Irradiated Light D50. Valid only when Bit 68 is 1.
C	Bit75	GAR	Color Fax Non-Standard Gamut Range. 0 uses the standard range. Valid only when Bit 68 is 1.

Division	bitNo	Item Name	Content [For DIS/DTC→ 1: With capability, 0: Without capability; For DCS→ 1: Send relevant signal, 0: Do not send]
-	Bit81	HKM	HKM key
-	Bit82	RSA	RSA key
-	Bit83	OVR	Overwrite Mode
-	Bit84	HFX	HFX40 Code
-	Bit87	HFI	HFX40 - I Hashing Capability
-	Bit92 ~ 95	T44	Mixed Raster Contents Mode
C	Bit97	C34	Color Fax 300x300, or 400x400 pixels/25.4mm Capability
C	Bit98	C100	Color Fax 100x100 pixels/25.4mm Capability
-	Bit99	BFT	Binary File Transfer Capability
I	Bit101	IP	Internet Fax Selective Polling. DCS is set to 0.
I	Bit102	IA	Internet Fax Routing Address. When used by DCS, the other F code Bits 49 and 50 may be set to 1.

Division Description

Division	Description
C: Color Fax	Scan a color document with a Scanner of 200 dpi or more and encode (compress) the image data with 8x8 bits pixel elements (or more) (CIELAB data. Expressed by L*, a*, b*) to JPEG or T.43 for transmission purposes. ECM is required for G3. a*: +Red<->Green- ("+" value for Red and "-" value for Green), b*: +Yellow<->Blue- (same) CIELAB Data Color Component Sampling L*,a*,b→4:1:1 shows that a*, b* components (color element data) are reduced to 1/4 of L* component (brightness element data). 1:1:1 indicates that Sub Sampling is not performed (not thinned out). Moreover, if only L* component is being used while a*,b* value is set to 0, 0, it will become BW Fax.
F: F Code	(Refer to Table 2for F Code) F Code Communication also supports password-protected Mail Box communication with machine of other brands. Registers the password or sub-address to the receiving station and notifies the setup availability in DIS. Add password, sub address, and others in the function frame at the Sending Station and send. The Receiving station will receive only if the settings match. If the Sending Station does not have the capability, the frame will not be sent.
T: File Transfer	-
M: Mixed Mode	-

6.5.4.20 Bit 46 Description

HMSL: Super High Quality Mode MSL Time (Valid for DIS only)

- 0→ T15.4=T7.71→ T15.4=1/2 T7.7
- If HMSL is "1" and T7.7 is 10, 20, 40 ms, the linear scan time for Super High Quality Mode is reduced to 1/2 of High Quality Mode.
- If DIS T7.7 is 0 ms or 5 ms (Bit 23, 22 and 21 are 111, 001, and 110 respectively), Bit 46 must be set to "0".

6.5.4.21 Bit 45 Description

MBR:Meteric Based Resolution Preferred

(mm series resolution capability...DIS only)

DIS

- 0→ OFF
- 1→ ON (DCS is optional)

When Bit 15 is "1"*

MBR	IBR	Resolution (relationship between Bit 15 and Bit 43, 44, and 45)
0	0	Invalid (Selection not allowed)
0	1	200x200 pel/inch
1	0	8x7 .7 l/mm
1	1	8x7.7 l/mm and 200x200 pel/inch

When Bit 43 is "1"*

MBR	IBR	Resolution (relationship between Bit 15 and Bit 43, 44, and 45)
0	0	Invalid (Selection not allowed)
0	1	400x400 pel/inch
1	0	16x15 .4 l/mm
1	1	16x15 .4 l/mm and 400x400 pel/inch

* When Bit 41 to 43 is 0, the contents of Bit 15 becomes valid.

6.5.4.22 Bit 44 Description

IBR:Inch Based Resolution Preferred

(Inch Series Resolution Capability) DIS

- 0→ OFF
- 1→ ON

DCS

- 0→mm series
- 1→ Inch series

6.5.4.23 Bit 43 Description

Super High Quality Capability

- 0→ OFF
- 1→ ON

DIS 16x15.4 l/mm and/or 400x400 pel/inch

DCS 16x15.4 l/mm or 400x400 pel/inch

6.5.4.24 Bit 42 Description

300x300 pel/inch (TC7033 Super High Quality-equivalent)

- 0→ OFF
- 1→ ON

6.5.4.25 Bit 41 Description

8x15.4 l/mm (7017/7045 High Quality 2-equivalent)

- 0→ OFF
- 1→ ON

6.5.4.26 Bit 79 Description

85O: T.85 JBIG Option Capabilities

- 0: OFF
- 1: ON (Bit 78 and 27 are set to "1")

6.5.4.27 Bit 78 Description

85B: T.85 JBIG Basic Capacity

- 0: OFF
- 1: ON (Bit 27: ECM is set to "1")

6.5.4.28 Bit 77 Description

LEG: North America Legal Size (215.9x355.6 mm)

- 0: OFF
- 1: ON (when DIS/DTC is 1, the reception capability of A4 size is required)

6.5.4.29 Bit 76 Description

LET: North America Letter Size (215.9x279.4 mm)

- 0: OFF
- 1: ON (when DIS/DTC is 1, the reception capability of A4 size is required)

6.5.4.30 Bit 105 to 109 Description

Bit NO	Description	Description	Value
105	600	600x600 pixels/25.4mm	1: ON 0: OFF
106	1200	1200x1200 pixels/25.4mm	1: ON 0: OFF
107	3x6	300x600 pixels/25.4mm	1: ON 0: OFF
108	4x8	400x800 pixels/25.4mm	1: ON 0: OFF
109	6x12	600x1200 pixels/25.4mm	1: ON 0: OFF

6.5.5 Super G3 Fax

6.5.5.1 Super G3 Fax

In 1996 ITU-T, [Super G3 Fax] is recommended. [Super G3 Fax] supports 28.8Kbps Fax communication, has modem capability of V.8 and V.34, and its protocol consists of V.8 and V.34 parts.... 33.6Kbps is also available as an option. With [Super G3 Fax], 28.8Kbps communication with the other companies Fax is made possible, and so is the communication with the conventional 14.4K/9600 bps G3 Fax.

- When communicating via [Super G3] mode, [SG3] is recorded in the Report Mode column.
- [Super G3] Image Information Transmission is performed in "ECM (Error Correction Mode)".
- V.34 is the standard for 28.8K (option: 33.6K) to 2400 bps modem; V.8 is the standard for deciding on the procedure to select the optimal mode for the preceding line condition to V.34. FIF configuration (Table 1) of CM and JM signals used in V.8 and the details of every bit are as follows.

[Super G3 Fax] can communicate with conventional Fax in standards other than V.34 (28.8K), such as V. 17 (14.4K) and V.29/V.27ter (9600/4800), and has V.8 feature which supports the procedure for selecting the optimal speed for verifying the line condition.

- TCF signal (in Phase B) is not used in V.34.
- The command (such as NSF/DIS) speed for the conventional procedure is 1200bps in V.34.

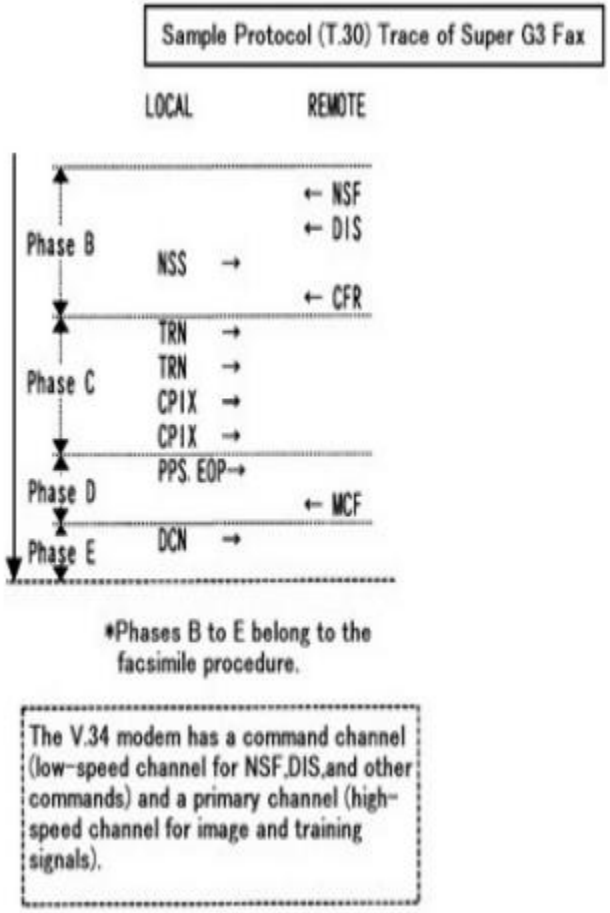


Figure 1 j0mf2716

NOTE1 Signal Names and Contents

- CNG (Calling signal):
  - The signal for showing the communication function from the outgoing terminal is sent continuously until ANSam arrives.
  - CNG is not recorded in Trace.
  - During Manual Send, "CI" signal is sent as V.8 Calling signal
  - When Phase B is entered without ANSam being detected and DIS V.8 capability is available (bit 6=1)', send CI from the outgoing side and return to the V.8 procedure in Super G3 mode.

- ANSam (Response signal):
  - Stops after the signal with amplitude of 2100Hz modulated by 15Hz is being sent continuously for 4 sec, or once CM is detected. Fax without Super G3 capability is detected as CED.
- CM (Calling Menu Signal):
  - 300bps signal (*) that declares the modem mode that can be used at outgoing terminal.
- JM (Joined Menu Signal):
  - Stops when 300bps signal, which declares the modem mode that can be used on the outgoing/incoming terminal, and CJ are detected (For CM or JM FIF, refer to No. 2 "V.8 CM/JM Signal")
- CJ (CM terminator):
  - Continuation of 300bps and 3 octet "0" by signals which indicate the end of CM and verify JM.

NOTE2 Signal Names and Contents

- V.34ph2 (Phase 2): Probing
  - Measures the line attribute using Probing signal.
- V.34ph3 (Phase 3): Equalizer Training
  - Set up the modem equalizer by the TRN signal
- V.34ph4 (Phase 4): Final Training
  - Determines the signal speed
  - (V.34 Phase 1 is V.8 procedure)
- This section (Phase 2 to 4) is automatically performed by the modem at the outgoing and incoming terminals. Send Level, Equalizer, and Modulator Speed are determined. The value determined here takes precedence over the NSF/DIS contents.

6.5.5.2 V.8 CM/JM Signal

FIF configuration (Table 1) of CM and JM signals used in V.8 and the details of every bit are as follows.

V.8 is the standard that decides the procedure for modem with multiple capabilities to auto select the optimal mode corresponding to the line condition.

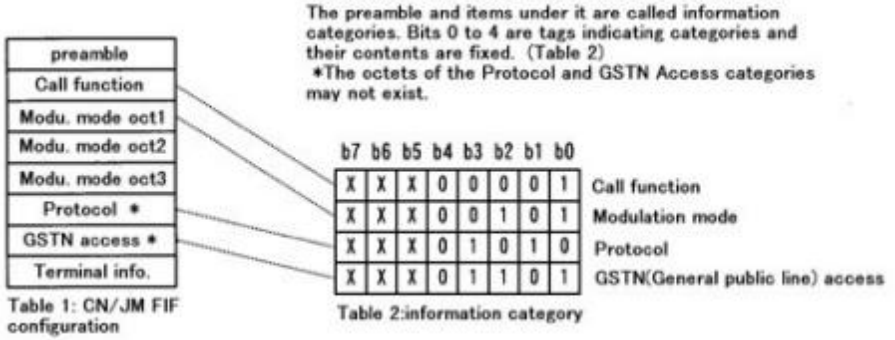


Figure 1 j0mf2717

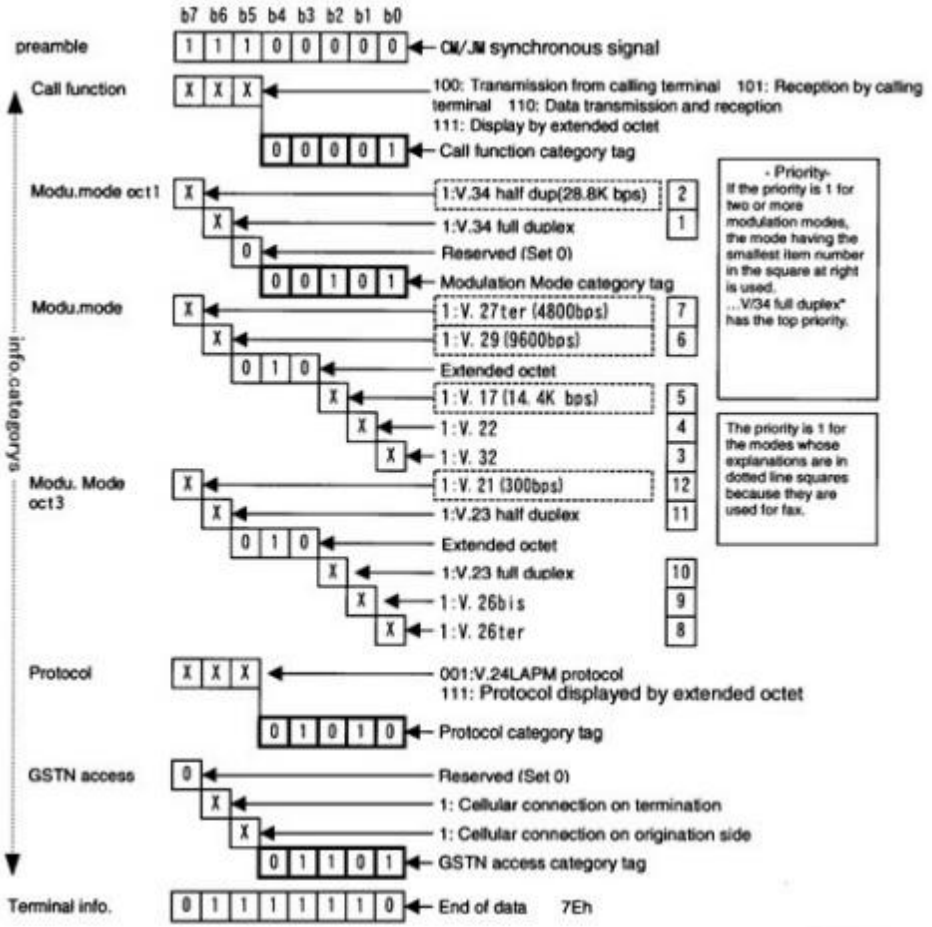


Figure 2 j0mf2718

6.5.5.3 V.8 Operation / Auto Send

[Super G3 Fax] can communicate with conventional G3 Fax in standards other than V.34 (28.8K), such as V. 17 (14.4K) and V.29/V.27ter (9600/4800). Communication procedure is selected following the flow below based on the capability of the remote station/detected signal.

Below is the flow when either the incoming or outgoing terminal or both has [Super G3 Fax] capability and Auto Send takes place at the outgoing terminal.

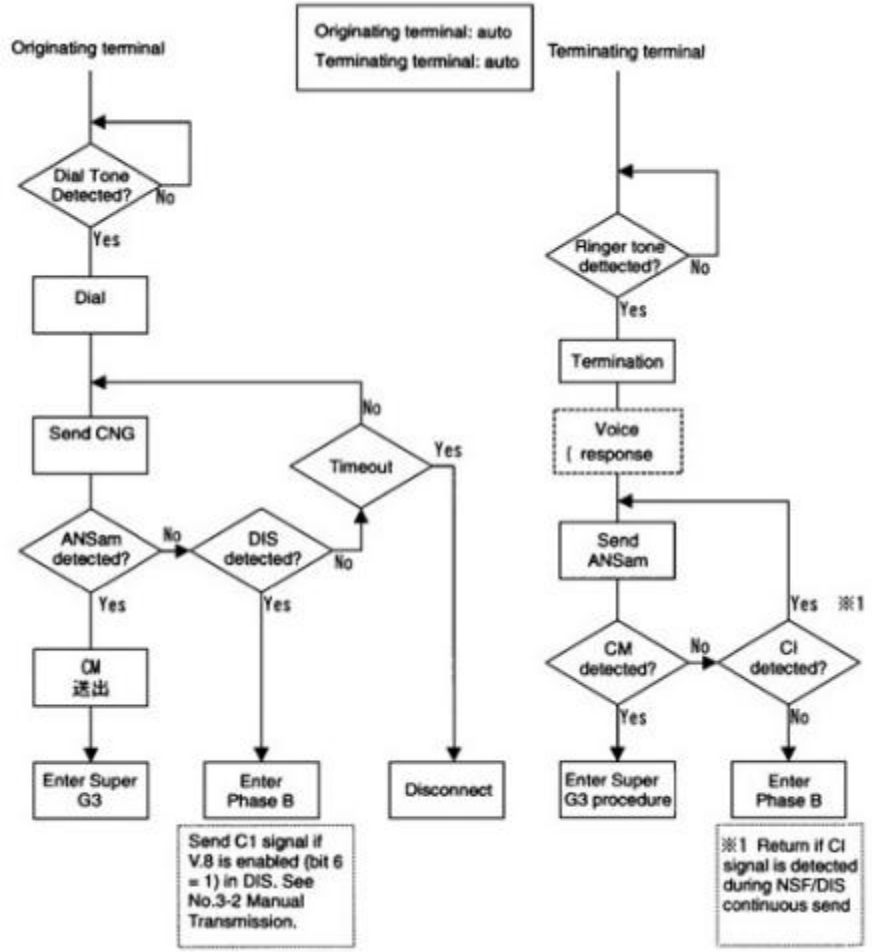


Figure 1 j0mf2719

6.5.5.4 V.8 Operation / Manual Send

Below is the flow for Manual Send at the Sending Terminal.

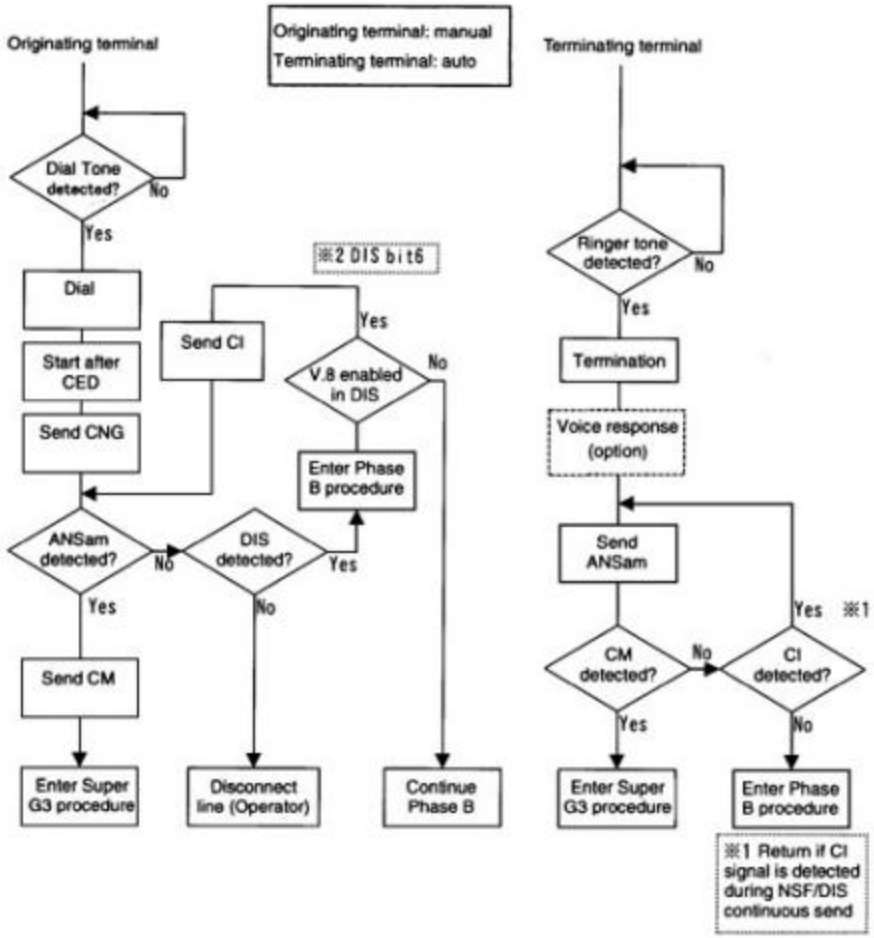


Figure 1 j0mf2720

6.5.5.5 Troubleshooting of Super G3 Fax

As Super G3 Fax belongs to analog communication, its basic troubleshooting is the same as G3 Fax. As differences exist due to the fast communication speed and the different communication procedure, troubleshooting unique in Super G3 mode will be described.

Super G3 Fax can communicate up to a maximum speed of 28800bit/s with V.34 modem. With option, it can communicate up to 33600bit/s.

As the conventional communication speed is 14400bit/s (V. 17), to achieve high speed communication by V.34, you have to perform data transmission of 2 times or above the conventional speed at one time. Therefore, communication is affected by the quality of telephone line now more than before. Even with telephone lines that can communicate without errors in 14400/9600 bit/s, communication errors may occur in Super G3.

Normal analog public lines have satisfactory frequency characteristics in 300-3400Hz zone. Even if Super G3 communication sends or receives using the same remote party or telephone line, the communication speed may differ. This is because the speed is decided based on the line quality measured at the sending side using the Probing feature performed in V.34 procedure, and when sending or receiving is done in Super G3, the result from Probing is changed. That is, Super G3 mode cannot always communicate at the highest speed (33600bit/s). Domestic Super G3 communication can achieve a speed of 21600bit/s and above in most cases.

The conventional Fax at 14400bit/s or lower uses half-duplex communication which sends the signal alternately whereas Super G3 Fax is performed using full-duplex communication which has a different communication procedure. In full-duplex communication, Fax from both sides will send signal concurrently and each side can monitor the signal of the remote party while sending its own signal. Therefore, until now, the communication status can be verified by monitoring the sound of the line but Super G3 communication is unable to judge by the monitor sound. That is, when communication error occurs, protocol monitor analysis is required now more than ever, and the frequency in which the Traces between the incoming and outgoing stations are compared increases.

Super G3 Troubleshooting Precautions

ECM: ECM is required in Super G3 communication. Set the ECM feature to OFF and communicate via V. 17/V.29(14000/9600 bit/s) instead of V.34, even if Super G3 mode is available.

Communication Procedure: Super G3 communication procedure consists of V.8 and V.34 procedures. V.8 procedure will determine the verification of Super G3 mode and the communication speed. Once the V.8 procedure has completed, it will proceed to V.34 procedure and transmit image information via V.34 procedure. V.34 procedure has the same command names as G3 procedure (such as V. 17/V.29) and most of their protocol traces are the same, but as it uses full-duplex communication, its command transmission speed is 1200bit/s. V.8 procedure uses CNG (or CI: for Manual Send) sent by the outgoing terminal and ANSam tonal (sound) signal sent by the incoming terminal. If the line is noisy or the signal level is low, these tonal signals cannot be recognized properly by the remote station and resulting in

errors. Procure the protocol of the remote station and determine whether the signals (recorded in one's Trace) sent from here are recorded.

V.34 procedure is performed in the order of Phase 2, 3, and 4, and if Phase 4 has completed successfully, proceed to Phase B, C, D, and E. Please refer to the procedure in the past for the troubleshooting here.

When the line is noisy or the signal is low, the procedure is not carried out properly.

It can determine whether there is a problem with the analog characteristics of the telephone line in both examples described here and determine if the Send level is not appropriate.

Send level: As Super G3 Fax is analog communication, the signal level is very important. Especially when the noise level ratio (known as S/N ratio) becomes an issue. To detect the signal correctly, the S/N ratio must be above a certain level. Verify the Protocol Trace, if the remote station indicates "Same signal is sent repeatedly", "Do not advance to the next procedure", or the likes, it will mean that the remote station cannot recognize the signal from here.

In such cases, you can try changing the Send Level. If the Send Level is increased with the same noise level, S/N ratio becomes larger. When changing the Send Level, slowly increase or decrease the level (1-2dB) and test the communication several times with the changed value to find the best value.

However, if digital lines (ISDN/Corporate Digital Leased Line) or digital devices (such as digital PBX/TA) are used, analog signal with too high a level will cause the wave pattern to become erratic and the communication cannot take place normally (when performing analog-digital modulation, the wave pattern of high level signals is erratic). In line environment like this, lower the Send Level for satisfactory communication.

Speed: The highest speed is 33600bit/s for Super G3 mode; however, most of the PSTN communications in Japan are performed in 31200 to 21600 bit/s. If the line condition is very bad, the speed may be reduced to 9600 bit/s. Communication speed is determined by the result of Phase 2 procedure for V.34 Send Terminal. Therefore, even if the same line is used, a change in the Send Terminal will affect the communication speed.

Line Frequency Characteristics (F attribute): Attributes for telephone line frequency is known as [Frequency Characteristic], and ideally, the characteristic is uniform between 300 to 3400Hz used by the telephone. However, for public lines, it is normal for the lower frequency and the higher frequency to deteriorate (attenuation distortion, delayed signals), and the deterioration extent increases as the ground distance (accurately speaking, the line distance for the analog section) becomes longer. As compared to normal telephone calls and G3 Fax communication, the Frequency Characteristics for Super G3 communication is greatly affected. Even for lines that can carry out 14000/9600bps communication normally, error may occur in Super G3 communication. As audio compression is being performed in most of the Corporate Leased Lines (digital lines), the Frequency Characteristic is worst than the NTT public line, resulting in a high level of error occurrences in Super G3 communication.

Chapter 7 Wiring Data

7 Wiring Data

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7.1 Plug/Jack List and Locations

7.1.1 How to Use the Plug/Jack Location List

- To know the installation position of the connector, refer to the Figure and Item Number of "7. 1.2 Plug/Jack Location List" from the Figure and Item Number of "7. 1.3 Plug/Jack Locations" to check the position.
- P/J No. on "7.1.2 Plug/Jack Location List" is expressed in the nine ways below:
  - P/J250 represents Plug/Jack 250.
  - P250 represents Plug 250.
  - J250 represents Jack 250.
  - DP250 represents Double Plug 250.
  - DJ250 represents Double Jack 250.
  - CN1 represents Connector 1.
  - FS1 represents Faston Terminal 1.
  - SJ1 represents Shorting Jack 1.
  - T1 represents Terminal 1.

Example :

P/J No.	Figure No.	Item
P/J132	31	3
P237	22	13
J237	37	1
SJ33	16	13

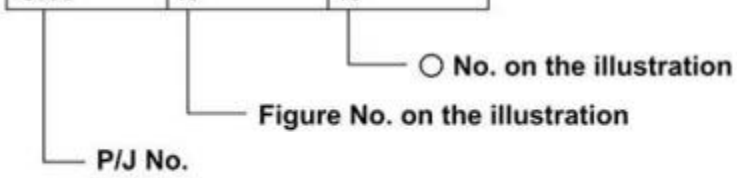


Figure 1 710001

7.1.2 Plug/Jack Location List

Table 1 Plug/Jack Location List

P/J No.	FigureNo.	Item	Remarks (where to connect)
P1	15	6	LVPS
P/J1	6	5	IIT Trans PWB
P/J1	7	6	NFC PWB
P/J1	7	9	UI I/F PWB
P/J2	6	6	IIT Trans PWB
P/J2	7	7	UI I/F PWB
P/J2	15	3	LVPS
P3	15	5	LVPS
P/J3	7	1	UI I/F PWB
P4	15	4	LVPS
P/J4	7	2	UI I/F PWB
P/J5	7	8	UI I/F PWB
P/J6	7	3	UI I/F PWB
P/J7	7	5	UI I/F PWB
P/J16	7	4	UI SW PWB
J18	17	10	Inlet Breaker (WHT)
J23	17	13	Inlet Breaker (BLK)
J51	17	11	Inlet Breaker (GN/ YL)
J80	26	8	Thermostat (Option)
J81	26	9	Thermostat (Option)
P/J83	6	11	IIT Heater 1 (Option)
P/J84	6	10	IIT Heater 2 (Option)
J90	26	2	Accessory/ Heater Relay PWB (Option)
J91	26	1	Accessory/ Heater Relay PWB (Option)
J92	26	6	Accessory/ Heater Relay PWB (Option)
J93	26	5	Accessory/ Heater Relay PWB (Option)
J94	26	4	Accessory/ Heater Relay PWB (Option)
J95	26	3	Accessory/ Heater Relay PWB (Option)
P/J96	26	7	IIT Heater (Option)
P/J97	26	11	Tray Heater (Option)
P/J98	26	13	IOT Heater (Option)
P/J100	16	2	Exit 2 Sensor
P/J101	1	2	Document Tray Size Sensor 1 (DADF- 110)

Table 1 Plug/Jack Location List

P/J No.	FigureNo.	Item	Remarks (where to connect)
P/J101	11	1	Regi . Sensor
P/J101	19	4	Tray 2 Paper Size Sensor (STM)
P/J101	21	4	Tray 2 Paper Size Sensor (1 TM)
P/J101	23	4	Tray 2 Paper Size Sensor (3 TM)
P/J102	1	3	Document Tray Size Sensor 2 (DADF- 1 1 0)
P/J102	11	2	MSI No Paper Sensor
P/J102	23	5	Tray 3 Paper Size Sensor (3 TM)
P/J103	1	5	DADF Tray Set Guide Sensor 3 (DADF- 1 1 0)
P/J103	23	6	Tray 4 Paper Size Sensor (3 TM)
P/J104	1	4	DADF Tray Set Guide Sensor 2 (DADF- 1 1 0)
P/J104	12	1	Tray 1 Level Sensor
P/J104	19	8	STM Left Cover Switch
P/J104	21	5	1 TM Left Cover Switch
P/J104	23	8	3 TM Left Cover Switch
P/J105	1	1	DADF Tray Set Guide Sensor 1 (DADF- 1 1 0)
P/J105	12	3	Tray 1 No Paper Sensor
P/J106	2	17	DADF Feeder Cover Sensor (DADF- 1 1 0)
P/J106	12	4	Tray 1 Pre Feed Sensor
P/J106	19	3	Tray 2 No Paper Sensor (STM)
P/J106	21	3	Tray 2 No Paper Sensor (1 TM)
P/J106	23	3	Tray 2 No Paper Sensor (3 TM)
P/J107	2	11	DADF Document Set Sensor 1 (DADF- 1 1 0)
P/J107	12	2	Tray 1 Paper Size Sensor
P/J107	19	2	Tray 2 Level Sensor (STM)
P/J107	21	2	Tray 2 Level Sensor (1 TM)
P/J107	23	2	Tray 2 Level Sensor (3 TM)
P/J108	19	5	Tray 2 Feed Out Sensor (STM)
P/J108	21	6	Tray 2 Feed Out Sensor (1 TM)
P/J108	23	7	Tray 2 Feed Out Sensor (3 TM)
P/J109	2	18	DADF Document Set Sensor (DADF- 1 1 0)
P/J110	1	10	DADF Invert Sensor (DADF- 1 1 0)
P/J110	23	3	Tray 3 No Paper Sensor (3 TM)
P/J111	1	12	DADF Pre Regi. Sensor (DADF- 1 1 0)
P/J111	23	2	Tray 3 Level Sensor (3 TM)
P/J112	1	9	DADF Regi. Sensor (DADF- 1 1 0)
P/J113	1	6	DADF APS Sensor 1 (DADF- 1 1 0)

Table 1 Plug/Jack Location List

P/J No.	FigureNo.	Item	Remarks (where to connect)
P/J113	8	3	Toner CRUM Connector Assembly (K)
P/J114	1	7	DADF APS Sensor 3 (DADF- 1 1 0)
P/J114	23	3	Tray 4 No Paper Sensor (3 TM)
P/J115	1	8	DADF APS Sensor 2 (DADF- 1 1 0)
P/J115	23	2	Tray 4 Level Sensor (3 TM)
P/J117	9	3	ATC Sensor (K)
P/J124	10	2	Heat Roll NC Sensor
P/J126	10	6	Environment Sensor
P/J130	16	3	L/ H High Cover Switch
P/J131	17	2	L/ H Cover Interlock Switch
P/J132	17	3	L/ H Cover Interlock Switch
P/J135	18	2	Front Cover Interlock Switch
P/J136	18	1	Front Cover Interlock Switch
P/J150	11	3	MSI Paper Size Sensor (Excluding FBCN)
P/J200	16	1	Exit Gate Solenoid
P/J201	2	10	DADF Feed Clutch (DADF- 1 1 0)
P/J201	16	6	Face Up Tray Gate Solenoid (Option)
P/J202	2	8	DADF T/ A Clutch (DADF- 1 1 0)
P/J202	11	9	Regi. Clutch
P/J203	2	12	Exit Nip Release Solenoid (DADF- 1 1 0)
P/J204	1	11	Stamp Solenoid (Option) (DADF- 1 1 0)
P/J204	16	10	Exit 1 Oct Solenoid
P/J205	11	4	MSI Feed Clutch
P/J206	11	6	Duplex Clutch
P/J207	17	8	Take Away Clutch
P/J209	9	4	Connector (4 pin)
P/J210	2	9	DADF Feed Motor (DADF- 1 1 0)
P/J210	17	1	Fusing Exhaust Fan
P/J211	12	7	Tray 1 Feed/ Lift Up Motor
P/J212	17	5	Main Motor
P/J213	17	7	Drum Motor
P/J217	8	1	Toner Dispense Motor (K)
P/J218	16	7	Exit 2 Motor
P/J220	6	7	Carriage Motor
P/J221	17	4	Main Motor
P/J221	19	1	Tray 2 Feed/ Lift Up Motor (STM)

Table 1 Plug/Jack Location List

P/J No.	FigureNo.	Item	Remarks (where to connect)
P/J221	21	1	Tray 2 Feed/ Lift Up Motor (1 TM)
P/J221	23	1	Tray 2 Feed/ Lift Up Motor (3 TM)
P/J222	17	6	Drum Motor
P/J222	23	1	Tray 3 Feed/ Lift Up Motor (3 TM)
P/J223	23	1	Tray 4 Feed/ Lift Up Motor (3 TM)
P/J224	20	2	STM Take Away Motor
P/J224	22	2	1 TM Take Away Motor
P/J224	24	2	3 TM Take Away Motor
P/J300	13	13	ESS PWB
P/J302	13	21	ESS PWB
P/J310	13	20	ESS PWB
P/J335	13	15	ESS PWB
P/J340	13	24	ESS PWB
P/J343	13	12	ESS PWB
J346	13	27	ESS PWB
P/J351	13	22	ESS PWB
P/J352	25	4	FAX PWB
P/J353	25	3	FAX PWB
P/J355	25	2	FAX PWB / RISER PWB (Option)
P356	13	11	ESS PWB
P/J356	25	5	FAX Speaker
P/J363	25	10	AG3 PWB (Option) / RISER PWB (Option)
P/J364	25	1	AG3 PWB (Option) / RISER PWB (Option)
P/J380	13	28	ESS PWB
P/J400	14	4	MCU Drive PWB
P/J401	14	1	MCU Drive PWB
P/J402	14	10	MCU Drive PWB
P/J403	14	11	MCU Drive PWB
P/J404	14	14	MCU Drive PWB
P/J405	14	6	MCU Drive PWB
P/J406	14	5	MCU Drive PWB
P/J407	14	9	MCU Drive PWB
P/J409	14	23	MCU Drive PWB
P/J410	14	13	MCU Drive PWB
P/J411	14	3	MCU Drive PWB
P/J413	14	7	MCU Drive PWB
P/J414	14	20	MCU Drive PWB

Table 1 Plug/Jack Location List

P/J No.	FigureNo.	Item	Remarks (where to connect)
P/J416	14	8	MCU Drive PWB
P/J417	14	15	MCU Drive PWB
P/J418	14	16	MCU Drive PWB
P/J419	14	2	MCU Drive PWB
P/J421	13	5	ESS PWB
P/J422	14	12	MCU Drive PWB
P/J424	14	22	MCU Drive PWB
P/J425	14	21	MCU Drive PWB
P/J501	15	8	LVPS
P/J502	15	9	LVPS
P/J504	15	7	LVPS
P/J505	15	2	LVPS
P/J506	15	1	LVPS
P/J520	8	2	HVPS
P/J541	20	4	STM PWB
P/J541	22	3	1TM PWB
P/J541	24	3	3TM PWB
P/J545	22	6	1TM PWB
P/J545	24	6	3TM PWB
P548	22	9	1TM PWB
P/J548	20	3	STM PWB
P/J548	24	9	3TM PWB
P/J549	22	8	1TM PWB
P/J549	24	8	3TM PWB
P/J550	20	6	STM PWB
P/J550	22	4	1TM PWB
P/J550	24	4	3TM PWB
P/J551	20	5	STM PWB
P/J551	22	5	1TM PWB
P/J551	24	5	3TM PWB
P553	20	7	STM PWB (to CPU- ROM Writer)
P553	22	7	1 TM PWB (to CPU- ROM Writer)
P553	24	7	3 TM PWB (to CPU- ROM Writer)
P/J590	14	18	MCU Drive PWB (Finisher)
P/J591	14	19	MCU Drive PWB (Finisher)
J592	22	1	Connector (1 TM)
J592	24	1	Connector (3 TM)

Table 1 Plug/Jack Location List

P/J No.	FigureNo.	Item	Remarks (where to connect)
P/J592	14	17	MCU Drive PWB
P/J600	16	5	Connector (7 pin)
P/J601	16	4	Connector (2 pin)
P/J602	11	8	Connector (3 pin)
P/J603	11	5	Connector (5 pin)
P/J604	12	5	Connector (9 pin)
P/J605	12	6	Connector (4 pin)
P/J606	16	8	Connector (4 pin)
DJ612	10	1	Fusing Unit (Connect to DP6 1 2)
DP612	10	7	Connector (Connect to DJ6 1 2)
J612	10	1	Fusing Unit (Connect to P6 1 2)
P612	10	7	Connector (Connect to J6 1 2)
DJ614	9	2	Drum Cartridge (K) (Connect to DP6 1 4 A/ DP6 1 4 B)
DP614A	9	5	Connector (Connect to DJ6 1 4)
DP614B	9	6	Connector
P/J614	16	11	Connector (3 pin)
P/J650	11	7	Connector (3 pin)
P/J661	19	6	Connector (4 pin) (STM)
P/J661	21	8	Connector (4 pin) (1 TM)
P/J661	23	14	Connector (4 pin) (3 TM)
P/J662	23	12	Connector (4 pin) (3 TM)
P/J663	23	10	Connector (4 pin) (3 TM)
P/J668	21	7	Connector (2 pin) (1 TM)
P/J668	23	9	Connector (2 pin) (3 TM)
P/J669	19	7	Connector (9 pin) (STM)
P/J669	21	9	Connector (9 pin) (1 TM)
P/J669	23	15	Connector (9 pin) (3 TM)
P/J671	23	13	Connector (9 pin) (3 TM)
P/J673	23	11	Connector (9 pin) (3 TM)
P/J675	21	10	Connector (3 pin) (1 TM)
P/J675	23	16	Connector (3 pin) (3 TM)
J690	20	1	Connector (STM)
P/J700	6	8	CCD Assembly
P/J751	2	7	DADF PWB (DADF- 110)
P/J752	2	4	DADF PWB (DADF- 110)
P/J753	2	5	DADF PWB (DADF- 110)

Table 1 Plug/Jack Location List

P/J No.	FigureNo.	Item	Remarks (where to connect)
P/J754	2	6	DADF PWB (Option) (DADF- 110)
P/J755	2	3	DADF PWB (DADF-110)
P/J756	2	2	DADF PWB (DADF-110)
P/J757	2	1	DADF PWB (DADF-110)
DP800	17	9	Connector (HCF)
P903	26	12	Connector (Option Heater & Accesorry)
P/J997	16	9	Exit 1 Oct Full Stack Sensor (Option)
P/J1305	27	1	USB Hub PWB
P/J1335	13	23	ESS PWB
P/J1337	13	8	ESS PWB
P/J1344	13	26	ESS PWB
P/J1349	13	25	ESS PWB
P/J1352	13	4	ESS PWB
P/J1353	13	29	ESS PWB
Z1359	10	5	Fusing Unit Exit Sensor
P1360	13	19	ESS PWB
P1361	13	18	ESS PWB
P1362	13	16	ESS PWB
P/J1363	13	17	ESS PWB
P/J1365	13	10	ESS PWB
P/J1370	13	7	ESS PWB
P/J1371	13	2	ESS PWB
P/J1372	13	9	ESS PWB
P/J1373	13	6	ESS PWB
P/J1374	13	3	ESS PWB
P/J1375	13	1	ESS PWB
P/J3480	13	14	ESS PWB (PEX GBE PWB)
P/J7207	6	9	APS Sensor 1
P/J7209	6	2	Platen Close Sensor
P/J7210	6	3	IIT Regi. Sensor
P/J7211	6	1	Platen Angle Sensor
P/J7223	6	4	Lamp Assembly
F10	10	3	Thermostat Center
F10	10	4	Thermostat Front
K	9	1	LPH (K)
LINE2	25	8	AG3 PWB (Option)

Table 1 Plug/Jack Location List

P/J No.	FigureNo.	Item	Remarks (where to connect)
LINE3	25	9	AG3 PWB (Option)
MJ1	25	7	FAX PWB (LINE)
MJ2	25	6	FAX PWB (TEL)
T1	2	16	Terminal (DADF- 110)
T1	17	12	Terminal
T2	2	15	Terminal (DADF- 110)
T3	2	13	Terminal (DADF- 110)
T4	2	14	Terminal (DADF- 110)
T4	26	10	Terminal (Option)
USB	7	10	USB
USB_1	27	2	USB Hub PWB
USB_2	27	3	USB Hub PWB
USB_3	27	4	USB Hub PWB

7.1.3 Plug/Jack Locations

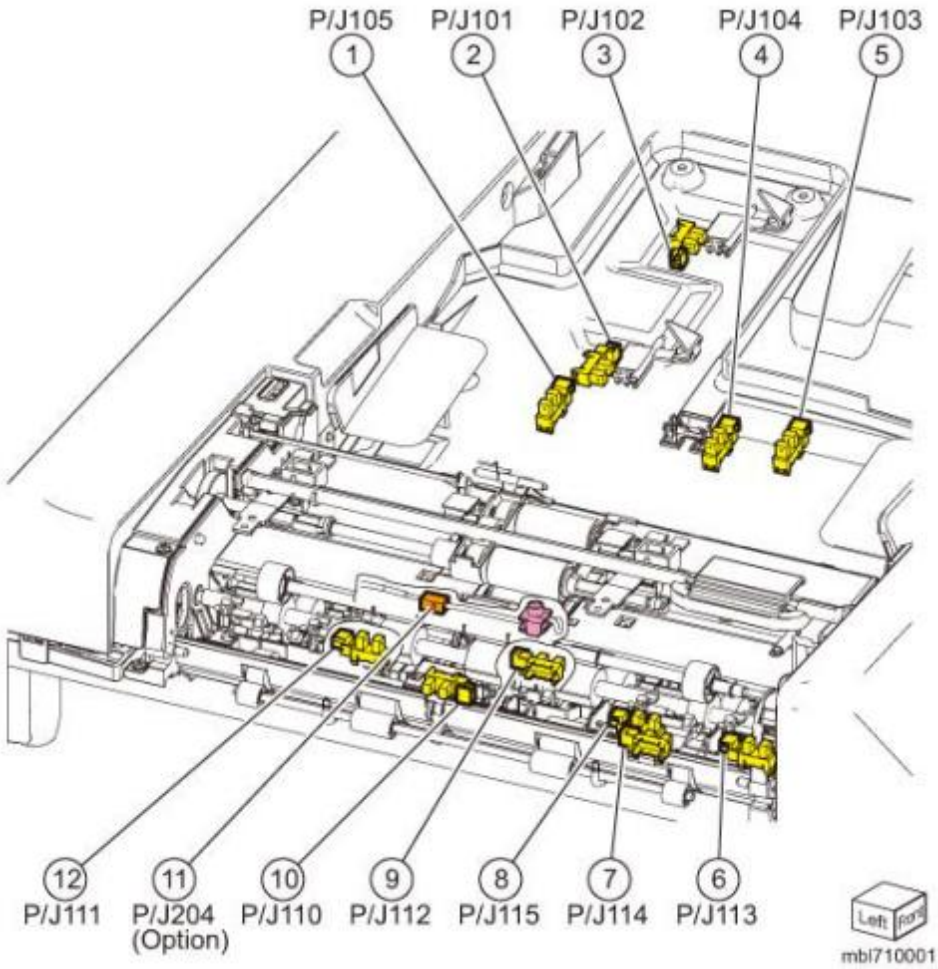


Figure 1 DADF-110 (1 of 2) (mbl710001)

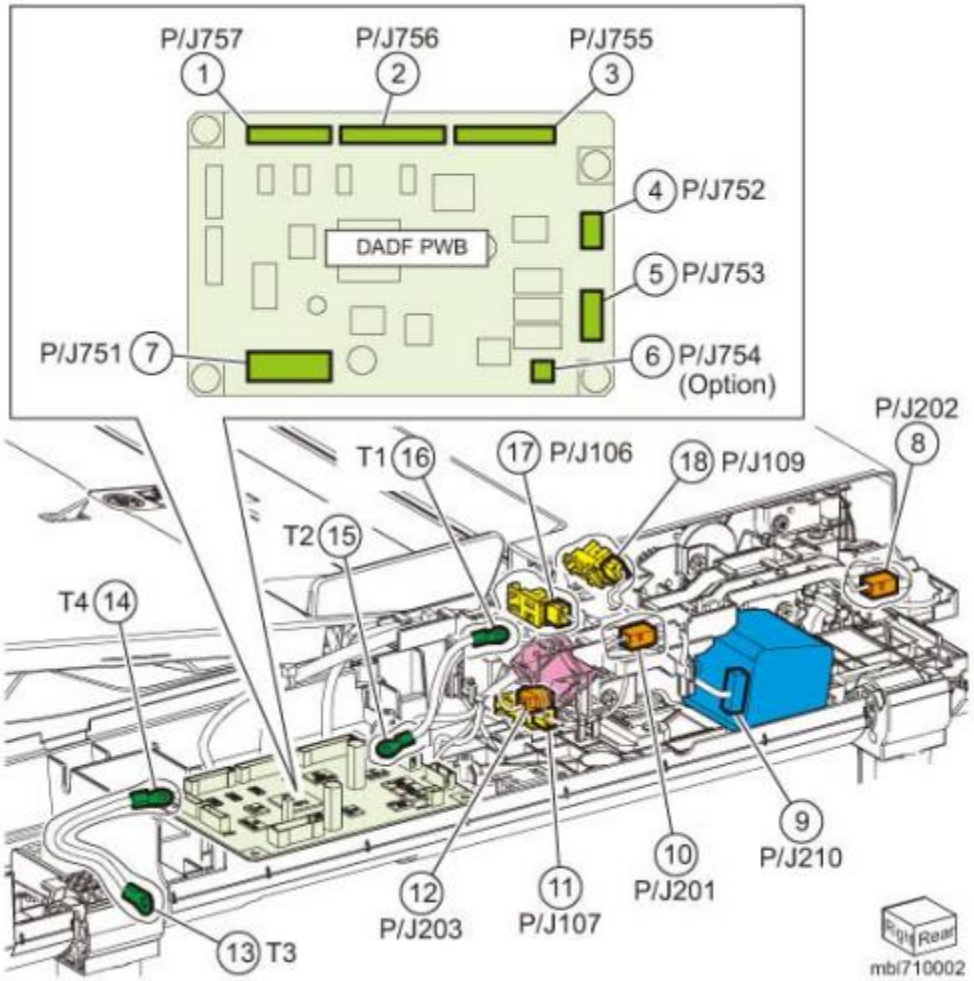


Figure 2 DADF-110 (2 of 2) (mbl710002)

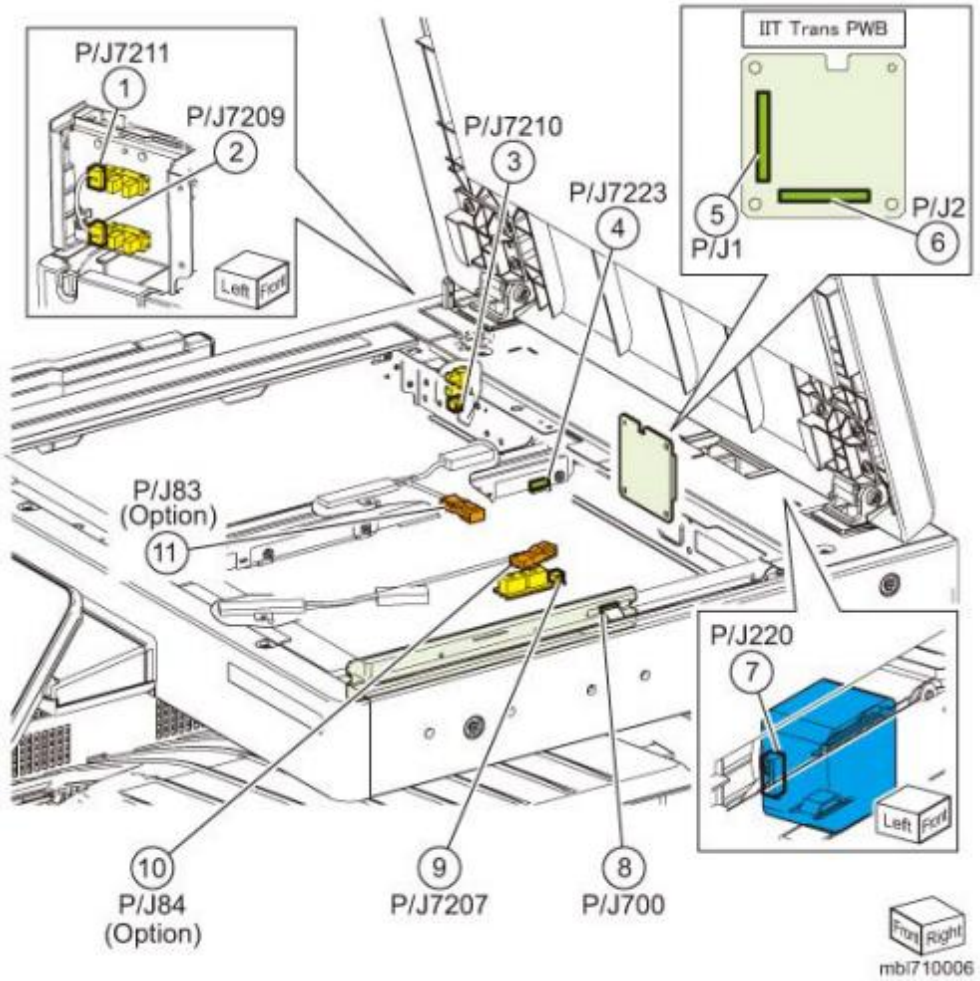


Figure 3 IIT (mbl710006)

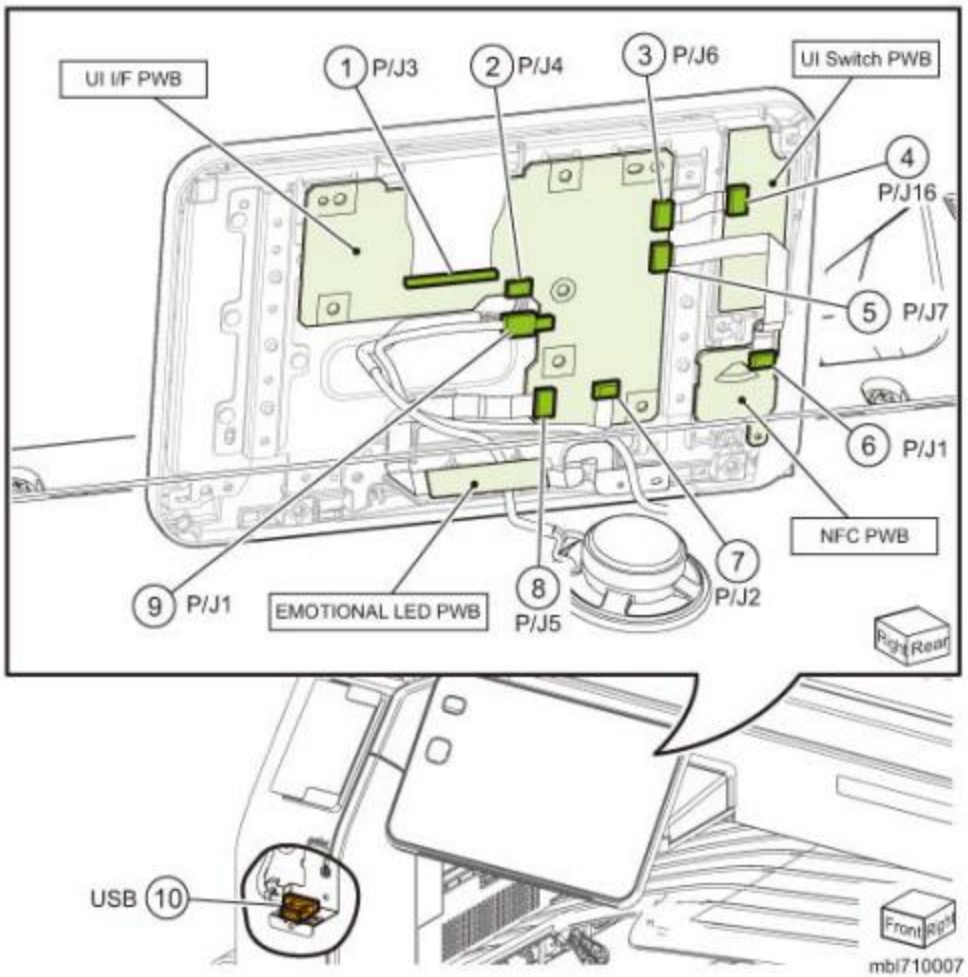


Figure 4 UI (mbl710007)

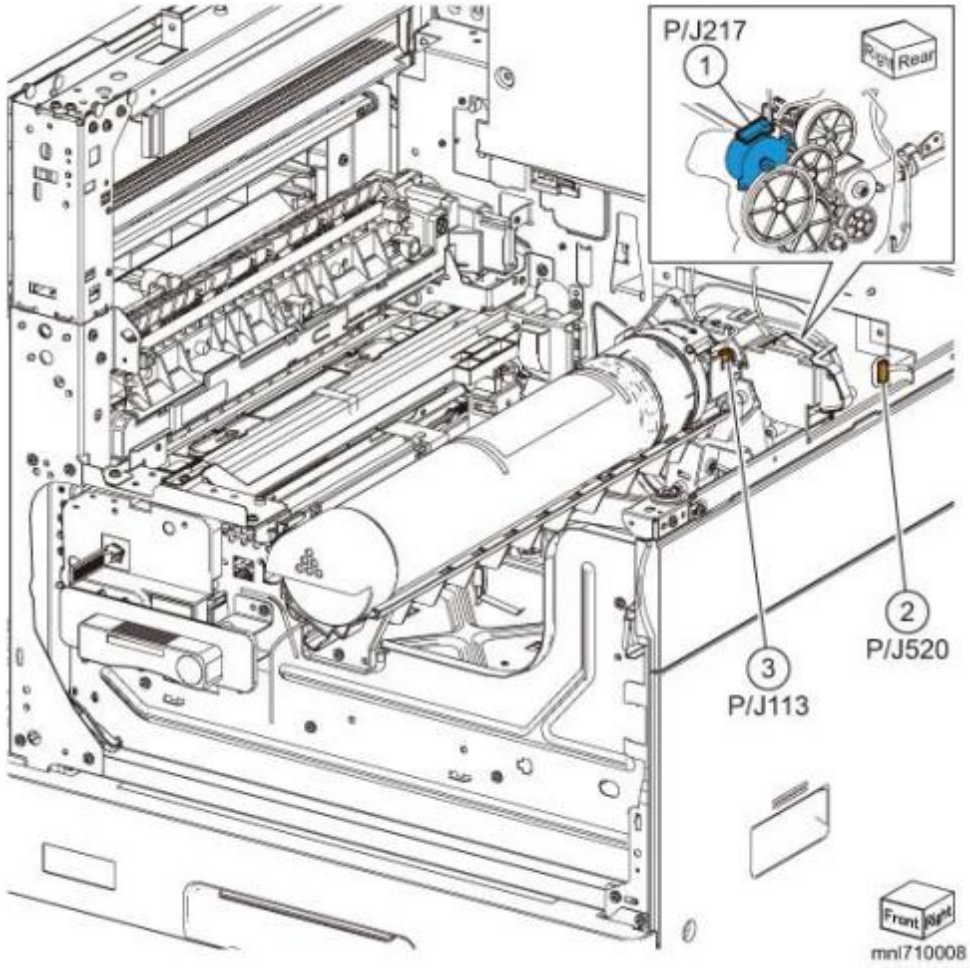
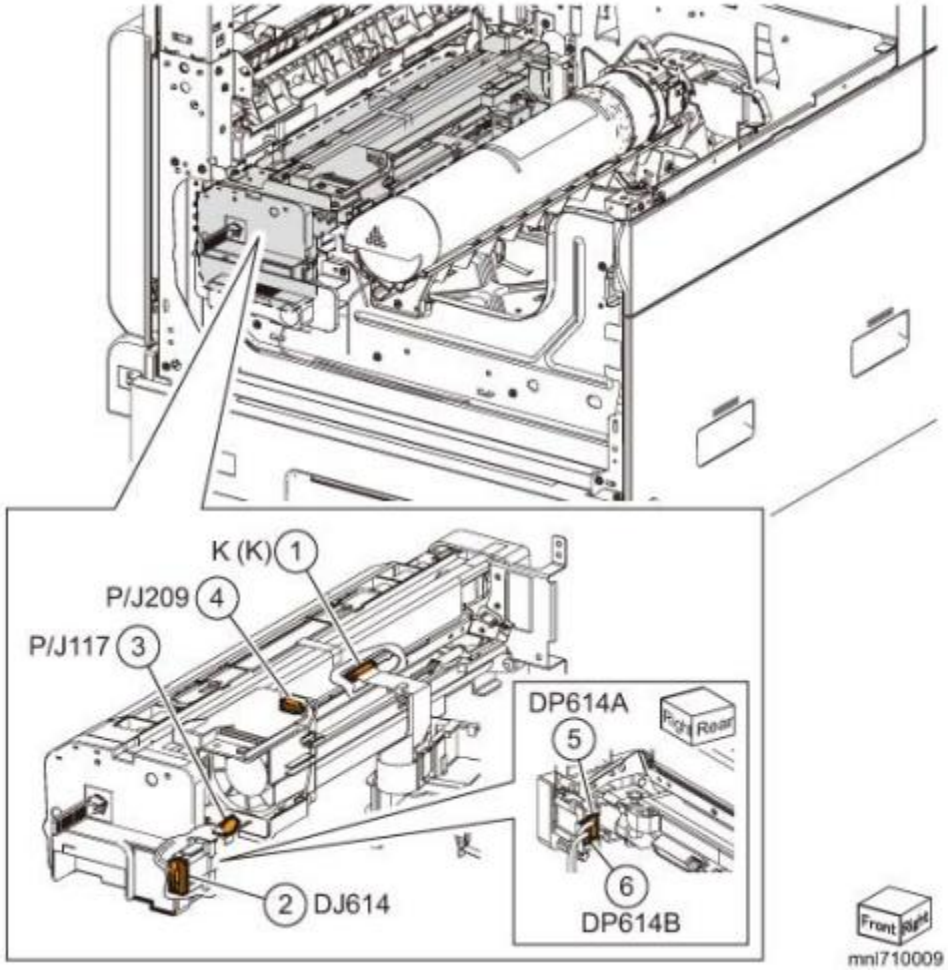
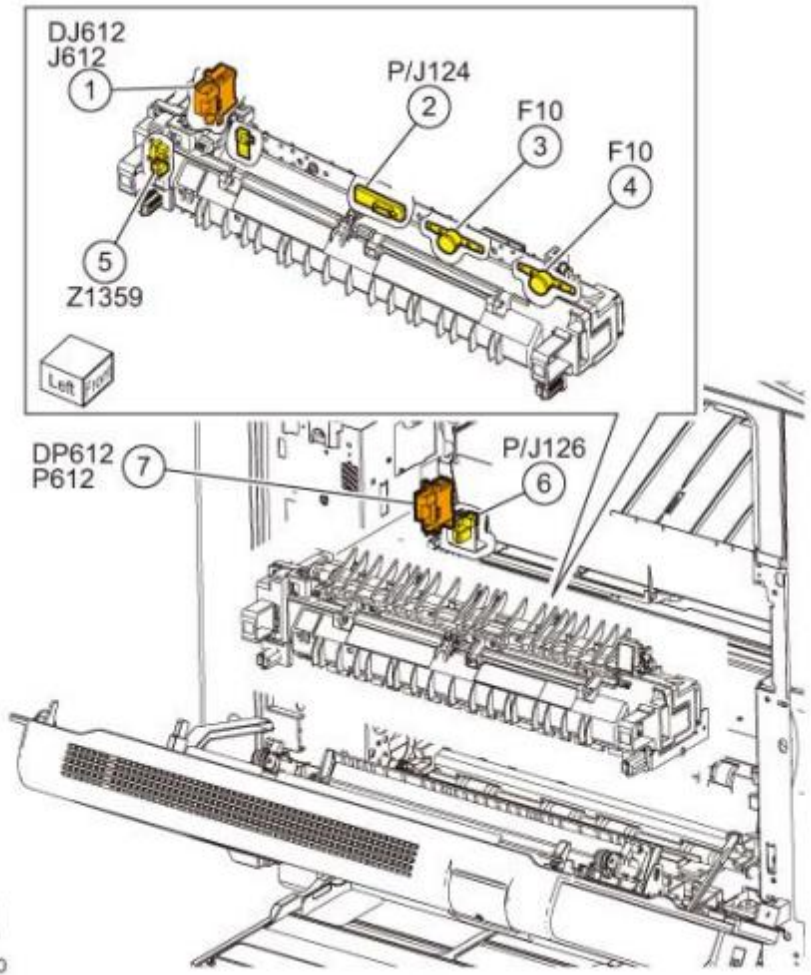


Figure 5 Toner CRUM / Front Cover Interlock Switch (mnl710008)



mnl710009

Figure 6 EPG CRUM / CIS Sensor Assembly (mnl710009)



mbl710010

Figure 7 Fusing Unit (mbl710010)

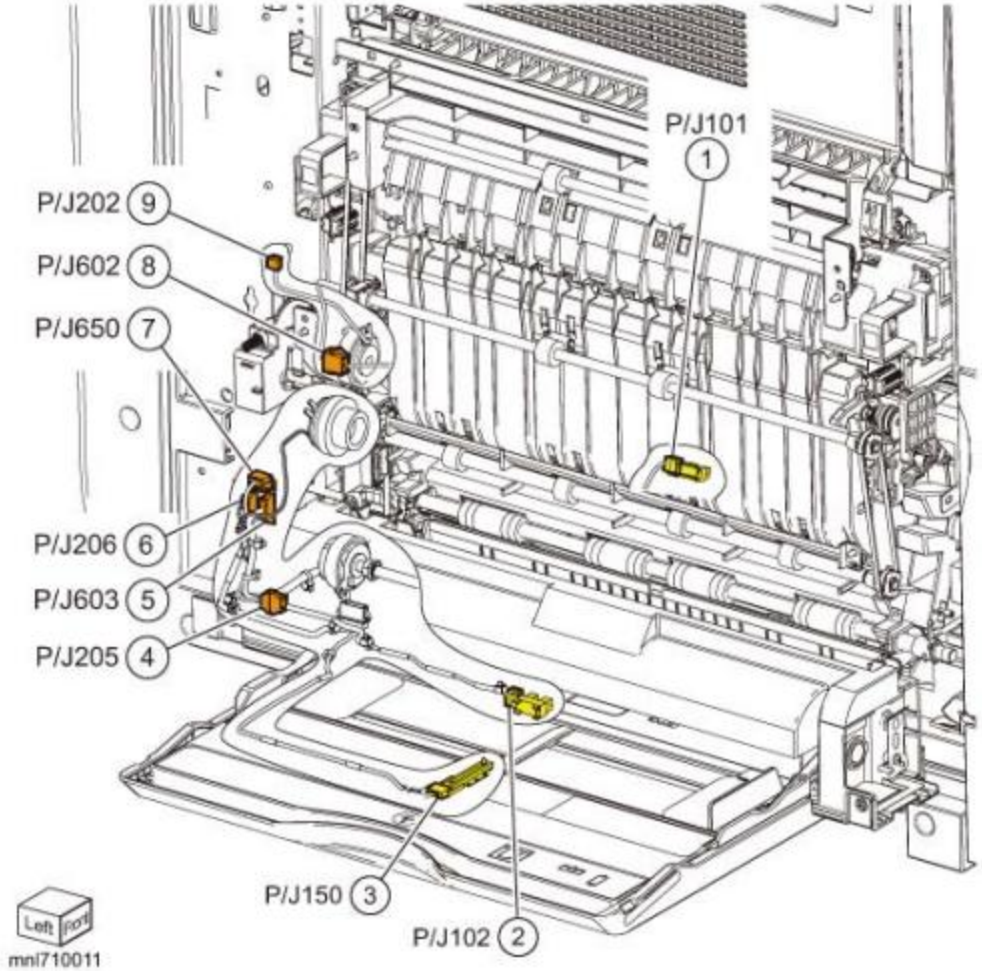


Figure 8 ReC / Regi. / MSI (mnl710011)

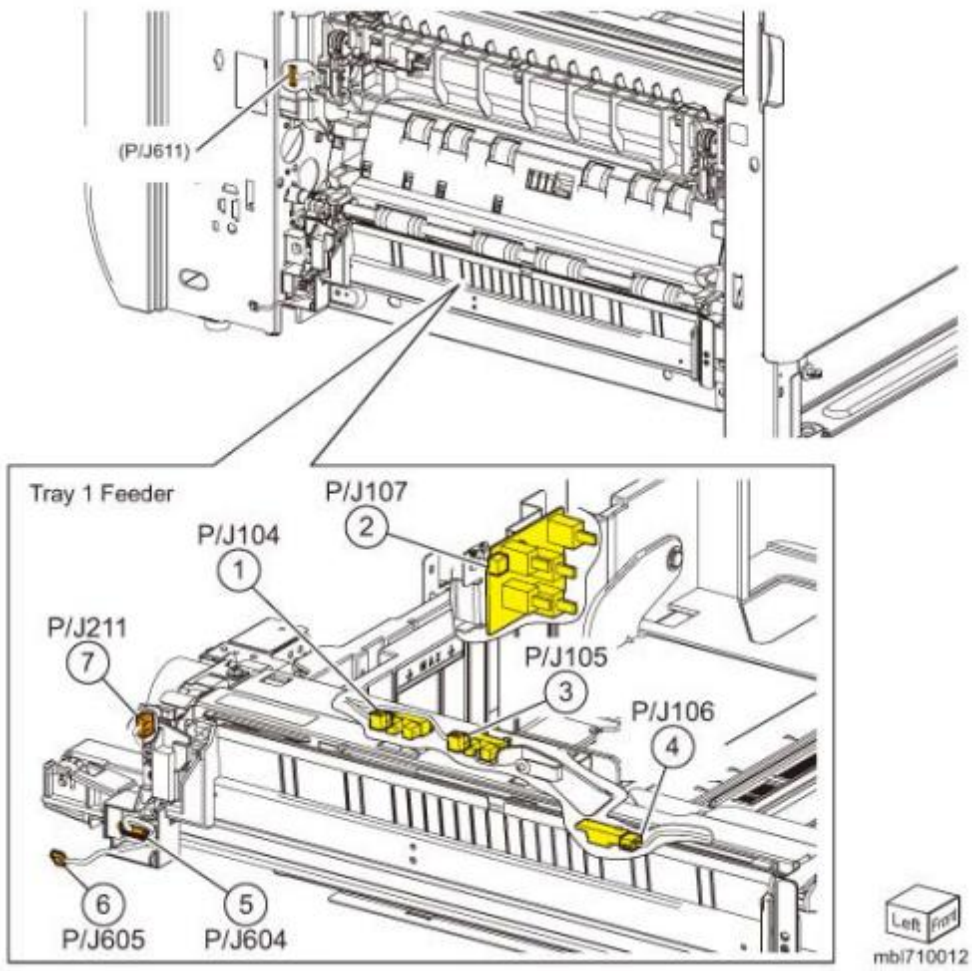


Figure 9 CTD Solenoid / Tray1 Feeder (mbl710012)

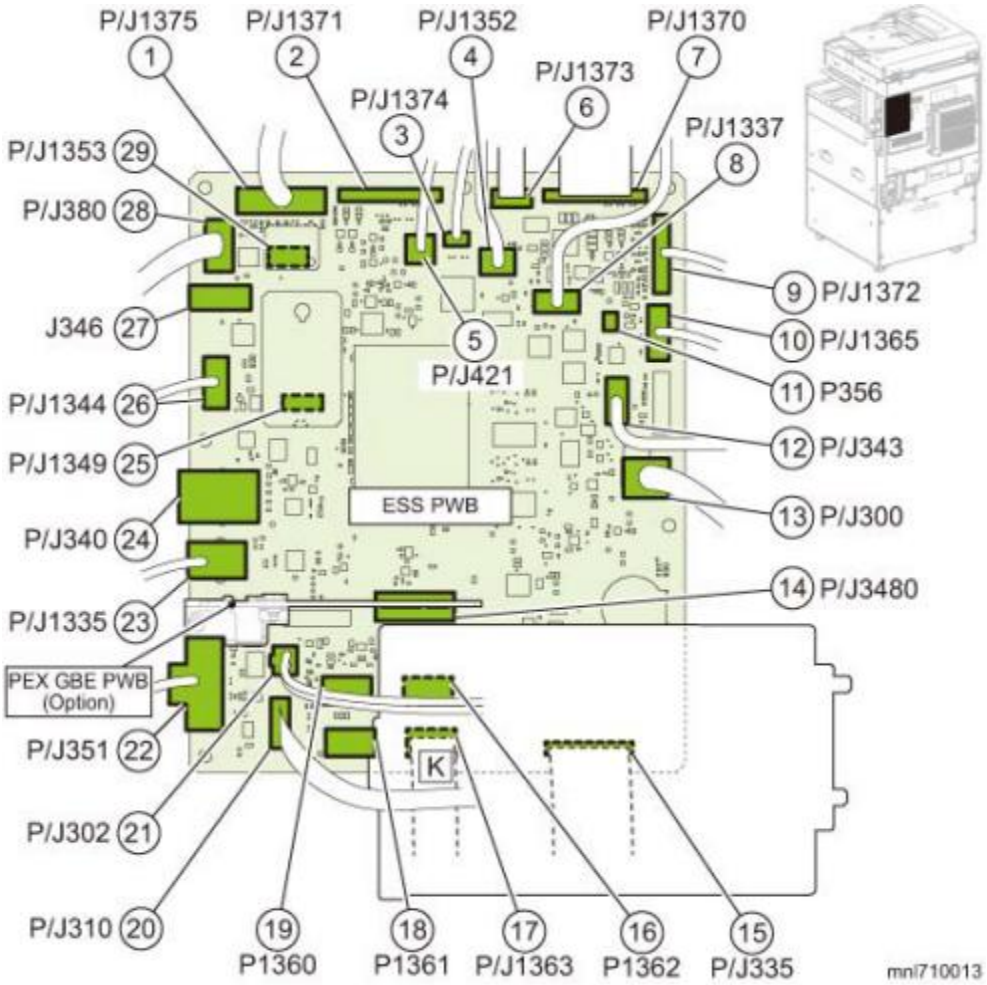


Figure 10 ESS PWB (mnl710013)

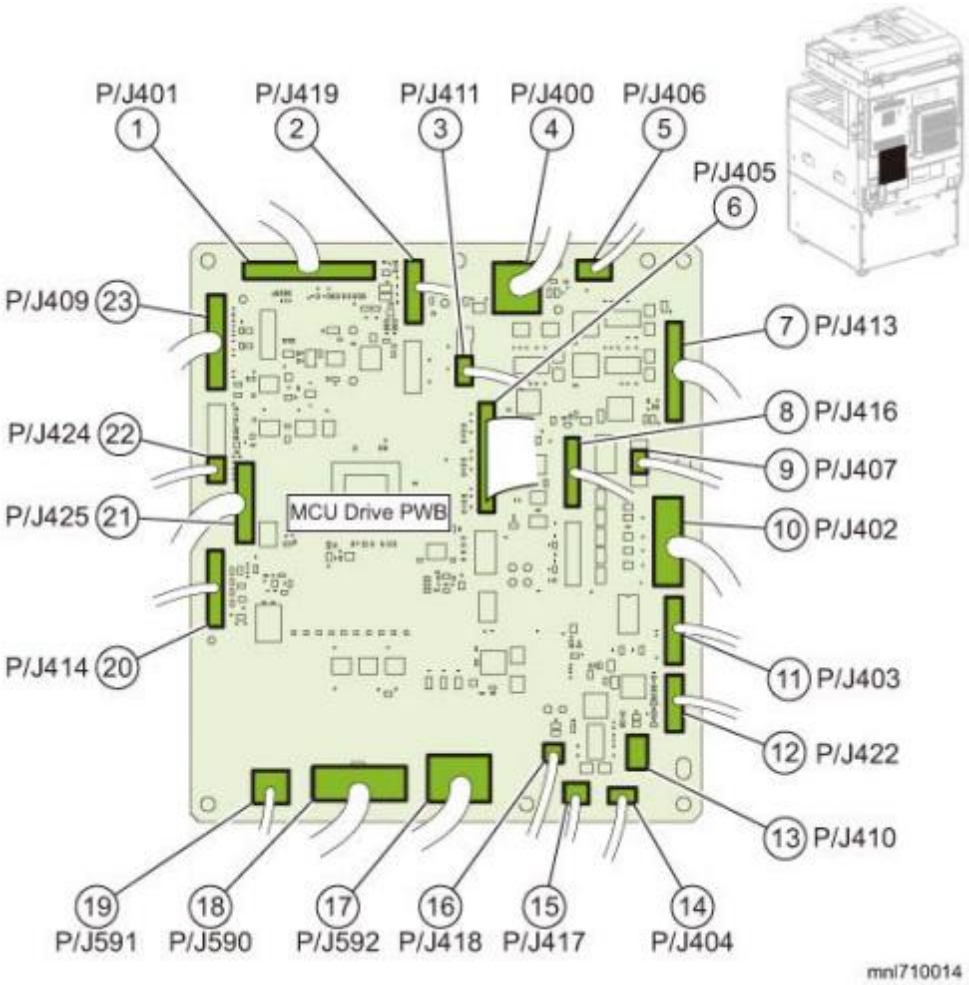


Figure 11 MCU Drive PWB (mnl710014)

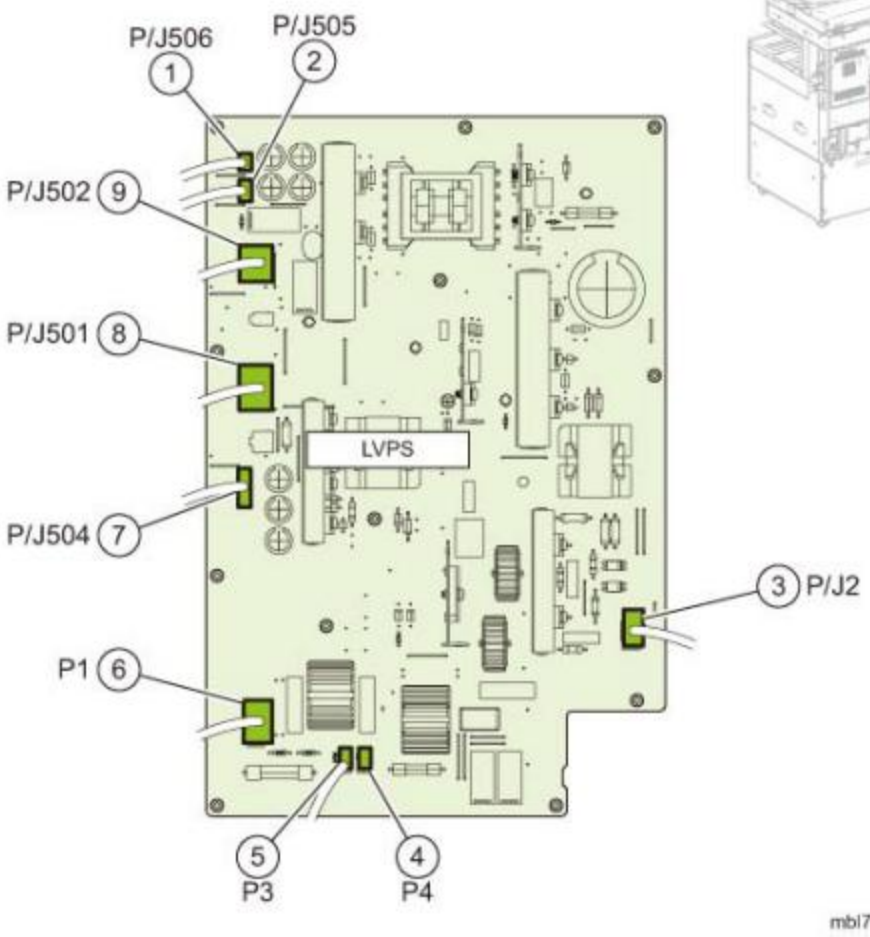


Figure 12 LVPS (mbl710015)

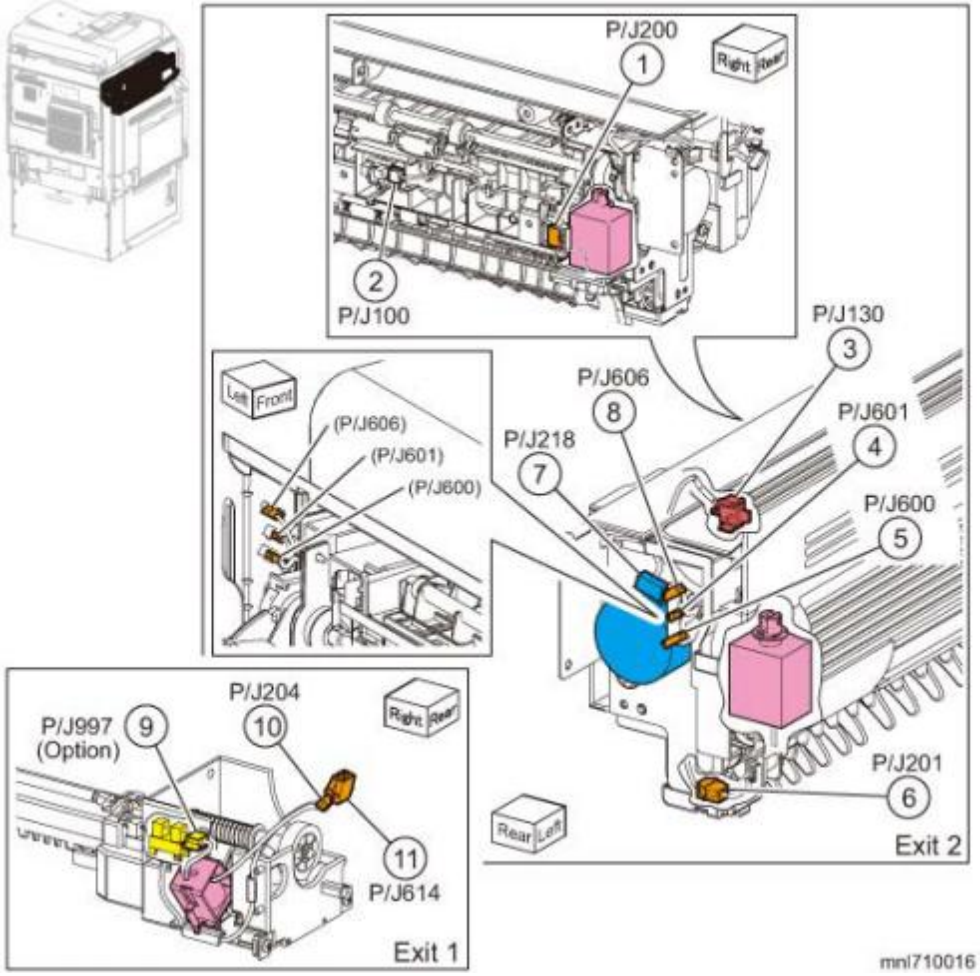


Figure 13 Exit 1/2 (mnl710016)

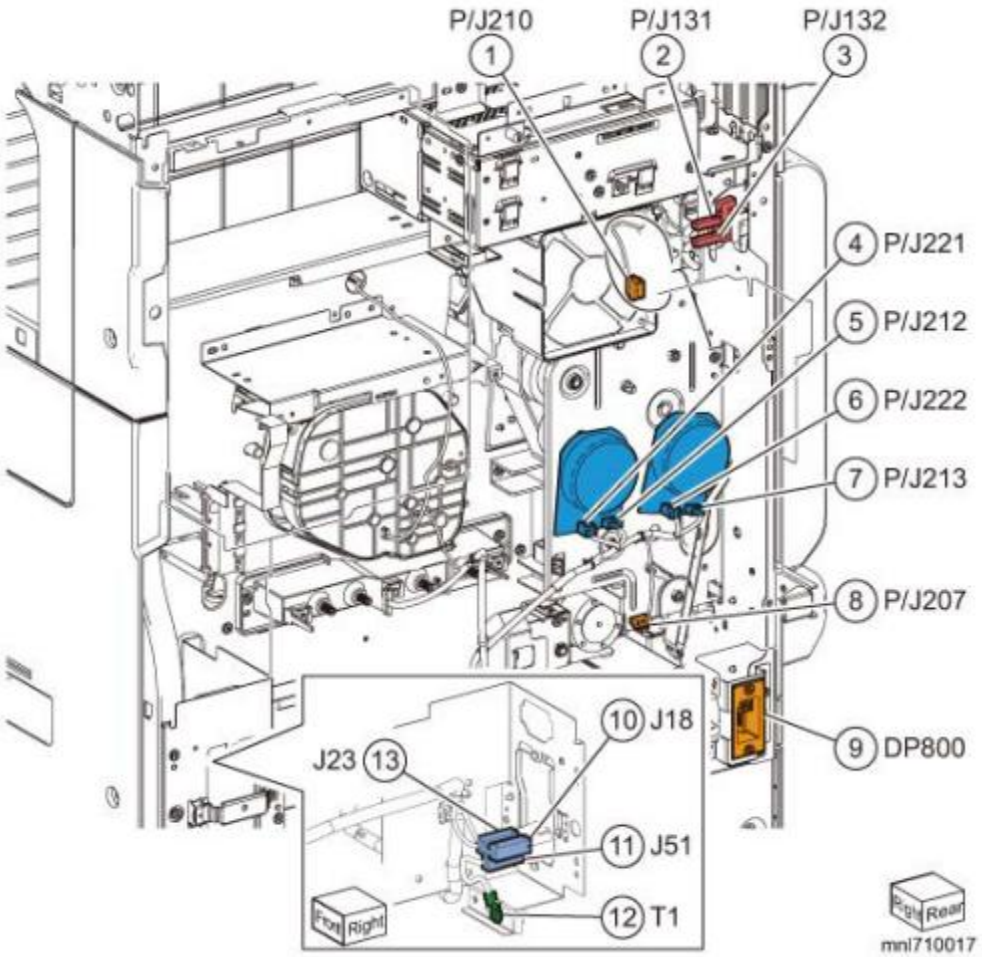


Figure 14 Rear View (mnl710017)

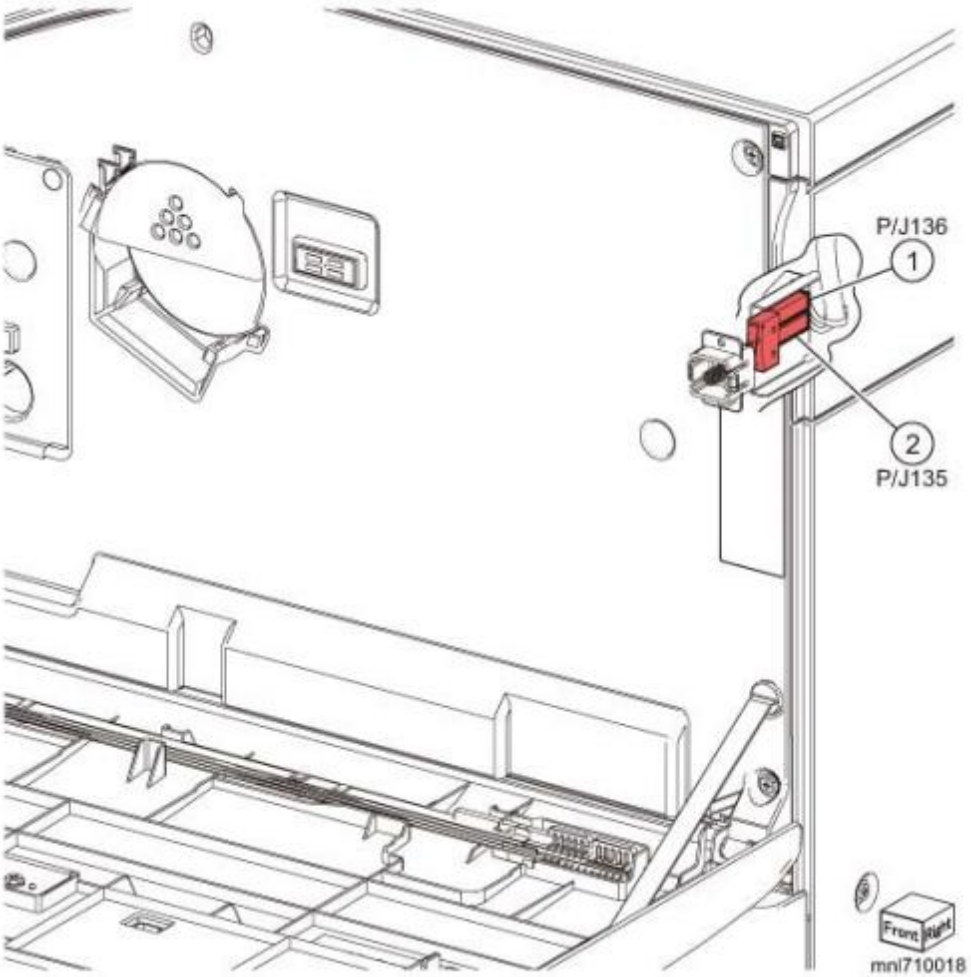


Figure 15 Main Power / Front Cover Interlock Switch (mnl710018)

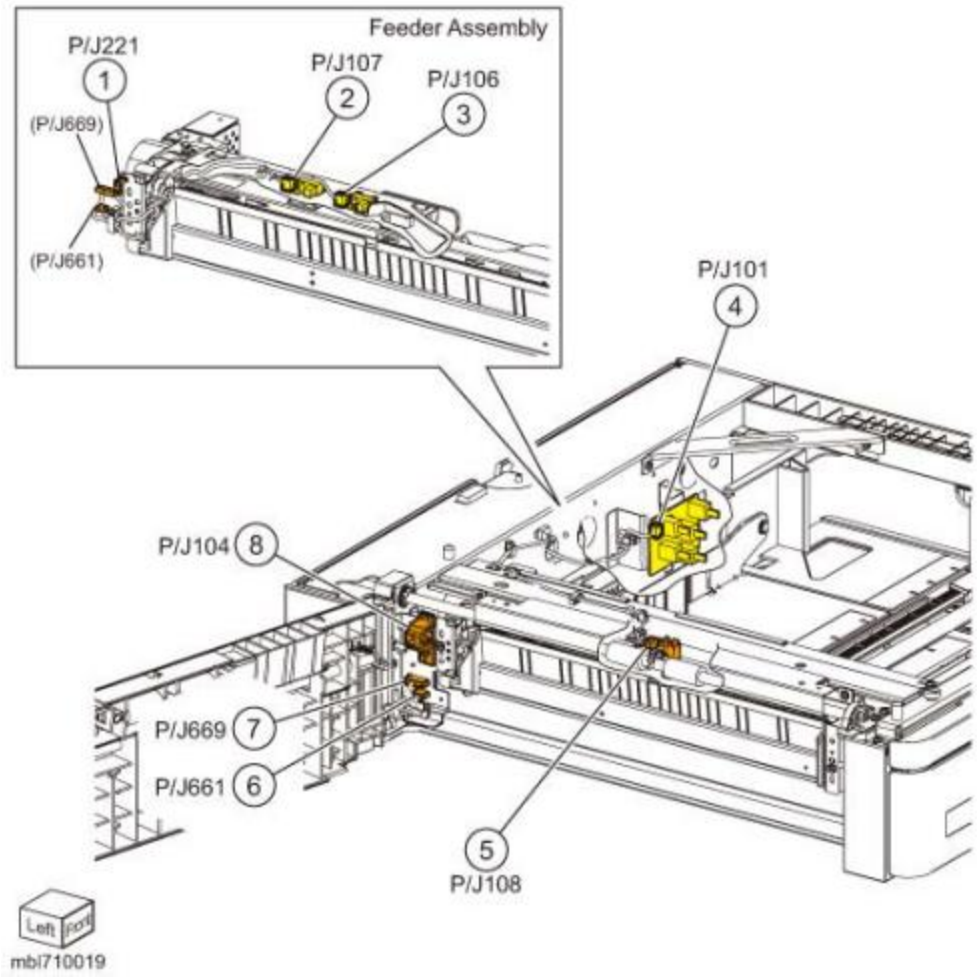


Figure 16 Tray Module (STM) (1 of 2) (mbl710019)

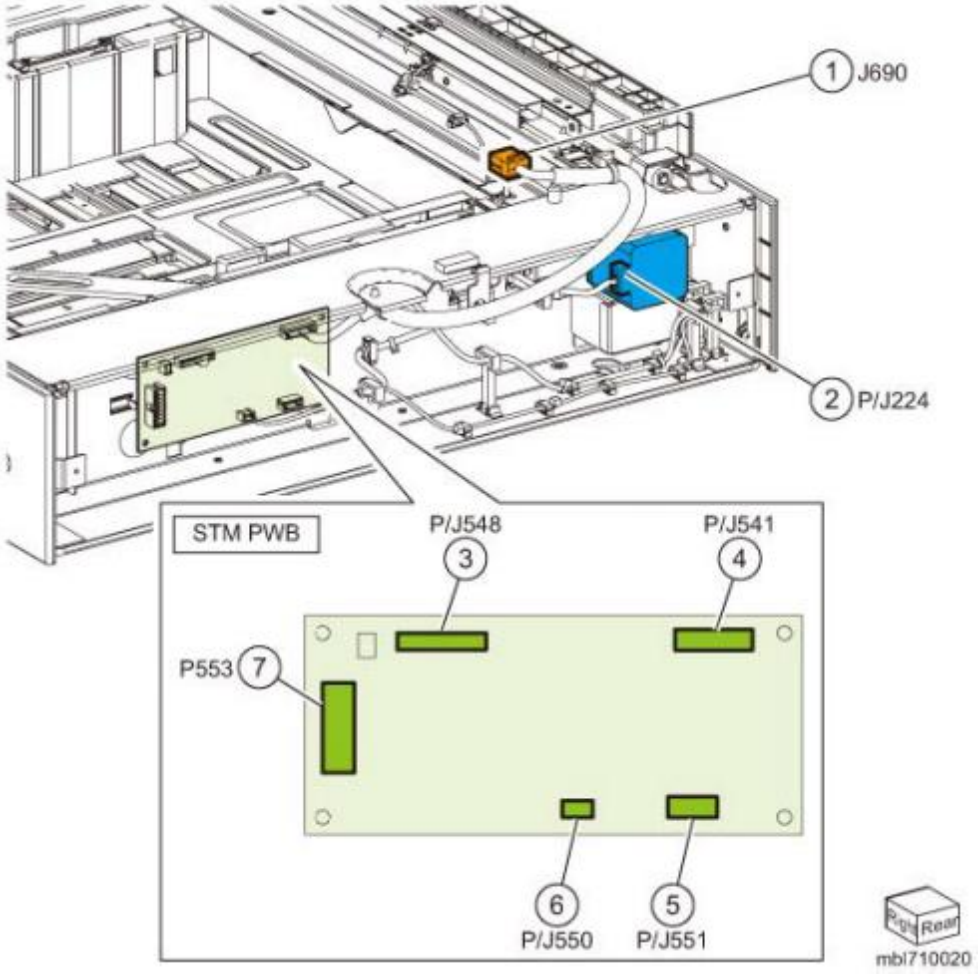


Figure 17 Tray Module (STM) (2 of 2) (mbl710020)

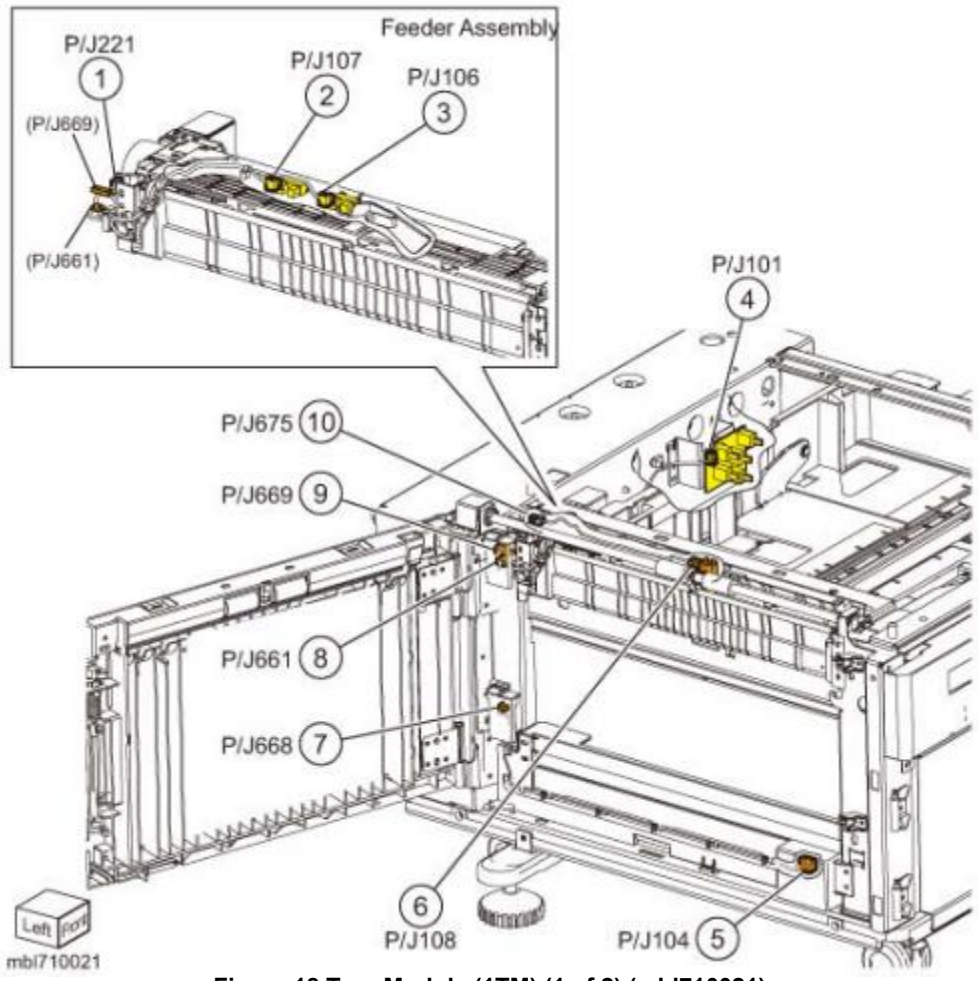


Figure 18 Tray Module (1TM) (1 of 2) (mbl710021)

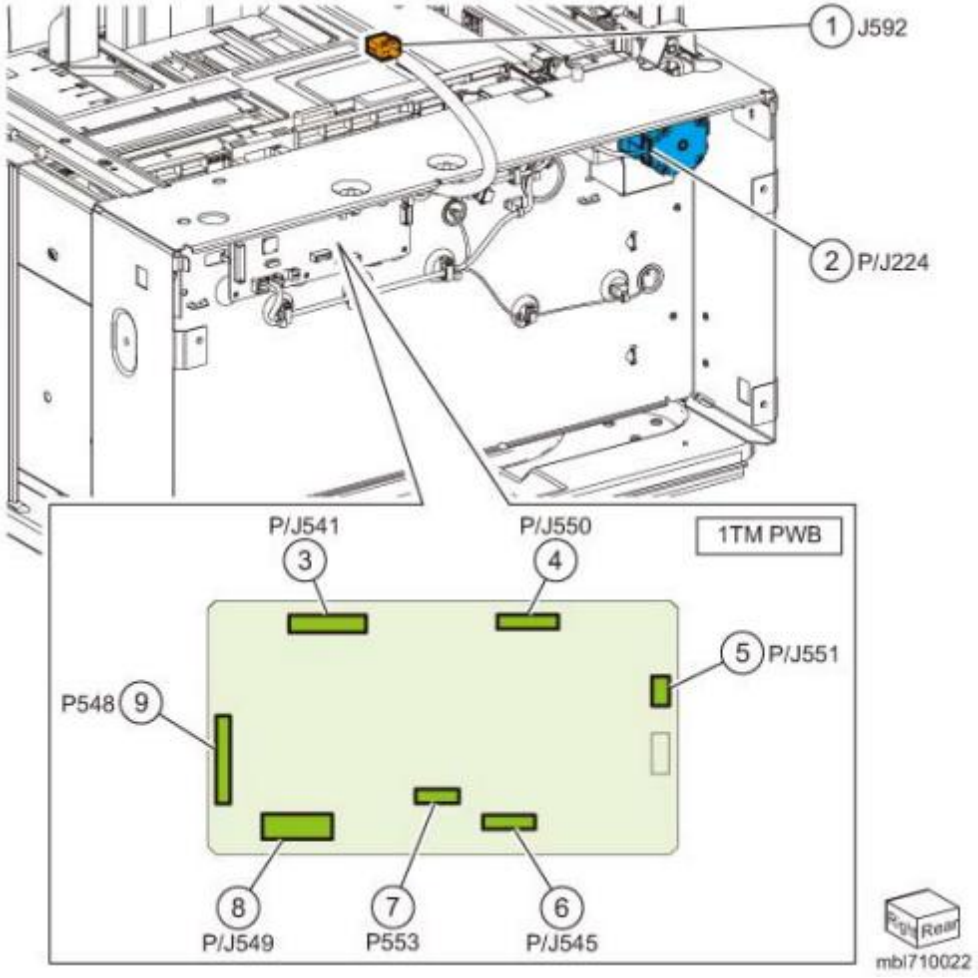


Figure 19 Tray Module (1TM) (2 of 2) (mbl710022)

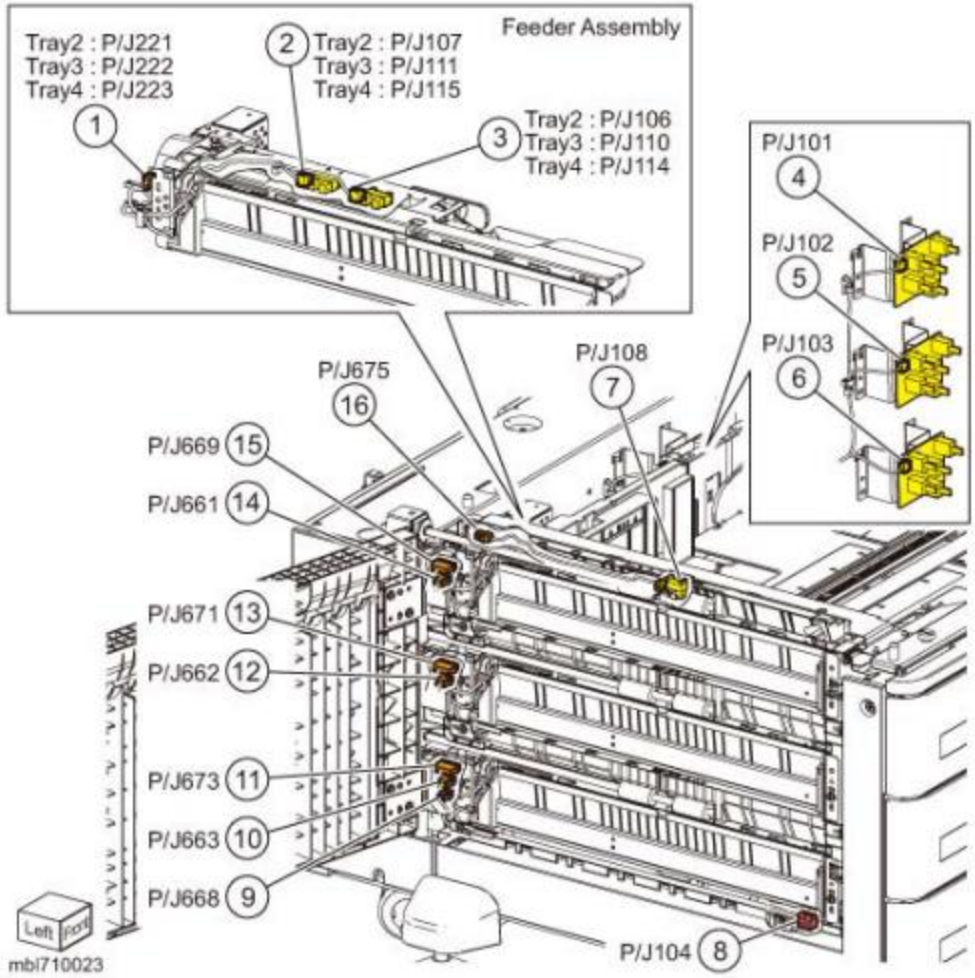


Figure 20 Tray Module (3TM) (1 of 2) (mbl710023)

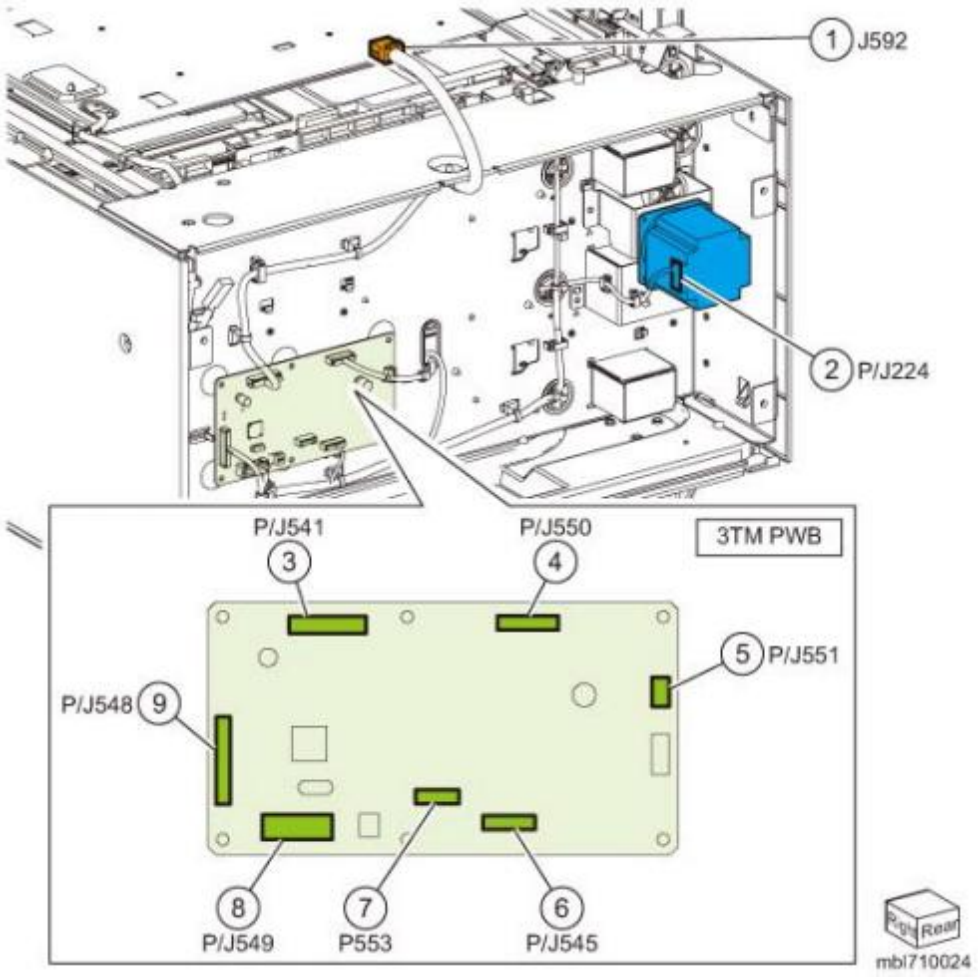


Figure 21 Tray Module (3TM) (2 of 2) (mbl710024)

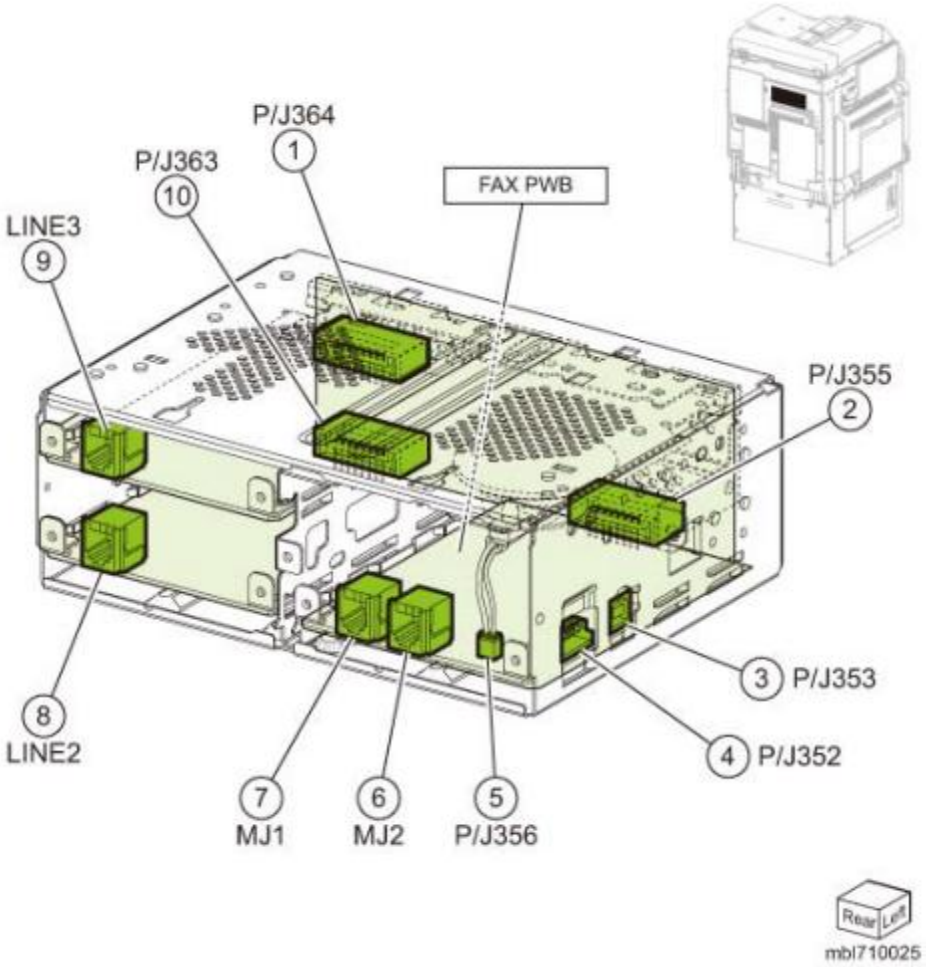


Figure 22 FAX PWB (Option) (mbl710025)

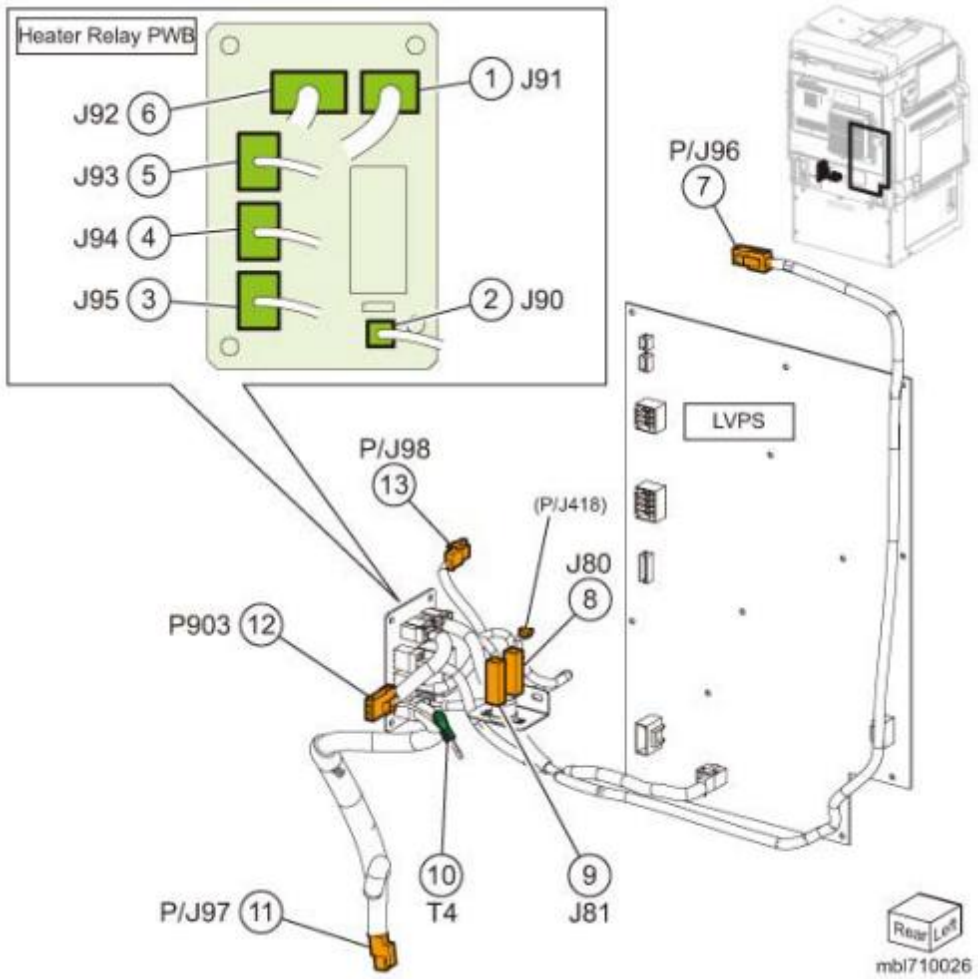


Figure 23 Heater KIT (Option) (mbl710026)

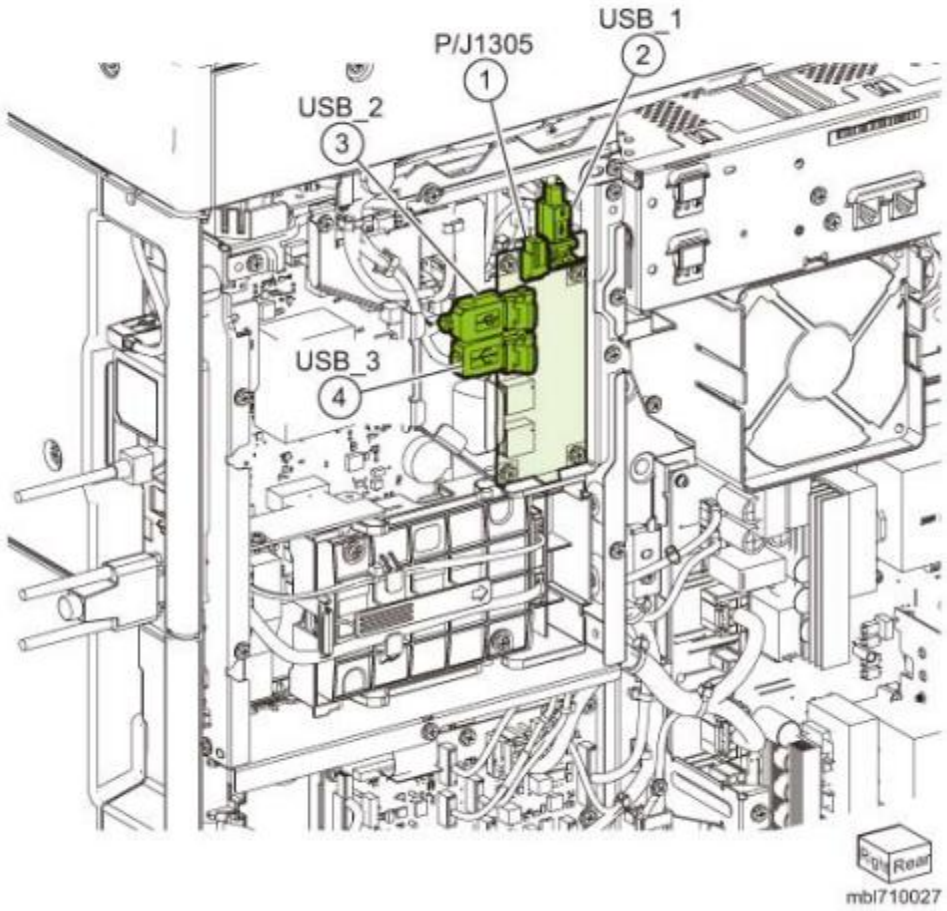
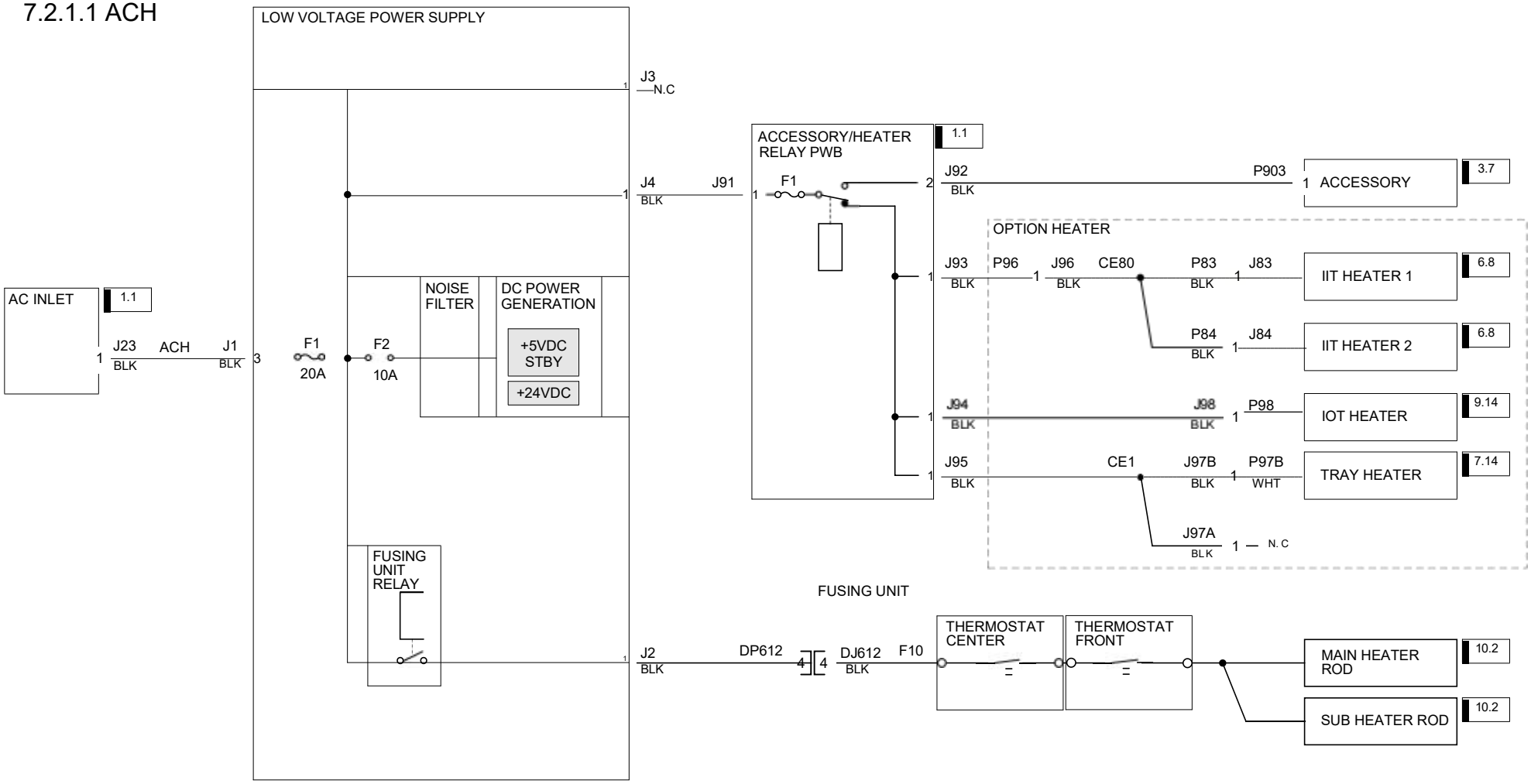


Figure 24 USB Hub (Option) (mbl710027)

7.2 Wire Network

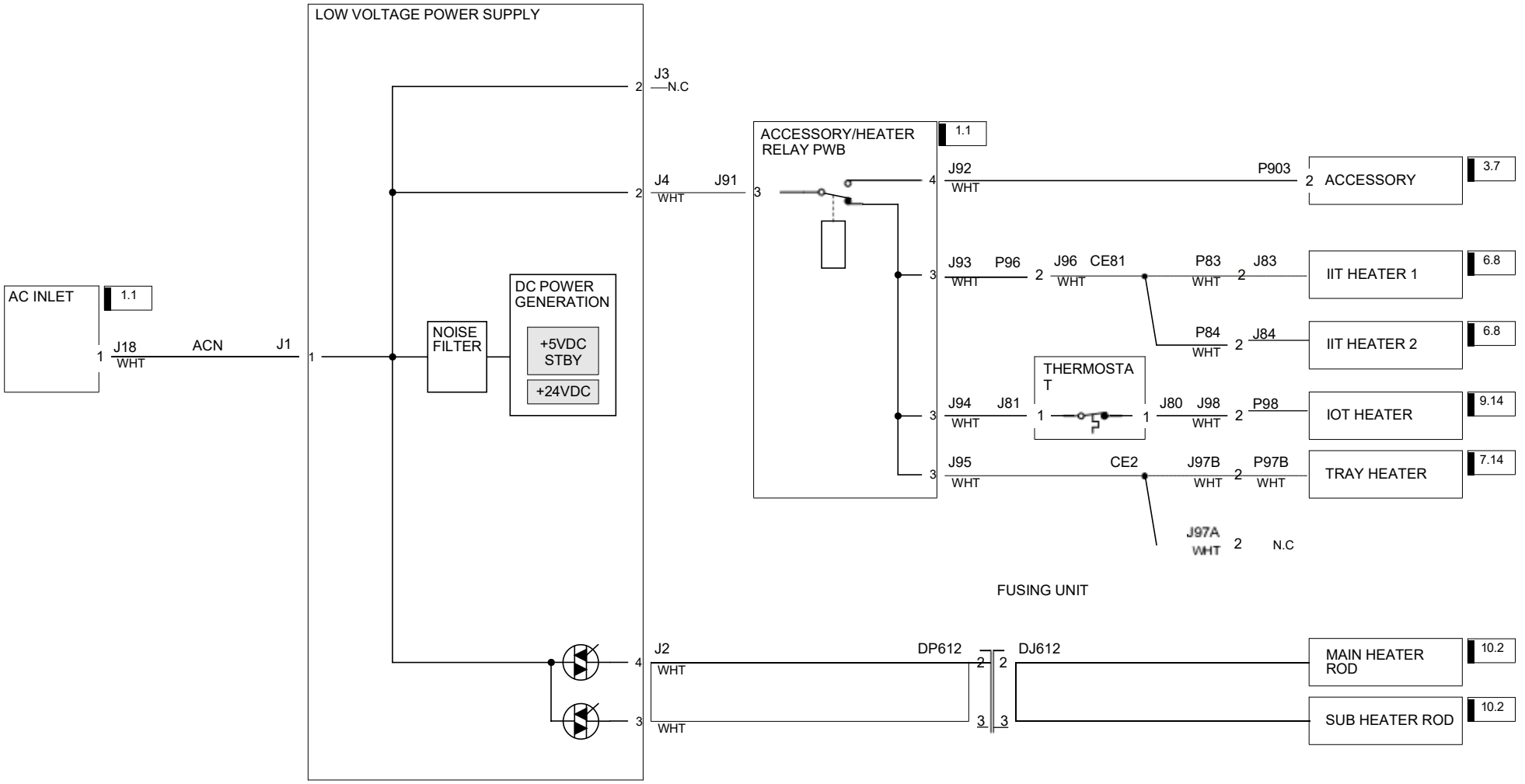
7.2 Wire Network 1
7.2.1 IOT/IIT 1
7.2.1.1 ACH 1
7.2.1.2 ACN 2
7.2.1.3 +3.3VDC-1 3
7.2.1.4 +3.3VDC-2 4
7.2.1.5 3.3VRTN-1 5
7.2.1.6 3.3VRTN-2 6
7.2.1.7 +5VDC-1 7
7.2.1.8 +5VDC-2 8
7.2.1.9 +5VDC-3 9
7.2.1.10 5VRTN-1 10
7.2.1.11 5VRTN-2 11
7.2.1.12 5VRTN-3 12
7.2.1.13 +24VDC-1 13
7.2.1.14 +24VDC-2 14
7.2.1.15 24VRTN 15
7.2.56 DADF (DADF-110) 16
7.2.56.1 DADF-110 +5VDC 16
7.2.56.2 DADF-110 +24VDC 17
7.2.56.3 DADF-110 DC COM 18

7.2.1.1 ACH



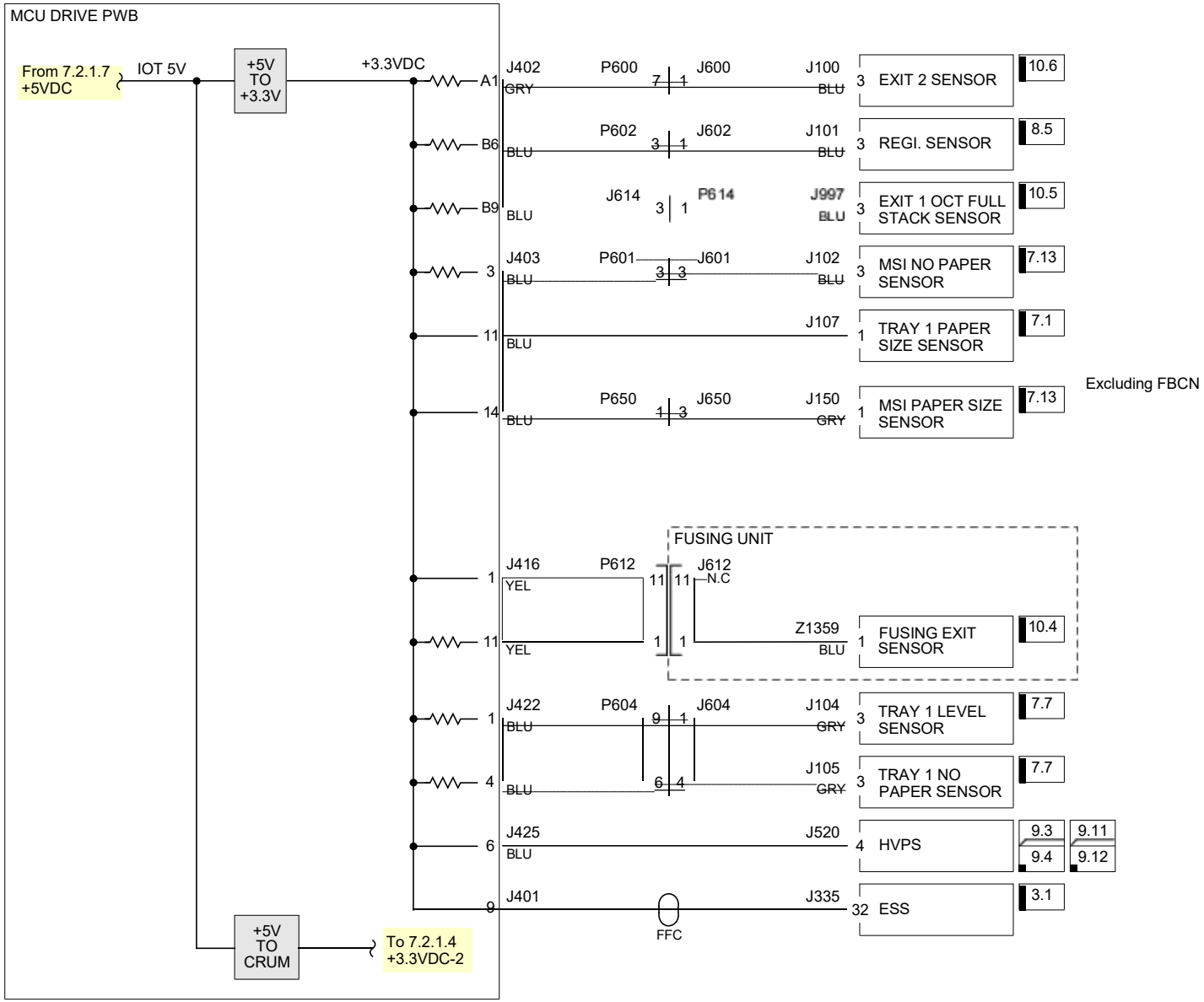
mnl720101

7.2.1.2 ACN



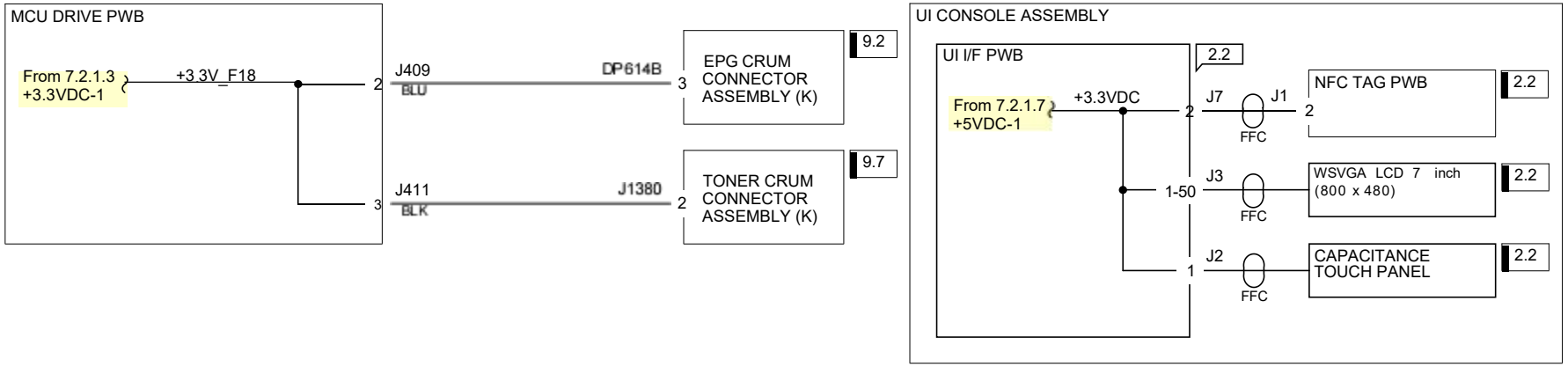
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7.2.1.3 +3.3VDC-1

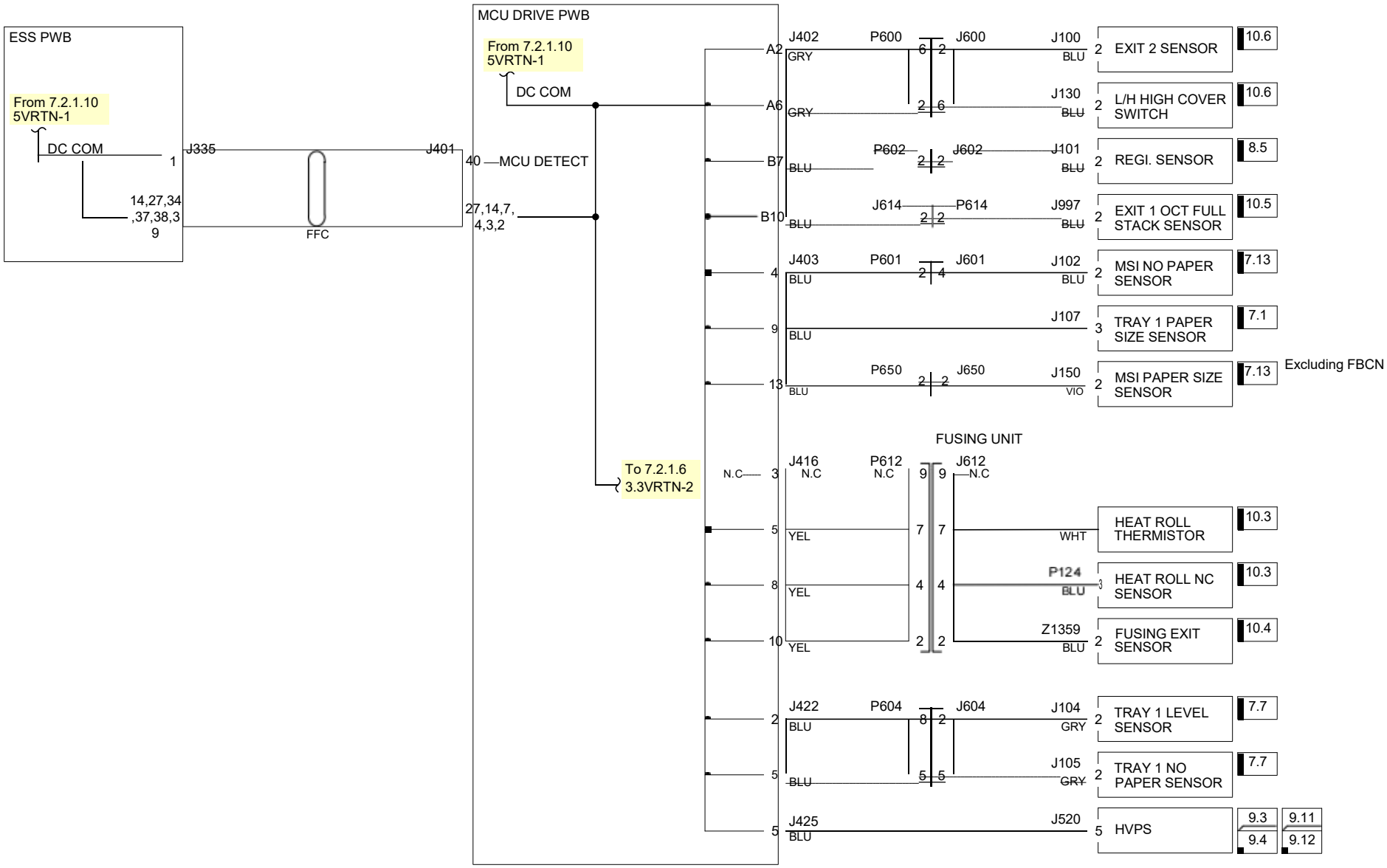


mnl720103

7.2.1.4 +3.3VDC-2

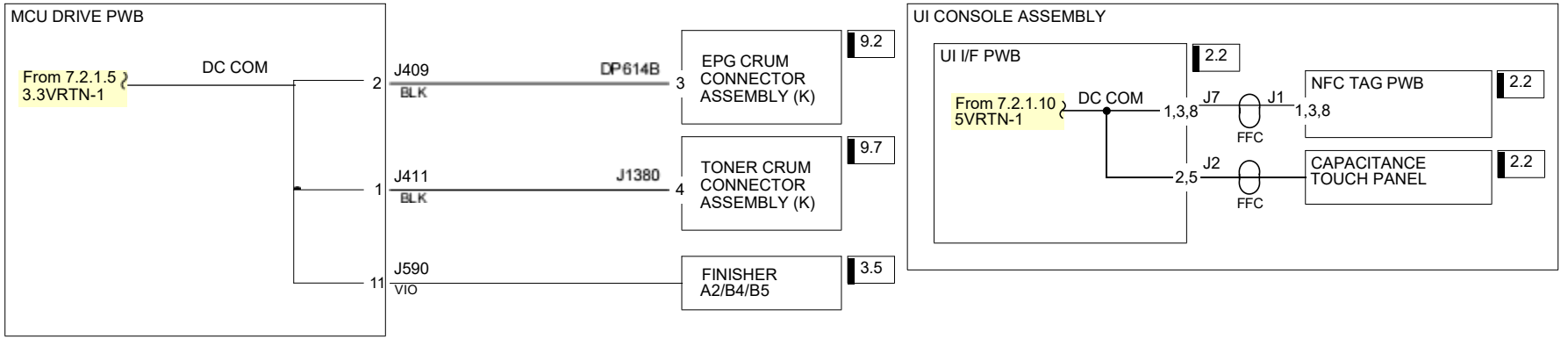

MCU DRIVE PWB
From 7.2.1.3
+3.3VDC-1
+3.3V_F18
2
3
J409
BLU
DP614B
3
EPG CRUM
CONNECTOR
ASSEMBLY (K)
9.2
J411
BLK
J1380
2
TONER CRUM
CONNECTOR
ASSEMBLY (K)
9.7
UI CONSOLE ASSEMBLY
UI I/F PWB
2.2
From 7.2.1.7
+5VDC-1
+3.3VDC
2
J7
J1
FFC
2
NFC TAG PWB
2.2
1-50
J3
FFC
WSVGA LCD 7 inch
(800 x 480)
2.2
1
J2
FFC
CAPACITANCE
TOUCH PANEL
2.2

7.2.1.5 3.3VRTN-1

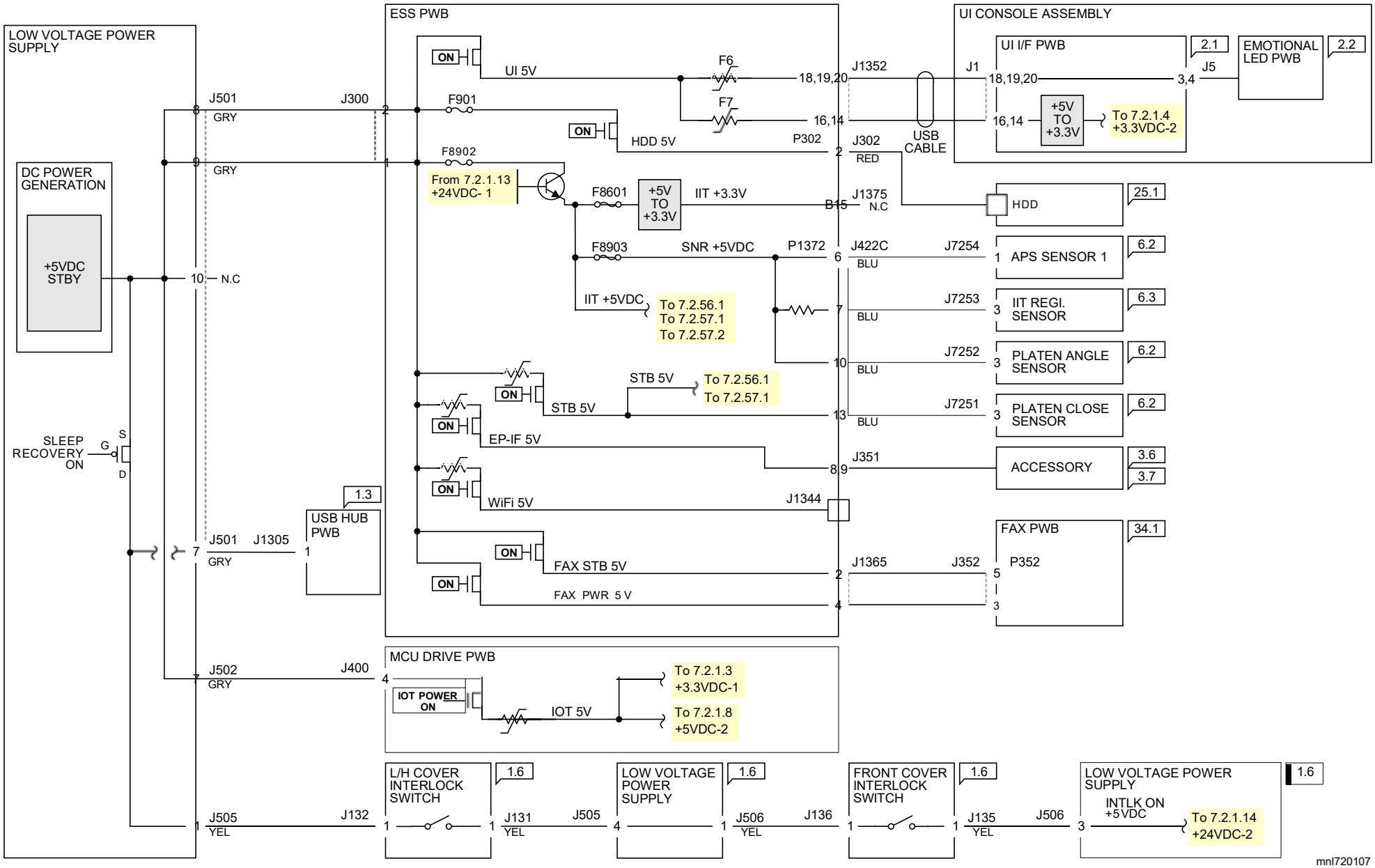


mnl720105

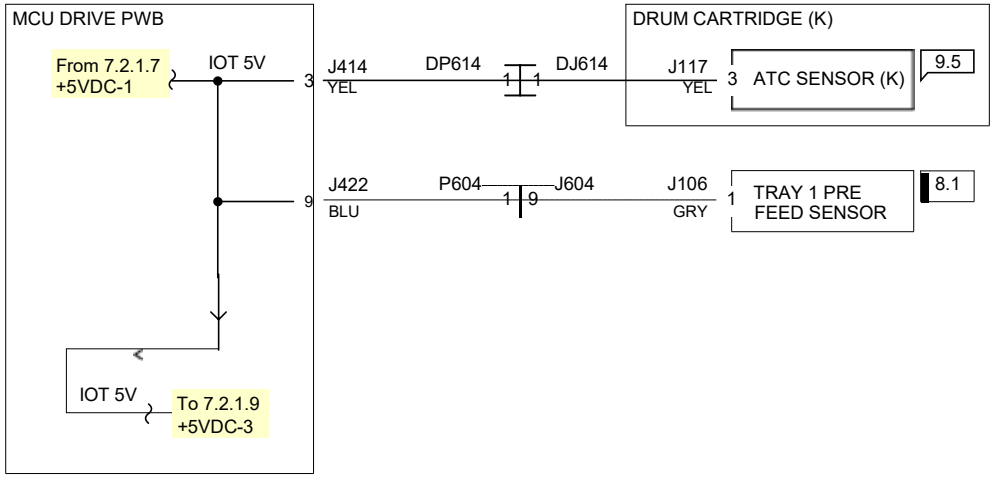
7.2.1.6 3.3VRTN-2



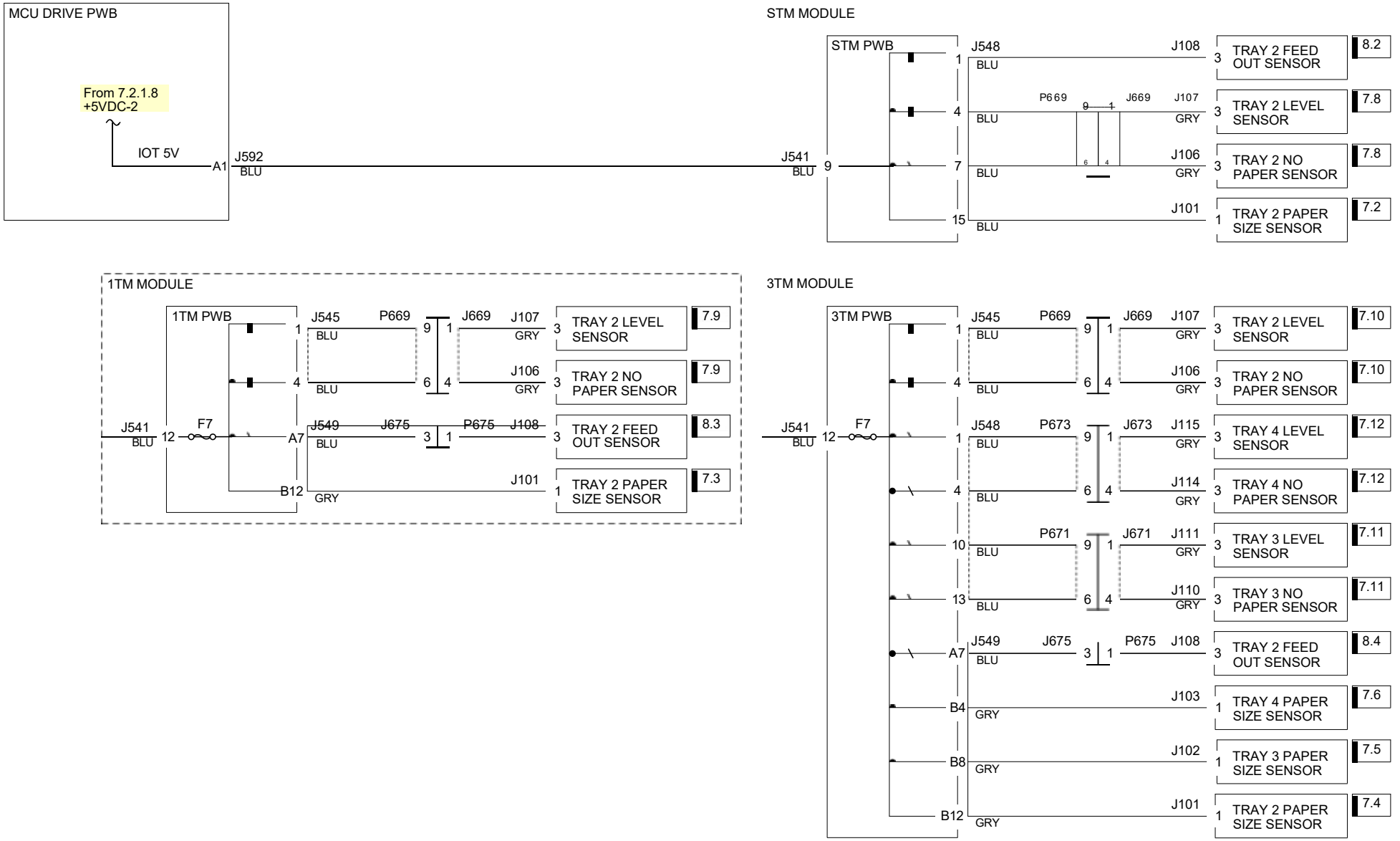
7.2.1.7 +5VDC-1


LOW VOLTAGE POWER SUPPLY
DC POWER GENERATION
+5VDC STBY
SLEEP RECOVERY ON
S
G
D
ESS PWB
ON
UI 5V
F6
F7
F901
HDD 5V
F8902
From 7.2.1.13 +24VDC- 1
F8601
+5V TO +3.3V
IIT +3.3V
F8903
SNR +5VDC
IIT +5VDC
To 7.2.56.1
To 7.2.57.1
To 7.2.57.2
STB 5V
To 7.2.56.1
To 7.2.57.1
EP-IF 5V
WiFi 5V
FAX STB 5V
FAX PWR 5 V
J501
J300
GRY
N.C
J1305
USB HUB PWB
1.3
J502
J400
MCU DRIVE PWB
IOT POWER ON
IOT 5V
To 7.2.1.3 +3.3VDC-1
To 7.2.1.8 +5VDC-2
J505
J132
YEL
L/H COVER INTERLOCK SWITCH
1.6
J131
LOW VOLTAGE POWER SUPPLY
J506
J136
FRONT COVER INTERLOCK SWITCH
J135
J506
INTLK ON +5VDC
To 7.2.1.14 +24VDC-2
J1352
18,19,20
16,14
P302
J302
RED
USB CABLE
J1375
B15
HDD
25.1
P1372
J422C
J7254
APS SENSOR 1
6.2
J7253
IIT REGI. SENSOR
6.3
J7252
PLATEN ANGLE SENSOR
6.2
J7251
PLATEN CLOSE SENSOR
6.2
J351
ACCESSORY
3.6
3.7
J1344
FAX PWB
34.1
J1365
J352
P352
UI CONSOLE ASSEMBLY
UI I/F PWB
2.1
J1
J5
3,4
+5V TO +3.3V
To 7.2.1.4 +3.3VDC-2
EMOTIONAL LED PWB
2.2
mnl720107

7.2.1.8 +5VDC-2

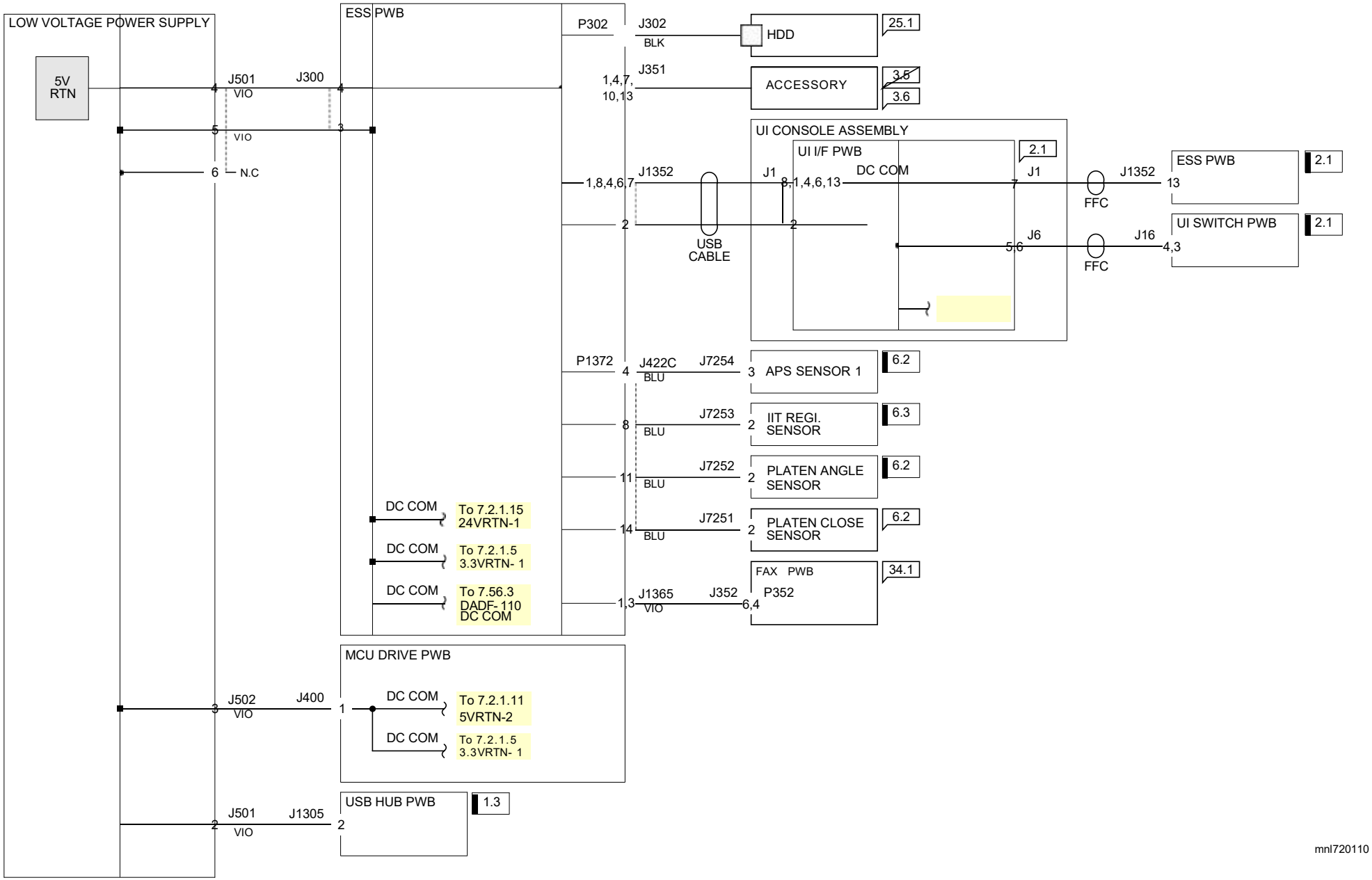

MCU DRIVE PWB
From 7.2.1.7
+5VDC-1
IOT 5V
3
J414
YEL
DP614
1
1
DJ614
DRUM CARTRIDGE (K)
J117
YEL
3
ATC SENSOR (K)
9.5
9
J422
BLU
P604
1
9
J604
J106
GRY
1
TRAY 1 PRE
FEED SENSOR
8.1
IOT 5V
To 7.2.1.9
+5VDC-3

7.2.1.9 +5VDC-3



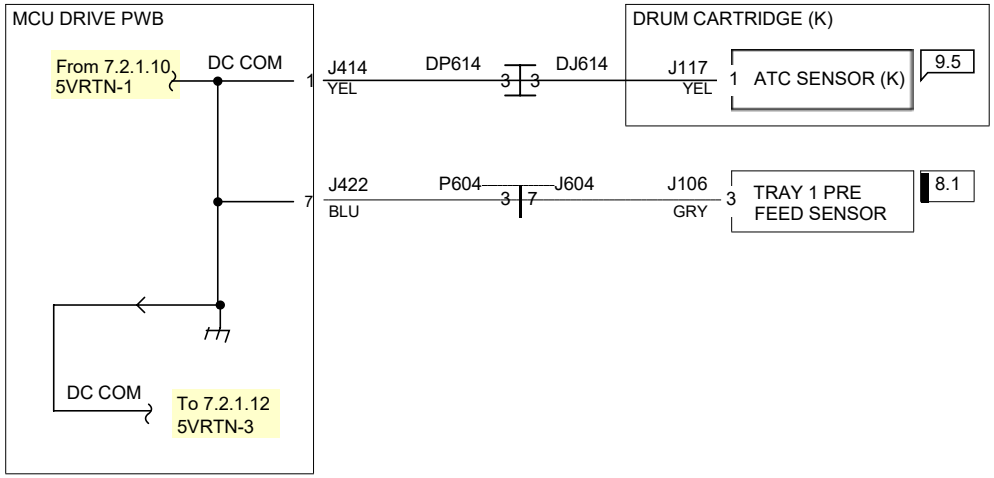
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7.2.1.10 5VRTN-1

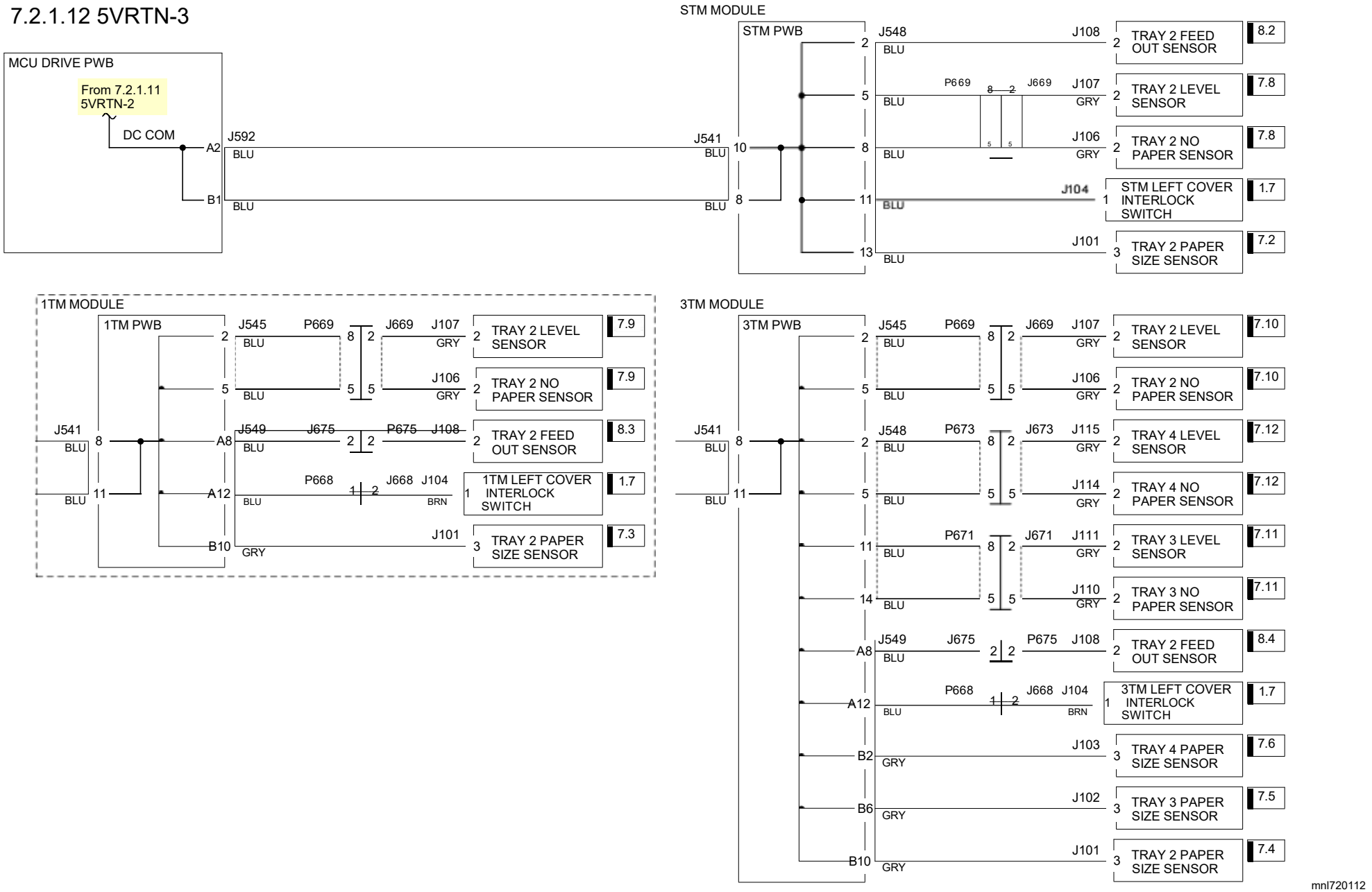


mnl720110

7.2.1.11 5VRTN-2

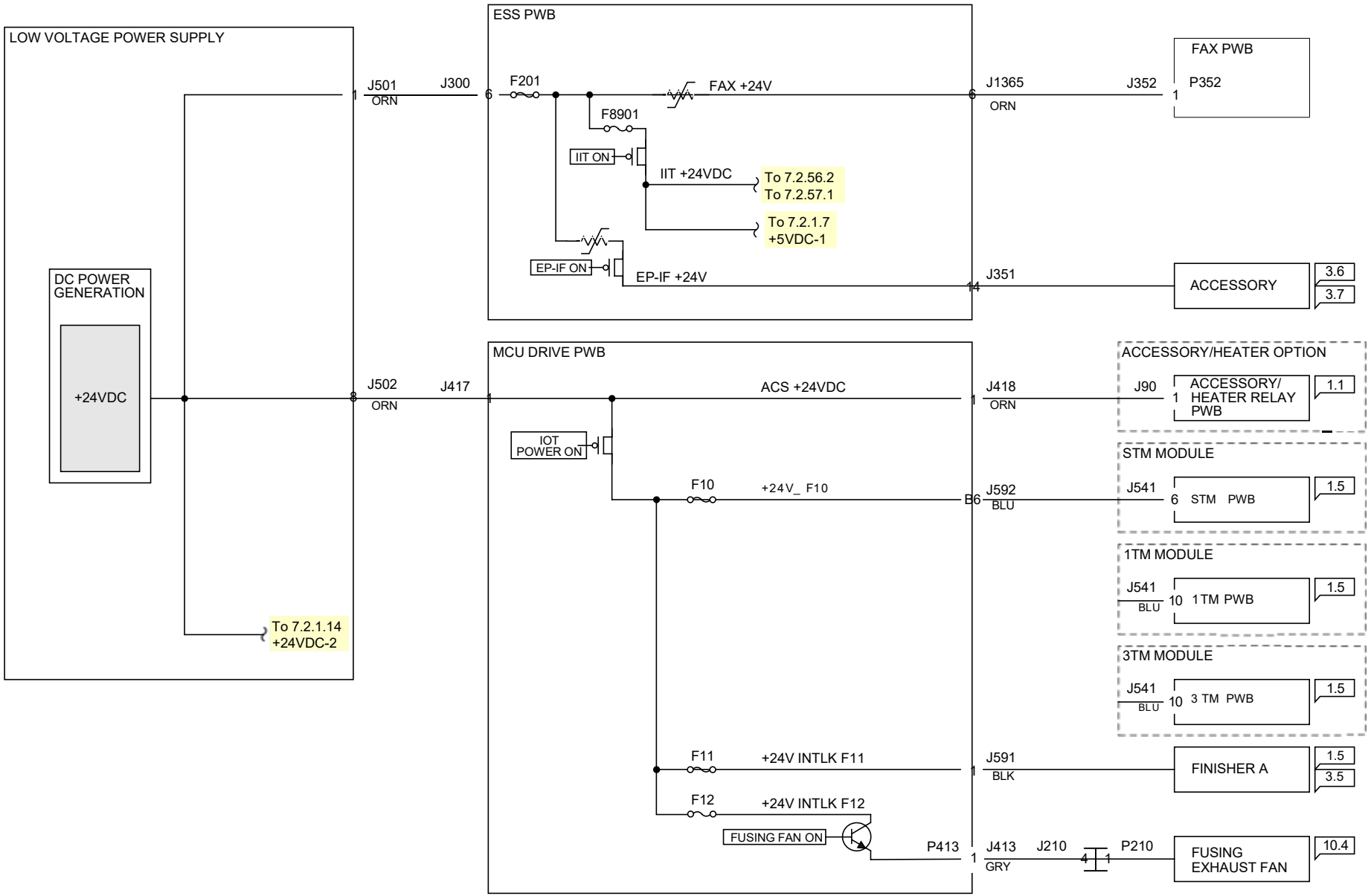


7.2.1.12 5VRTN-3



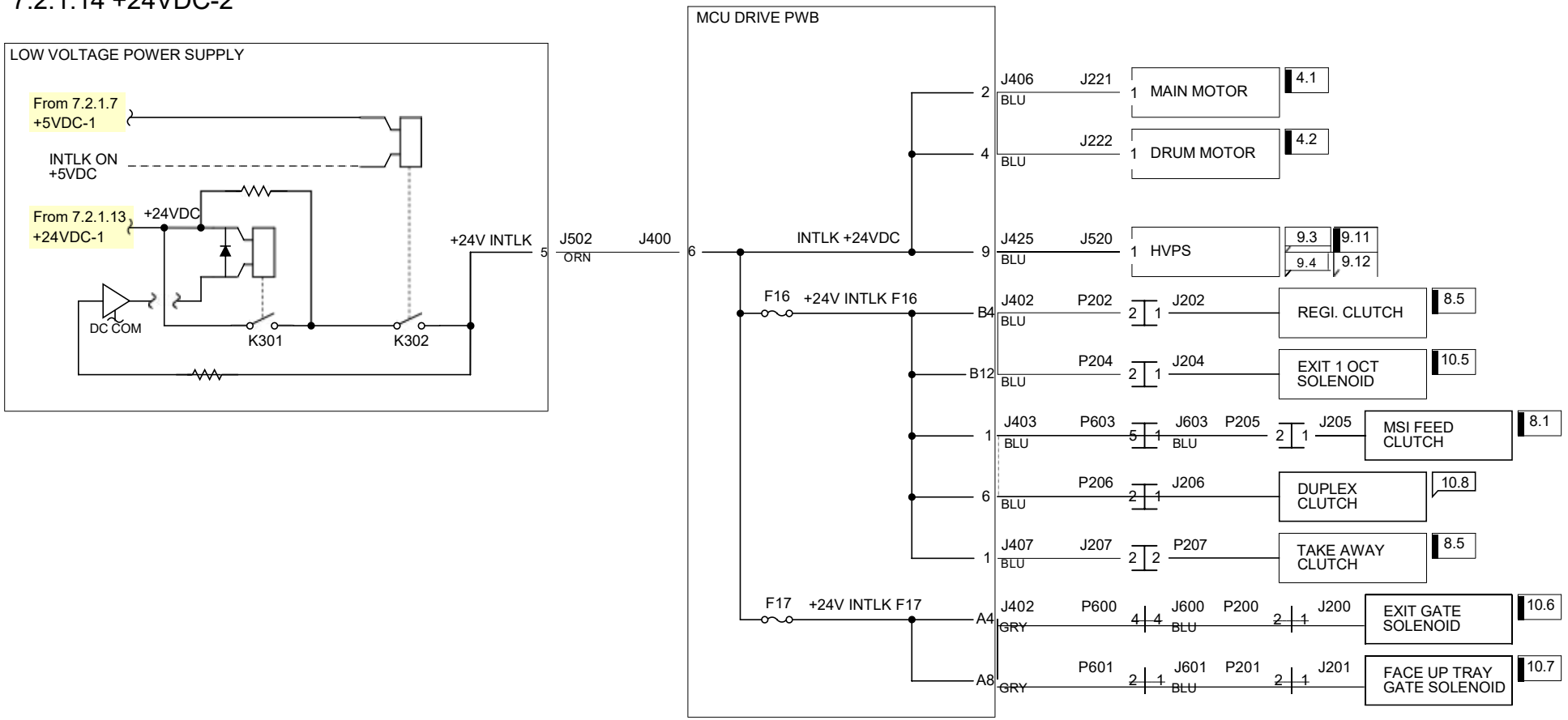
mnl720112

7.2.1.13 +24VDC-1

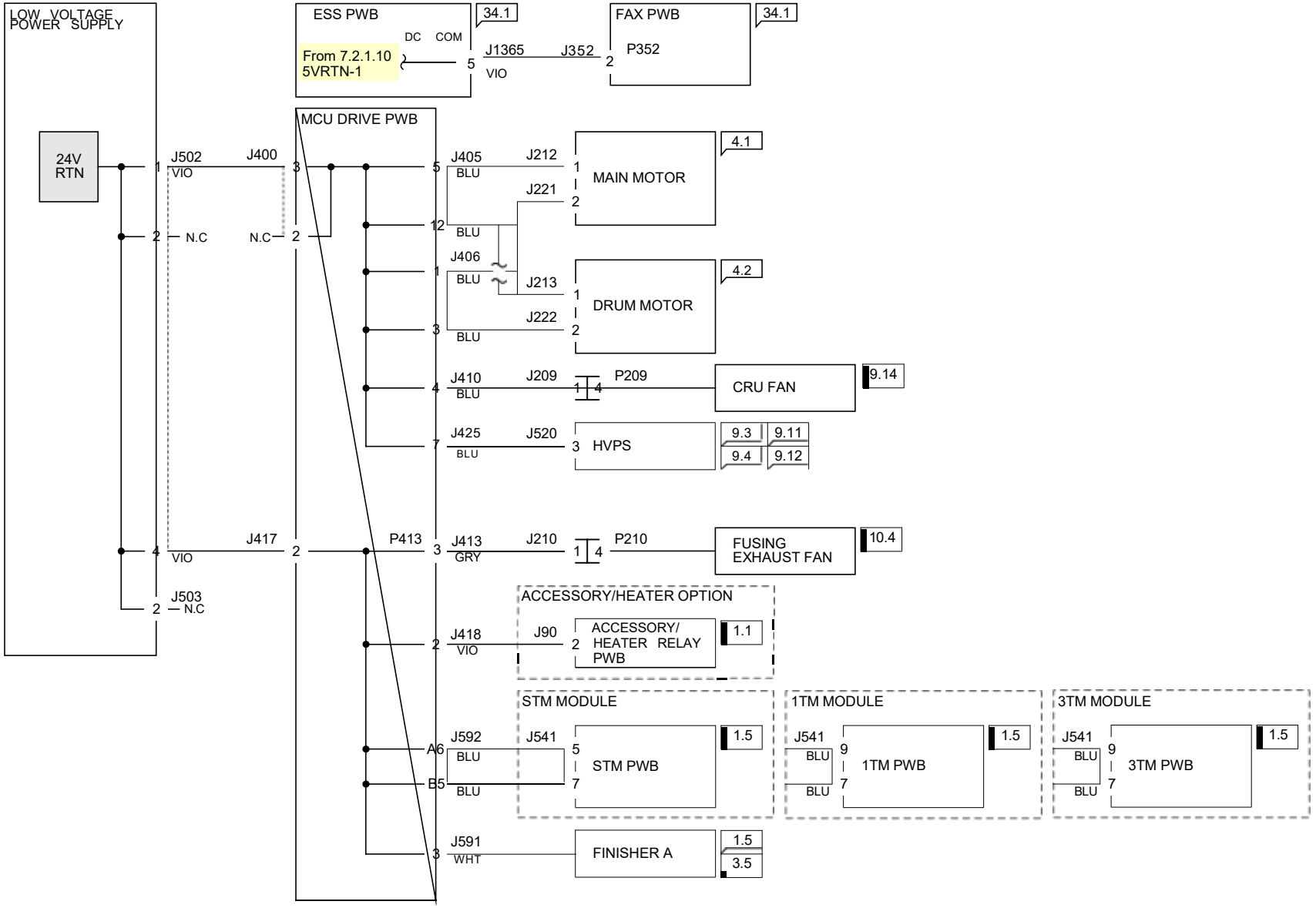


mnl720113

7.2.1.14 +24VDC-2



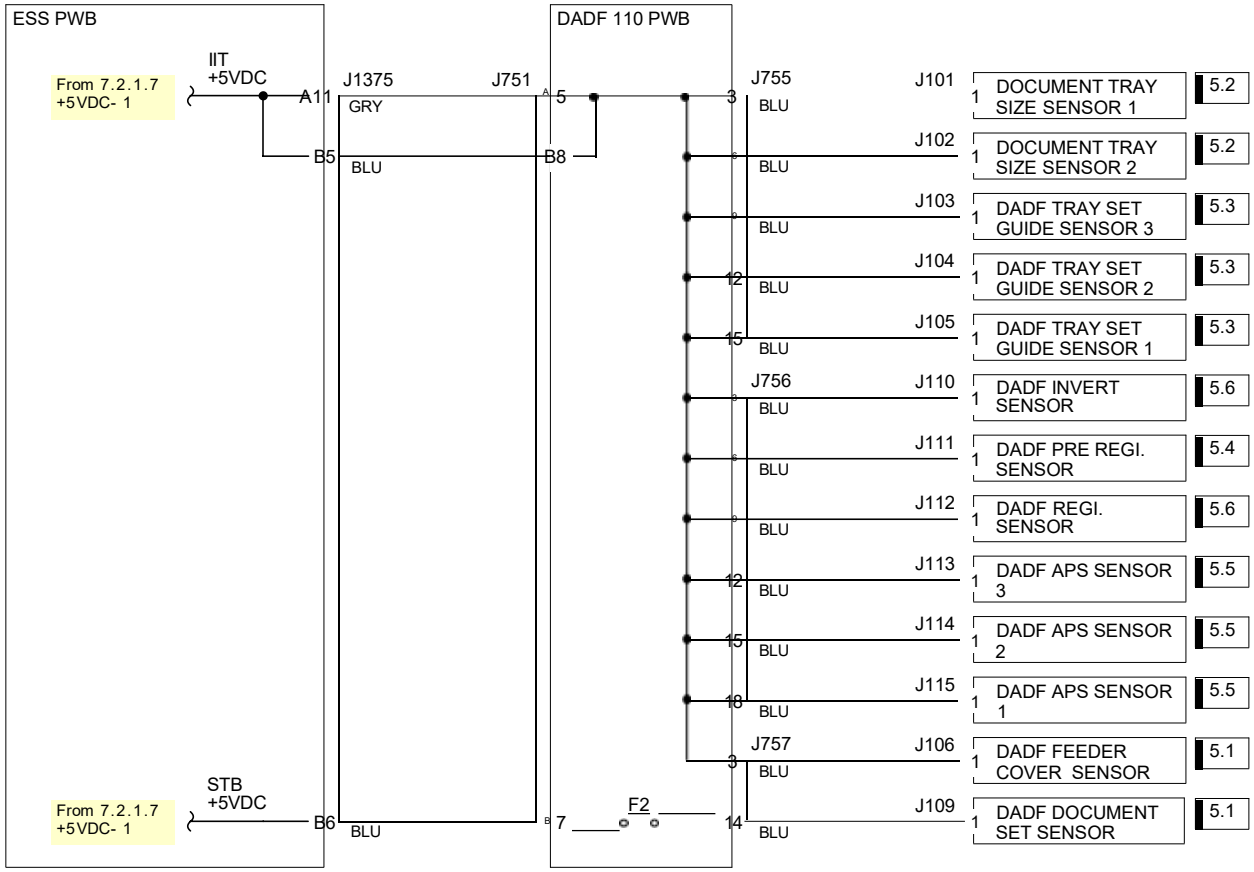
7.2.1.15 24VRTN



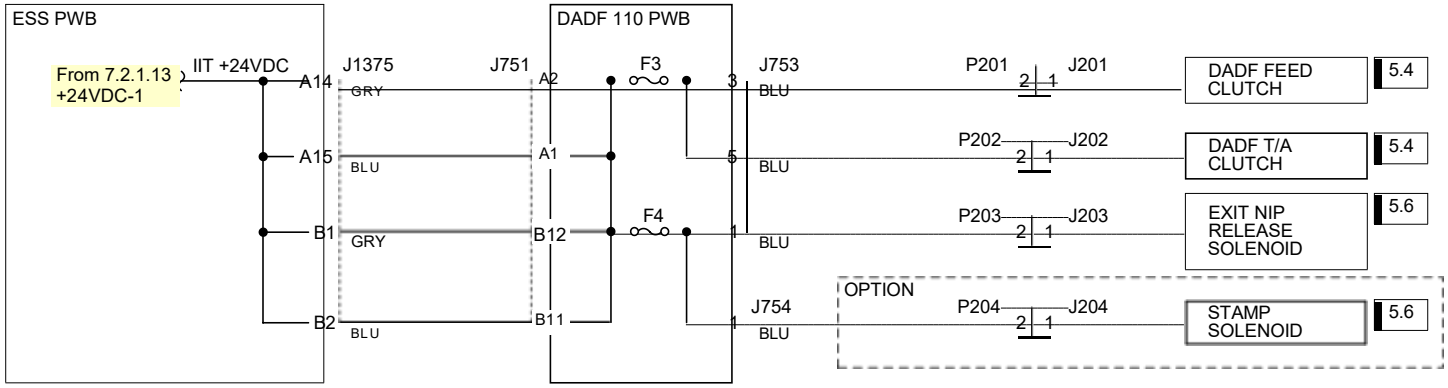
mnl720115

7.2.56 DADF (DADF-110)

7.2.56.1 DADF-110 +5VDC

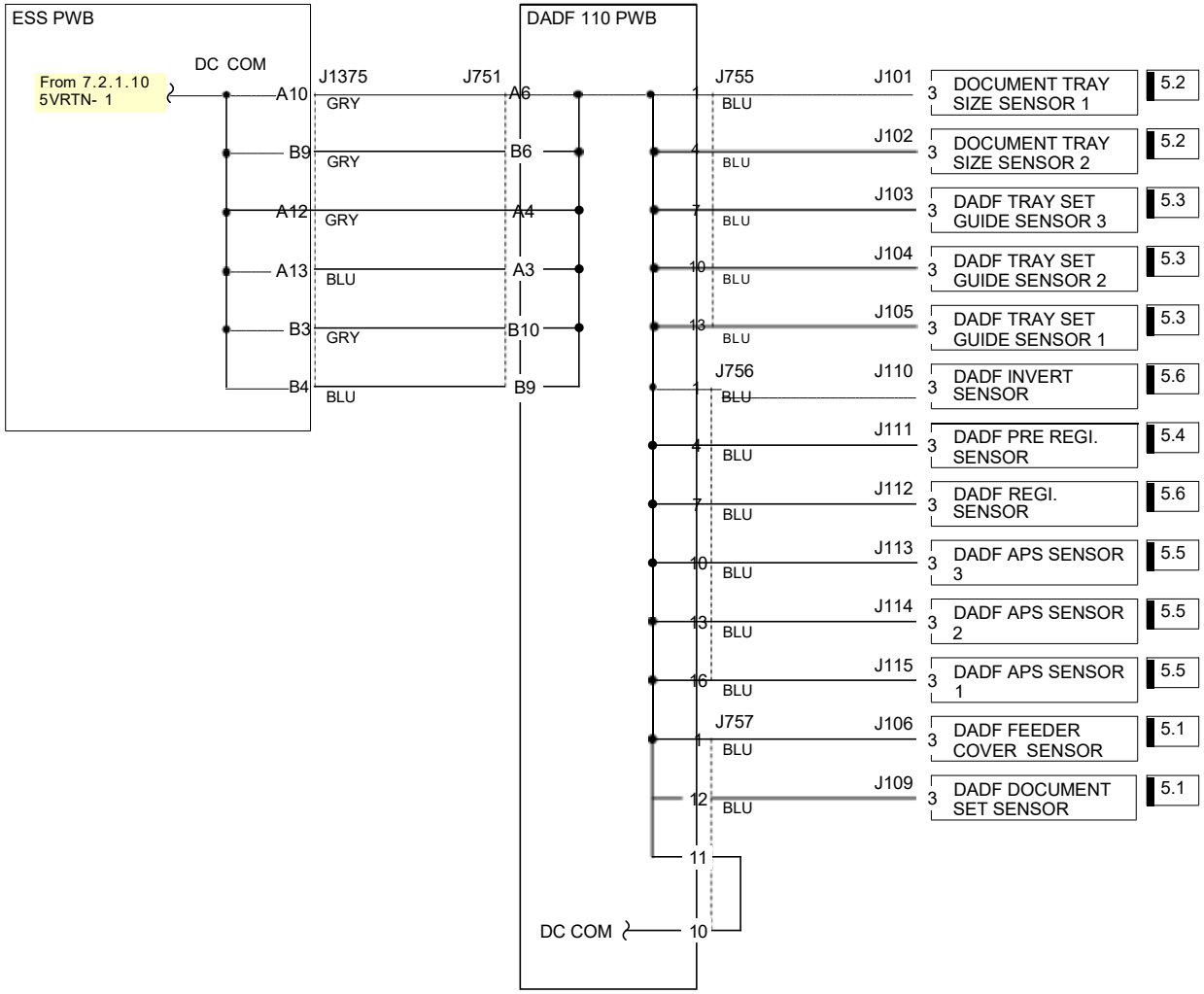


7.2.56.2 DADF-110 +24VDC



mnl720562

7.2.56.3 DADF-110 DC COM



7.3 BSD

7.3 BSD (Block Schematic Diagram)

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CHAIN 34 FAX 89
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7.3 BSD (Block Schematic Diagram)

7.3.1 Preface

7.3.1.1 How to Use the BSDs

1. Enter the Chain specified in the Troubleshooting chapter.
2. Or enter the appropriate Chain, referring to the Contents.
3. Perform failure analysis in the Chain, using test data and the general procedures in the General chapter.
4. Once you have located the failure, go to the Parts List No. and/ or Adjustment No. indicated for reference on the BSD.

Warning Before installing or removing parts, switch off the power switch and disconnect the power cord from the outlet to avoid possible electric shocks or injuries.

7.3.1.2 Explanation of Symbols



Refers to the note that is usually on the same page.



Refers to test data that is usually on the same page when the voltage value shown on the BSD is different from the measured value.

PL7. 7

Refers to the Parts List No. PL stands for Parts List. 7.7 refers to the Plate No. PL No. indicates that the part is listed on the specified plate.
PL No. is shown for all the replaceable parts on the BSDs.



Refers to the adjustment item(s) in the Disassembly, Assembly, and Adjustment chapter. 7.7.1 indicates that the adjustment procedure is described under the 7.7.1 section in the Disassembly, Assembly, and Adjustment chapter.



Indicates a variable register that is adjustable in the field.



Indicates a signal test point.



Indicates where the input to a function originates. The example indicates that the input originates from group function 3 of Chain 1



Indicates where the output from a function goes. The example indicates that the output goes to group function 1 of chain 6.



Indicates that the signal line continues vertically.



Indicates that the signal line continues horizontally.



Indicates that the signal line goes to another zone in the same function. The example refers to zone E3.



Indicates that the signal line goes back to another zone in the same function. The example refers to zone A4



Indicates that the signal line goes to a zone in another sheet. The example refers to zone A2, CH8.5.



Indicates that the signal line goes back to a zone in another sheet. The example refers to zone H4, CH8.5.



Indicates a power line output from Chain 1.



Indicates frame ground.



Indicates a twisted pair of wires.



Indicates that the signal goes from right to left, in the opposite direction to the normal direction.



Indicates a feedback signal.

Indicates a mechanical connection to a part.



Indicates that a mechanical drive signal goes in the direction indicated.



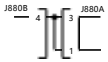
Indicates Control Logic.



Indicates a double plug connector.



Indicates a drawer connector.



Indicates a shorting plug connector.

Indicates that the fasten is used for connection.



Indicates that an electrically conductive material such as a leaf spring and a plate is used for connection.



Indicates that the symbol-pointed-to section has been modified to code 1V.



Indicates the symbol-pointed-to section has not been modified to code 1V.



Indicates that the whole figure or the framed illustration has information with 1V installed.



Indicates that the whole figure or the framed illustration has information without 1V installed.



Indicates direction the air flows.

Indicates switch and is also used as Interlock Switch.





Indicates the Cheater type of Interlock Switch.



Indicates the Chip Fuse.

7.3.1.3 Signal Name

Signal name structure

. Input component

PAPER SENSED (L) +5VDC
Operation state Logical value Voltage with signal (H)

The example indicates that when paper is sensed, this signal level is (L) and that otherwise, the signal level is (H) with the voltage +5VDC.

. Output components

ON (L) +24VDC
Operation state Logical value Voltage with signal (H)

The example indicates that when the part is ON, the signal level is (L) and that when it is OFF, the signal level is (H) with the voltage +24VDC.

7.3.1.4 DC Voltage

A measurement of DC voltage is made between the particular test point and the frame unless otherwise specified by note and test data. The measured DC voltage is in the range below:

LVPS	Voltage	Level	Range
LVPS	+5VDC STBY	(H)	+4.84~+5.35VDC
	+5VDC	(H)	+4.79~+5.30VDC
	+24VDC	(H)	+23.27~+25.72VDC
	+24V INTLK	(H)	

7.3.1.5 Other Descriptions

DC330 Input Component Voltage Level

The voltage levels (H/L) shown on the BSDs are the levels that are measured by the tester. Some of them are therefore different from H/L displayed on the UI panel.

1 . Wiring Color

Wires are distinguished by color in part of the BSDs for this model. The colors of wires are shown below the signal lines in their respective abbreviations listed below:

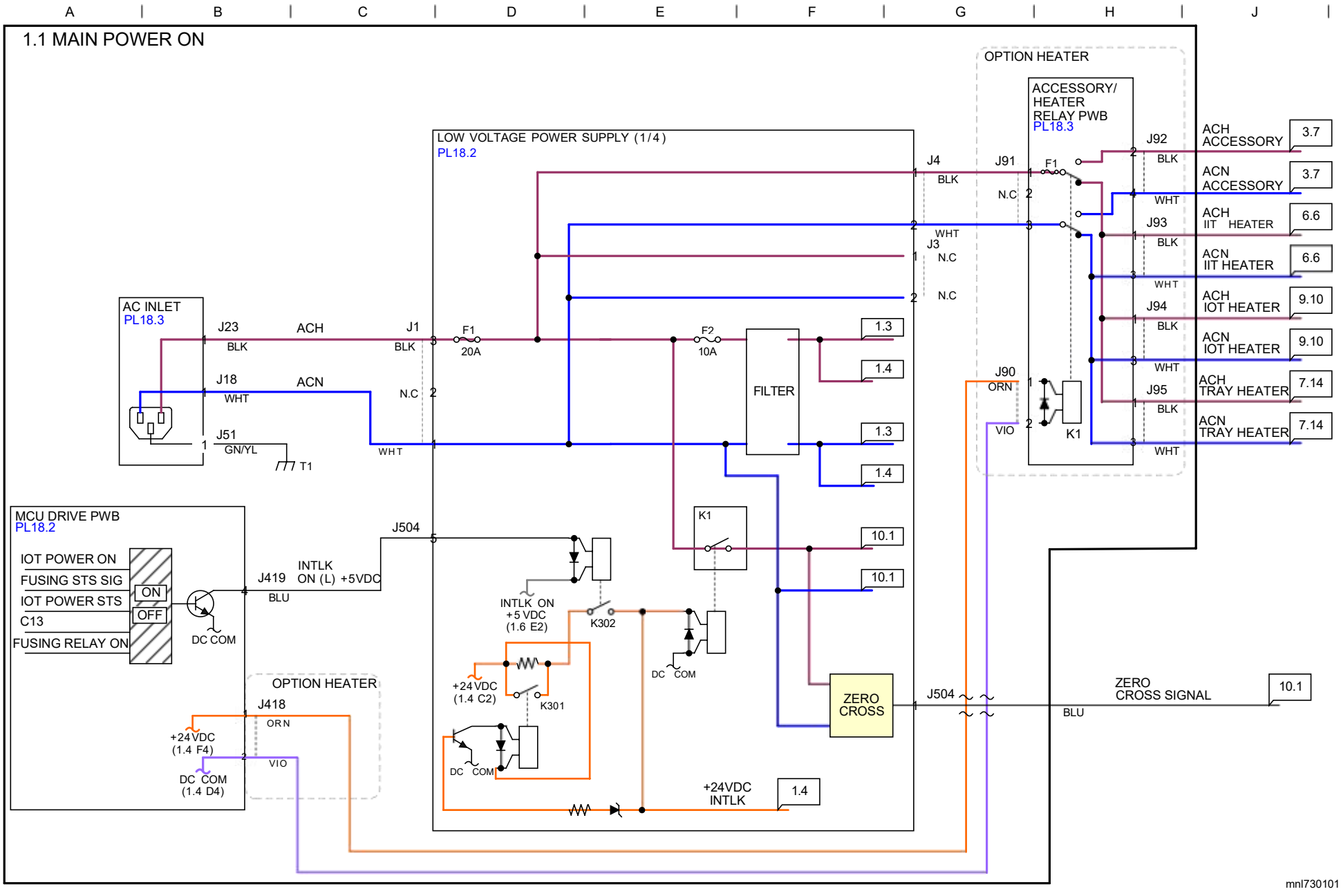
Abbreviation	Color
BRN	BROWN
RED	RED
ORN	ORANGE
YEL	YELLOW
GRN	GREEN
BLU	BLUE
VIO	VIOLET
GRY	GRAY
WHT	WHITE
BLK	BLACK
GRN/YEL	GREEN/ YELLOW
PNK	PINK
SKY	SKY

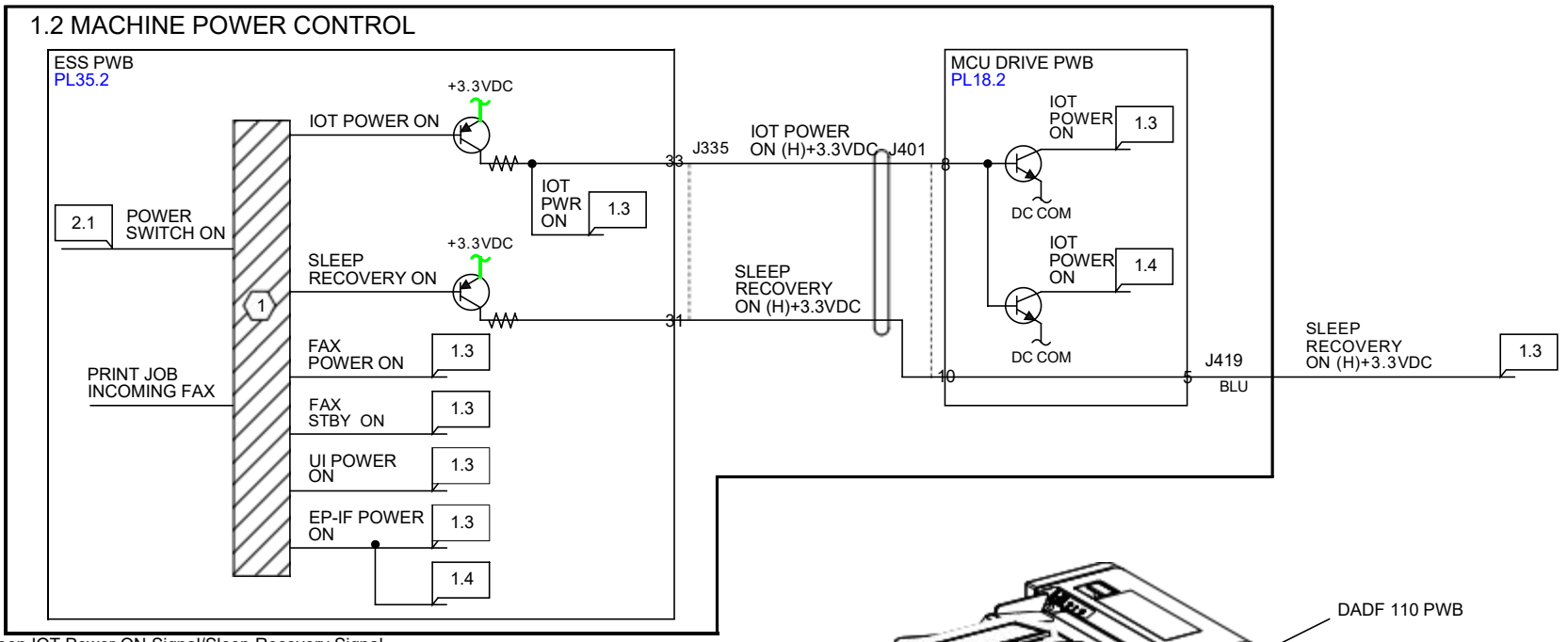
2 . On this model, the color of power supply line depends on the voltage .
The relations between voltages and wire colors are as follows:
The colors of actual wires may sometimes differ from the colors of power supply lines on BSD.

Voltage	Color
ACH	BROWN
ACN	BLUE
+3.3VDC	YELLOW GREEN
+5VDC	GRAY
+24VDC	ORANGE
DC COM	VIOLET

Figures on the BSDs

The grayed-out portion of the figure shows the path from Motor or Solenoid to parts to drive.


1.1 MAIN POWER ON
OPTION HEATER
ACCESSORY/
HEATER
RELAY PWB
PL18.3
LOW VOLTAGE POWER SUPPLY (1/4)
PL18.2
AC INLET
PL18.3
J23
BLK
ACH
J1
BLK
F1
20A
J18
WHT
ACN
N.C
J51
GN/YL
T1
WHT
F2
10A
FILTER
J4
BLK
J91
F1
N.C
J3
N.C
N.C
J92
BLK
WHT
J93
BLK
WHT
J94
BLK
WHT
J95
BLK
WHT
ACH
ACCESSORY
3.7
ACN
ACCESSORY
3.7
ACH
IIT HEATER
6.6
ACN
IIT HEATER
6.6
ACH
IOT HEATER
9.10
ACN
IOT HEATER
9.10
ACH
TRAY HEATER
7.14
ACN
TRAY HEATER
7.14
J90
ORN
VIO
K1
1.3
1.4
1.3
1.4
10.1
10.1
MCU DRIVE PWB
PL18.2
IOT POWER ON
FUSING STS SIG
IOT POWER STS
C13
FUSING RELAY ON
ON
OFF
DC COM
J419
INTLK
ON (L) +5VDC
BLU
J504
INTLK ON
+5 VDC
(1.6 E2)
K302
K1
DC COM
+24 VDC
(1.4 C2)
K301
DC COM
ZERO
CROSS
J504
ZERO
CROSS SIGNAL
10.1
BLU
OPTION HEATER
J418
ORN
VIO
+24 VDC
(1.4 F4)
DC COM
(1.4 D4)
+24VDC
INTLK
1.4
mnl730101

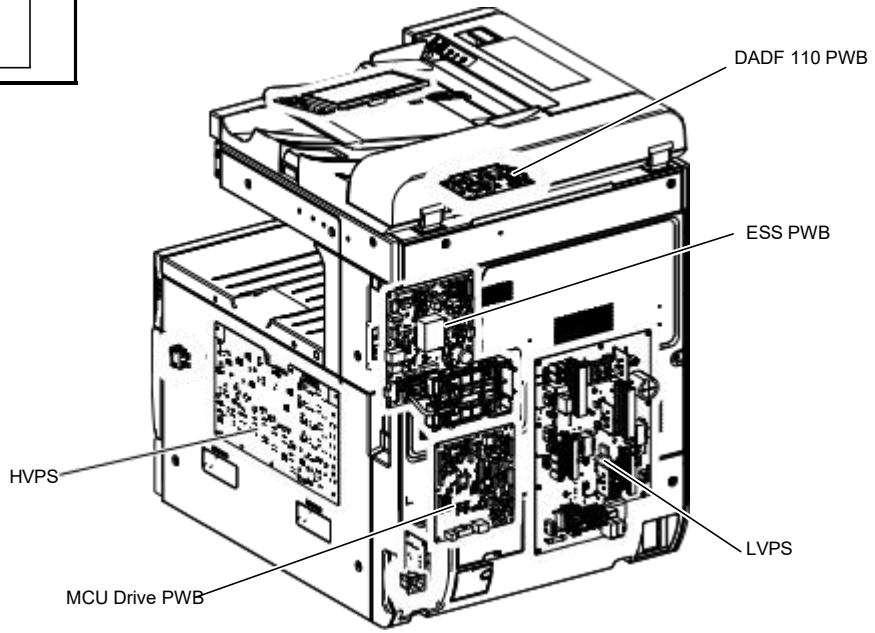


NOTE:

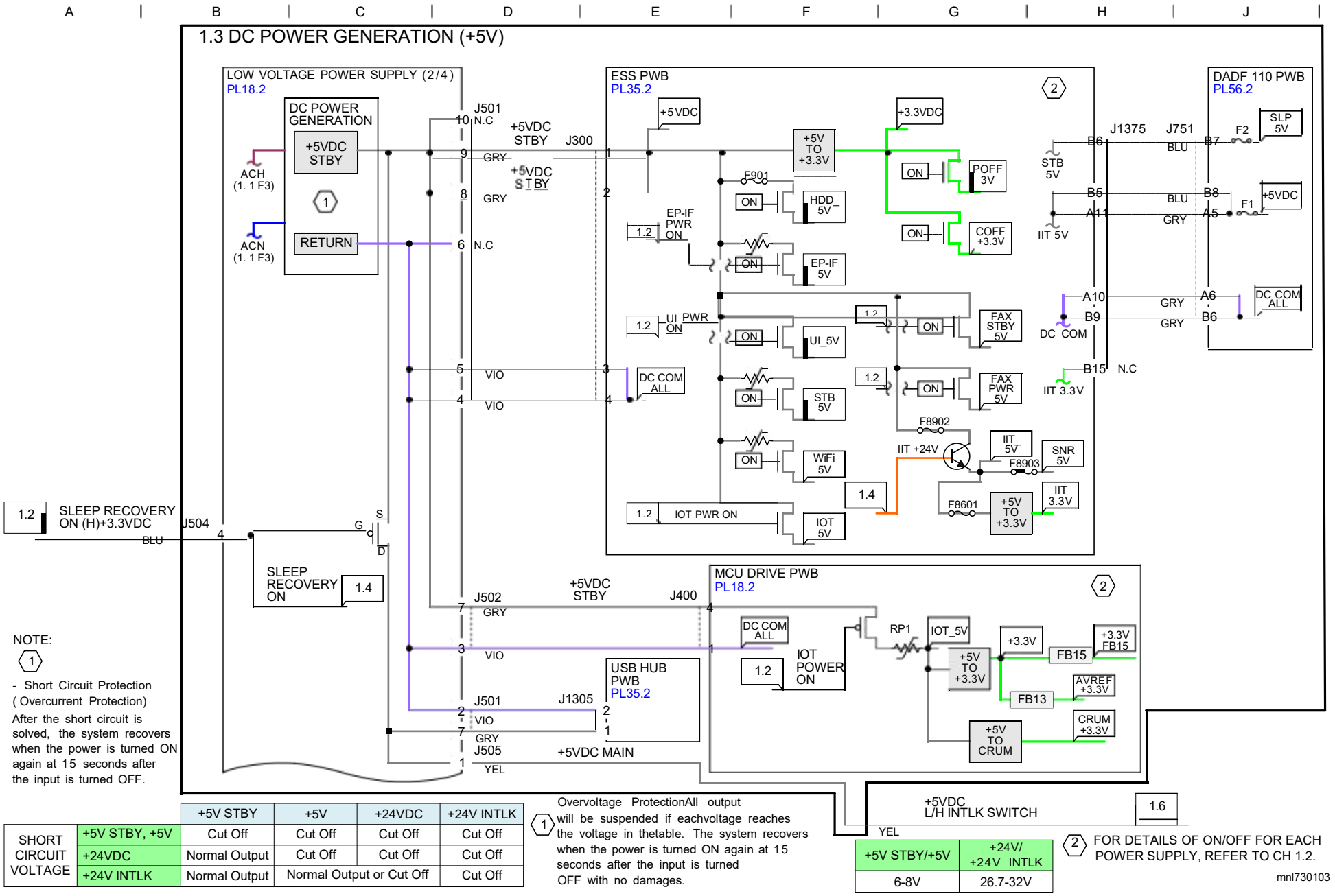
(1) The relationship between IOT Power ON Signal/Sleep Recovery Signal and PWR/PWR_Save Switch and each DC power supply is as follows.

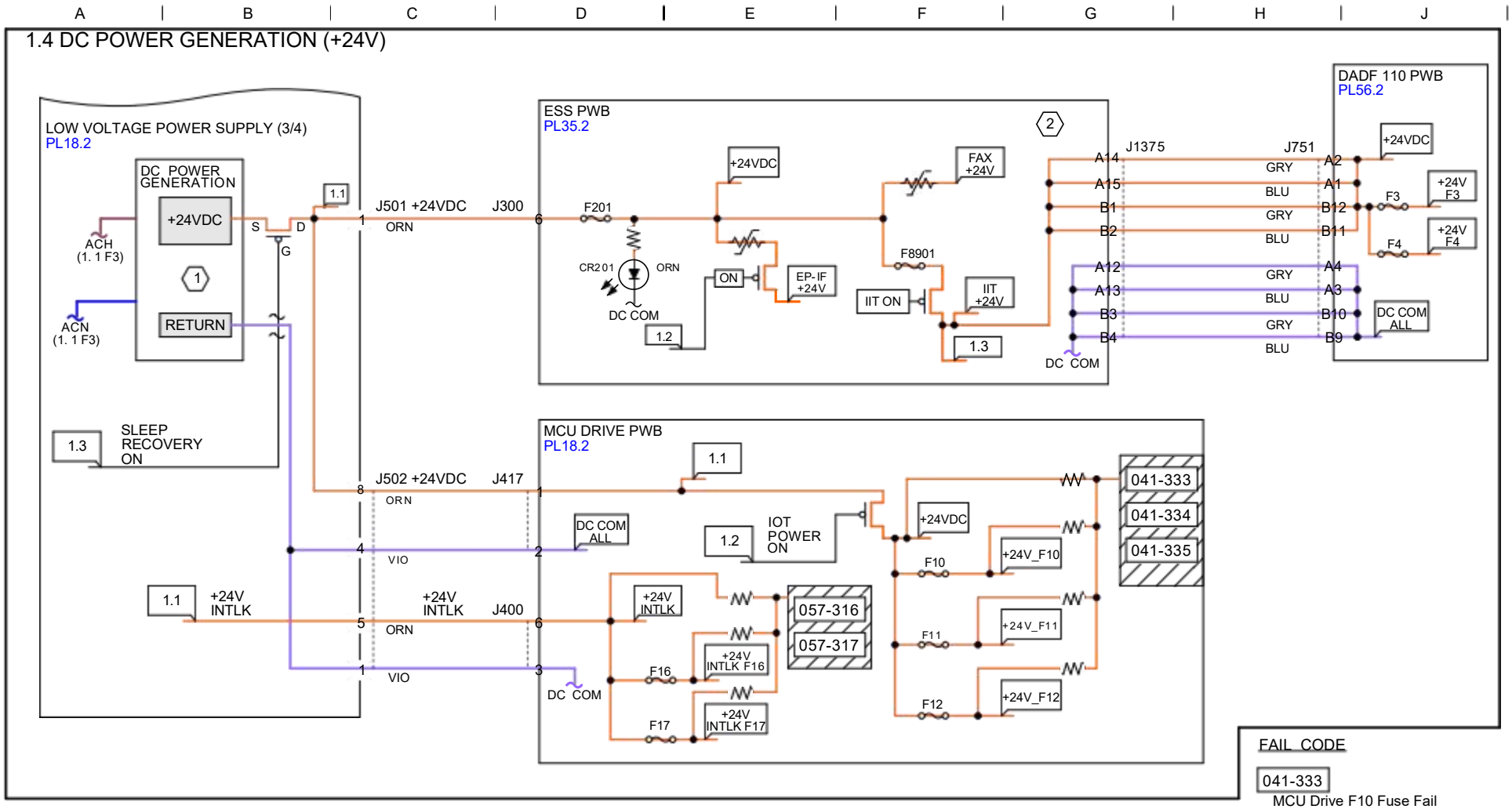
		PWR/PWR_Save SW Status	
		ON	OFF
IOT Power On Signal		ON	OFF
Sleep Recovery Signal		ON	OFF
ESS	3.3VDC	○	○
	POFF 3V	○	×
	COFF 3V	○	×
	+5VDC	○	○
	Fax STBY_5V	○	×
	Fax PWR_5V	○	×
	HDD _5V	○	×
	EP-IF _5V	○	×
	UI_5V	○	×
	IIT_STB_5V	○	×
	Wi-Fi_5V	○	×
	IOT_5V	○	×
	Fax_24V	○	×
	IIT_24V	○	×
	EP-IF_24V	○	×
IOT	5 V_ STBY(Always)	○	○
	IOT_5V	○	×
	3.3VDC	○	×
	24VDC	○	×

○ : ENERGIZING
× : Cut Off



mnl730102


1.3 DC POWER GENERATION (+5V)
LOW VOLTAGE POWER SUPPLY (2/4)
PL18.2
DC POWER GENERATION
+5VDC STBY
RETURN
ACH (1. 1 F3)
ACN (1. 1 F3)
J501
10 N.C
9 GRY
8 GRY
6 N.C
5 VIO
4 VIO
+5VDC STBY
J300
ESS PWB
PL35.2
+5 VDC
+5V TO +3.3V
+3.3VDC
F901
HDD 5V
POFF 3V
COFF +3.3V
EP-IF PWR ON
EP-IF 5V
UI PWR ON
UI_5V
FAX STBY 5V
FAX PWR 5V
STB 5V
WiFi 5V
IOT 5V
IOT PWR ON
DC COM ALL
F8902
IIT +24V
IIT 5V
SNR 5V
F8903
F8601
IIT 3.3V
1.4
1.2
ON
DADF 110 PWB
PL56.2
J1375
J751
B6
BLU
B7
F2
SLP 5V
B5
A11
B8
A5
F1
+5VDC
GRY
A10
B9
A6
B6
DC COM
B15 N.C
IIT 3.3V
STB 5V
IIT 5V
SLEEP RECOVERY ON (H)+3.3VDC
J504
BLU
S
G
D
SLEEP RECOVERY ON
J502
7 GRY
3 VIO
+5VDC STBY
J400
MCU DRIVE PWB
PL18.2
DC COM ALL
IOT POWER ON
RP1
IOT_5V
+3.3V
+3.3V FB15
FB15
AVREF +3.3V
FB13
CRUM +3.3V
+5V TO CRUM
USB HUB PWB
PL35.2
J501
J1305
2 VIO
7 GRY
J505
1 YEL
+5VDC MAIN
+5VDC L/H INTLK SWITCH
YEL
1.6
NOTE:
- Short Circuit Protection (Overcurrent Protection)
After the short circuit is solved, the system recovers when the power is turned ON again at 15 seconds after the input is turned OFF.
SHORT CIRCUIT VOLTAGE
+5V STBY, +5V
+24VDC
+24V INTLK
+5V STBY
+5V
+24VDC
+24V INTLK
Cut Off
Normal Output
Normal Output or Cut Off
Overvoltage ProtectionAll output will be suspended if eachvoltage reaches the voltage in thetable. The system recovers when the power is turned ON again at 15 seconds after the input is turned OFF with no damages.
+5V STBY/+5V
+24V/ +24V INTLK
6-8V
26.7-32V
FOR DETAILS OF ON/OFF FOR EACH POWER SUPPLY, REFER TO CH 1.2.
mnl730103



NOTE:

1 SHORT CIRCUIT PROTECTION (OVERCURRENT PROTECTION)
AFTER THE SHORT CIRCUIT IS SOLVED, THE SYSTEM RECOVERS WHEN THE POWER ISTURNED ON AGAIN AT 15 SECONDS AFTER THE INPUT IS TURNED OFF.

		+5V STBY	+5V	+24VDC	+24V INTLK
SHORT CIRCUIT VOLTAGE	+5V STBY, +5V	Cut Off	Cut Off	Cut Off	Cut Off
	+24VDC	Normal Output	Cut Off	Cut Off	Cut Off
	+24V INTLK	Normal Output	Normal Output or Cut Off		Cut Off

OVERVOLTAGE PROTECTION
ALL OUTPUT WILL BE SUSPENDED IF EACH VOLTAGE REACHES THE VOLTAGE IN THE TABLE.

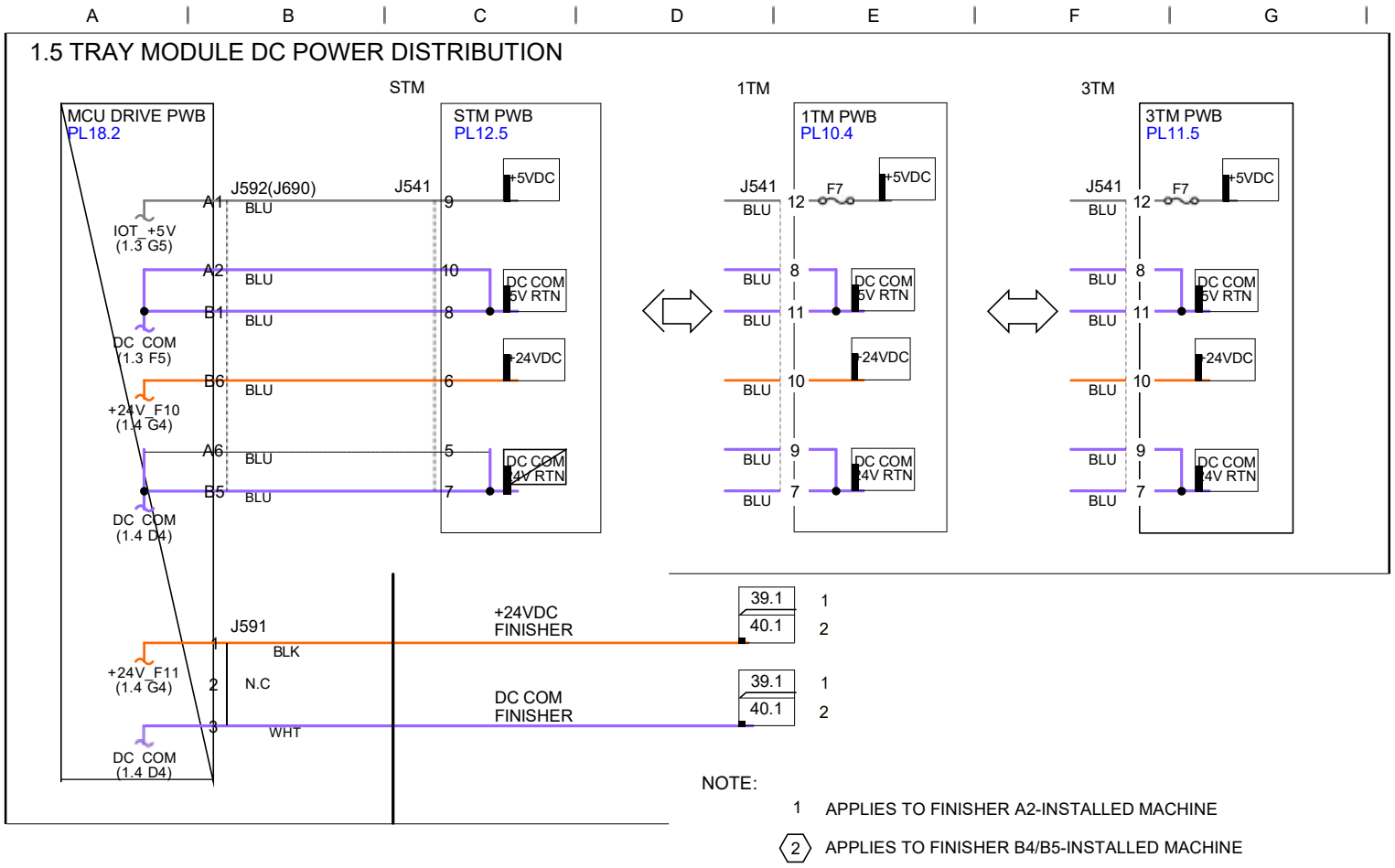
+5V STBY/+5V	+24V/+24V_ INTLK	RECOVERY CONDITIONS
6-8V	26.7-32V	The system recovers when the power is turned ON again at 15 seconds after the input is turned OFF with no damages.

2 FOR DETAILS OF ON/OFF FOR EACH POWER SUPPLY, REFER TO CH 1.2.

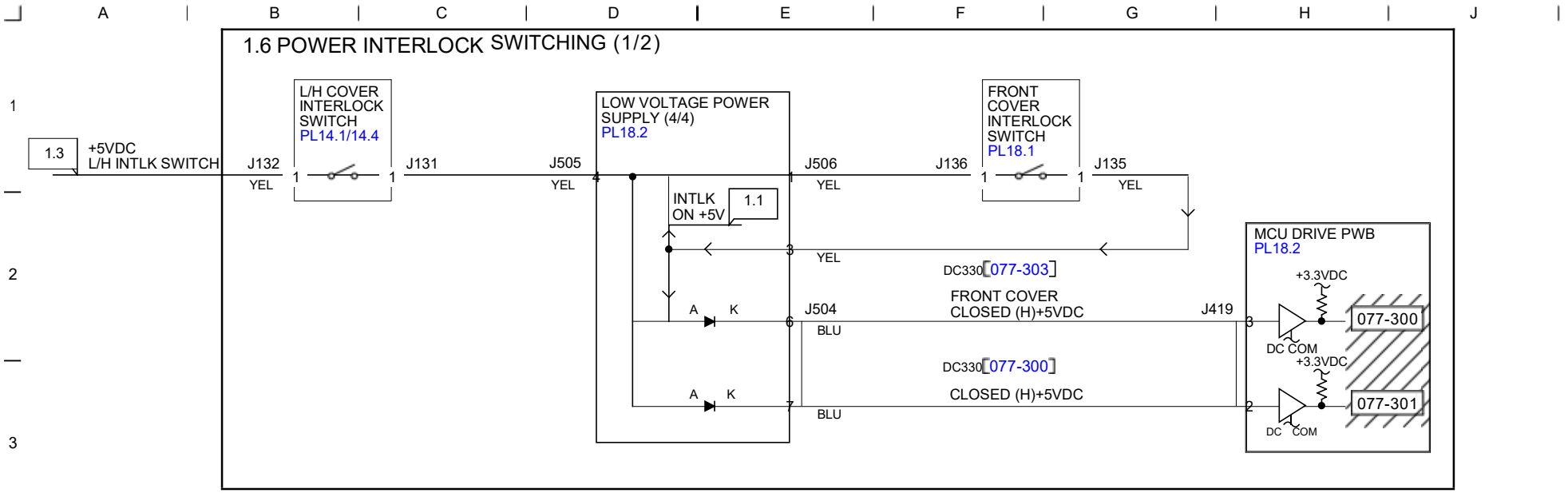
FAIL CODE

041-333 MCU Drive F10 Fuse Fail
041-334 MCU Drive F11 Fuse Fail
041-335 MCU Drive F12 Fuse Fail
057-316 MCU Drive F16 Fuse Fail
057-317 MCU Drive F17 Fuse Fail

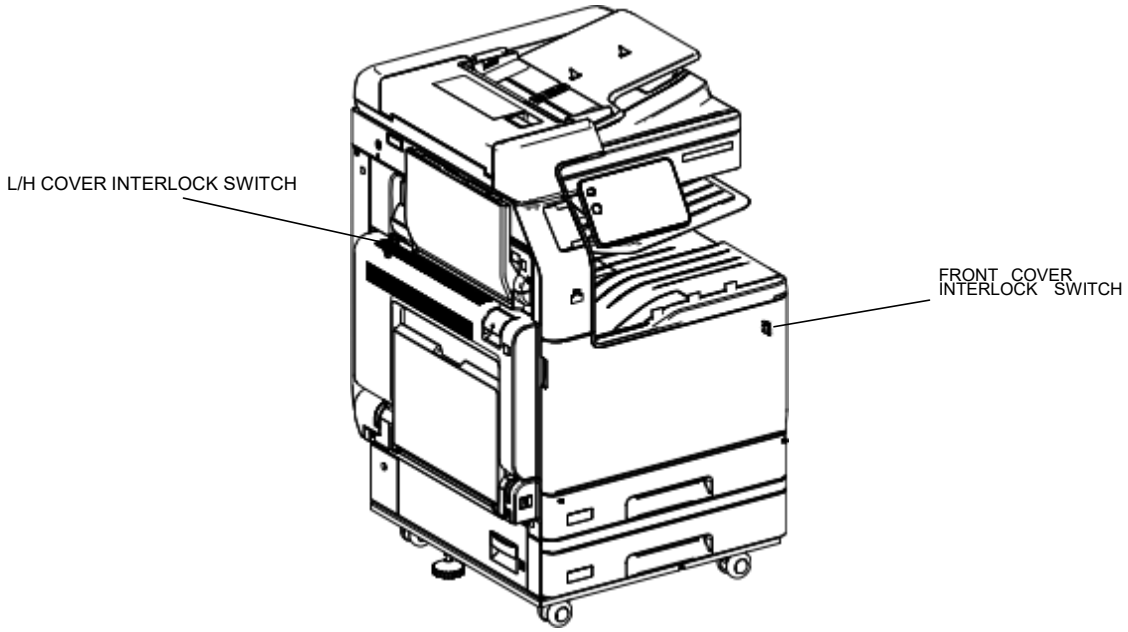
mnl730104


1.5 TRAY MODULE DC POWER DISTRIBUTION
STM
1TM
3TM
MCU DRIVE PWB
PL18.2
STM PWB
PL12.5
1TM PWB
PL10.4
3TM PWB
PL11.5
J592(J690)
J541
J591
A1
A2
B1
B6
A6
B5
BLU
BLK
WHT
N.C
+5VDC
+24VDC
DC COM 5V RTN
DC COM 24V RTN
F7
IOT_+5V (1.3 G5)
DC_COM (1.3 F5)
+24V_F10 (1.4 G4)
DC_COM (1.4 D4)
+24V_F11 (1.4 G4)
DC_COM (1.4 D4)
+24VDC FINISHER
DC COM FINISHER
39.1
40.1
NOTE:
1 APPLIES TO FINISHER A2-INSTALLED MACHINE
2 APPLIES TO FINISHER B4/B5-INSTALLED MACHINE

mnl730105



ELECTRICAL COMPONENTS



FAIL CODE

077-300
Front Cover Open

077-301
L/H Cover Open

mnl730106

1.7 POWER INTERLOCK SWITCHING (2/2)

STM

STM PWB PL12.5 — 11 — J548 BLU — J104 — STM LEFT COVER INTERLOCK SWITCH PL12.3 — 2 — J104 — DC330 [077-306] COVER CLOSED (L)+5VDC — J548 BLU — 10 — STM PWB PL12.5 +5VDC — 077-305

DC COM (1.5 C2)

1TM

1TM PWB PL10.4 — A12 — J549 BLU — P668 1 2 — J668 J104 BRN — 1TM LEFT COVER INTERLOCK SWITCH PL10.3 — 1 — 2 — J104 J668 BRN — 1 2 P668 — DC330 [077-306] COVER CLOSED (L)+5VDC — J549 BLU — A11 — 1TM PWB PL10.4 +5VDC — 077-305

DC COM (1.5 E2)

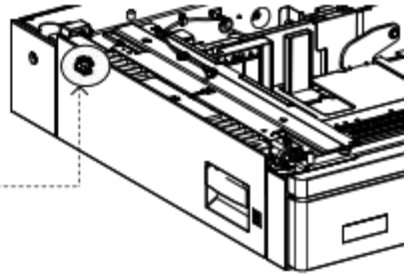
3TM

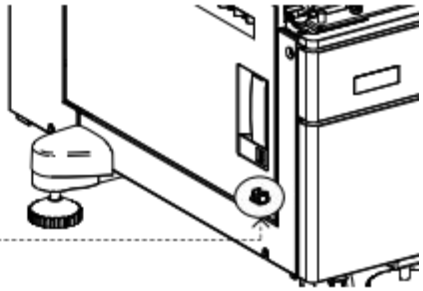
3TM PWB PL11.5 — A12 — J549 BLU — P668 1 2 — J668 J104 BRN — 3TM LEFT COVER INTERLOCK SWITCH PL11.3 — 1 — 2 — J104 J668 BRN — 1 2 P668 — DC330 [077-306] COVER CLOSED (L)+5VDC — J549 BLU — A11 — 3TM PWB PL11.5 +5VDC — 077-305

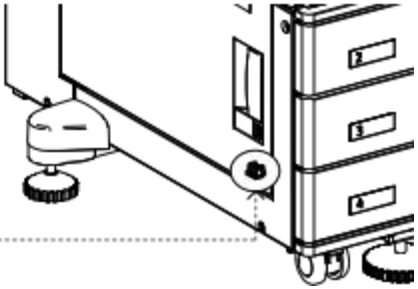
DC COM (1.5 G2)

FAIL CODE

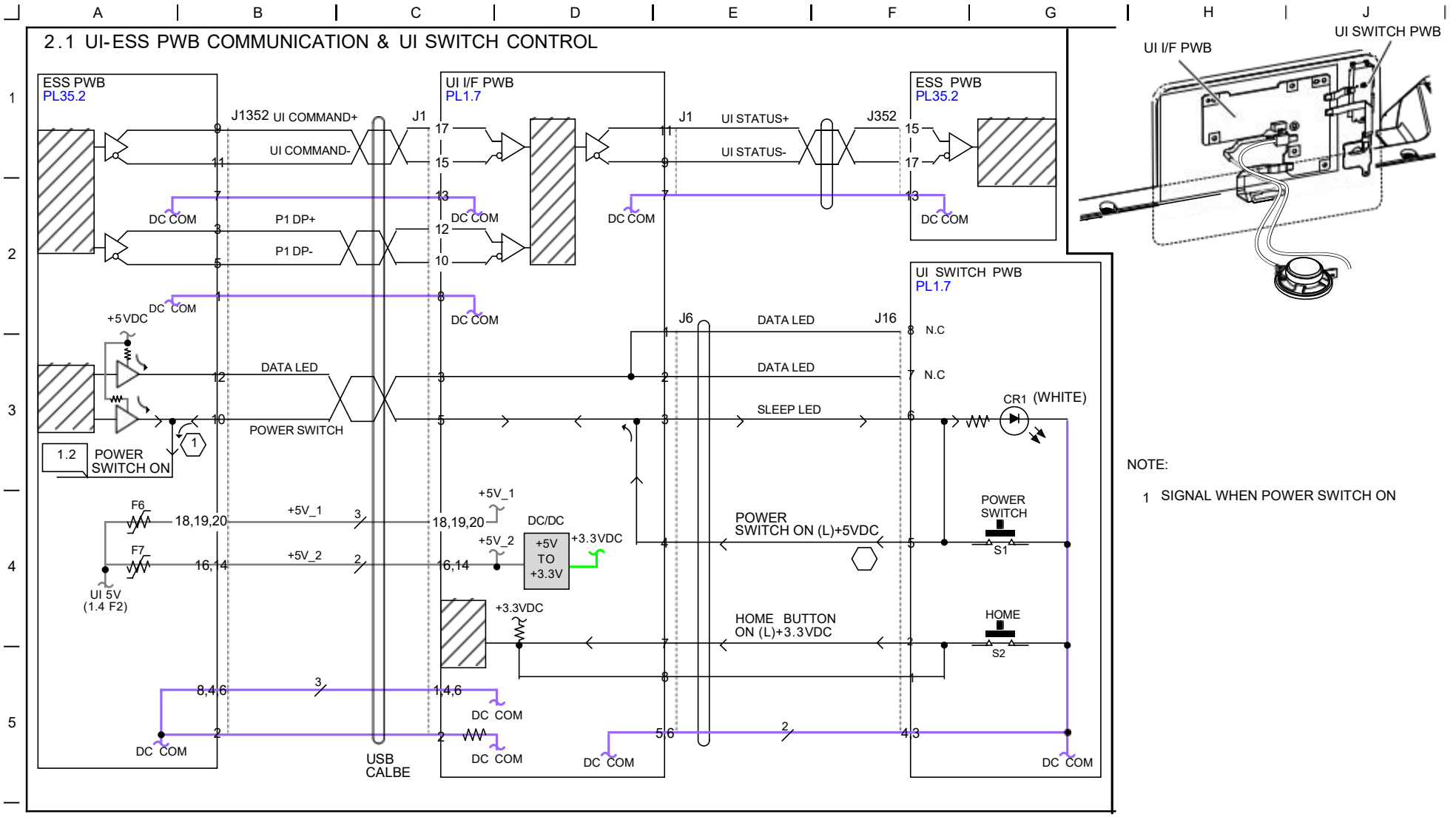
077-305
TM Left Cover Interlock Open





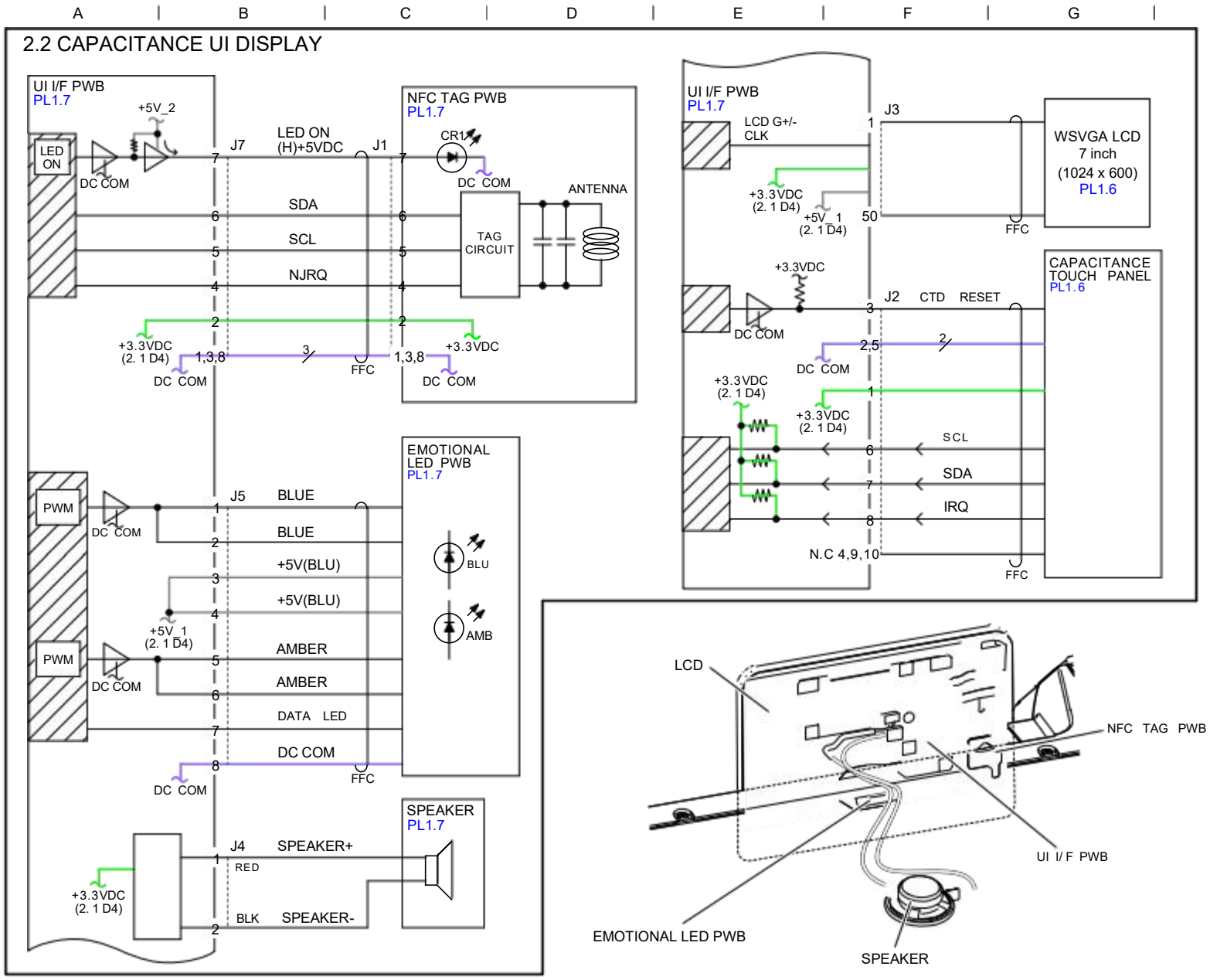


mnl730107



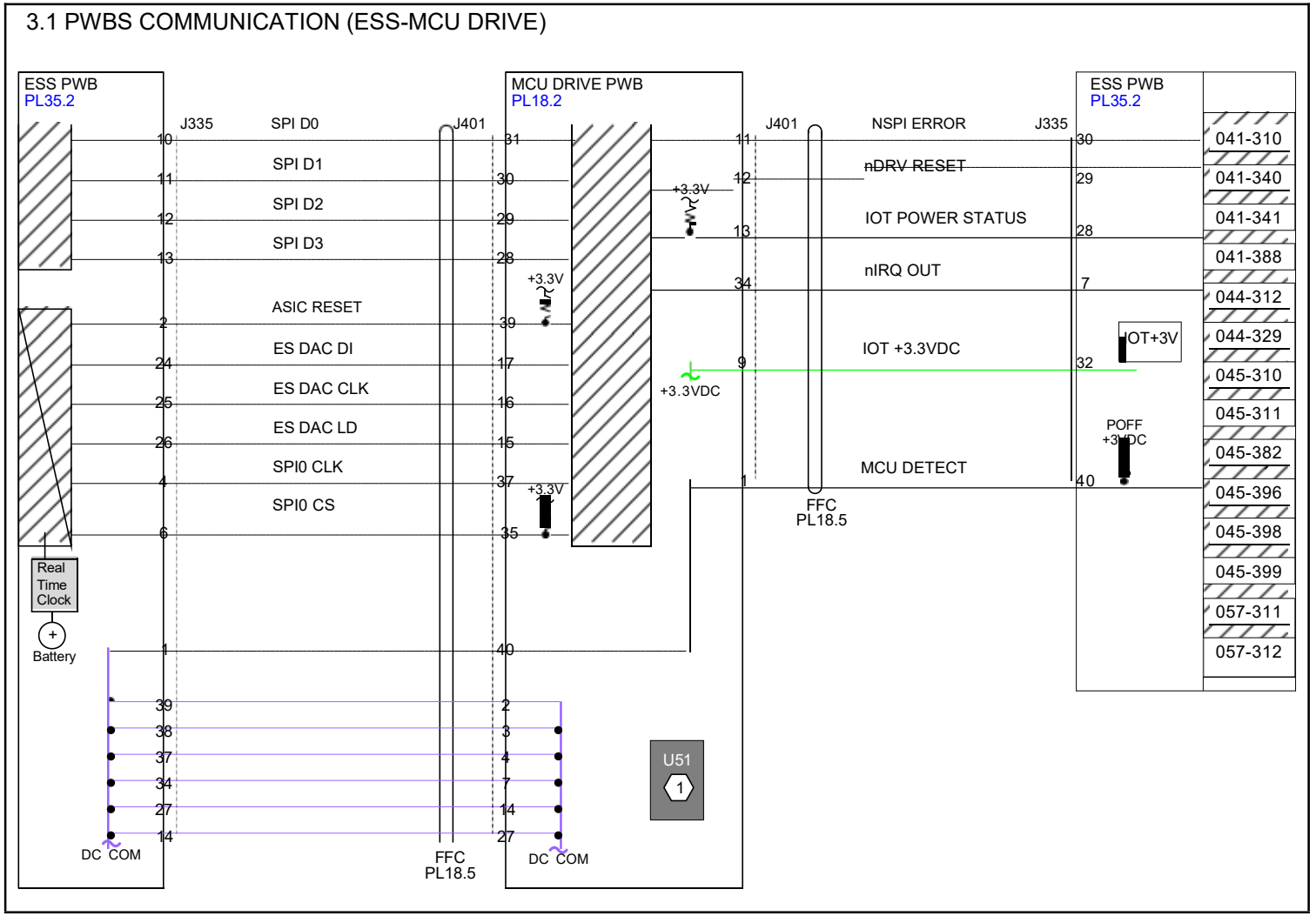
NOTE:

1 SIGNAL WHEN POWER SWITCH ON


2.2 CAPACITANCE UI DISPLAY
UI I/F PWB
PL1.7
+5V_2
LED ON
DC COM
J7
LED ON (H)+5VDC
J1
NFC TAG PWB
PL1.7
CR1
DC COM
ANTENNA
SDA
SCL
NJRQ
TAG CIRCUIT
+3.3VDC (2. 1 D4)
1,3,8
DC COM
FFC
EMOTIONAL LED PWB
PL1.7
PWM
J5
BLUE
BLUE
+5V(BLU)
+5V(BLU)
+5V_1 (2. 1 D4)
AMBER
AMBER
DATA LED
DC COM
BLU
AMB
SPEAKER
PL1.7
J4
SPEAKER+
RED
BLK
SPEAKER-
UI I/F PWB
PL1.7
LCD G+/-
CLK
J3
WSVGA LCD
7 inch
(1024 x 600)
PL1.6
+5V_1 (2. 1 D4)
50
CAPACITANCE TOUCH PANEL
PL1.6
J2
CTD
RESET
2,5
SCL
SDA
IRQ
N.C 4,9,10
LCD
NFC TAG PWB
UI I/F PWB
EMOTIONAL LED PWB
SPEAKER

mnl730202

3.1 PWBS COMMUNICATION (ESS-MCU DRIVE)

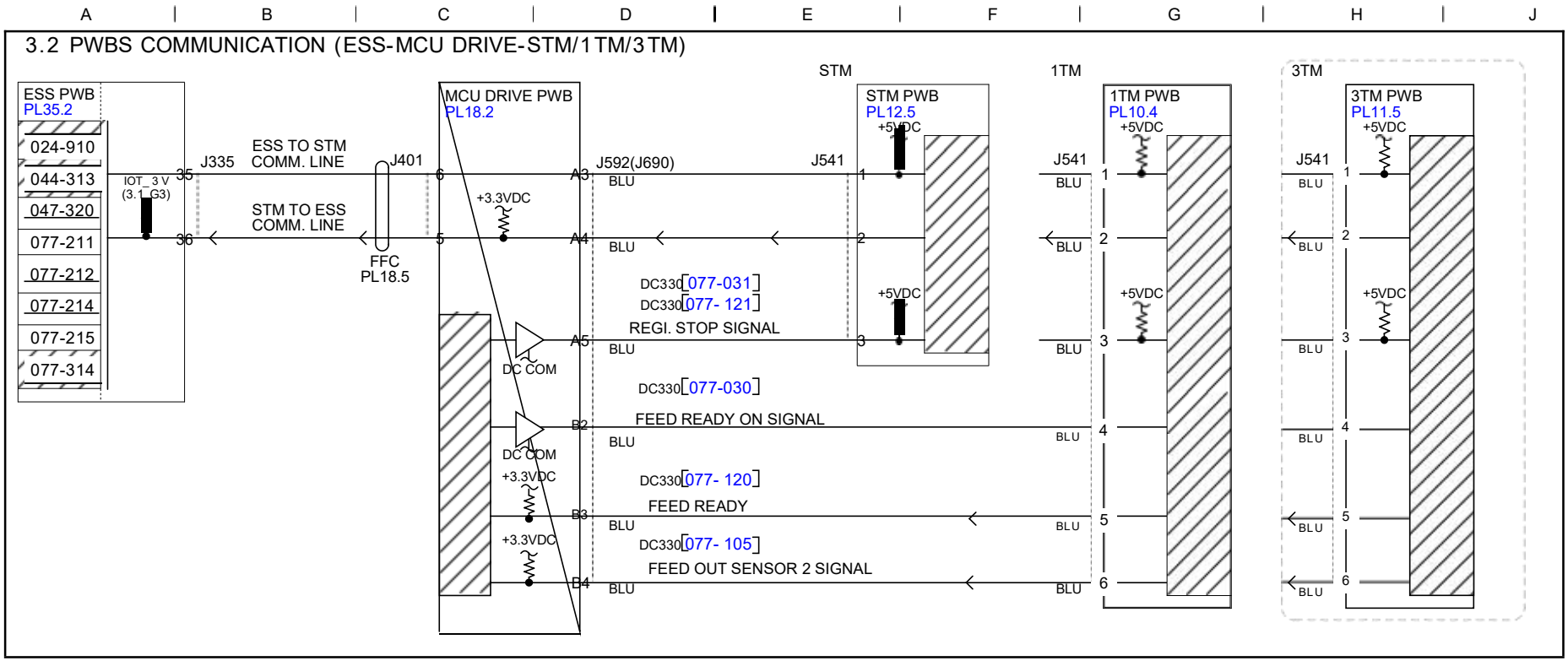


FAIL CODE

- 041-310 IM Logic Fail
- 041-340 MCU Nvm(EEPROM) Data Fail
- 041-341 MCU Nvm(EEPROM) Access Fail
- 041-388 MK_LOGIC_FAIL
- 044-312 MK TimeOut Fail
- 044-329 ShutDown Fail
- 045-310 Image Ready NG
- 045-311 Controller Comm Fail
- 045-382 MCU Nvm(EEPROM) Write Verify Fail
- 045-396 PWBA-DRIVE HASIC Fail
- 045-398 MCU Nvm(EEPROM) Read Verify Fail
- 045-399 PWBA- DRIVE Power Fail
- 057-311 PWBA- DRIVE WDT Fail
- 057-312 PWBA-DRIVE SPI COMM Fail

NOTE: (1) WHEN REPLACING THE MCU DRIVE PWB, NVM DATA MUST BE BACKED UP/RESTORED.

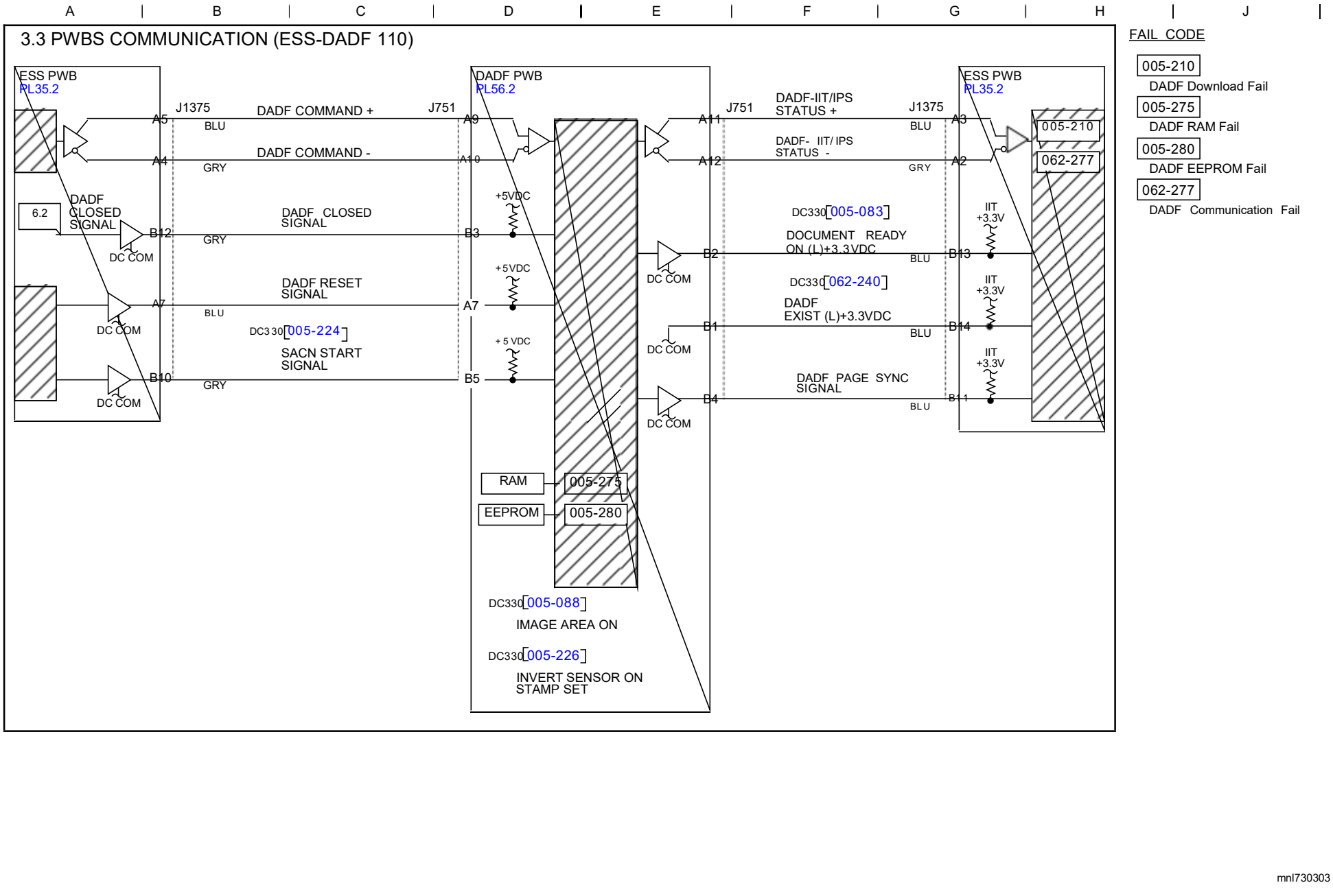
mnl730301



FAIL CODE

024-910	Size Mismatch
044-313	PH TimeOut Fail
047-320	ALL Destination Tray Broken
077-211	Tray Module Kind Mismatch
077-212	Tray Module Reset Fail
077-214	Tray Module Logic Fail
077-215	Tray Module Comm Fail
077-314	P/H Module Logic Fail

mnl730302

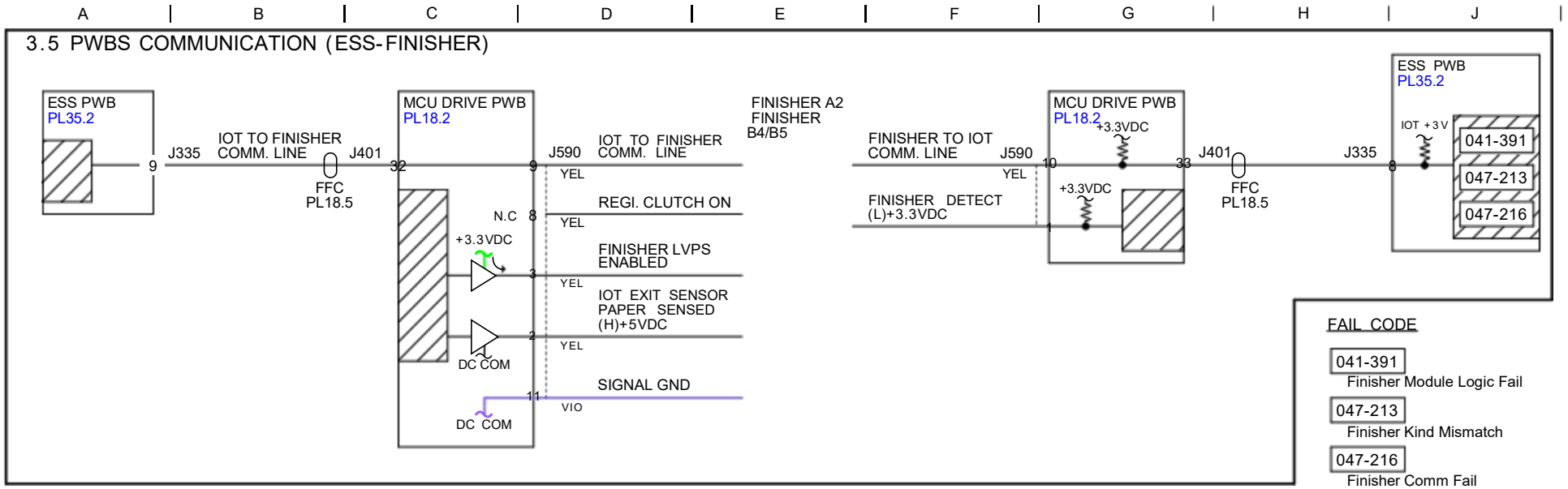


FAIL CODE

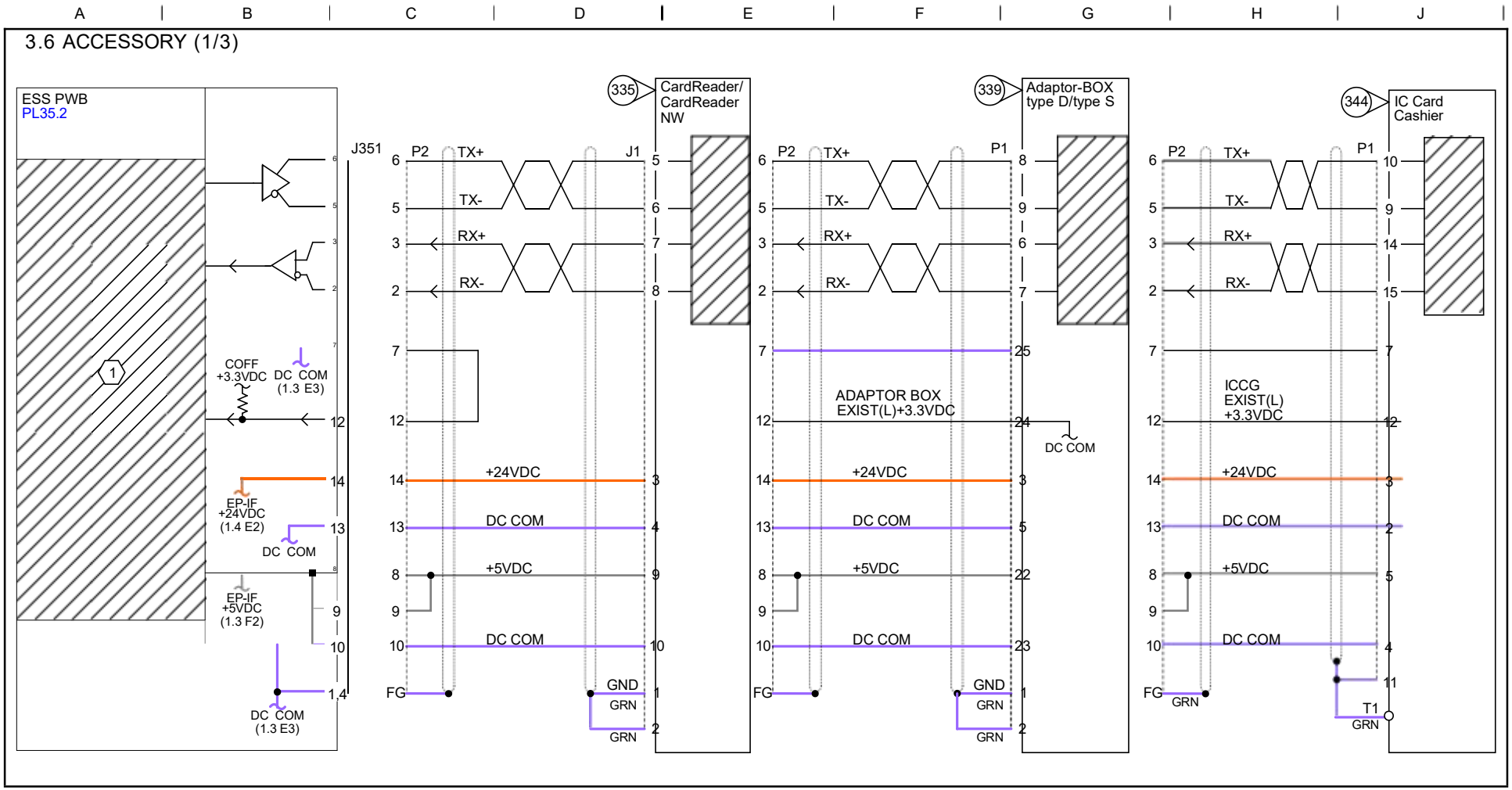
005-210	DADF Download Fail
005-275	DADF RAM Fail
005-280	DADF EEPROM Fail
062-277	DADF Communication Fail

mnl730303

None


A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
3.5 PWBS COMMUNICATION (ESS-FINISHER)
ESS PWB
PL35.2
9
J335
IOT TO FINISHER
COMM. LINE
J401
FFC
PL18.5
32
MCU DRIVE PWB
PL18.2
J590
9
YEL
IOT TO FINISHER
COMM. LINE
N.C
8
YEL
REGI. CLUTCH ON
+3.3VDC
3
YEL
FINISHER LVPS
ENABLED
IOT EXIT SENSOR
PAPER SENSED
(H)+5VDC
2
YEL
DC COM
11
VIO
SIGNAL GND
DC COM
FINISHER A2
FINISHER
B4/B5
FINISHER TO IOT
COMM. LINE
J590
YEL
10
MCU DRIVE PWB
PL18.2
+3.3VDC
33
J401
FFC
PL18.5
J335
8
ESS PWB
PL35.2
IOT +3V
041-391
047-213
047-216
FINISHER DETECT
(L)+3.3VDC
+3.3VDC
FAIL CODE
041-391
Finisher Module Logic Fail
047-213
Finisher Kind Mismatch
047-216
Finisher Comm Fail

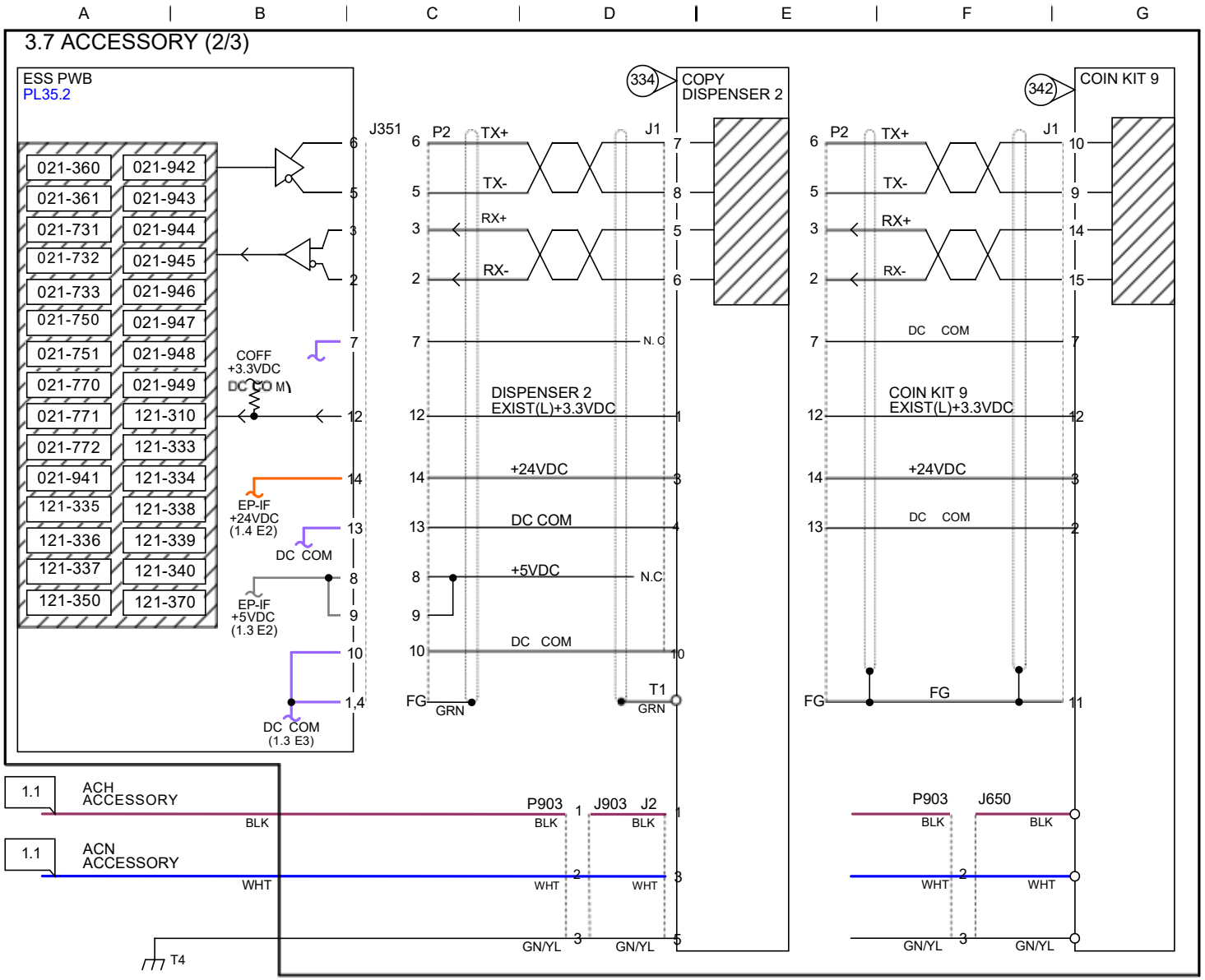
mnl730305



NOTE:

(1) FOR FAIL CODE, REFER TO CH 3.6.

mnl730306

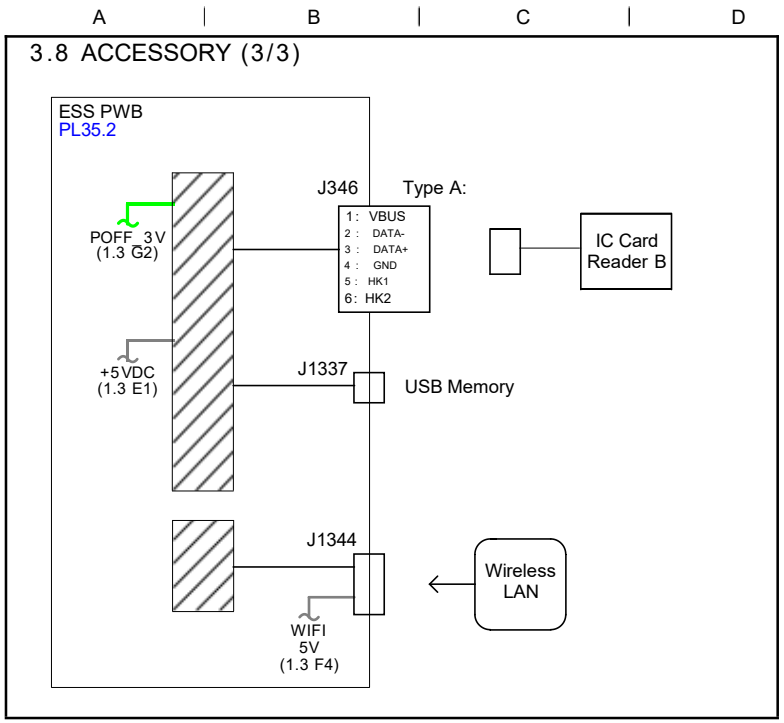


121-336	Unknown EP Accessory	121-338	EP-IF Answer Time Out	121-340	EP Accessory Miss Match	121-370	EP-DX - Unexpected Error
121-337	EP Accessory Self Diag Fail	121-339	Changed Price Table Error	121-350	EP-IF Logic Fail		

FAIL CODE

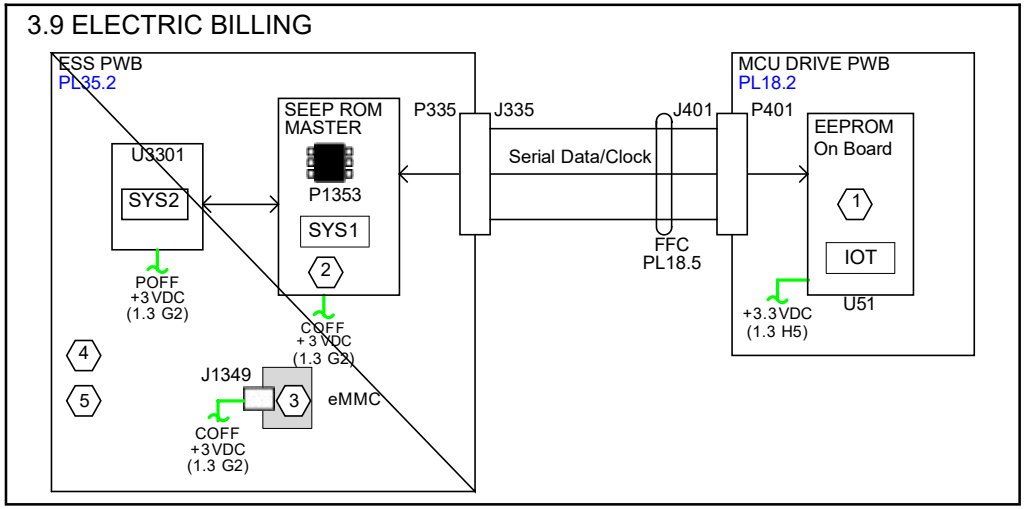
021-360	EP Accessory Fail
021-361	EP Accessory Kind Config Error
021-731	EP Accessory - Function Disabled
021-732	EP Accessory Error732
021-733	EP Accessory Error733
021-750	U Parts Request Fail
021-751	Maintenance Request Fail
021-770	U Parts Request Fail (EP-DX)
021-771	Maintenance Request Fail (EP-DX)
021-772	EPDX Install, Remove Error
021-941	EP-Scan Service Paused By Disable
021-942	EP-Scan Service Paused By Color Mode
021-943	EP-Print Service Paused By Disable
021-944	EP - Print Service Paused By Color Mode
021-945	EP - Service Paused By Disable
021-946	EP - Service Paused By Color Mode
021-947	Subtract Type Accessory Remaining Rate Short (Scan)
021-948	Subtract Type Accessory Remaining Rate Short (Print)
021-949	Subtract Type Accessory Remaining Rate Short
121-310	EP-IF-Accessory Communication Fail
121-316	EP Accessory conflicts with Secure Access
121-320	EP Setting information conflict fail
121-321	EP-DX Setting information conflict fail
121-322	Controller Price Table Error
121-333	EP-IF-EP M/C Communication Fail
121-334	EP-IF Login Fail
121-335	EP-IF Wake Up Answer Fail

mnl730307


3.8 ACCESSORY (3/3)
ESS PWB
PL35.2
J346
Type A:
1 : VBUS
2 : DATA-
3 : DATA+
4 : GND
5 : HK1
6 : HK2
POFF 3V
(1.3 G2)
IC Card
Reader B
+5VDC
(1.3 E1)
J1337
USB Memory
J1344
Wireless
LAN
WIFI
5V
(1.3 F4)

mnl730308

3.9 ELECTRIC BILLING



NOTE:

(1) When replacing the MCU Drive PWB, back up the NVM data to Contr NVM when in Sleep mode or when Sub Power is OFF, and restore data from Cont NVM to IOT NVM after replacement.

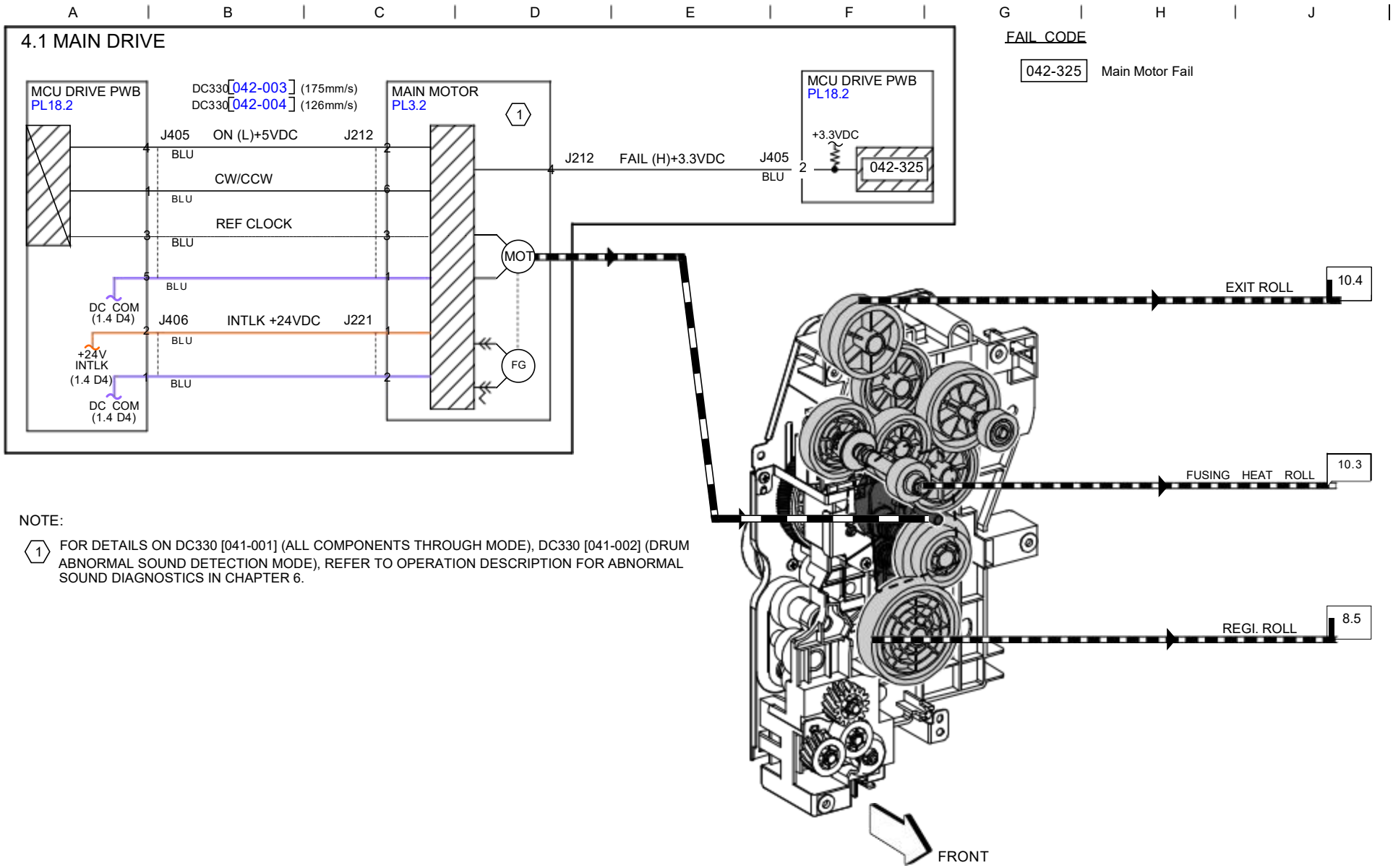
(2) When replacing the ESS PWB, replace the SEEP ROM.
MAC address, billing, M/C serial number, etc., are stored in the SEEP ROM.

(3) When replacing the ESS PWB, install the 3 current eMMC on the new ESS PWB.

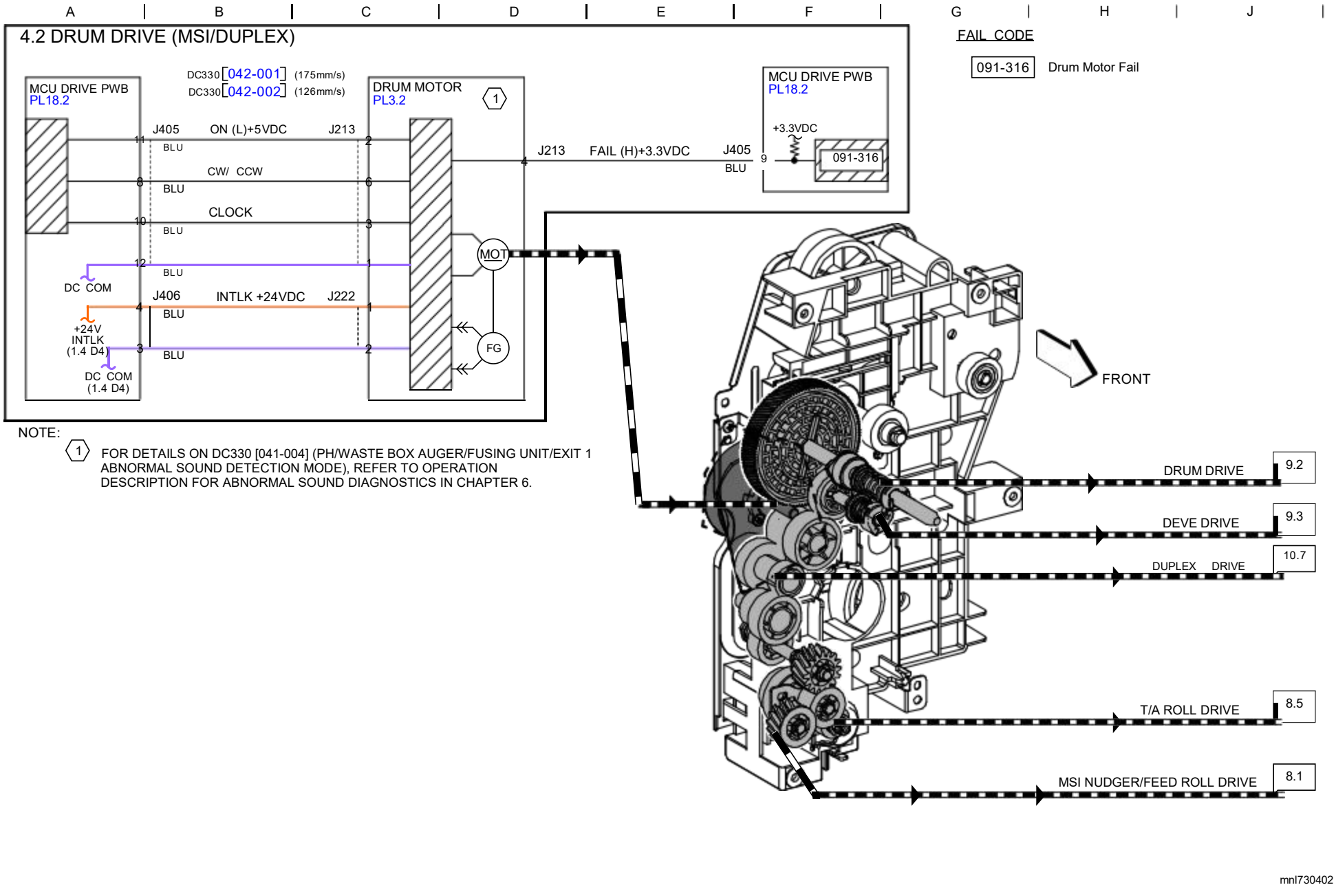
(4) Fail Code is as follows.

024-600	124-313 DC132 10	124-322 DC132 05
024-601	124-314 DC132 01	124-323 DC132 06
024-602	124-315 DC132 02	124-324 All Billing Mismatch
024-603	124-316 DC132 03	124-325 Billing Restoration Fail
024-604	124-317 DC132 04	
024-605	124-318 DC132 07	
124-310 DC132 11	124-319 DC132 08	
124-311 DC132 09		
124-312 DC132 12		

(5) In the following cases, perform manual recovery of billing data using DC132.
- When MCU Drive PWB is replaced
- When ESS PWB is replaced
- When Fail Code [124-324] (count value is different for 3) has occurred
- When Fail Code [124-325] (failed to automatically restore count value) has occurred

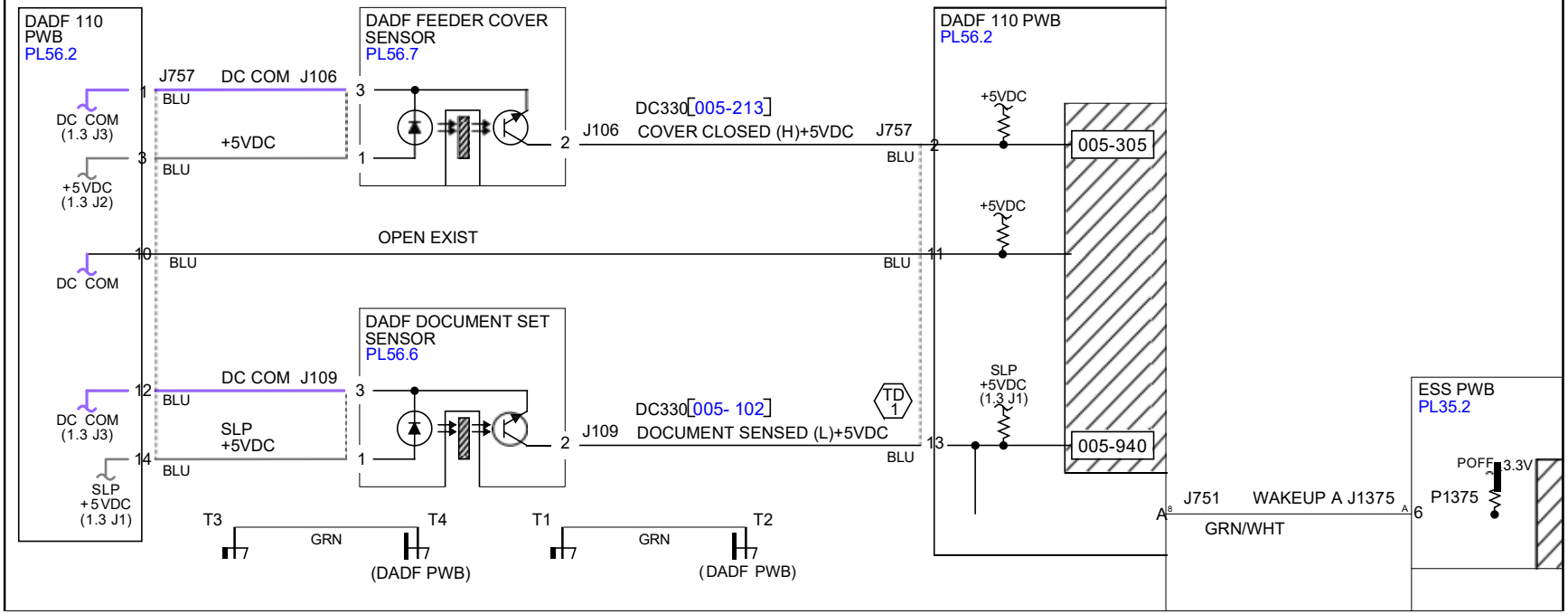

4.1 MAIN DRIVE
MCU DRIVE PWB
PL18.2
DC330 042-003 (175mm/s)
DC330 042-004 (126mm/s)
MAIN MOTOR
PL3.2
J405
ON (L)+5VDC
J212
BLU
CW/CCW
REF CLOCK
DC COM
(1.4 D4)
J406
INTLK +24VDC
J221
+24V
INTLK
(1.4 D4)
MOT
FG
J212
FAIL (H)+3.3VDC
J405
+3.3VDC
042-325
FAIL CODE
042-325 Main Motor Fail
EXIT ROLL
10.4
FUSING HEAT ROLL
10.3
REGI. ROLL
8.5
FRONT
NOTE:
1 FOR DETAILS ON DC330 [041-001] (ALL COMPONENTS THROUGH MODE), DC330 [041-002] (DRUM ABNORMAL SOUND DETECTION MODE), REFER TO OPERATION DESCRIPTION FOR ABNORMAL SOUND DIAGNOSTICS IN CHAPTER 6.

mnl730401


A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
4.2 DRUM DRIVE (MSI/DUPLEX)
MCU DRIVE PWB
PL18.2
DC330 [042-001] (175mm/s)
DC330 [042-002] (126mm/s)
DRUM MOTOR
PL3.2
1
J405
ON (L)+5VDC
J213
11
BLU
CW/ CCW
8
BLU
CLOCK
10
BLU
12
BLU
DC COM
J406
INTLK +24VDC
J222
4
BLU
+24V
INTLK
(1.4 D4)
3
BLU
DC COM
(1.4 D4)
MOT
FG
J213
FAIL (H)+3.3VDC
J405
BLU
9
MCU DRIVE PWB
PL18.2
+3.3VDC
091-316
FAIL CODE
091-316
Drum Motor Fail
NOTE:
1
FOR DETAILS ON DC330 [041-004] (PH/WASTE BOX AUGER/FUSING UNIT/EXIT 1 ABNORMAL SOUND DETECTION MODE), REFER TO OPERATION DESCRIPTION FOR ABNORMAL SOUND DIAGNOSTICS IN CHAPTER 6.
FRONT
DRUM DRIVE
9.2
DEVE DRIVE
9.3
DUPLEX DRIVE
10.7
T/A ROLL DRIVE
8.5
MSI NUDGER/FEED ROLL DRIVE
8.1

mnl730402

5.1 DADF INTERLOCK AND DOCUMENT SETTING (DADF 110)



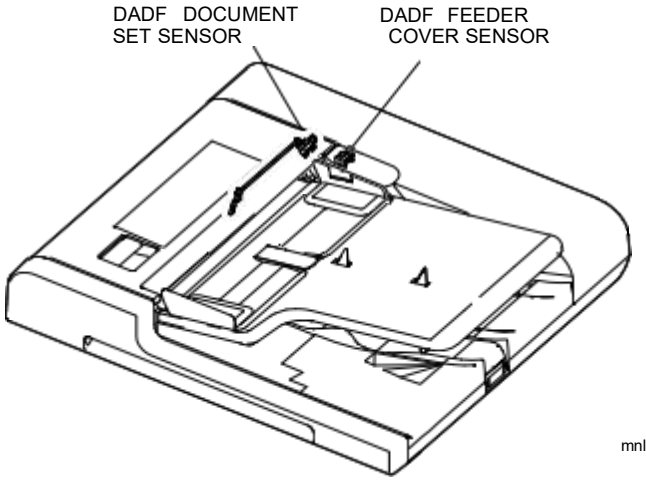
FAIL CODE

005-305
DADF Feeder Cover Interlock Open

005-940
DADF No Original Fail

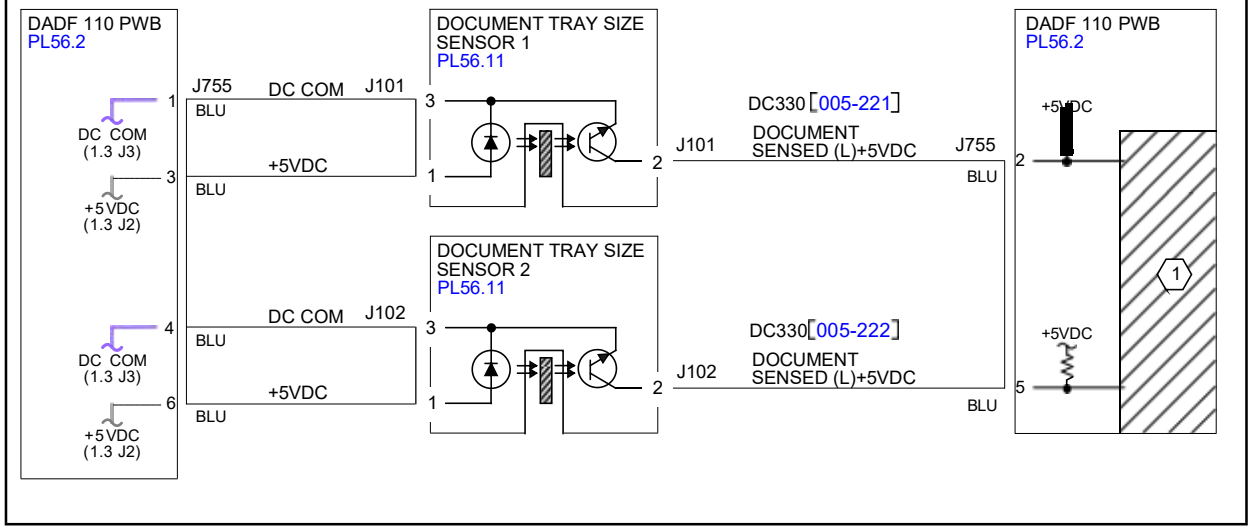
TD 1
Test Point: : Between DADF PWB J757- 13 (+) and GND (-), voltage is approx.
Sleep : +0 .6 6 VDC
Wakeup : +2.7 0 VDC

ELECTRICAL COMPONENTS

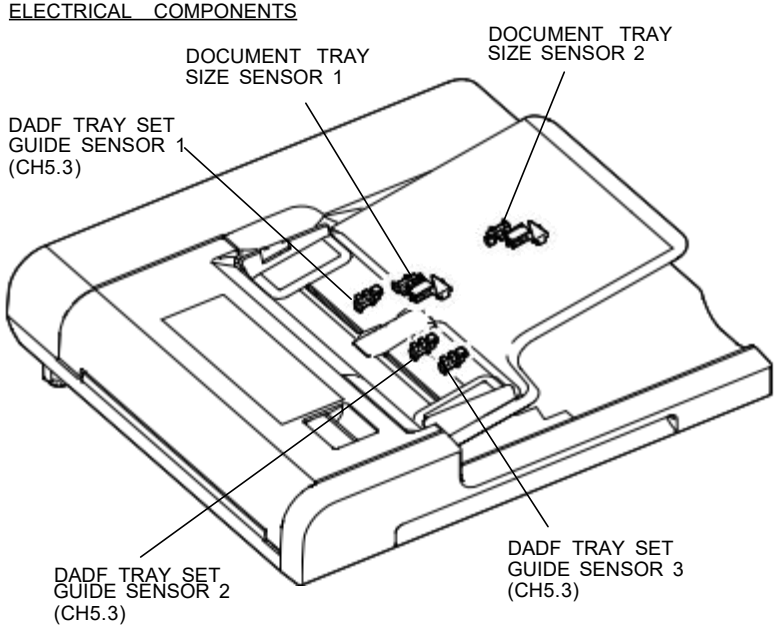


mnl730501

5.2 DOCUMENT SIZE SENSING (1 OF 2)(DADF 110)



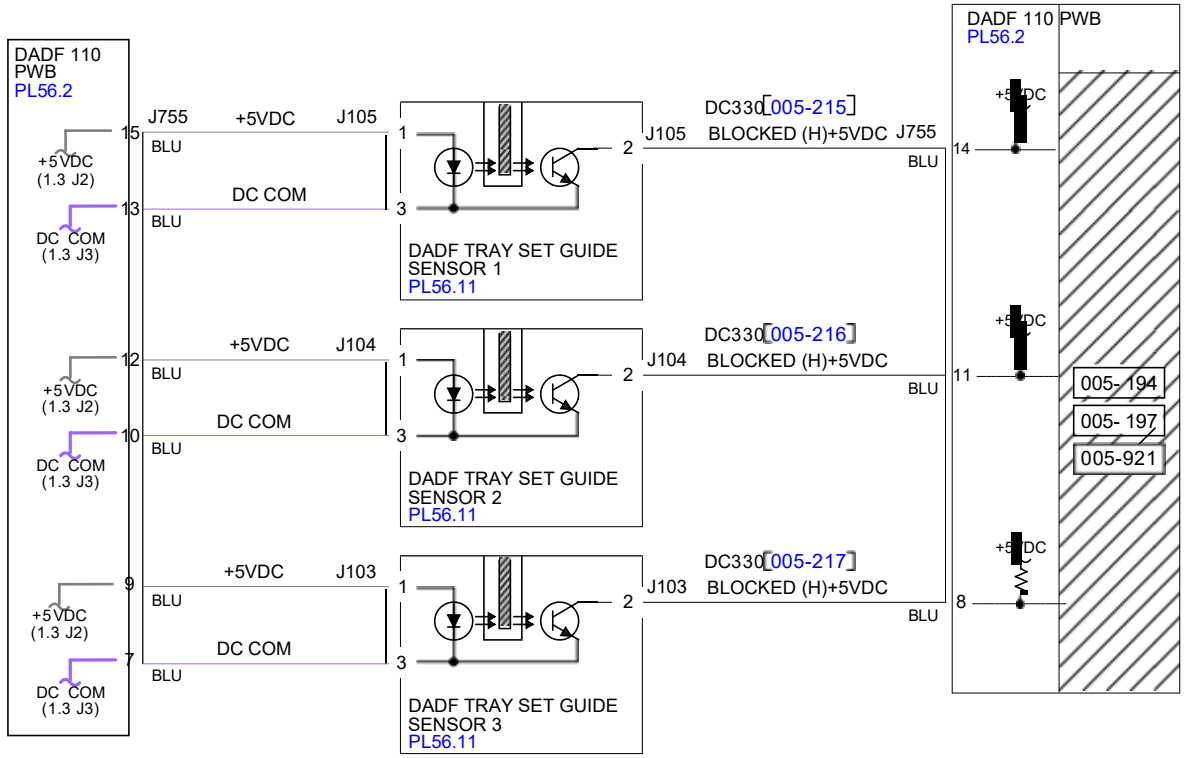
ELECTRICAL COMPONENTS



NOTE: (1) The relationship between various Sensor ON/OFF combination and original sizes are as follows.

Original sizes	Fast Scan Direction			Slow Scan Direction	
	DADF TRAY SET GUIDE SENSOR 1 (CH5 .3)	DADF TRAY SET GUIDE SENSOR 2 (CH5.3)	DADF TRAY SET GUIDE SENSOR 3 (CH5 .3)	DOCUMENT TRAY SIZE SENSOR 1	DOCUMENT TRAY SIZE SENSOR 2
A5 S	OFF	OFF	ON	ON	OFF
B5 S/16K S	OFF	OFF	OFF	ON	OFF
A4 S	OFF	ON	OFF	ON	OFF
8.5"X11" S	OFF	ON	ON	ON	OFF
8.5"×13"(14") S	OFF	ON	ON	ON	ON
B5 L	ON	OFF	ON	OFF	OFF
B4 S	ON	OFF	ON	ON	ON
16K L	ON	OFF	OFF	OFF	OFF
8K S	ON	OFF	OFF	ON	ON
8.5"X11" L	ON	ON	OFF	ON	OFF
11"×17" S	ON	ON	OFF	ON	ON
A4 L	ON	ON	ON	ON	OFF
A3 S	ON	ON	ON	ON	ON

5.3 DOCUMENT SIZE SENSING (2 OF 2)(DADF 110)



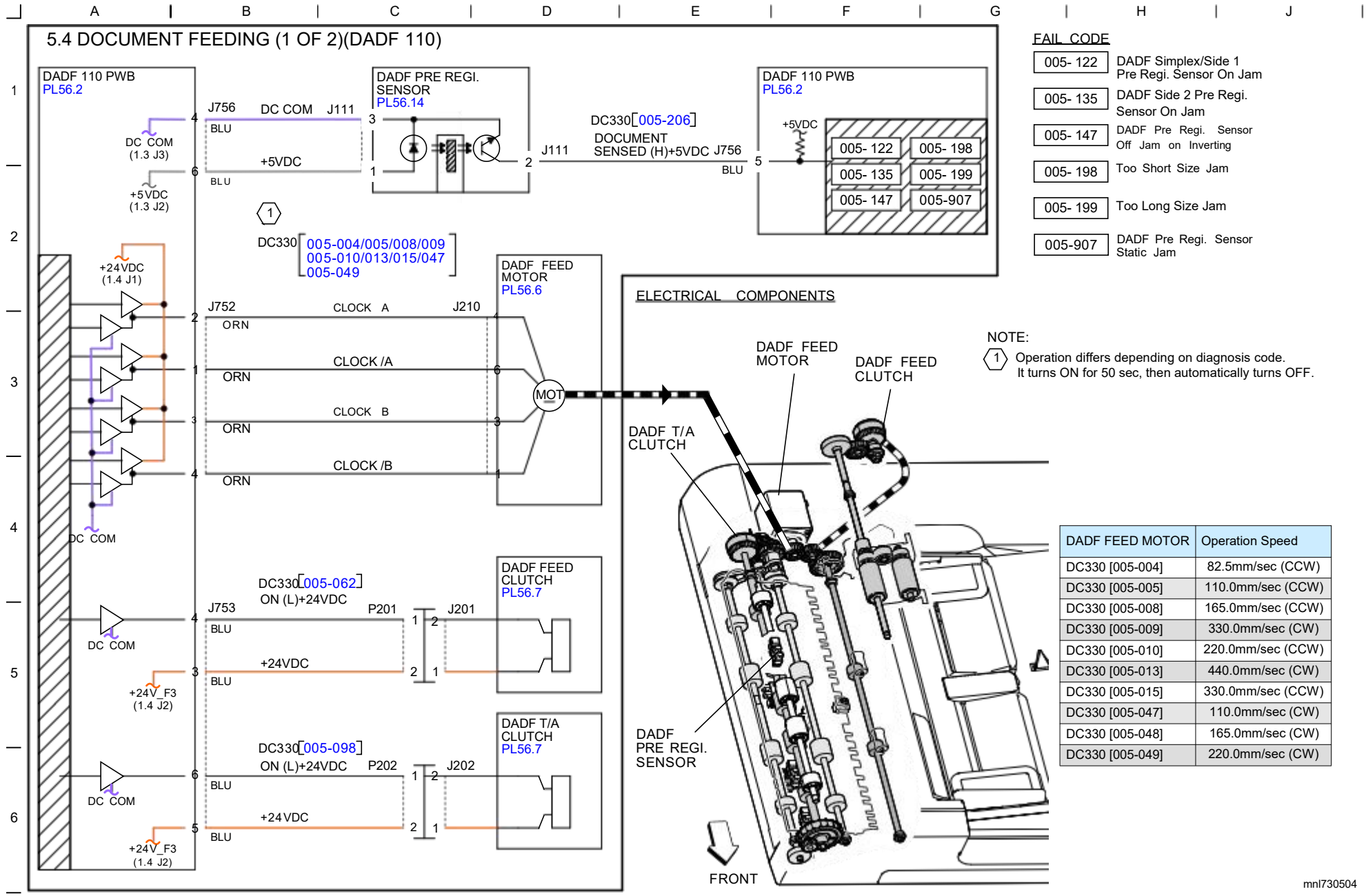
FAIL CODE

005- 194
Size Mismatch Jam On SS Mix-Size

005- 197
Prohibit Combine Size Jam

005-921
Let SEF Detect Error

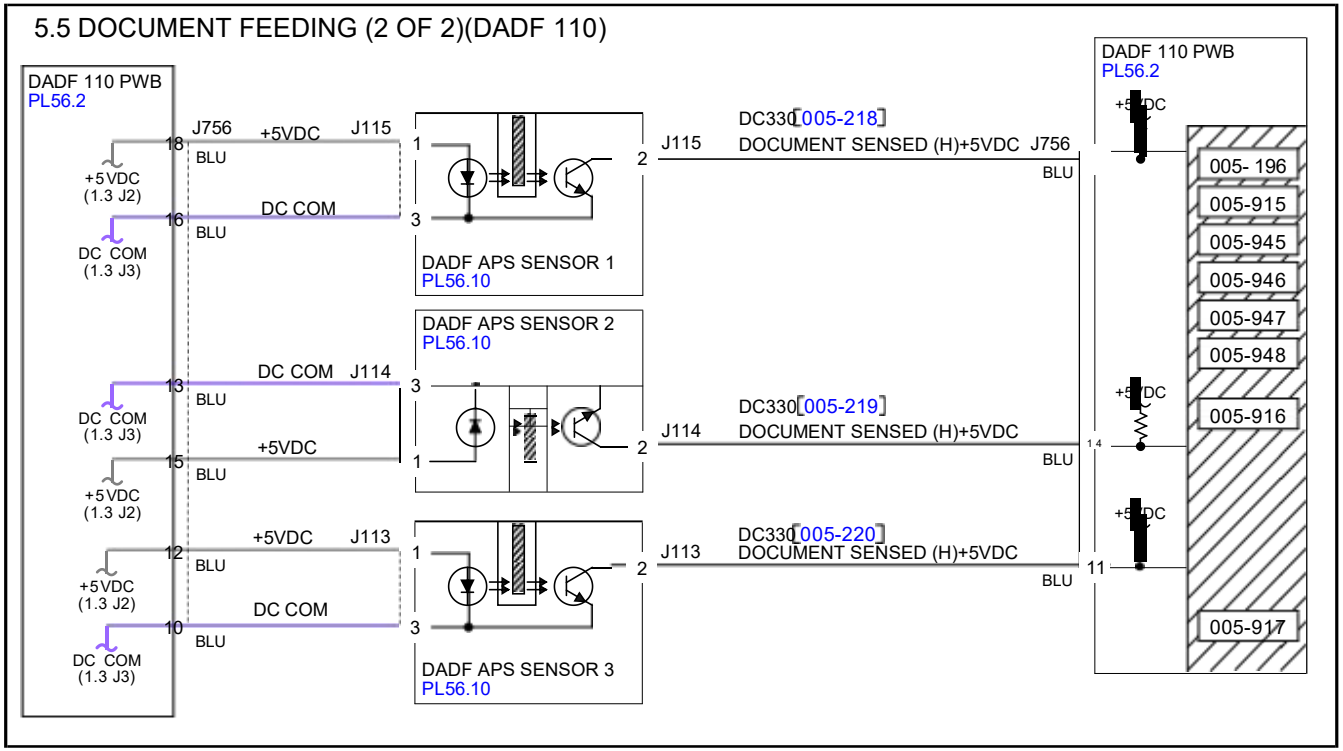
mnl730503



DADF FEED MOTOR	Operation Speed
DC330 [005-004]	82.5mm/sec (CCW)
DC330 [005-005]	110.0mm/sec (CCW)
DC330 [005-008]	165.0mm/sec (CCW)
DC330 [005-009]	330.0mm/sec (CW)
DC330 [005-010]	220.0mm/sec (CCW)
DC330 [005-013]	440.0mm/sec (CW)
DC330 [005-015]	330.0mm/sec (CCW)
DC330 [005-047]	110.0mm/sec (CW)
DC330 [005-048]	165.0mm/sec (CW)
DC330 [005-049]	220.0mm/sec (CW)

mnl730504

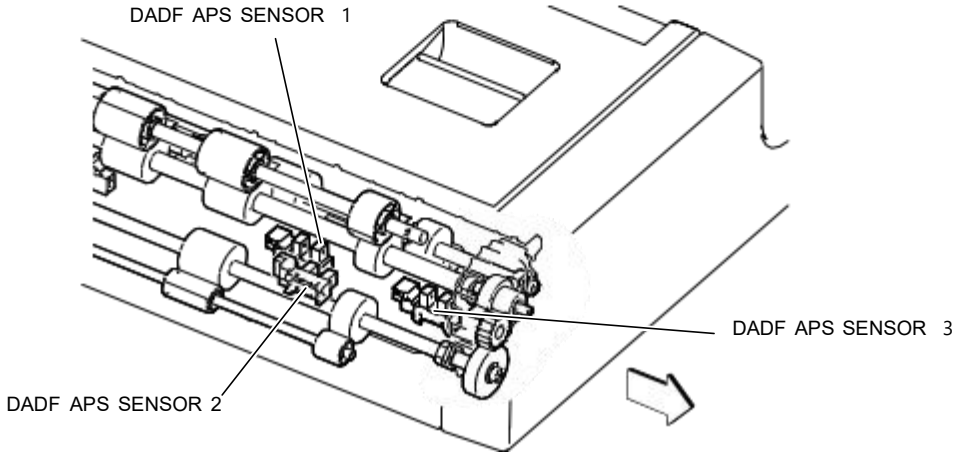
5.5 DOCUMENT FEEDING (2 OF 2)(DADF 110)



FAIL CODE

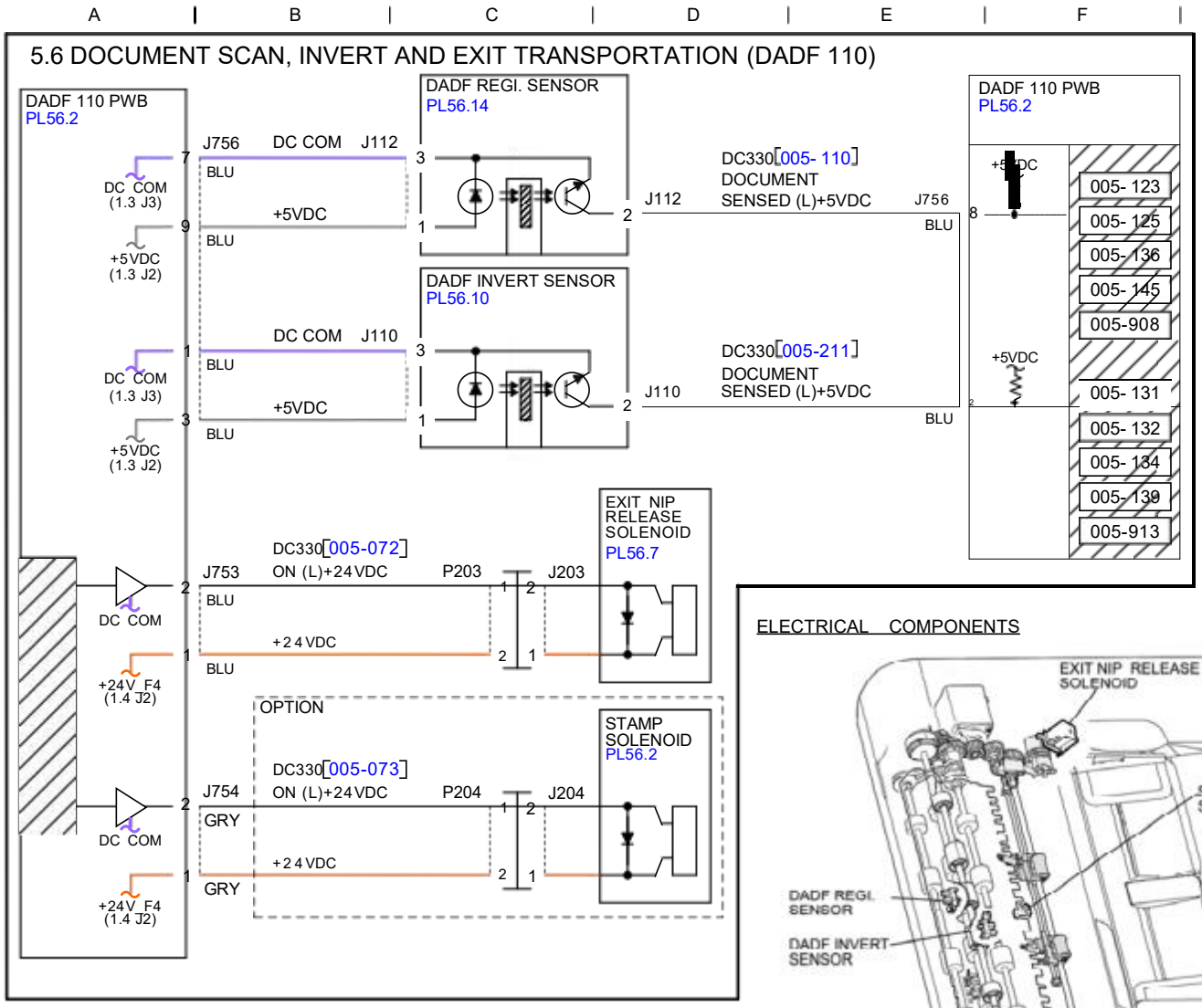
- **005- 196** — Size Mismatch Jam On No Mix-Size
- **005-915** — DADF APS Sensor 1 Static Jam
- **005-916** — DADF APS Sensor 2 Static Jam
- **005-917** — DADF APS Sensor 3 Static Jam
- **005-945** — FS- Size Mismatch Jam On No Mix-Size or SS Mix-Size (Cont)
- **005-946** — SS-Size Mismatch Jam On No Mix-Size (Cont)
- **005-947** — FS-Size Mismatch Jam On No Mix-Size or SS Mix-Size
- **005-948** — SS-Size Mismatch Jam on No Mix-size

ELECTRICAL COMPONENTS

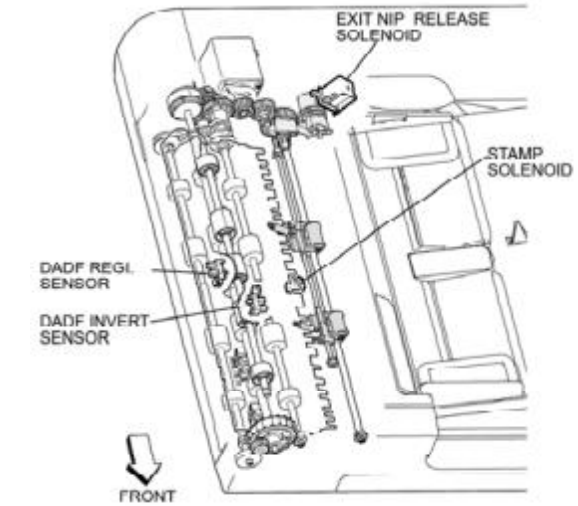


mnl730505

5.6 DOCUMENT SCAN, INVERT AND EXIT TRANSPORTATION (DADF 110)



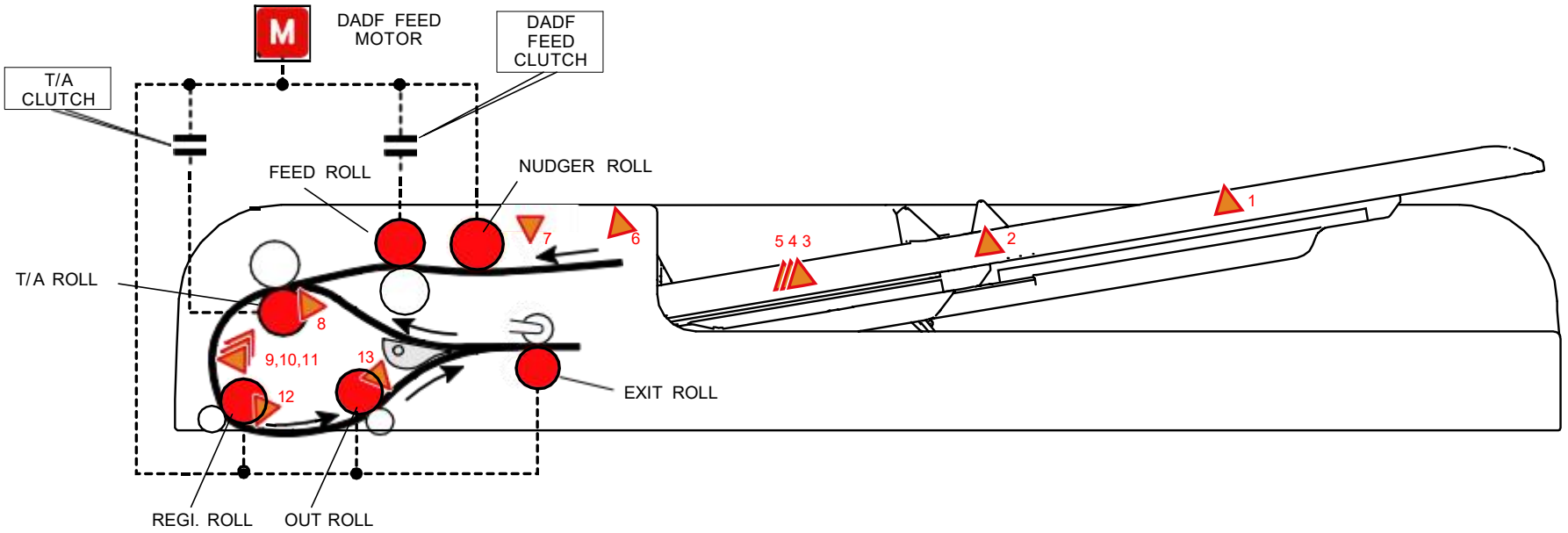
ELECTRICAL COMPONENTS



FAIL CODE

005- 123	DADF Simplex/Side 1 Regi. Sensor On Jam
005- 125	DADF Regi. Sensor Off Jam
005- 131	DADF Invert Sensor On Jam on Inverting
005- 132	DADF Invert Sensor On Jam
005- 134	DADF Invert Sensor Off Jam on Inverting
005- 136	DADF Side 2 Regi. Sensor On Jam
005- 139	DADF Invert Sensor Off Jam
005- 145	DADF Regi. Sensor Off Jam on Inverting
005-908	DADF Regi. Sensor Static Jam
005-913	DADF Invert Sensor Static Jam

5.7 DOCUMENT PATH(DADF 110)



Document Sensor

No.	SENSOR	CH
1	DOCUMENT TRAY SIZE SENSOR 2	5.2
2	DOCUMENT TRAY SIZE SENSOR 1	5.2
3	DADF TRAY SET GUIDE SENSOR 1	5.3
4	DADF TRAY SET GUIDE SENSOR 2	5.3
5	DADF TRAY SET GUIDE SENSOR 3	5.3
6	FEEDER COVER SENSOR	5.1
7	DADF DOCUMENT SET SENSOR	5.1
8	DADF PRE REGI. SENSOR	5.4
9	DADF APS SENSOR 1	5.5
10	DADF APS SENSOR 2	5.5
11	DADF APS SENSOR 3	5.5
12	DADF REGI. SENSOR	5.6
13	DADF INVERT SENSOR	5.6

mnl730507

None

None

None

None

None

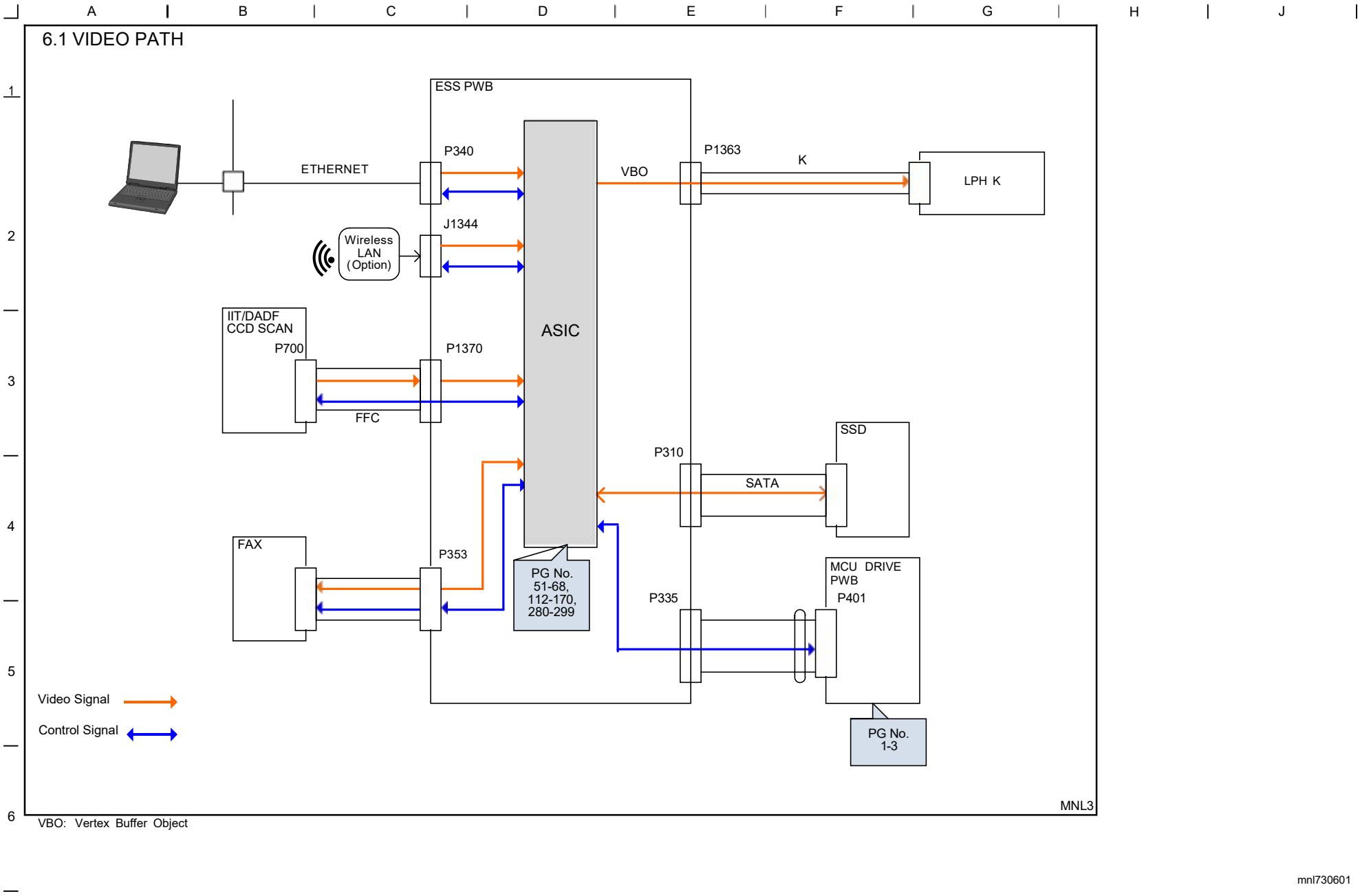
None

None

None

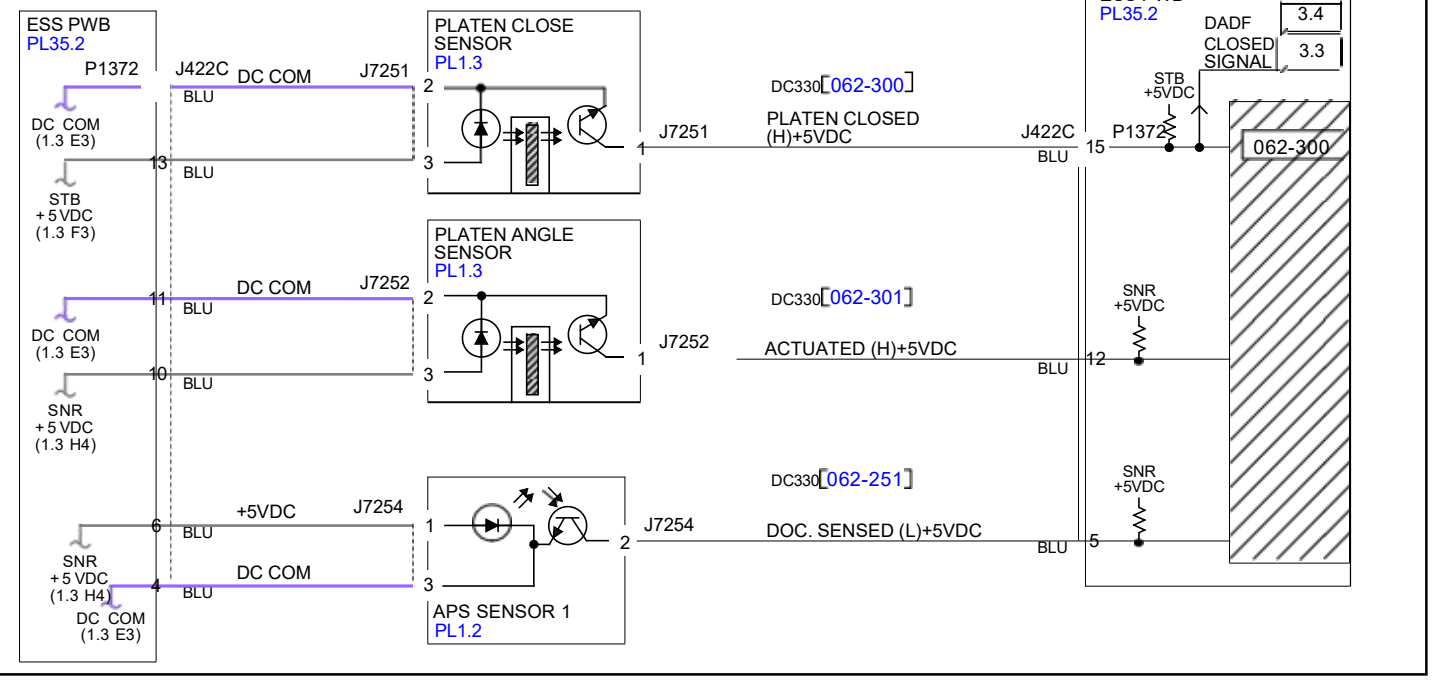
None

None



VBO: Vertex Buffer Object

6.2 PLATEN DOCUMENT SENSING

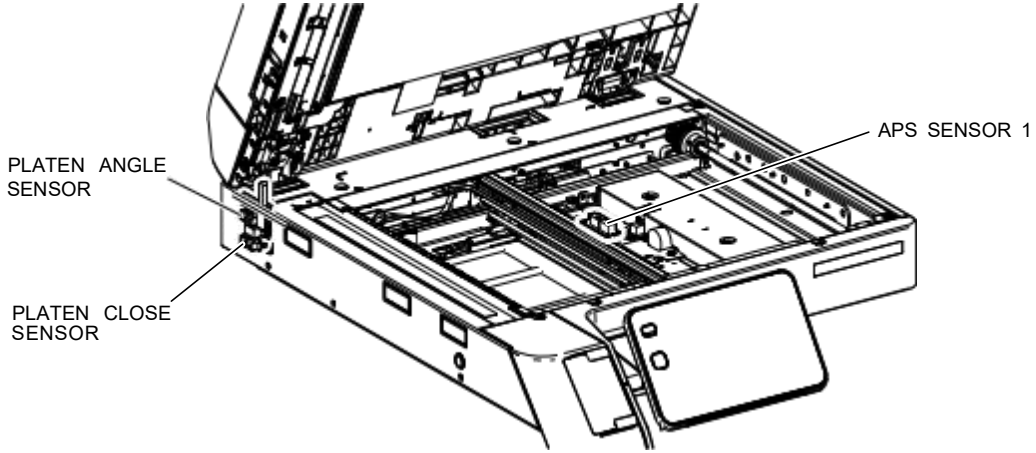


FAIL CODE

062-300

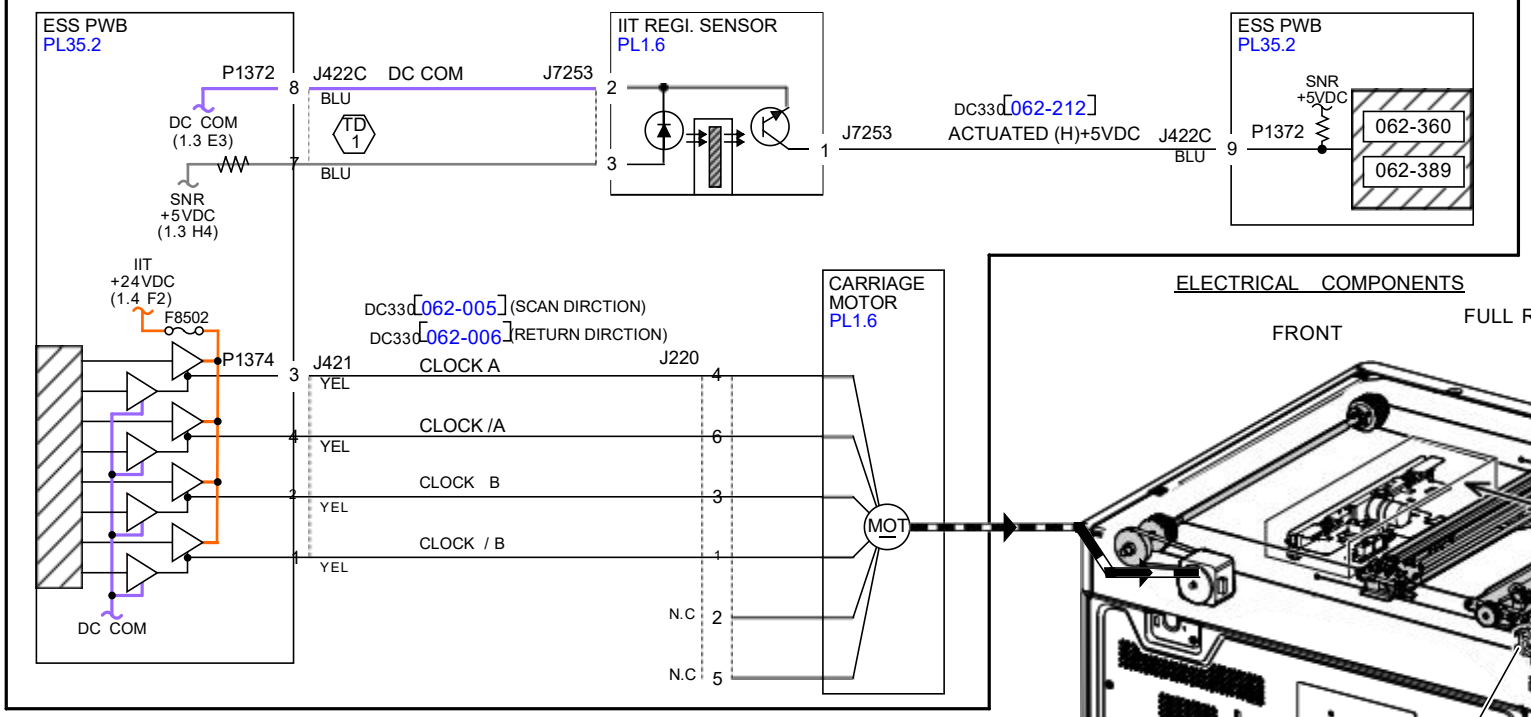
Platen Interlock Open

ELECTRICAL COMPONENTS



mnl730602

6.3 CARRIAGE CONTROL

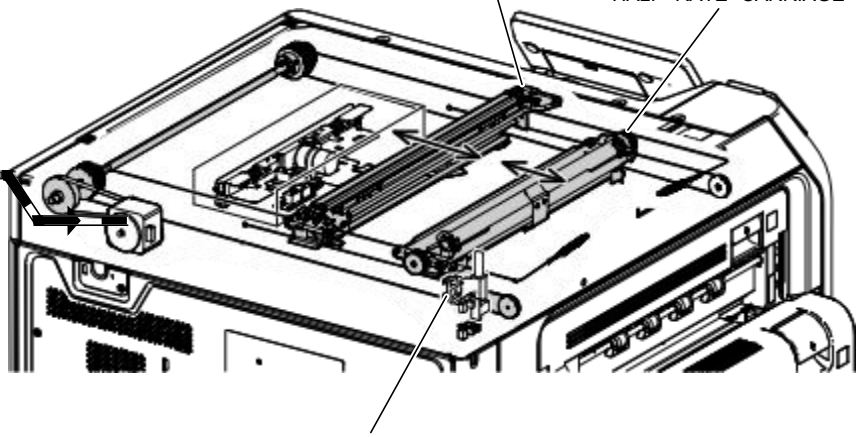


FAIL CODE

062-360
Carriage Position Fail

062-389
Carriage Over Run Fail

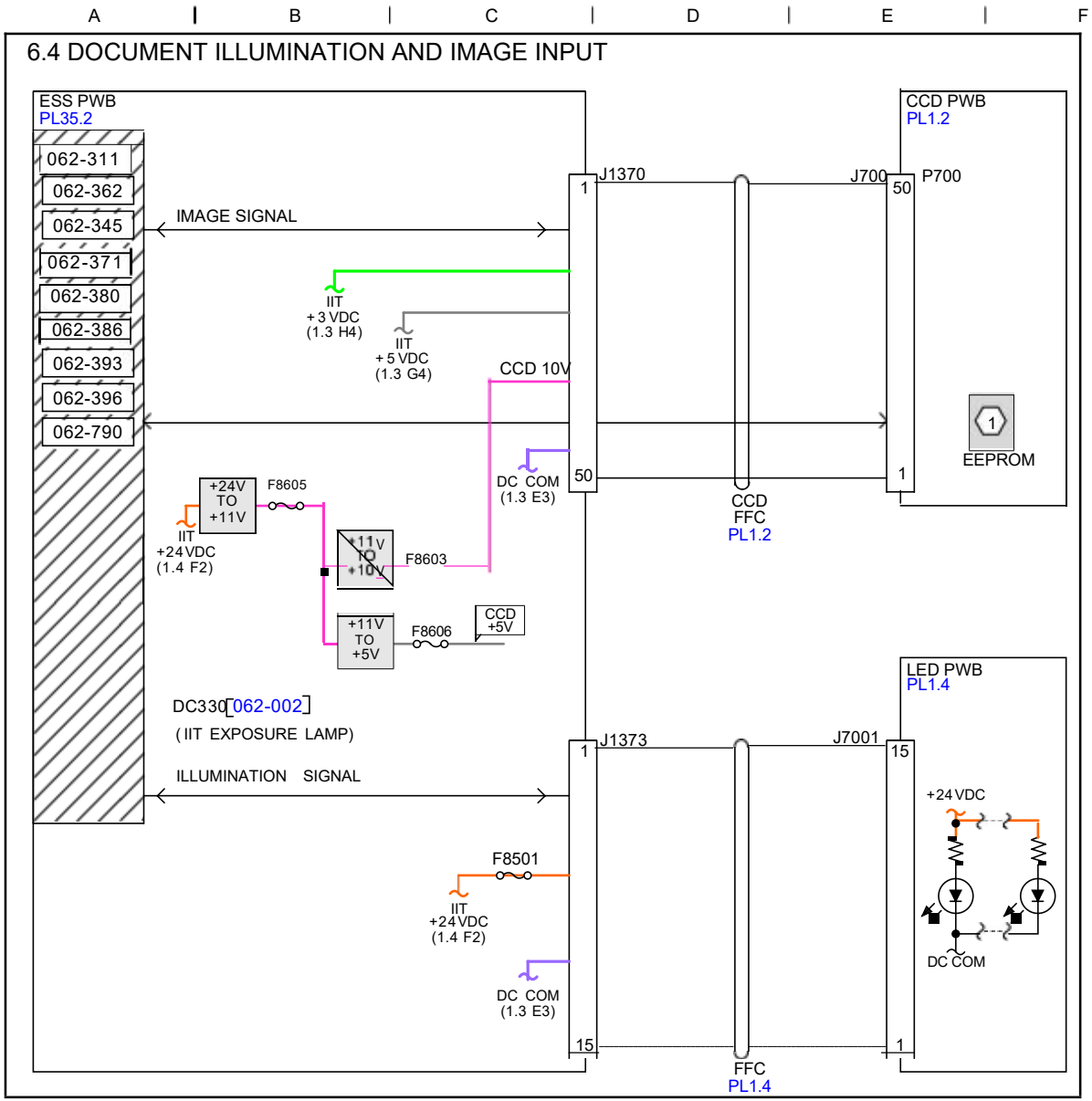
ELECTRICAL COMPONENTS



TD 1 TEST POINT: BETWEEN ESS PWB J422 (P1372) -7 (+) AND GND (-), VOLTAGE IS APPROX. +1.2 VDC WHEN SENSOR IS CONNECTED

mnl730603

6.4 DOCUMENT ILLUMINATION AND IMAGE INPUT



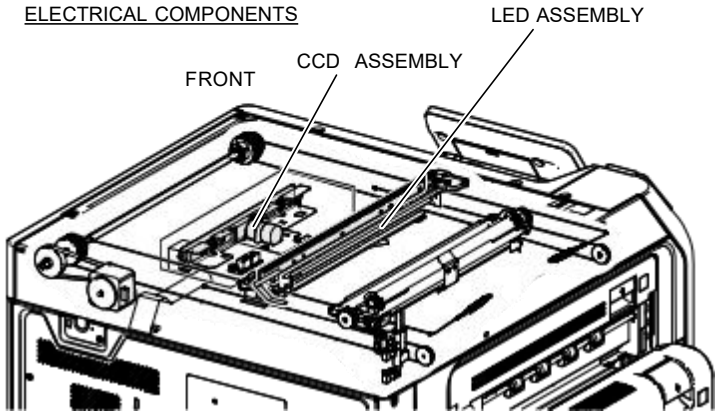
FAIL CODE

062-311	IISS LOGIC Fail
062-362	X Hard Fail
062-345	IIT EEPROM Fail
062-371	Lamp Illumination Fail
062-380	AGC Fail
062-386	AOC Fail
062-393	CCD PWB Sync Signal Fail
062-396	CCD Cable Connection Fail
062-790	X-Recognition Fail

NOTE:

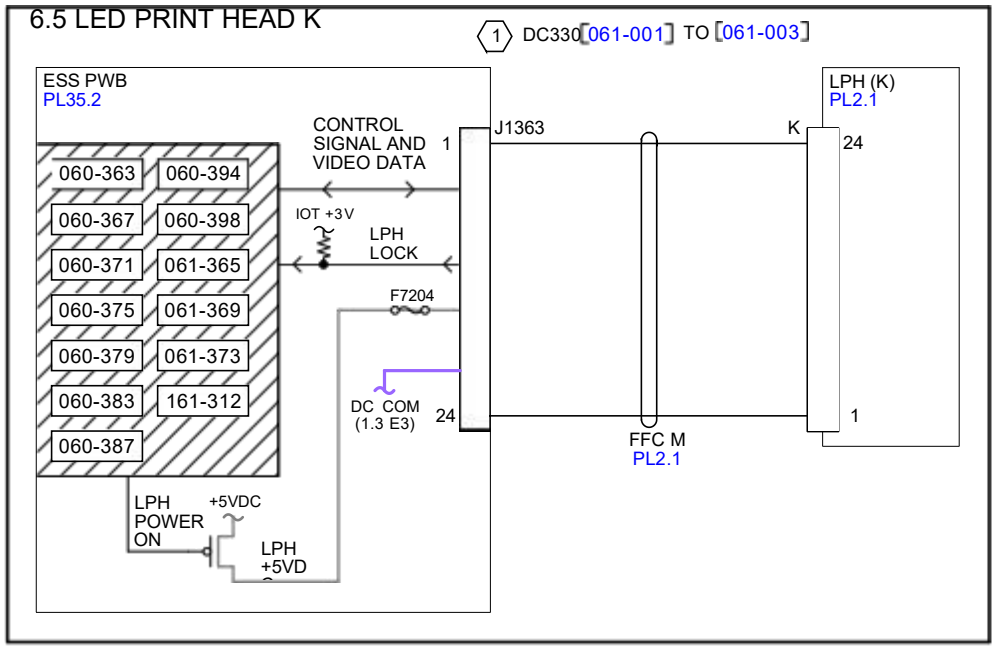
1 IIT NVM DATA IS RECORDED IN EEP ROM ON CCD PWB.

ELECTRICAL COMPONENTS



mnl730604

6.5 LED PRINT HEAD K

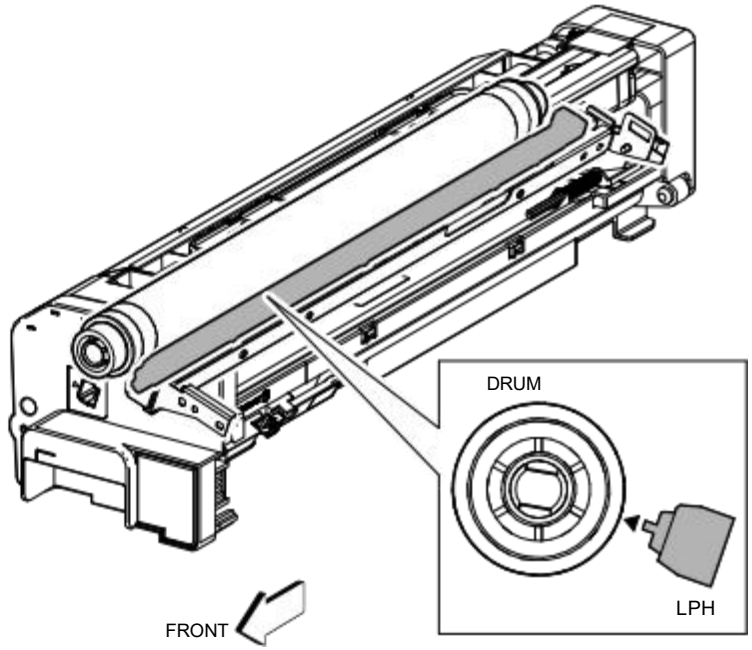


NOTE:

1 OPERATION DIFFERS DEPENDING ON DIAGNOSIS CODE.

LPH	OPERATION
DC330 [061-001]	Forces the LPH to turn ON (All Solid Pattern)
DC330 [061-002]	Forces the LPH to turn ON (Cin 50%)
DC330 [061-003]	Performs Thyristor transfer only

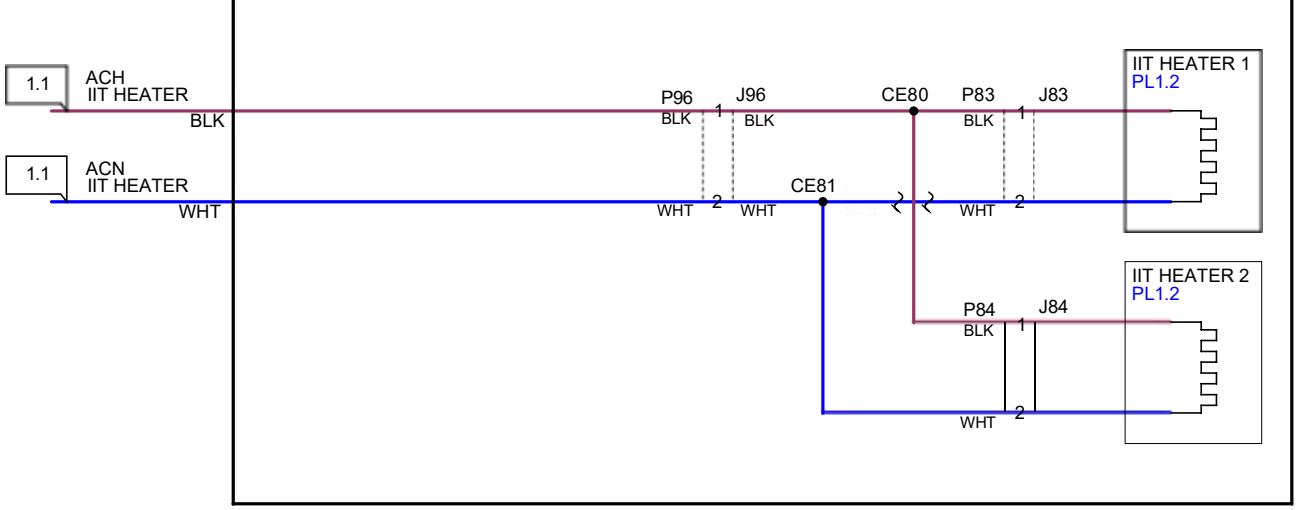
ELECTRICAL COMPONENTS



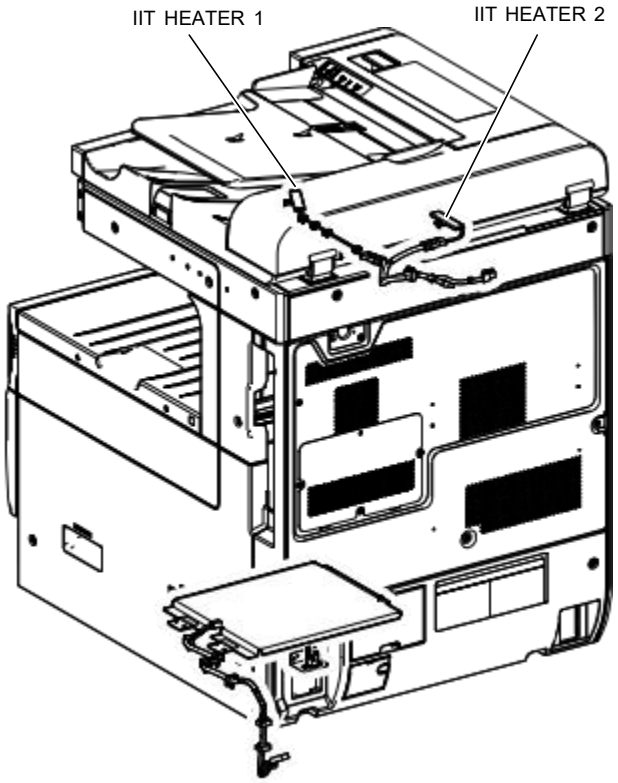
FAIL CODE

060-363	VBO-IP PLL ERR	060-383	LPH_DL_ROM_FAI L K	061-369	LPH Write Fail K
060-367	VBO_LOCKN_ERR K	060-387	LPH_DL_STATUS_FAIL K	061-373	LPH Ack Fail K
060-371	LPH_DL_I2C_FAIL K	060-394	LPH_VBOWR_FAIL K	161-312	LPH Timeout Fail K
060-375	LPH_PWRON_FAIL K	060-398	LPH_CSUM_FAIL K		
060-379	LPH_DL_VBO_FAIL K	061-365	LPH Read Fail K		

6.6 IIT HEATER CONTROL (OPTION)

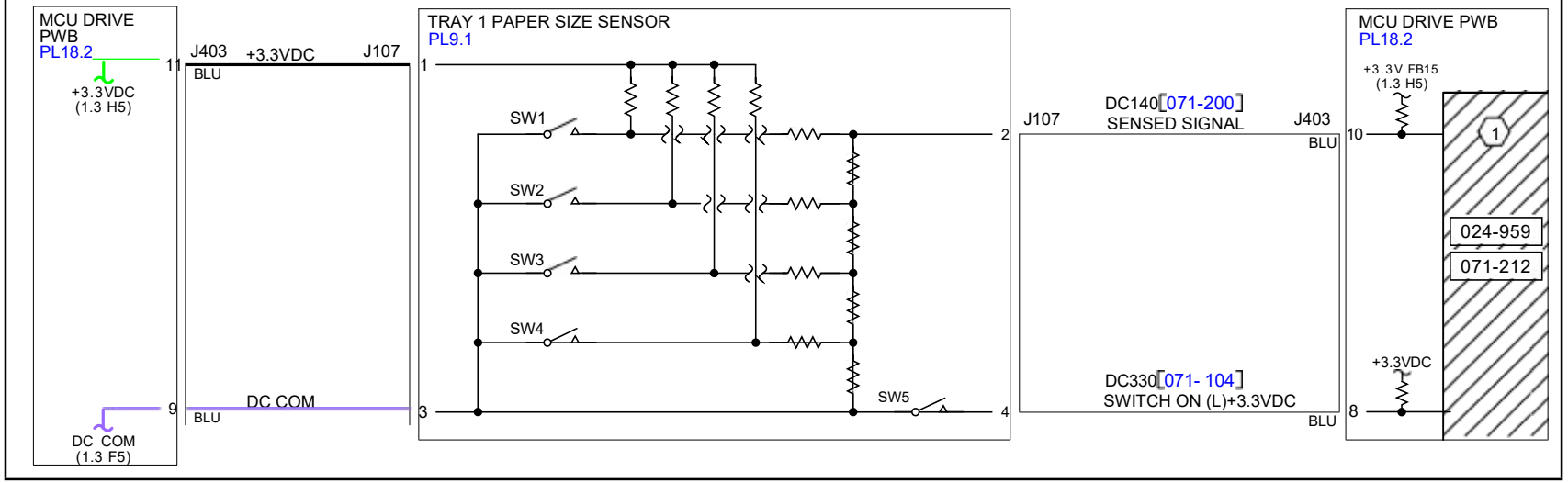


ELECTRICAL COMPONENTS



mnl730606

7.1 TRAY 1 PAPER SIZE SENSING



FAIL CODE

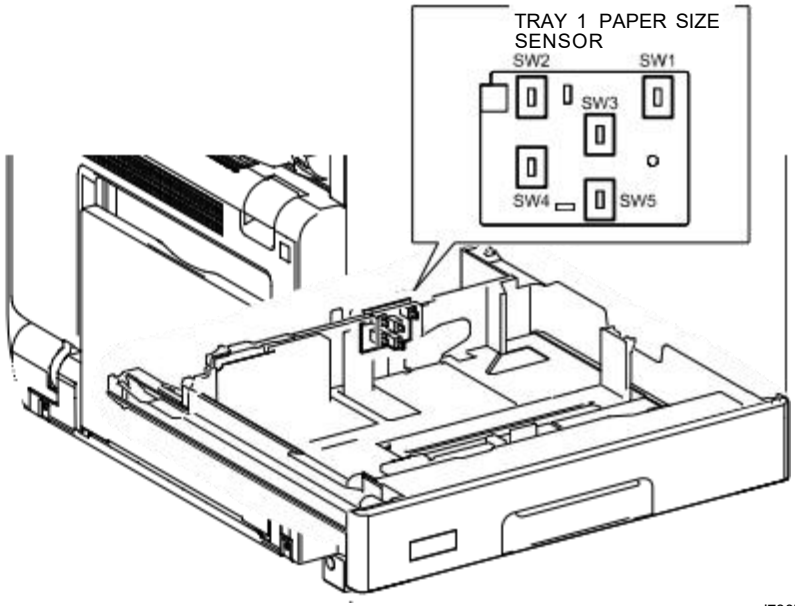
024-959
Tray 1 Paper Size Error

071-212
Tray 1 Paper Size Sensor Broken

NOTE: (1) Paper size is detected based on the voltage value according to the combined resistance of the Paper Size Sensor, as well as ON/OFF status of the SW 5.
The SW ON/OFF pattern, voltage value, and AD value for each paper size are as shown below:
(Any other combinations are treated as Unknown Size.)

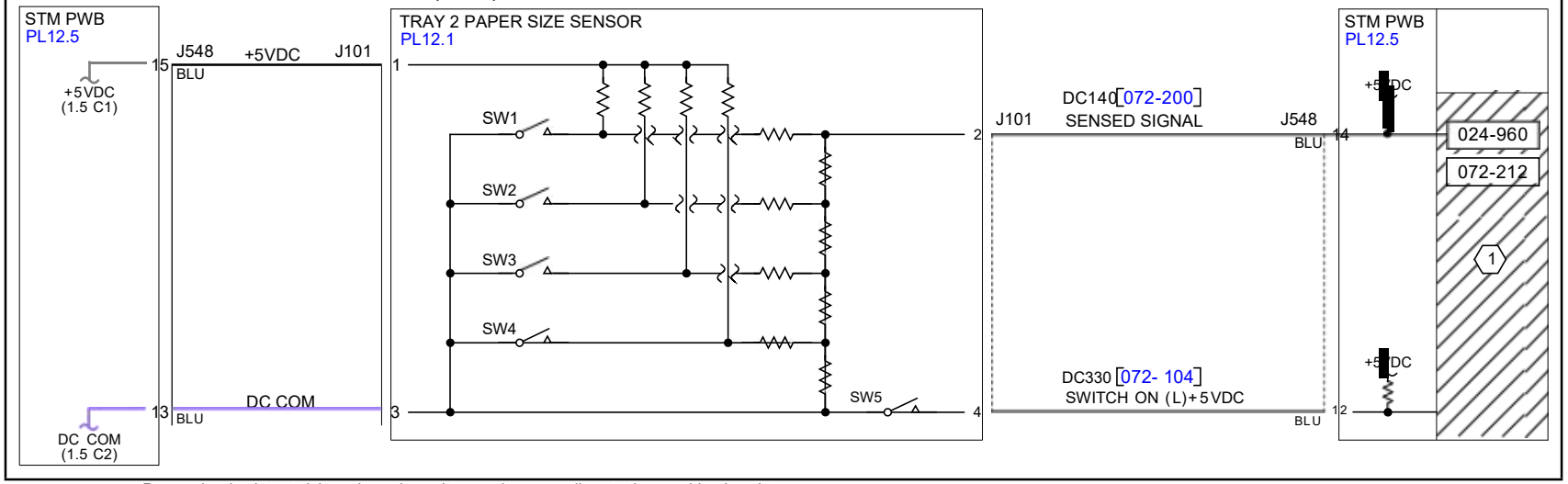
用紙サイズ	SW1	SW2	SW3	SW4	SW5	Voltage (V) (J403-10)	AD Value DC140[071-200]
No Tray	OFF	OFF	OFF	OFF	OFF	3.085±0.066	922-989
A5S/5.5"X8.5"S	OFF	OFF	ON	OFF	OFF	2.671±0.066	797-857
B5S	OFF	OFF	ON	ON	ON	2.468±0.066	735-796
8.5"X13"S	OFF	ON	OFF	ON	OFF	2.064±0.066	610-671
8.5"X14"S	OFF	ON	OFF	ON	ON		
A4S	OFF	ON	ON	OFF	OFF	1.864±0.066	548-609
8.5"X11"S	OFF	ON	ON	OFF	ON		
A4L	ON	OFF	ON	OFF	OFF	1.079±0.066	304-365
A3S	ON	OFF	ON	ON	OFF	0.881±0.066	244-303
B5L/7.25"X10.5"L	ON	ON	OFF	OFF	ON	0.691±0.066	184-243
8KS(FBAP)	ON	ON	OFF	ON	OFF	0.493±0.066	124-183
B4S	ON	ON	OFF	ON	ON		
8.5"X11"L	ON	ON	ON	OFF	OFF	0.300±0.066	64-123
16KL(FBAP)	ON	ON	ON	OFF	ON		
11"X17"S	ON	ON	ON	ON	ON	0.106±0.066	0-63

ELECTRICAL COMPONENTS



mnl730701

7.2 TRAY 2 PAPER SIZE SENSING (STM)



FAIL CODE

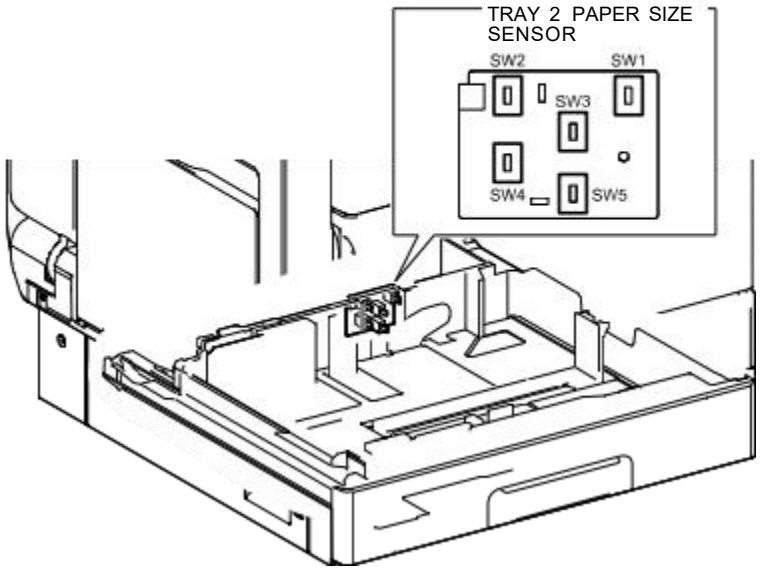
024-960
Tray 2 Paper Size Error

072-212
Tray 2 Paper Size Sensor Broken

NOTE: (1) Paper size is detected based on the voltage value according to the combined resistance of the Paper Size Sensor, as well as ON/OFF status of the SW 5.
The SW ON/OFF pattern, voltage value, and AD value for each paper size are as shown below:
(Any other combinations are treated as Unknown Size.)

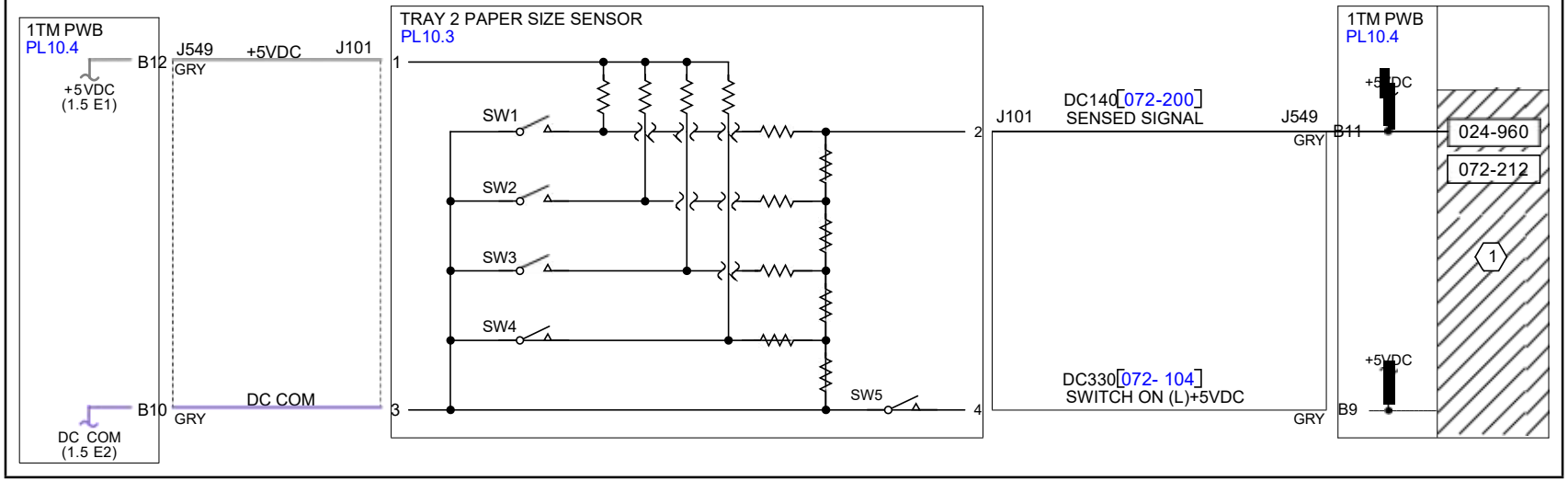
Paper Size	SW1	SW2	SW3	SW4	SW5	Voltage (V) (J548-14)	AD Value DC140[072-200]
No Tray	OFF	OFF	OFF	OFF	OFF	4.59±0.03	237-247
A5S/5.5"X8.5"S	OFF	OFF	ON	OFF	OFF	3.97±0.03	199-214
B5S	OFF	OFF	ON	ON	ON	3.69±0.03	184-198
8.5"X13"S	OFF	ON	OFF	ON	OFF	3.07±0.03	153-167
8.5"X14"S	OFF	ON	OFF	ON	ON		
A4S	OFF	ON	ON	OFF	OFF	2.75±0.03	137-152
8.5"X11"S	OFF	ON	ON	OFF	ON		
8"X10"S	OFF	ON	ON	ON	ON	2.44±0.03	122-136
A4L	ON	OFF	ON	OFF	OFF	1.61±0.03	77-91
A3S	ON	OFF	ON	ON	OFF	1.31±0.03	61-76
B5L/7.25"X10.5"L	ON	ON	OFF	OFF	ON	1.03±0.03	46-60
8KS(FBAP)	ON	ON	OFF	ON	OFF	0.73±0.03	31-45
B4S	ON	ON	OFF	ON	ON		
8.5"X11"L	ON	ON	ON	OFF	OFF	0.45±0.03	16-30
16KL(FBAP)	ON	ON	ON	OFF	ON		
11"X17"S	ON	ON	ON	ON	ON	0.16±0.03	0-15

ELECTRICAL COMPONENTS



mnl730702

7.3 TRAY 2 PAPER SIZE SENSING (1TM)



FAIL CODE

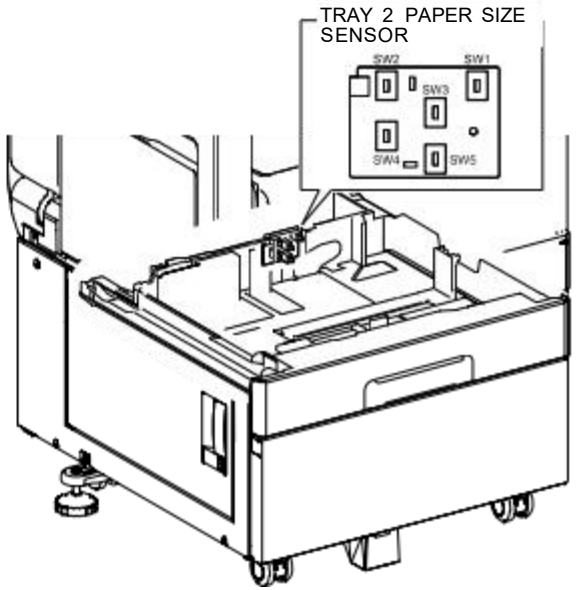
024-960
Tray 2 Paper Size Error

072-212
Tray 2 Paper Size Sensor Broken

NOTE: (1) Paper size is detected based on the voltage value according to the combined resistance of the Paper Size Sensor, as well as ON/OFF status of the SW 5.
The SW ON/OFF pattern, voltage value, and AD value for each paper size are as shown below:
(Any other combinations are treated as Unknown Size.)

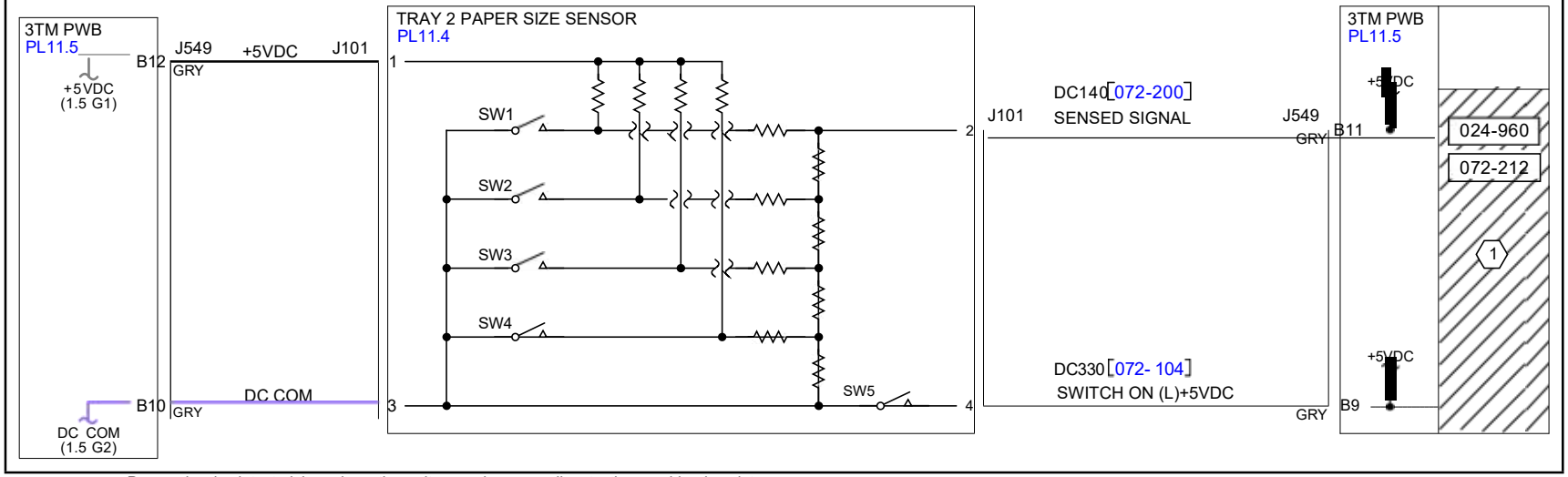
Paper Size	SW1	SW2	SW3	SW4	SW5	Voltage (V) (J549-B11)	AD Value DC140[072-200]
No Tray	OFF	OFF	OFF	OFF	OFF	4.59±0.03	237-247
A5S/5.5"X8.5"S	OFF	OFF	ON	OFF	OFF	3.97±0.03	199-214
B5S	OFF	OFF	ON	ON	ON	3.69±0.03	184-198
8.5"X13"S	OFF	ON	OFF	ON	OFF	3.07±0.03	153-167
8.5"X14"S	OFF	ON	OFF	ON	ON		
A4S	OFF	ON	ON	OFF	OFF	2.75±0.03	137-152
8.5"X11"S	OFF	ON	ON	OFF	ON		
8"X10"S	OFF	ON	ON	ON	ON	2.44±0.03	122-136
A4L	ON	OFF	ON	OFF	OFF	1.61±0.03	77-91
A3S	ON	OFF	ON	ON	OFF	1.31±0.03	61-76
B5L/7.25"X10.5"L	ON	ON	OFF	OFF	ON	1.03±0.03	46-60
8KS(FBAP)	ON	ON	OFF	ON	OFF	0.73±0.03	31-45
B4S	ON	ON	OFF	ON	ON		
8.5"X11"L	ON	ON	ON	OFF	OFF	0.45±0.03	16-30
16KL(FBAP)	ON	ON	ON	OFF	ON		
11"X17"S	ON	ON	ON	ON	ON	0.16±0.03	0-15

ELECTRICAL COMPONENTS



mnl730703

7.4 TRAY 2 PAPER SIZE SENSING (3TM)



FAIL CODE

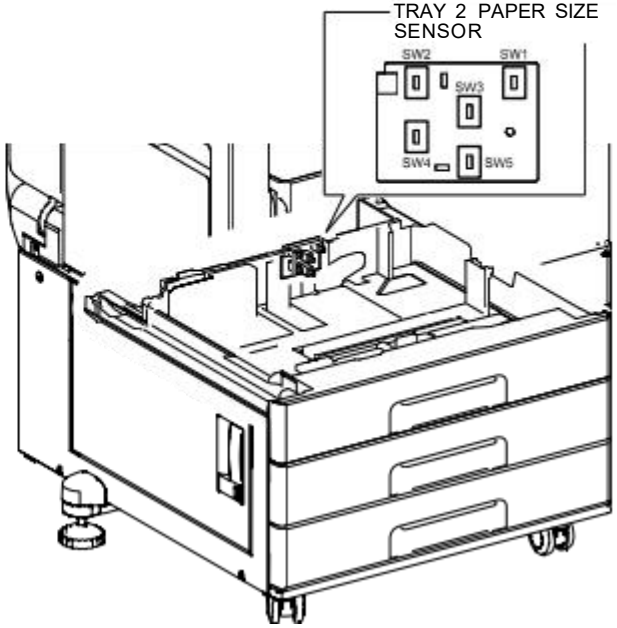
024-960
Tray 2 Paper Size Error

072-212
Tray 2 Paper Size Sensor Broken

NOTE: (1) Paper size is detected based on the voltage value according to the combined resistance of the Paper Size Sensor, as well as ON/OFF status of the SW 5.
The SW ON/OFF pattern, voltage value, and AD value for each paper size are as shown below:
(Any other combinations are treated as Unknown Size.)

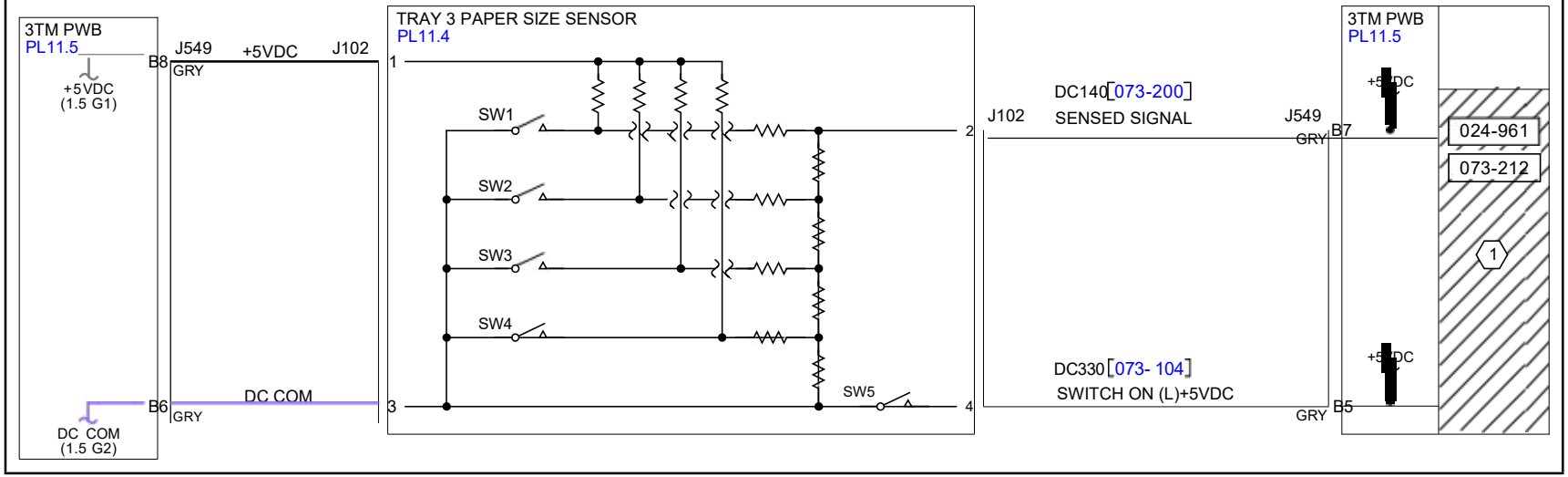
Paper Size	SW1	SW2	SW3	SW4	SW5	Voltage (V) (J549-B11)	AD Value DC140[072-200]
No Tray	OFF	OFF	OFF	OFF	OFF	4.59±0.03	237-247
A5S/5.5"X8.5"S	OFF	OFF	ON	OFF	OFF	3.97±0.03	199-214
B5S	OFF	OFF	ON	ON	ON	3.69±0.03	184-198
8.5"X13"S	OFF	ON	OFF	ON	OFF	3.07±0.03	153-167
8.5"X14"S	OFF	ON	OFF	ON	ON		
A4S	OFF	ON	ON	OFF	OFF	2.75±0.03	137-152
8.5"X11"S	OFF	ON	ON	OFF	ON		
8"X10"S	OFF	ON	ON	ON	ON	2.44±0.03	122-136
A4L	ON	OFF	ON	OFF	OFF	1.61±0.03	77-91
A3S	ON	OFF	ON	ON	OFF	1.31±0.03	61-76
B5L/7.25"X10.5"L	ON	ON	OFF	OFF	ON	1.03±0.03	46-60
8KS(FBAP)	ON	ON	OFF	ON	OFF	0.73±0.03	31-45
B4S	ON	ON	OFF	ON	ON		
8.5"X11"L	ON	ON	ON	OFF	OFF	0.45±0.03	16-30
16KL(FBAP)	ON	ON	ON	OFF	ON		
11"X17"S	ON	ON	ON	ON	ON	0.16±0.03	0-15

ELECTRICAL COMPONENTS



mnl730704

7.5 TRAY 3 PAPER SIZE SENSING (3TM)



FAIL CODE

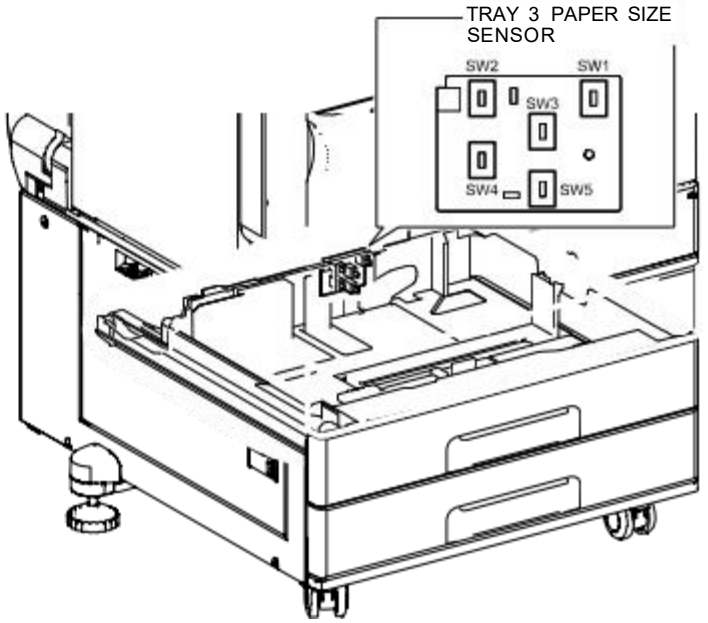
024-961
Tray 3 Paper Size Error

073-212
Tray 3 Paper Size Sensor Broken

NOTE: (1) Paper size is detected based on the voltage value according to the combined resistance of the Paper Size Sensor, as well as ON/OFF status of the SW 5.
The SW ON/OFF pattern, voltage value, and AD value for each paper size are as shown below:
(Any other combinations are treated as Unknown Size.)

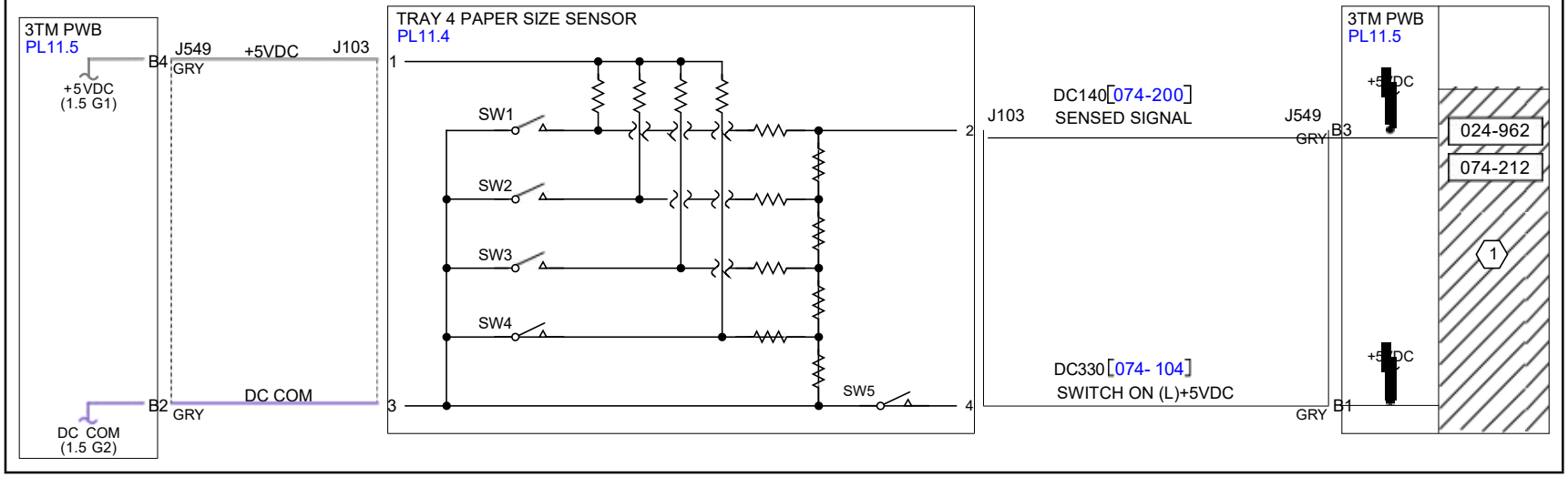
Paper Size	SW1	SW2	SW3	SW4	SW5	Voltage (V) (J549-B7)	AD Value DC140[073-200]
No Tray	OFF	OFF	OFF	OFF	OFF	4.59±0.03	237-247
A5S/5.5"X8.5"S	OFF	OFF	ON	OFF	OFF	3.97±0.03	199-214
B5S	OFF	OFF	ON	ON	ON	3.69±0.03	184-198
8.5"X13"S	OFF	ON	OFF	ON	OFF	3.07±0.03	153-167
8.5"X14"S	OFF	ON	OFF	ON	ON		
A4S	OFF	ON	ON	OFF	OFF	2.75±0.03	137-152
8.5"X11"S	OFF	ON	ON	OFF	ON		
8"X10"S	OFF	ON	ON	ON	ON	2.44±0.03	122-136
A4L	ON	OFF	ON	OFF	OFF	1.61±0.03	77-91
A3S	ON	OFF	ON	ON	OFF	1.31±0.03	61-76
B5L/7.25"X10.5"L	ON	ON	OFF	OFF	ON	1.03±0.03	46-60
8KS(FBAP)	ON	ON	OFF	ON	OFF	0.73±0.03	31-45
B4S	ON	ON	OFF	ON	ON		
8.5"X11"L	ON	ON	ON	OFF	OFF	0.45±0.03	16-30
16KL(FBAP)	ON	ON	ON	OFF	ON		
11"X17"S	ON	ON	ON	ON	ON	0.16±0.03	0-15

ELECTRICAL COMPONENTS



mnl730705

7.6 TRAY 4 PAPER SIZE SENSING (3TM)



FAIL CODE

024-962

Tray 4 Paper Size Error

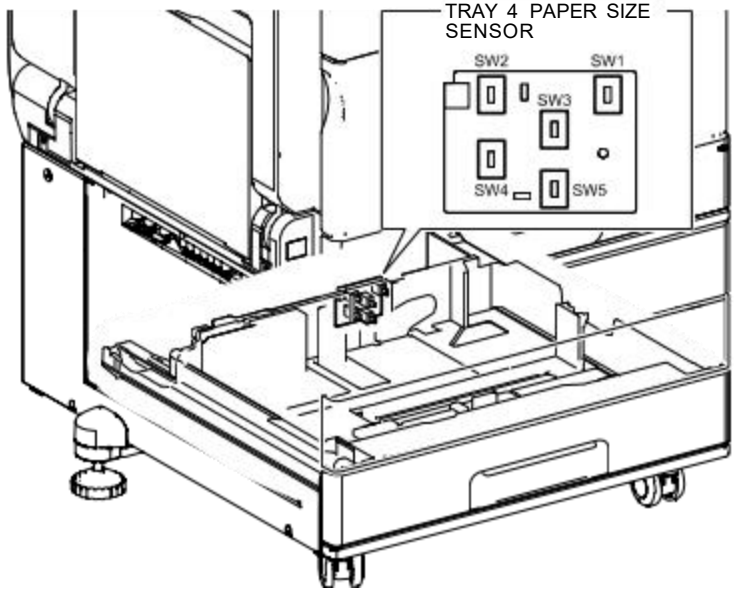
074-212

Tray 4 Paper Size Sensor Broken

NOTE: (1) Paper size is detected based on the voltage value according to the combined resistance of the Paper Size Sensor, as well as ON/OFF status of the SW 5.
The SW ON/OFF pattern, voltage value, and AD value for each paper size are as shown below:
(Any other combinations are treated as Unknown Size.)

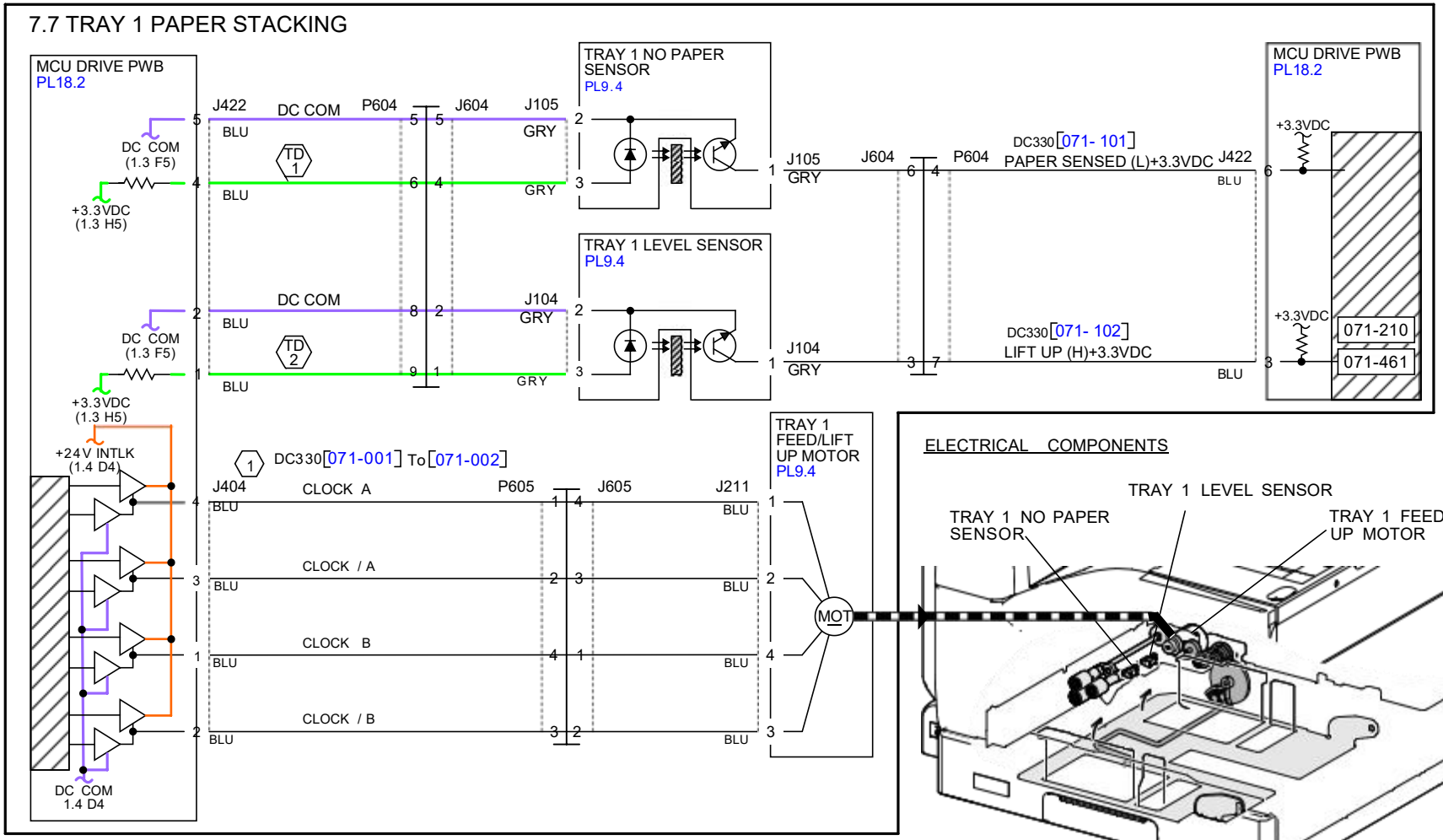
Paper Size	SW1	SW2	SW3	SW4	SW5	Voltage (V) (J549-B3)	AD Value DC140[074-200]
No Tray	OFF	OFF	OFF	OFF	OFF	4.59±0.03	237-247
A5S/5.5"X8.5"S	OFF	OFF	ON	OFF	OFF	3.97±0.03	199-214
B5S	OFF	OFF	ON	ON	ON	3.69±0.03	184-198
8.5"X13"S	OFF	ON	OFF	ON	OFF	3.07±0.03	153-167
8.5"X14"S	OFF	ON	OFF	ON	ON		
A4S	OFF	ON	ON	OFF	OFF	2.75±0.03	137-152
8.5"X11"S	OFF	ON	ON	OFF	ON		
8"X10"S	OFF	ON	ON	ON	ON	2.44±0.03	122-136
A4L	ON	OFF	ON	OFF	OFF	1.61±0.03	77-91
A3S	ON	OFF	ON	ON	OFF	1.31±0.03	61-76
B5L/7.25"X10.5"L	ON	ON	OFF	OFF	ON	1.03±0.03	46-60
8KS(FBAP)	ON	ON	OFF	ON	OFF	0.73±0.03	31-45
B4S	ON	ON	OFF	ON	ON		
8.5"X11"L	ON	ON	ON	OFF	OFF	0.45±0.03	16-30
16KL(FBAP)	ON	ON	ON	OFF	ON		
11"X17"S	ON	ON	ON	ON	ON	0.16±0.03	0-15

ELECTRICAL COMPONENTS



mnl730706

7.7 TRAY 1 PAPER STACKING



NOTE: 1

Operation differs depending on diagnosis code.

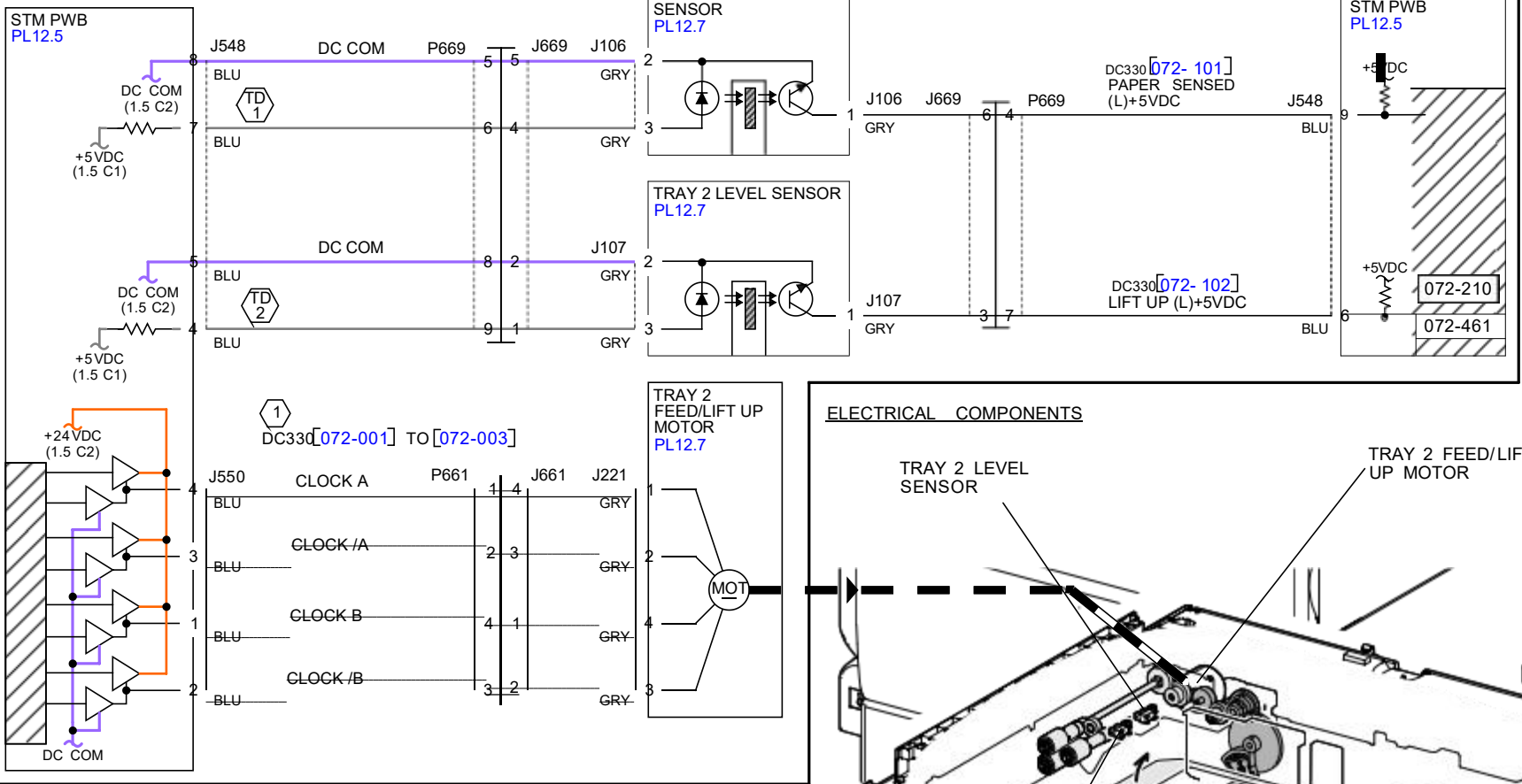
TRAY 1 FEED/LIFT UP MOTOR	Operation
DC330 [071-001]	Rotates the Motor in forward direction. (FEED direction, 1-2-phase excitation)
DC330 [071-002]	Rotates the Motor in reverse direction. (LIFT UP direction, 2-phase excitation) This does not operate if the Level Sensor is ON at the start of the drive.

TD 1 MCU Drive PWB J422-4 (+) GND (-), voltage is +1.2 VDC when sensor is connected

TD 2 MCU Drive PWB J422- 1 (+) GND (-), voltage is +1.2 VDC when sensor is connected

mnl730707

7.8 TRAY 2 PAPER STACKING (STM)

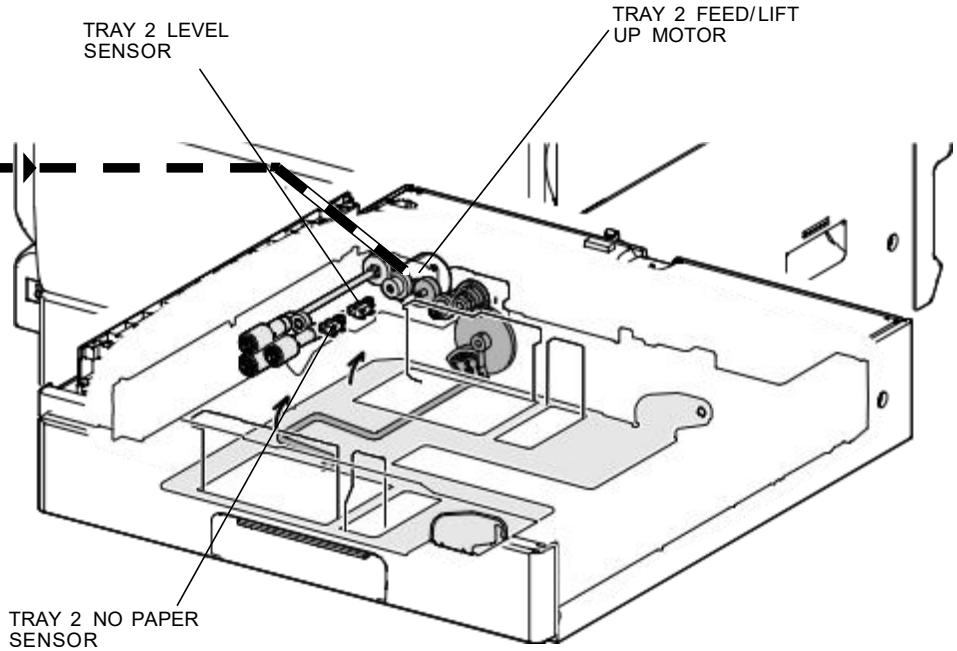


FAIL CODE

072-210	072-461

Tray 2 Lift Up Fail

ELECTRICAL COMPONENTS



NOTE: 1

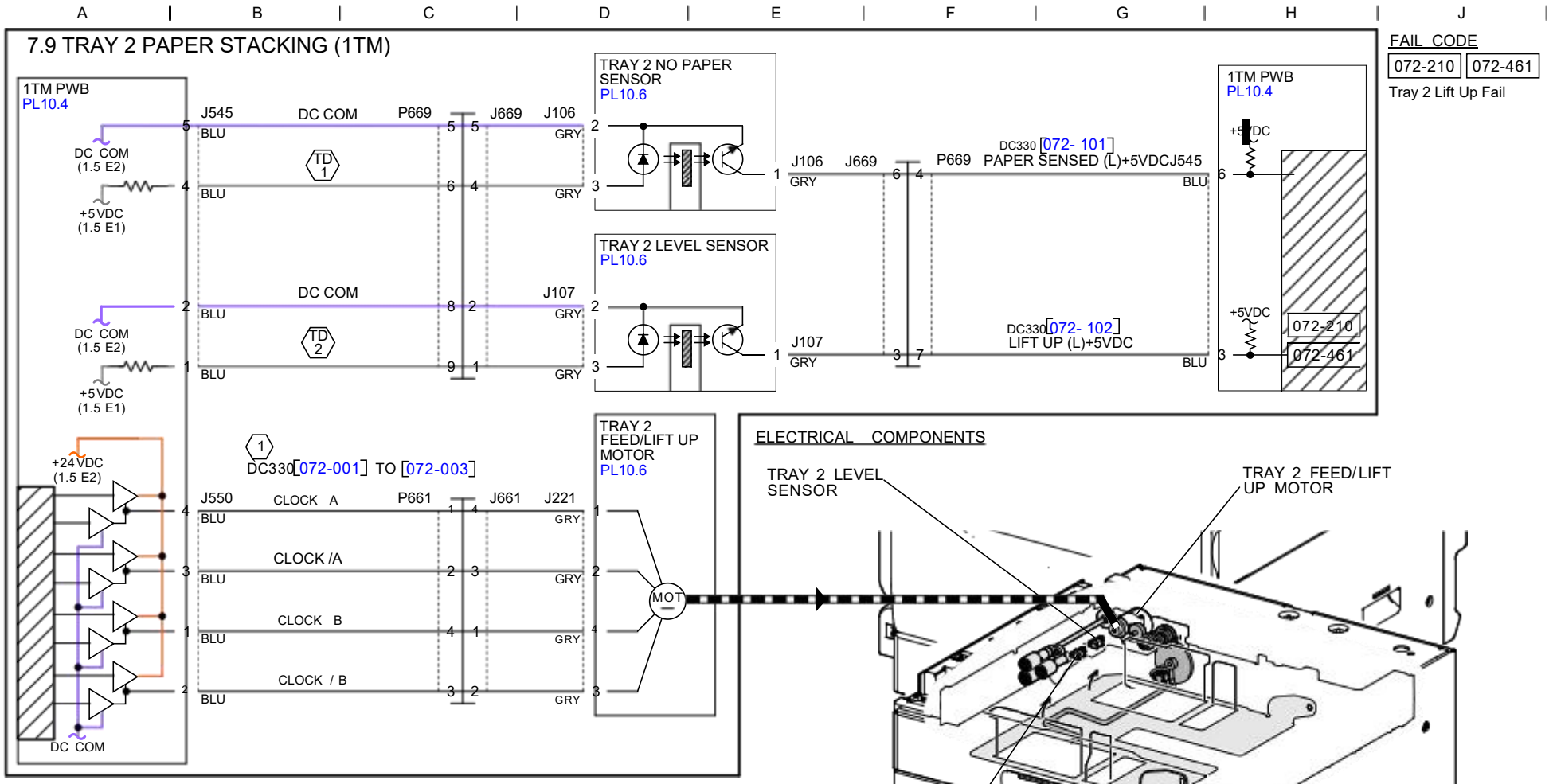
Operation differs depending on diagnosis code.

TRAY 2 FEED/LIFT UP MOTOR	Operation
DC330 [072-001]	Rotates the Motor in forward direction. (FEED direction, 2-phase excitation)
DC330 [072-002]	Rotates the Motor in reverse direction. (LIFT UP direction, 2-phase excitation) This does not operate if the Level Sensor is ON at the start of the drive.
DC330 [072-003]	Rotates the Motor in forward direction. (FEED direction, 1-2-phase excitation)

TD 1 STM PWB J548-7 (+) GND (-), voltage is +1.2 VDC when sensor is connected

TD 2 STM PWB J548-4 (+) GND (-), voltage is +1.2 VDC when sensor is connected

mnl730708



NOTE: 1

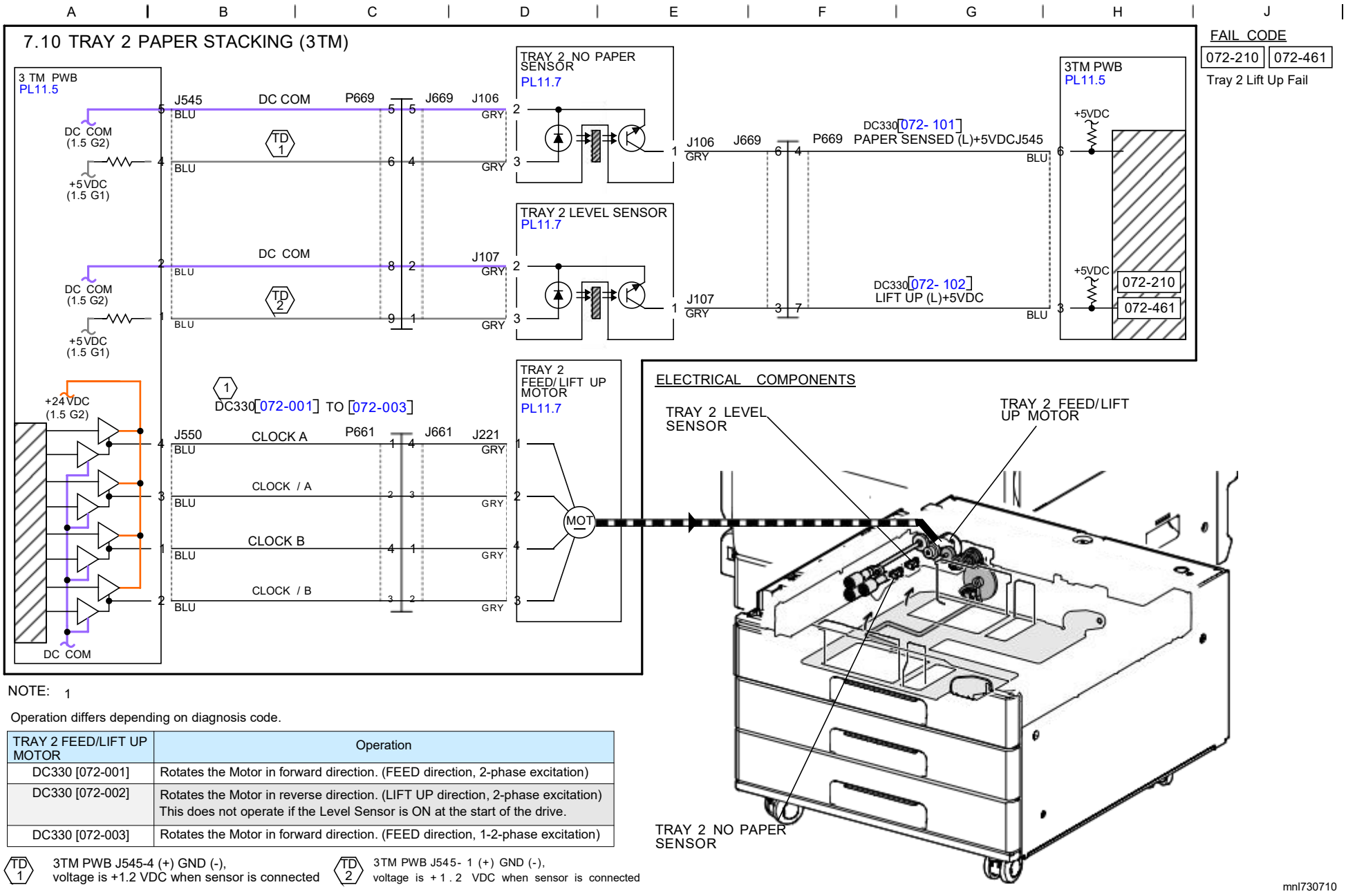
Operation differs depending on diagnosis code.

TRAY 2 FEED/LIFT UP MOTOR	Operation
DC330 [072-001]	Rotates the Motor in forward direction. (FEED direction, 2-phase excitation)
DC330 [072-002]	Rotates the Motor in reverse direction. (LIFT UP direction, 2-phase excitation) This does not operate if the Level Sensor is ON at the start of the drive.
DC330 [072-003]	Rotates the Motor in forward direction. (FEED direction, 1-2-phase excitation)

TD 1 1TM PWB J545-4 (+) GND (-), voltage is +1.2 VDC when sensor is connected

TD 2 1TM PWB J545- 1 (+) GND (-), voltage is +1.2 VDC when sensor is connected

mnl730709



NOTE: 1

Operation differs depending on diagnosis code.

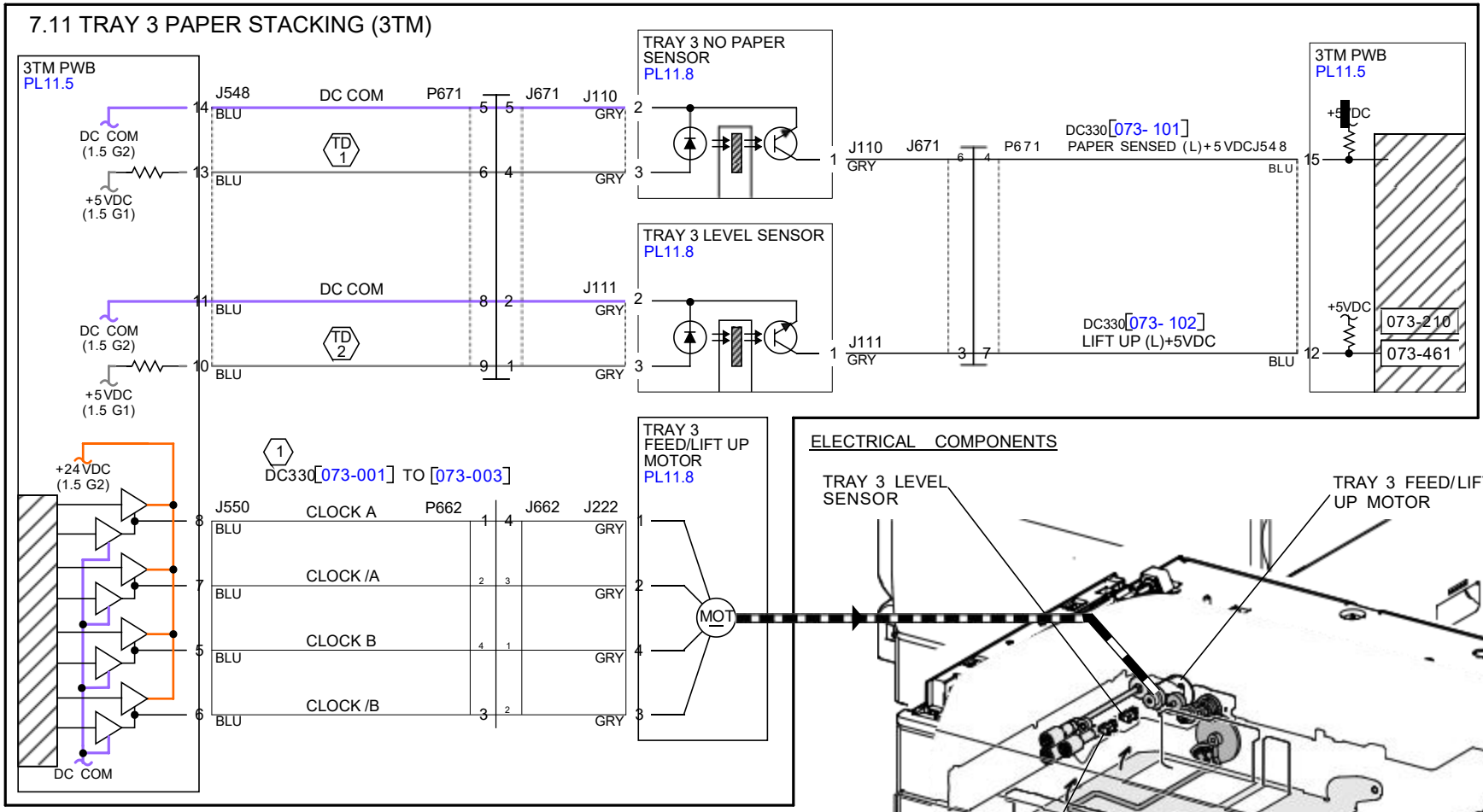
TRAY 2 FEED/LIFT UP MOTOR	Operation
DC330 [072-001]	Rotates the Motor in forward direction. (FEED direction, 2-phase excitation)
DC330 [072-002]	Rotates the Motor in reverse direction. (LIFT UP direction, 2-phase excitation) This does not operate if the Level Sensor is ON at the start of the drive.
DC330 [072-003]	Rotates the Motor in forward direction. (FEED direction, 1-2-phase excitation)

TD 1 3TM PWB J545-4 (+) GND (-), voltage is +1.2 VDC when sensor is connected

TD 2 3TM PWB J545- 1 (+) GND (-), voltage is +1.2 VDC when sensor is connected

mnl730710

7.11 TRAY 3 PAPER STACKING (3TM)

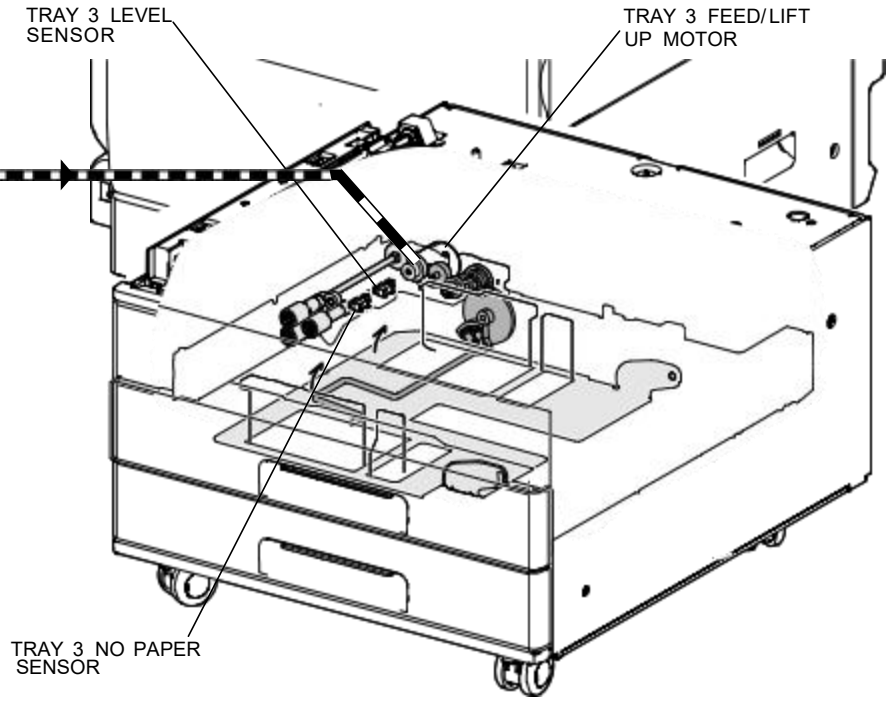


FAIL CODE

073-210	073-461

Tray 3 Lift Up Fail

ELECTRICAL COMPONENTS



NOTE: 1

Operation differs depending on diagnosis code.

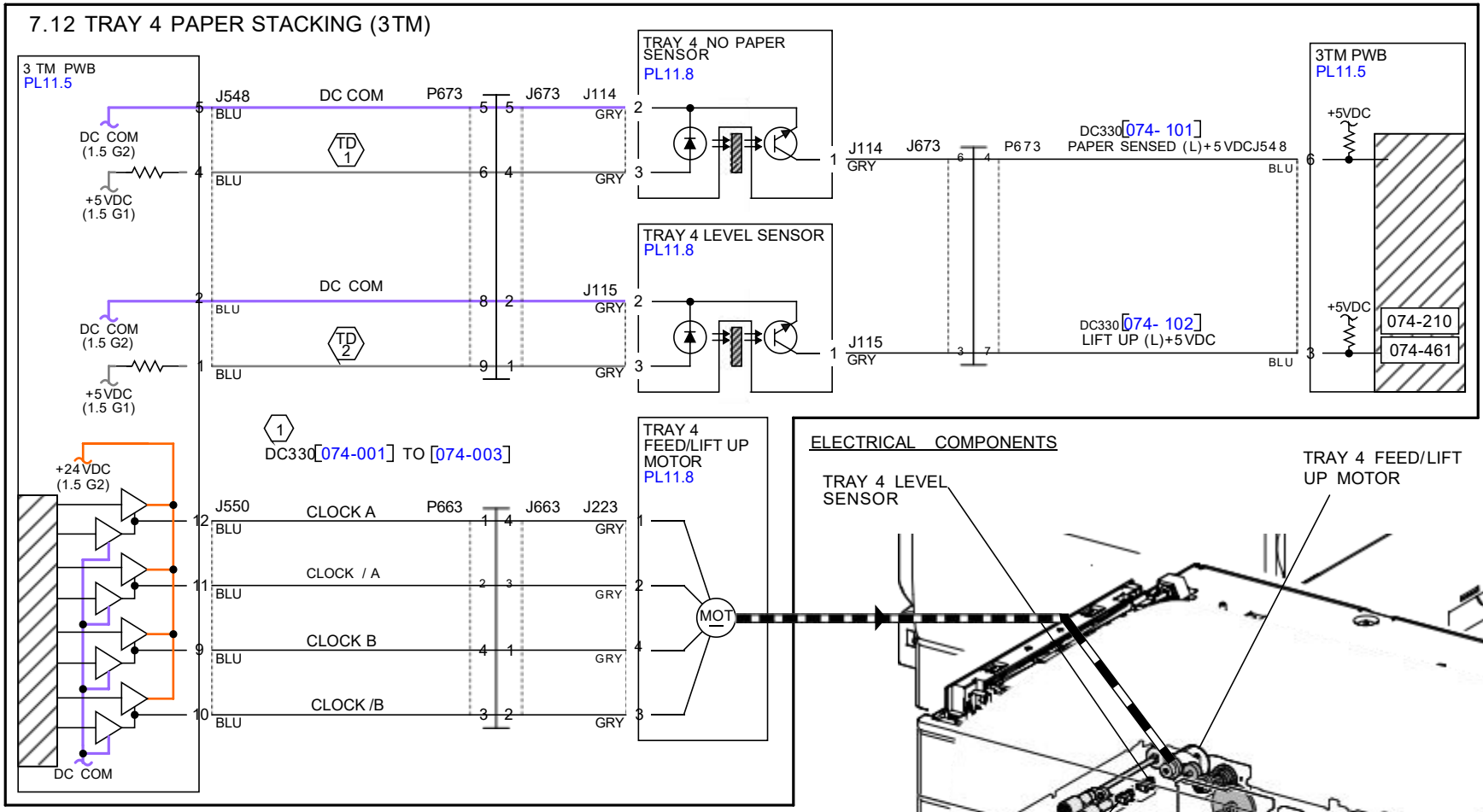
TRAY 3 FEED/LIFT UP MOTOR	Operation
DC330 [073-001]	Rotates the Motor in forward direction. (FEED direction, 2-phase excitation)
DC330 [073-002]	Rotates the Motor in reverse direction. (LIFT UP direction, 2-phase excitation) This does not operate if the Level Sensor is ON at the start of the drive.
DC330 [073-003]	Rotates the Motor in forward direction. (FEED direction, 1-2-phase excitation)

TD 1 3TM PWB J548- 13 (+) GND (-), voltage is +1.2 VDC when sensor is connected

TD 2 3TM PWB J548-10 (+) GND (-), voltage is +1.2 VDC when sensor is connected

mnl730711

7.12 TRAY 4 PAPER STACKING (3TM)

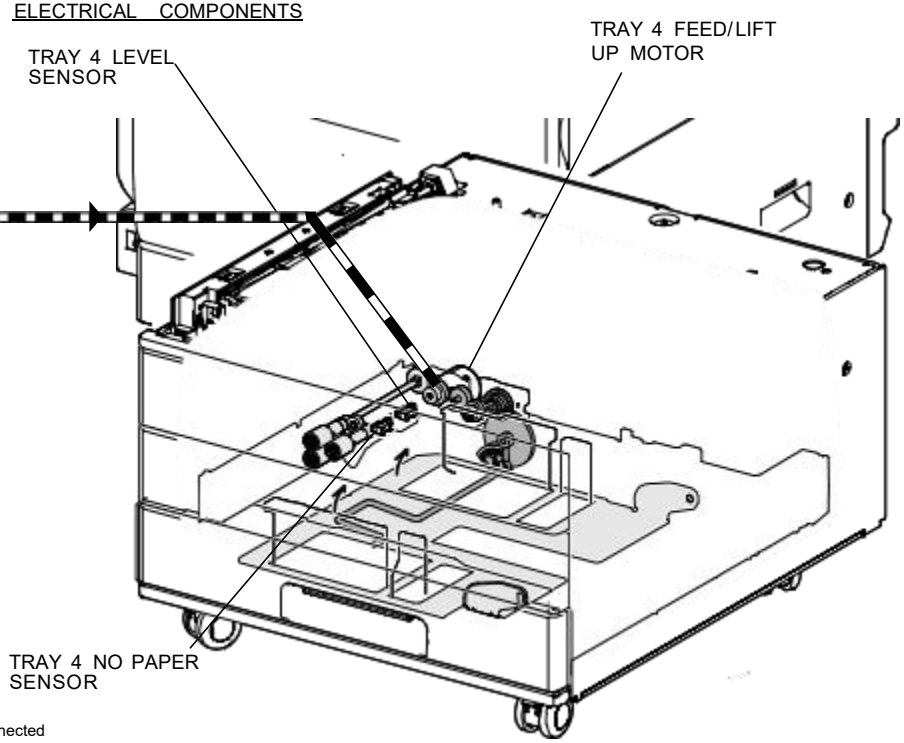


FAIL CODE

074-210	074-461

TRAY 4 Lift Up NG

ELECTRICAL COMPONENTS



NOTE: 1

Operation differs depending on diagnosis code.

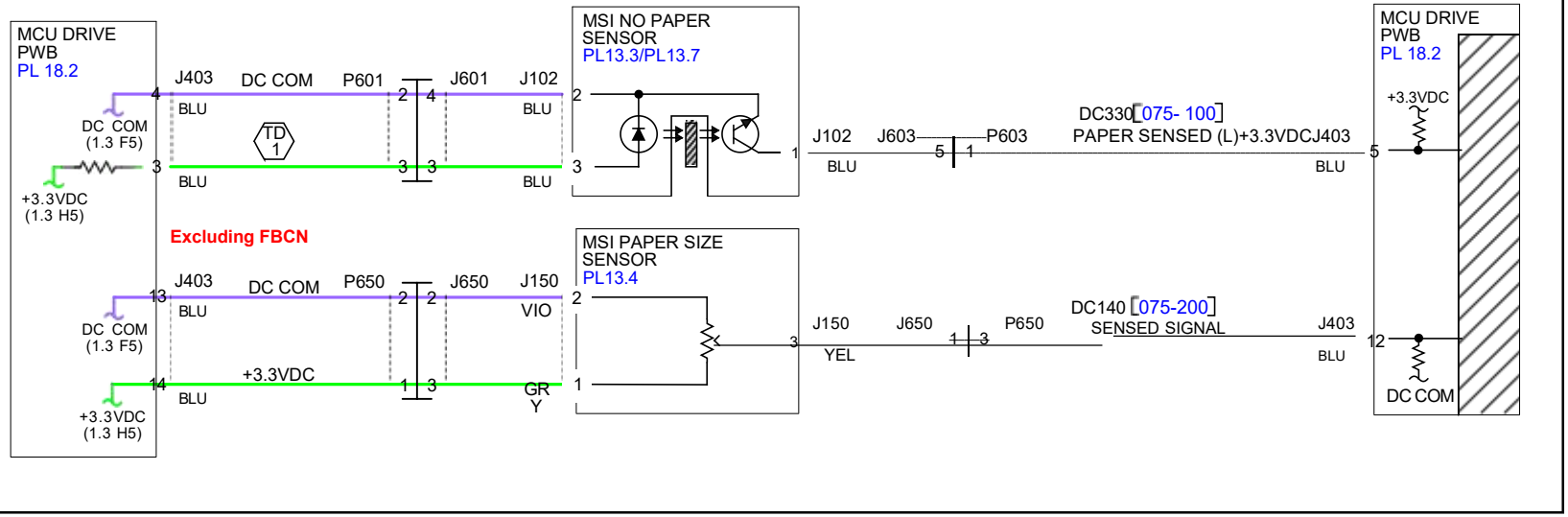
TRAY 4 FEED/LIFT UP MOTOR	Operation
DC330 [074-001]	Rotates the Motor in forward direction. (FEED direction, 2-phase excitation)
DC330 [074-002]	Rotates the Motor in reverse direction. (LIFT UP direction, 2-phase excitation) This does not operate if the Level Sensor is ON at the start of the drive.
DC330 [074-003]	Rotates the Motor in forward direction. (FEED direction, 1-2-phase excitation)

TD 1 3TM PWB J548-4 (+) GND (-), voltage is +1.2 VDC when sensor is connected

TD 2 3TM PWB J548- 1 (+) GND (-), voltage is +1.2 VDC when sensor is connected

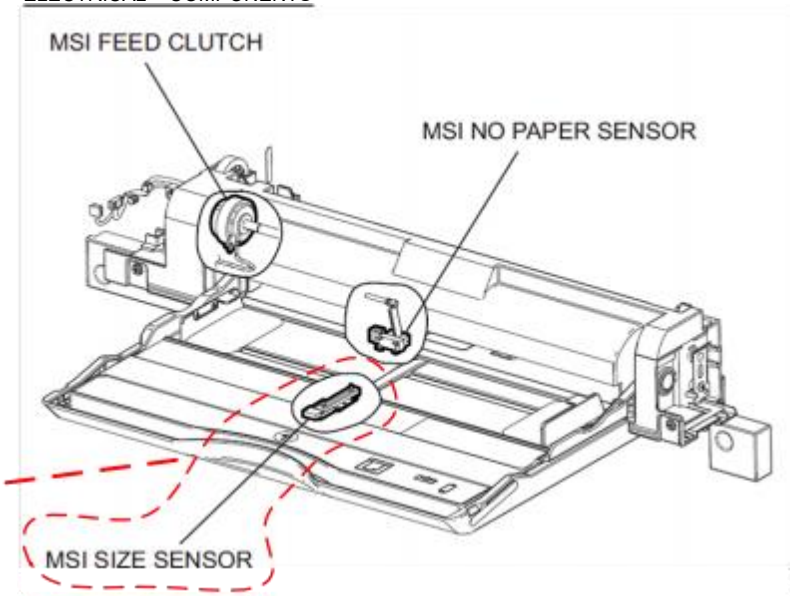
mnl730712

7.13 MSI PAPER SIZE SENSING



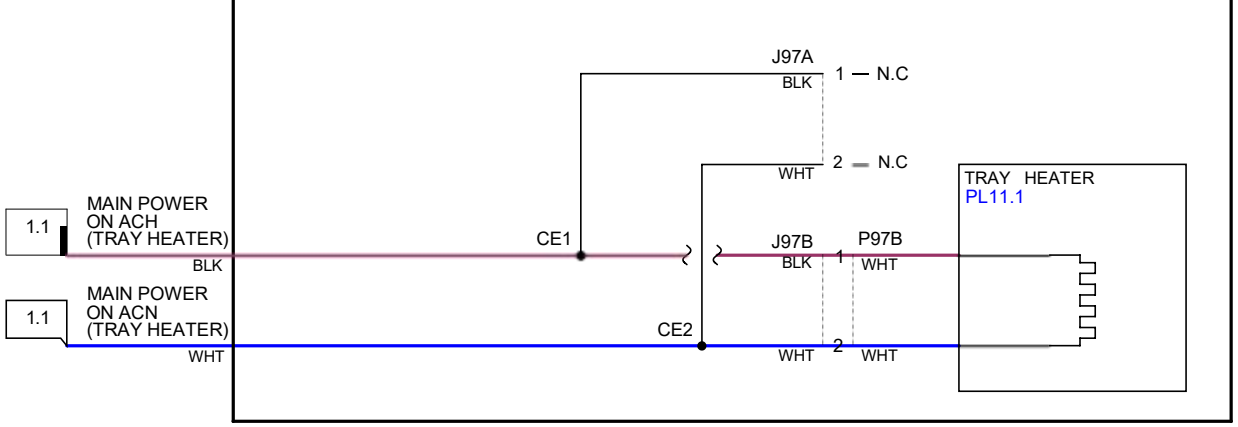
TD 1 MCU Drive PWB J403-3 (+) GND (-), voltage is +1.2 VDC when sensor is connected

ELECTRICAL COMPONENTS

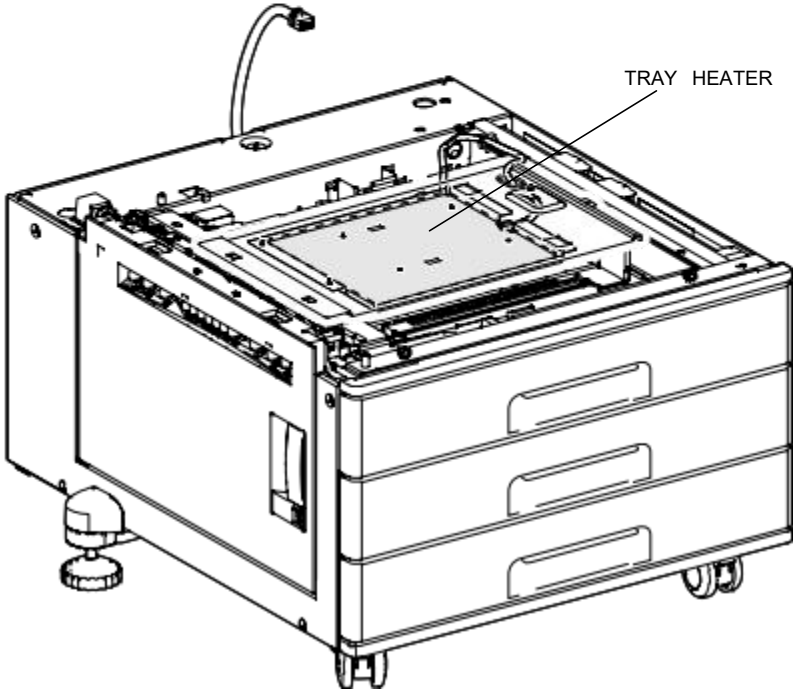


mnl730713

7.14 TRAY HEATER CONTROL (OPTION)

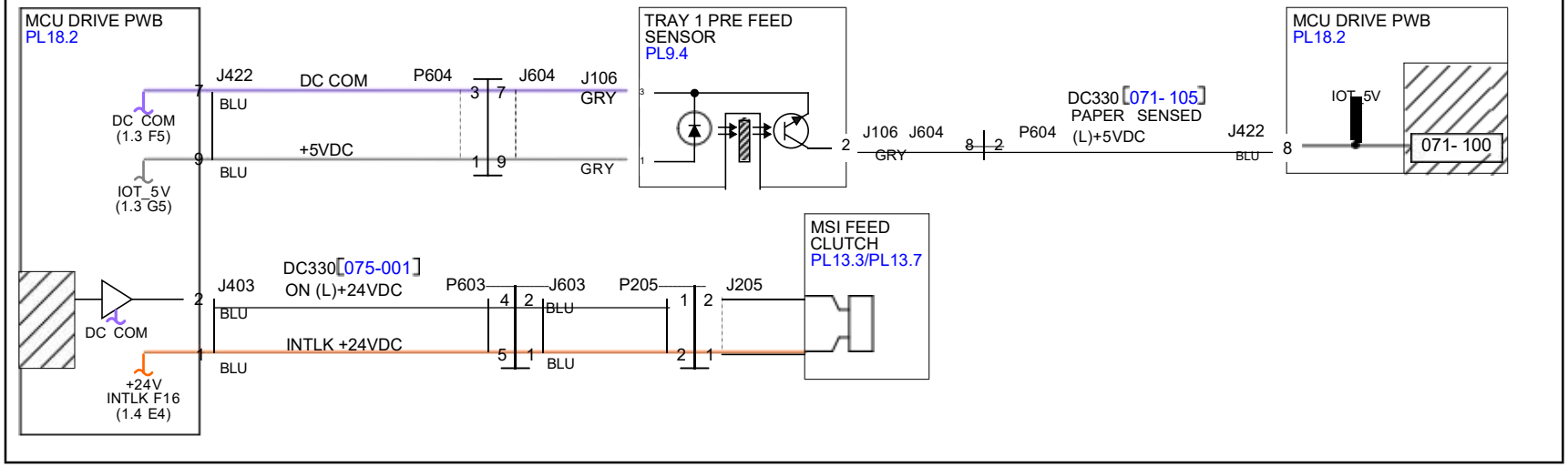


ELECTRICAL COMPONENTS



mnl730714

8.1 TRAY 1 AND MSI PAPER TRANSPORTATION

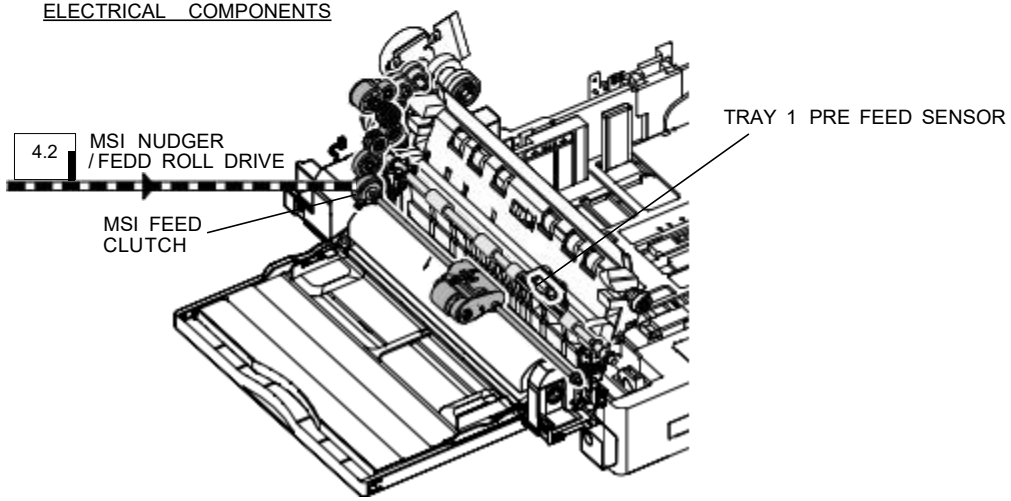


FAIL CODE

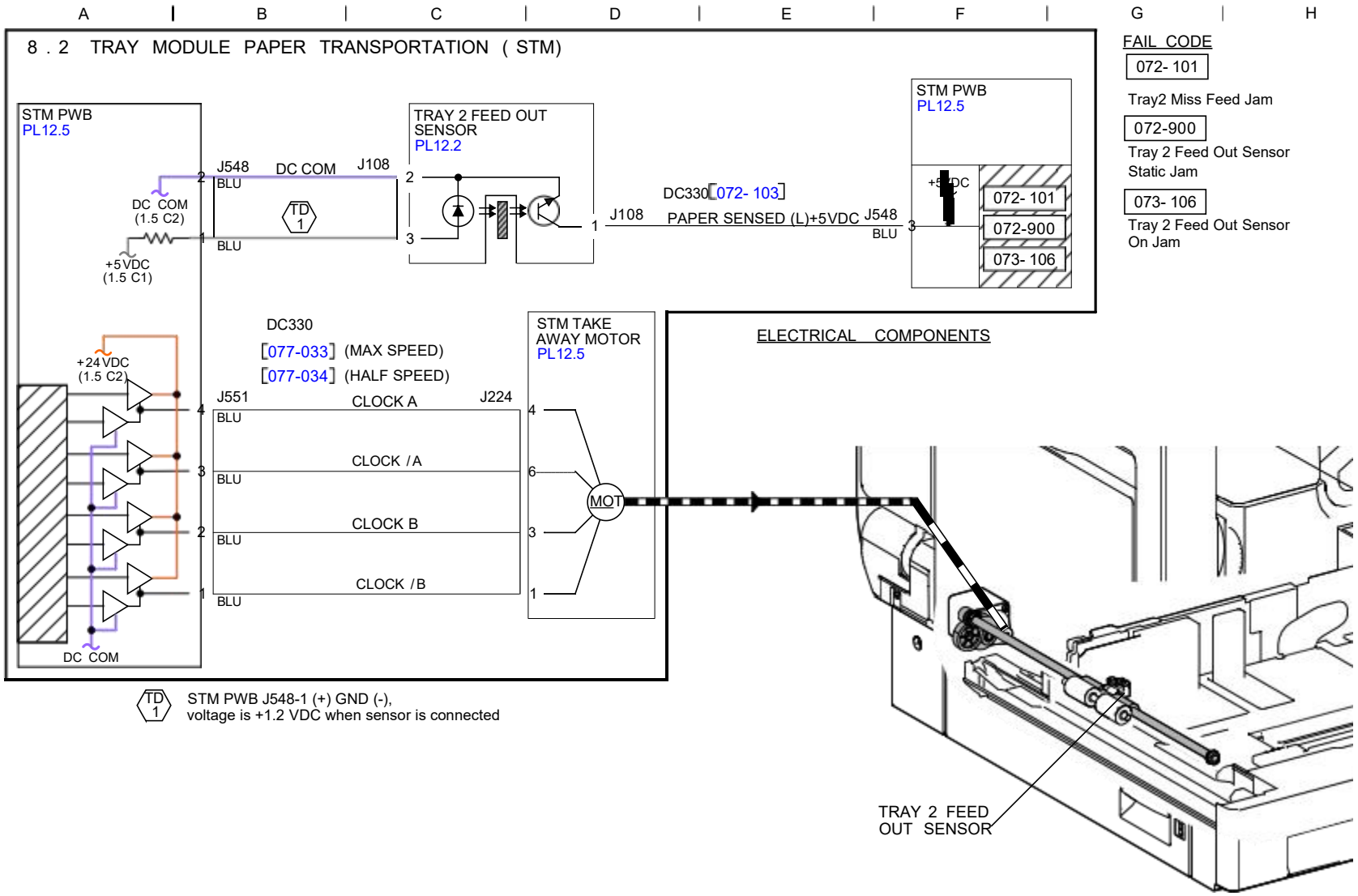
071- 100

Tray 1 Miss Pre Feed Jam

ELECTRICAL COMPONENTS

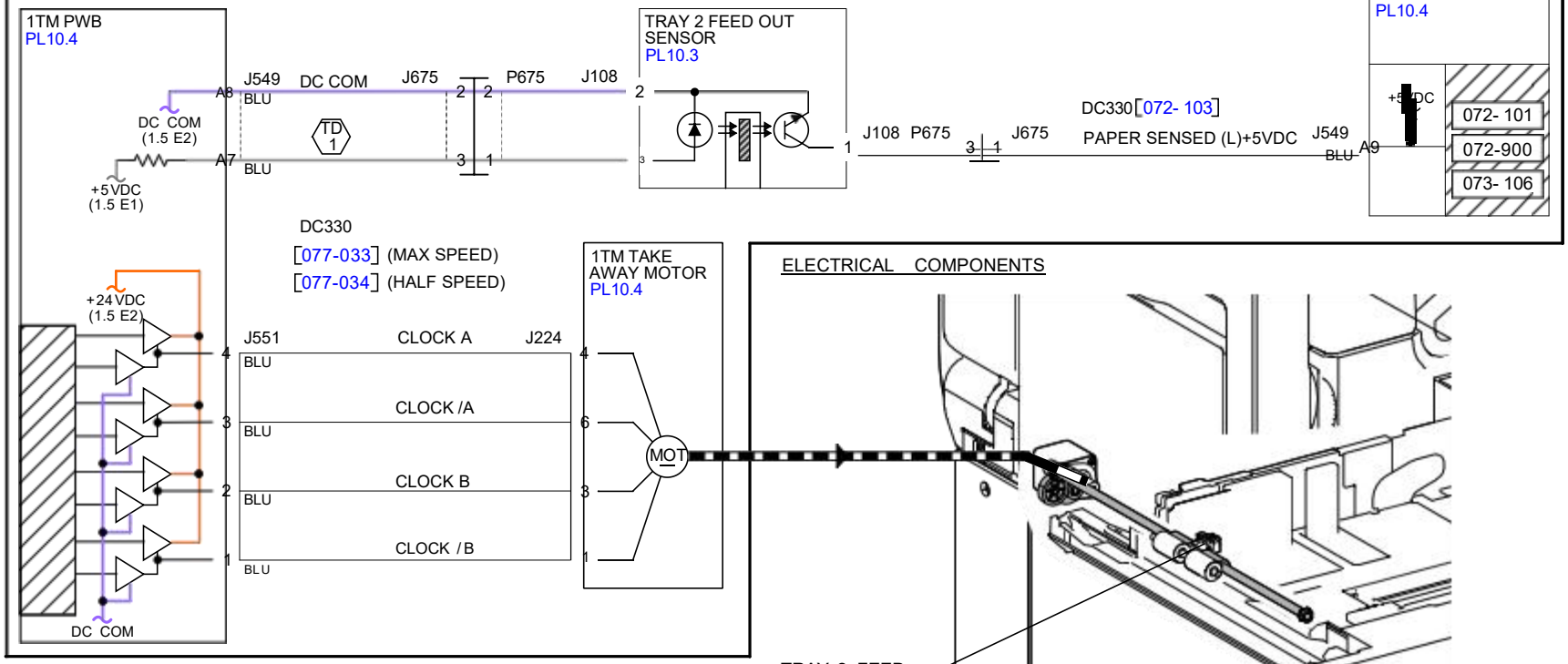


mnl730801

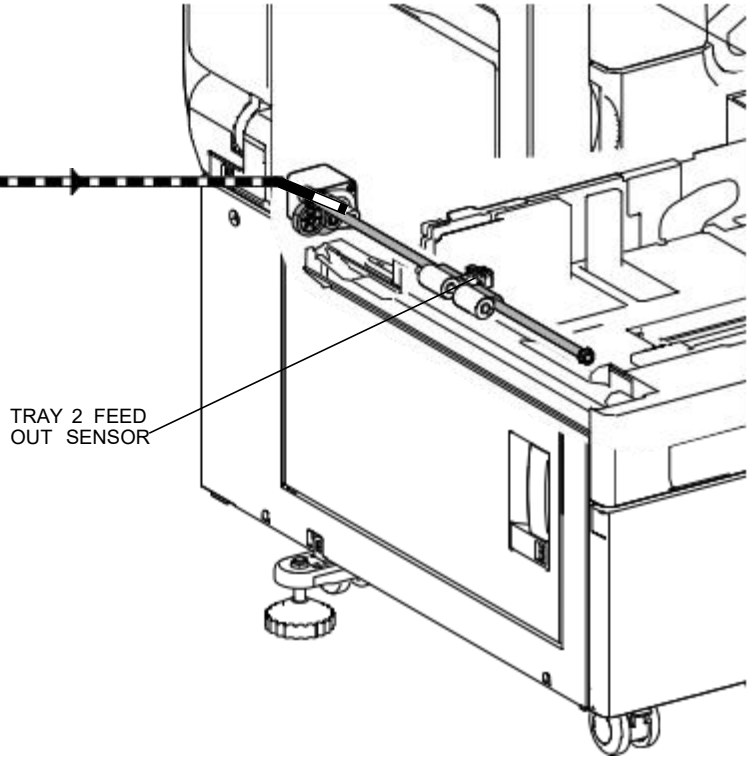

8 . 2 TRAY MODULE PAPER TRANSPORTATION (STM)
STM PWB
PL12.5
DC COM
(1.5 C2)
+5VDC
(1.5 C1)
J548
DC COM
J108
BLU
TD 1
TRAY 2 FEED OUT
SENSOR
PL12.2
DC330 [072- 103]
J108
PAPER SENSED (L)+5VDC
J548
BLU
STM PWB
PL12.5
+5VDC
072- 101
072-900
073- 106
FAIL CODE
072- 101
Tray2 Miss Feed Jam
072-900
Tray 2 Feed Out Sensor
Static Jam
073- 106
Tray 2 Feed Out Sensor
On Jam
+24VDC
(1.5 C2)
DC330
[077-033] (MAX SPEED)
[077-034] (HALF SPEED)
J551
CLOCK A
J224
CLOCK /A
CLOCK B
CLOCK /B
BLU
STM TAKE
AWAY MOTOR
PL12.5
MOT
DC COM
TD 1
STM PWB J548-1 (+) GND (-),
voltage is +1.2 VDC when sensor is connected
ELECTRICAL COMPONENTS
TRAY 2 FEED
OUT SENSOR

mnl730802

8.3 TRAY MODULE PAPER TRANSPORTATION (1TM)



ELECTRICAL COMPONENTS



FAIL CODE

072- 101

Tray2 Miss Feed Jam

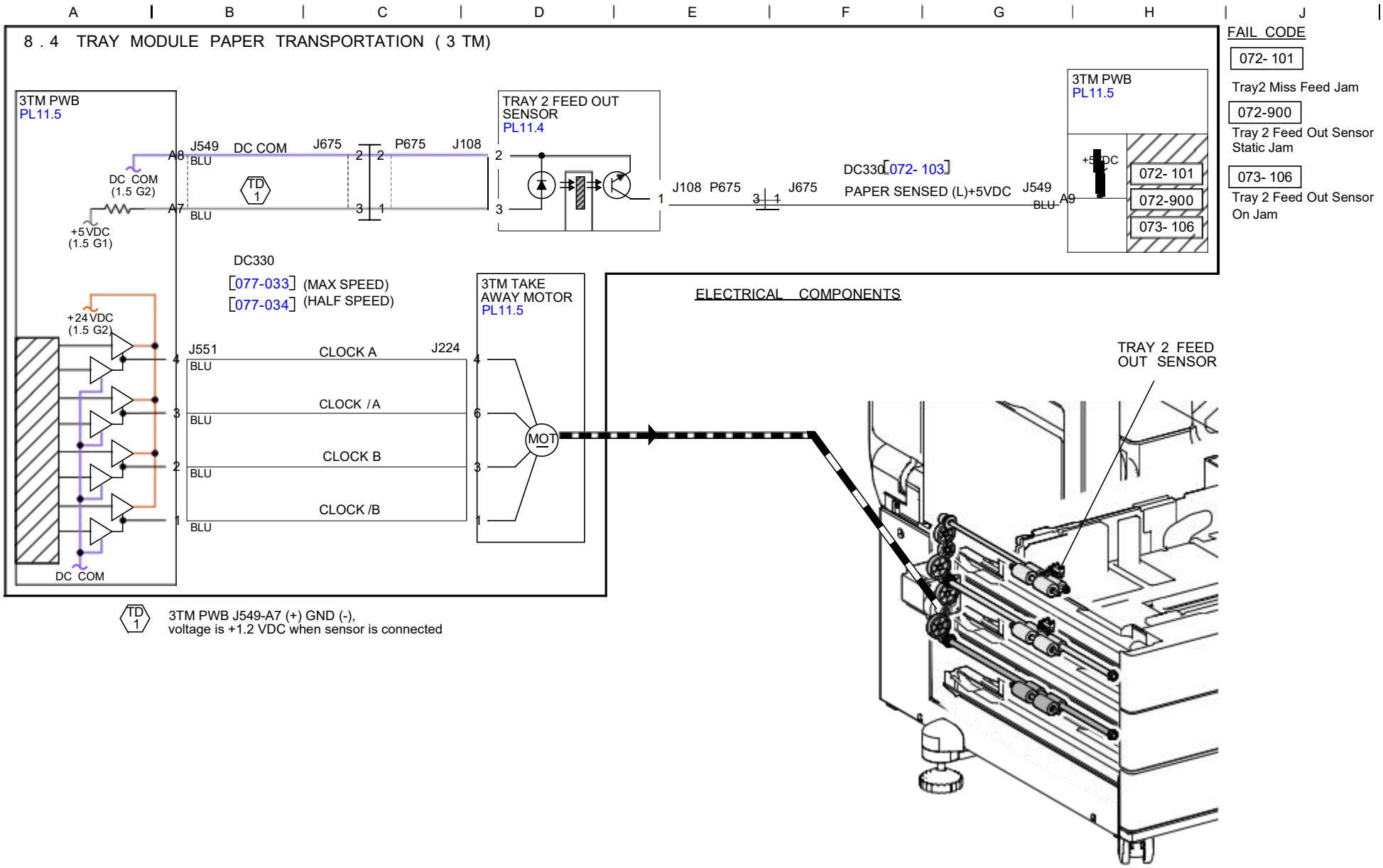
072-900

Tray 2 Feed Out Sensor Static Jam

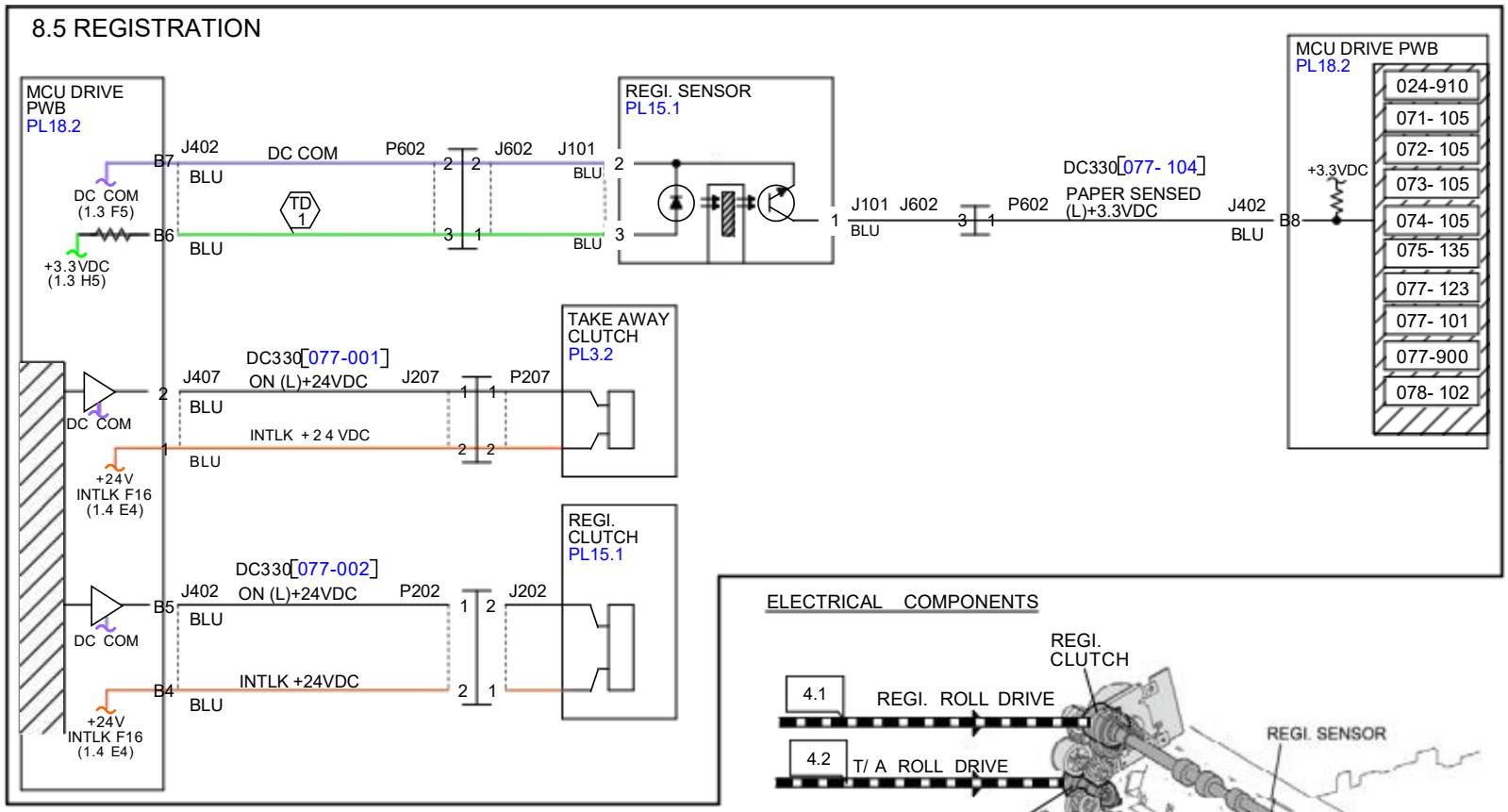
073- 106

Tray 2 Feed Out Sensor On Jam

mnl730803

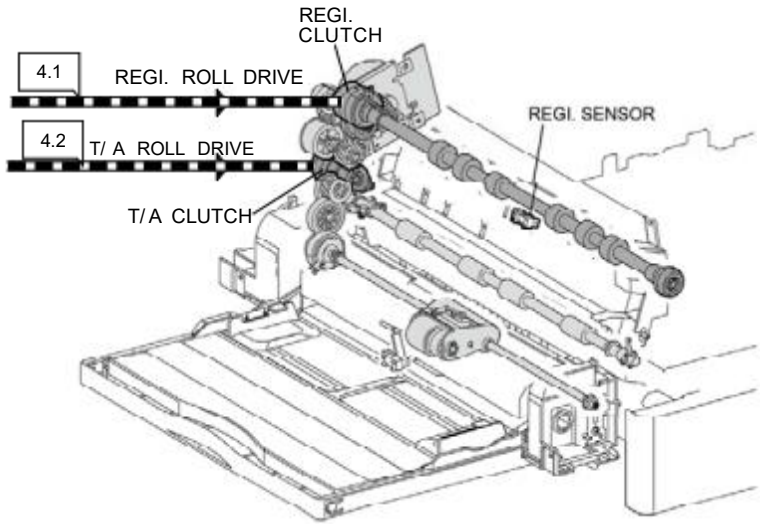

8 . 4 TRAY MODULE PAPER TRANSPORTATION (3 TM)
3TM PWB
PL11.5
DC COM
(1.5 G2)
+5VDC
(1.5 G1)
J549
A8
BLU
DC COM
J675
P675
J108
A7
BLU
TD 1
TRAY 2 FEED OUT SENSOR
PL11.4
J108 P675
J675
DC330 [072- 103]
PAPER SENSED (L)+5VDC
J549
A9
BLU
3TM PWB
PL11.5
+5VDC
072- 101
072-900
073- 106
FAIL CODE
072- 101
Tray2 Miss Feed Jam
072-900
Tray 2 Feed Out Sensor Static Jam
073- 106
Tray 2 Feed Out Sensor On Jam
DC330
[077-033] (MAX SPEED)
[077-034] (HALF SPEED)
+24VDC
(1.5 G2)
J551
CLOCK A
J224
CLOCK /A
CLOCK B
CLOCK /B
BLU
3TM TAKE AWAY MOTOR
PL11.5
MOT
DC COM
ELECTRICAL COMPONENTS
TRAY 2 FEED OUT SENSOR
TD 1
3TM PWB J549-A7 (+) GND (-),
voltage is +1.2 VDC when sensor is connected
mnl730804

8.5 REGISTRATION



TD 1 MCU Drive PWB J402-B6 (+) GND (-), voltage is +1.2 VDC when sensor is connected

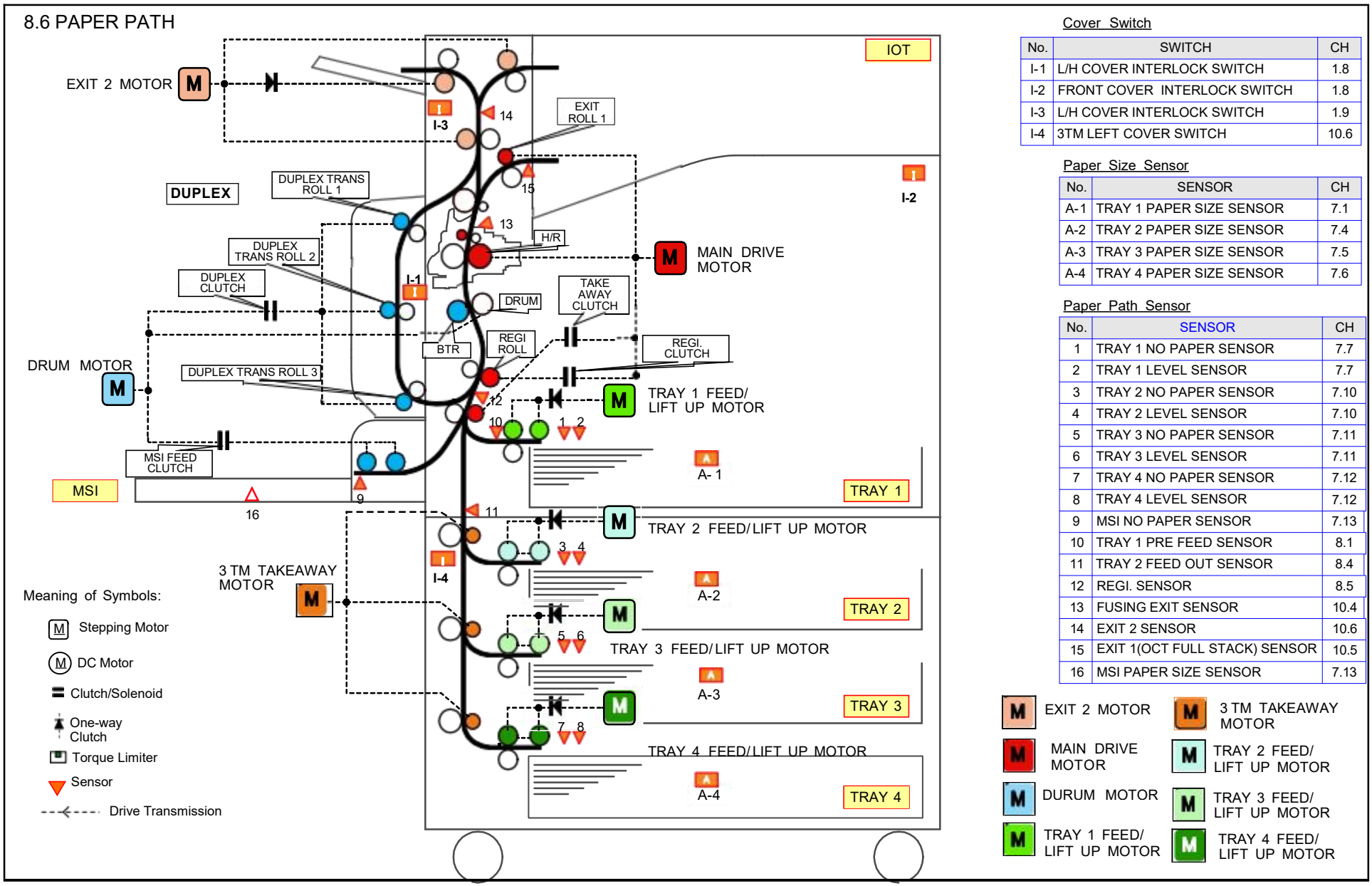
ELECTRICAL COMPONENTS



FAIL CODE

- 024-910 — Paper Size Mismatch
- 071- 105 — Regi. Sensor On Jam (Tray 1)
- 072- 105 — Regi. Sensor On Jam (Tray 2)
- 073- 105 — Regi. Sensor On Jam (Tray 3)
- 074- 105 — Regi. Sensor On Jam (Tray 4)
- 075- 135 — Regi. Sensor On Jam (MSI)
- 077- 101 — Regi. Sensor Off Jam
- 077- 123 — Regi. Sensor On Jam (Duplex Direct)
- 077-900 — Regi. Sensor Static Jam
- 078- 102 — Regi Sensor On Jam (HCF)

mnl730805



Cover Switch

No.	SWITCH	CH
I-1	L/H COVER INTERLOCK SWITCH	1.8
I-2	FRONT COVER INTERLOCK SWITCH	1.8
I-3	L/H COVER INTERLOCK SWITCH	1.9
I-4	3TM LEFT COVER SWITCH	10.6

Paper Size Sensor

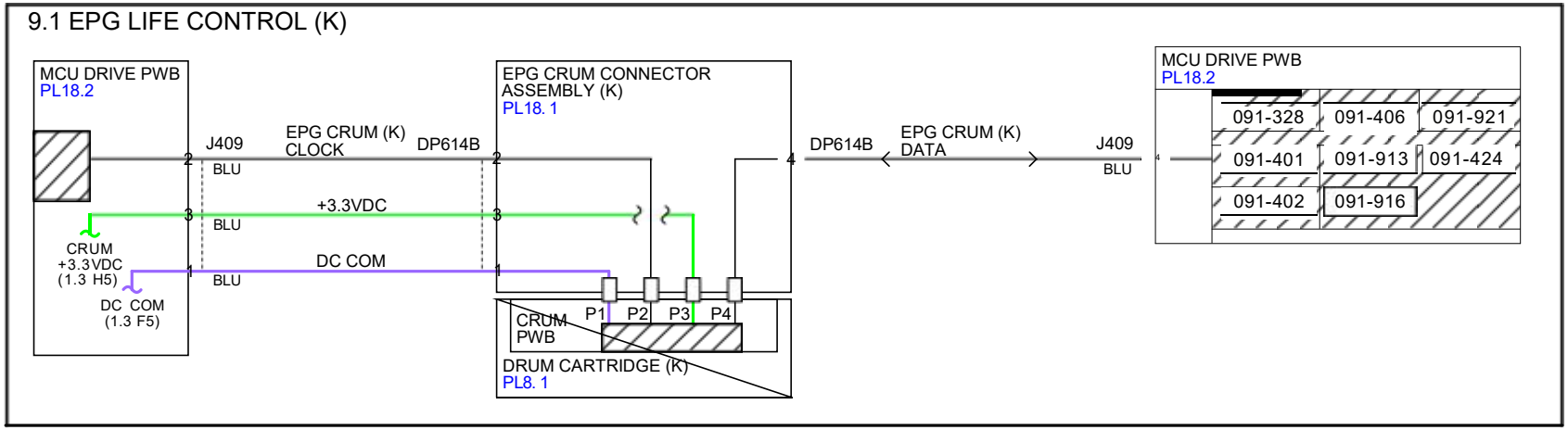
No.	SENSOR	CH
A-1	TRAY 1 PAPER SIZE SENSOR	7.1
A-2	TRAY 2 PAPER SIZE SENSOR	7.4
A-3	TRAY 3 PAPER SIZE SENSOR	7.5
A-4	TRAY 4 PAPER SIZE SENSOR	7.6

Paper Path Sensor

No.	SENSOR	CH
1	TRAY 1 NO PAPER SENSOR	7.7
2	TRAY 1 LEVEL SENSOR	7.7
3	TRAY 2 NO PAPER SENSOR	7.10
4	TRAY 2 LEVEL SENSOR	7.10
5	TRAY 3 NO PAPER SENSOR	7.11
6	TRAY 3 LEVEL SENSOR	7.11
7	TRAY 4 NO PAPER SENSOR	7.12
8	TRAY 4 LEVEL SENSOR	7.12
9	MSI NO PAPER SENSOR	7.13
10	TRAY 1 PRE FEED SENSOR	8.1
11	TRAY 2 FEED OUT SENSOR	8.4
12	REGI. SENSOR	8.5
13	FUSING EXIT SENSOR	10.4
14	EXIT 2 SENSOR	10.6
15	EXIT 1(OCT FULL STACK) SENSOR	10.5
16	MSI PAPER SIZE SENSOR	7.13

mnl730806

9.1 EPG LIFE CONTROL (K)



FAIL CODE

091-328
Drum CRUM K Authentication IC Is Not Available

091-401
Drum Cartridge K Near Life

091-402
Drum Cartridge K Life Over

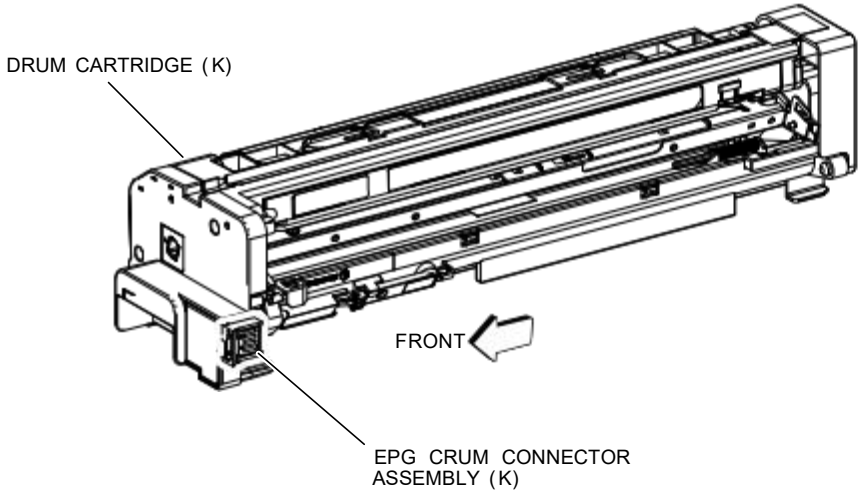
091-406
Drum Cartridge K Pre Near Life

091-913 091-424
Drum Cartridge K Life End

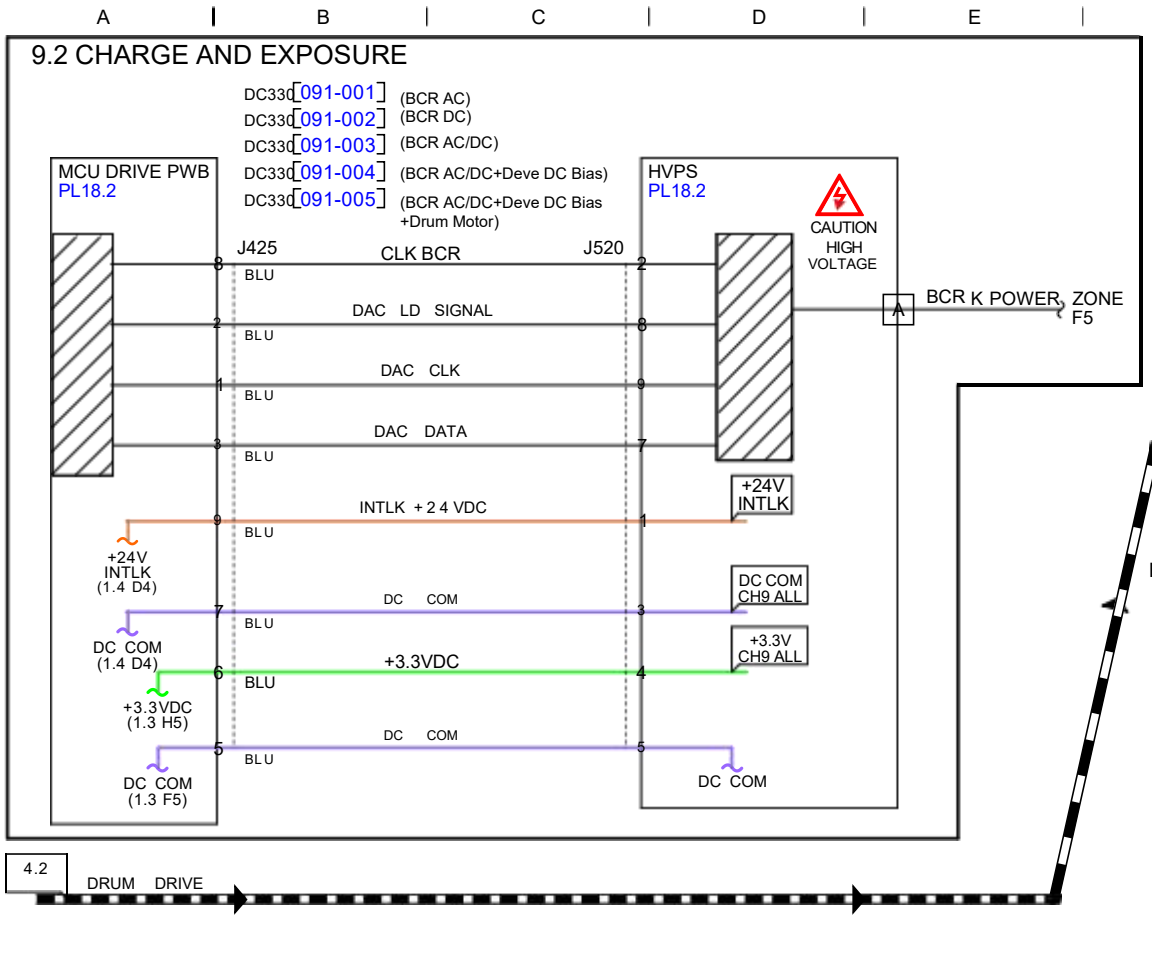
091-916
Drum CRUM K Data Mismatch

091-921
Drum CRUM K Not In Position

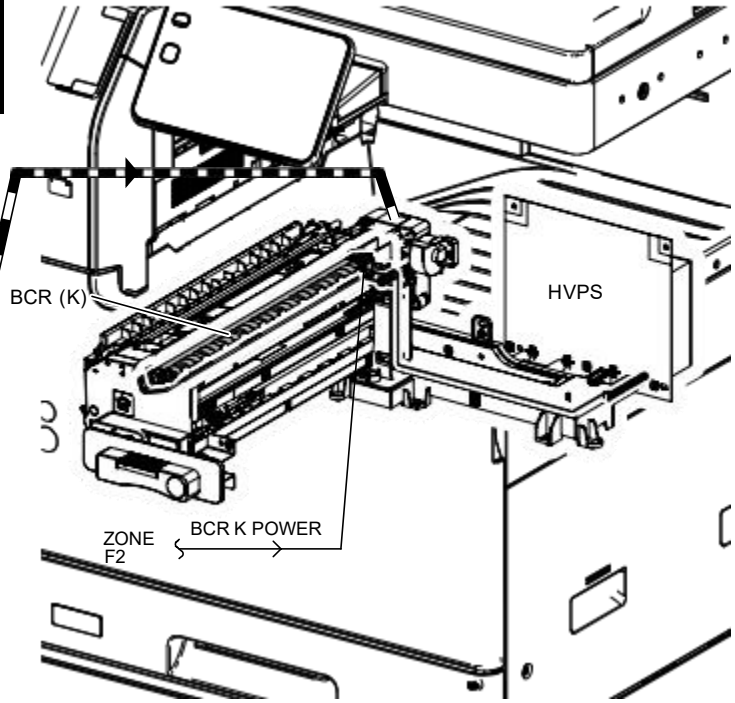
ELECTRICAL COMPONENTS



mnl730901



ELECTRICAL COMPONENTS



mnl730902

A B C D E F G H J

1 2 3 4 5 6

9.3 DEVELOPMENT

MCU DRIVE PWB PL18.2

DC330[093-002] (DEVE BIAS DC K)

J425 — CLK BCR — J520
8 BLU 2
DAC LD SIGNAL
2 BLU 8
DAC CLK
1 BLU 9
DAC DATA
3 BLU 7

HVPS PL18.2

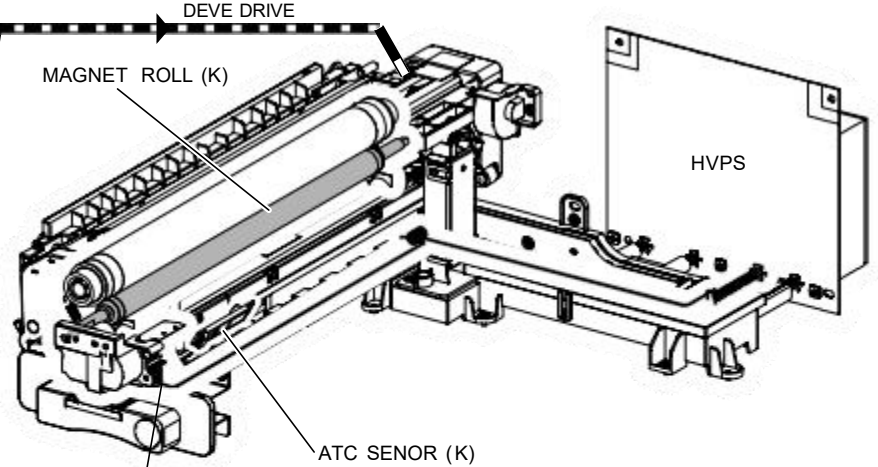
CAUTION HIGH VOLTAGE

B DEVE BIAS (K) ZONE E5

+3.3V (9.2 D3)
+24V DB (9.2 D3)
DC COM (9.2 D3)

ELECTRICAL COMPONENTS

DEVE DRIVE



4.2 DEVE DRIVE

ZONE E1 DEVE (K) POWER

MCU DRIVE PWB PL18.2

IOT_5V (1.3 G5)
DC COM (1.3 F5)

J414 DP614A DJ614 J117
3 YEL 1 1 BLU
1 YEL 3 3 BLU

DRUM CARTRIDGE (K) PL8. 1
ATC SENSOR (K)
3 1

J117 DJ614
2 BLU 2 2

DC140[092-206]
ATC SENSOR (K)
DP614A SENSED SIGNAL J414
2 YEL

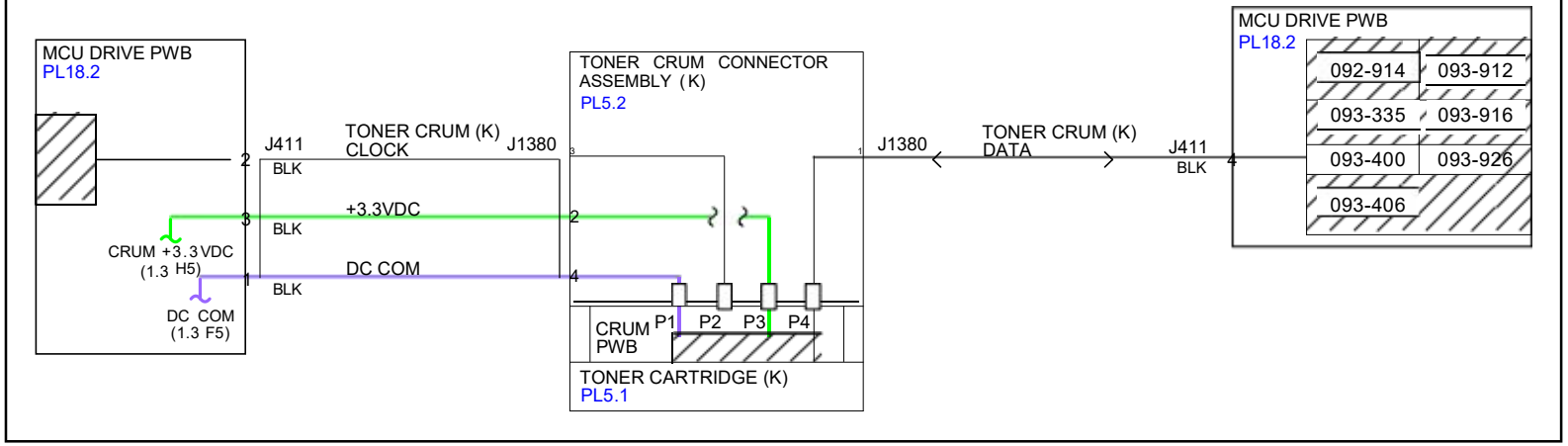
MCU DRIVE PWB PL18.2
092-315
092-660
092-668

FAIL CODE

092-315	ATC K System Fail
092-660	ATC Amplitude Fail K
092-668	ATC Average Fail K

mnl730903

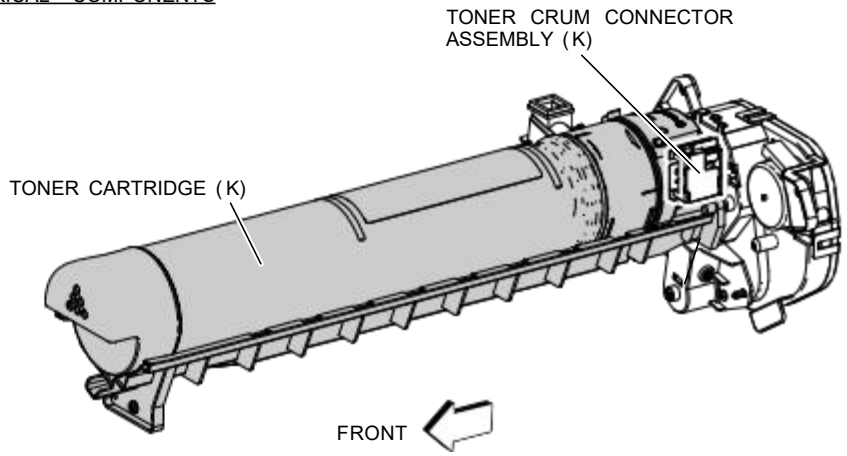
9.4 TONER CARTRIDGE LIFE CONTROL



FAIL CODE

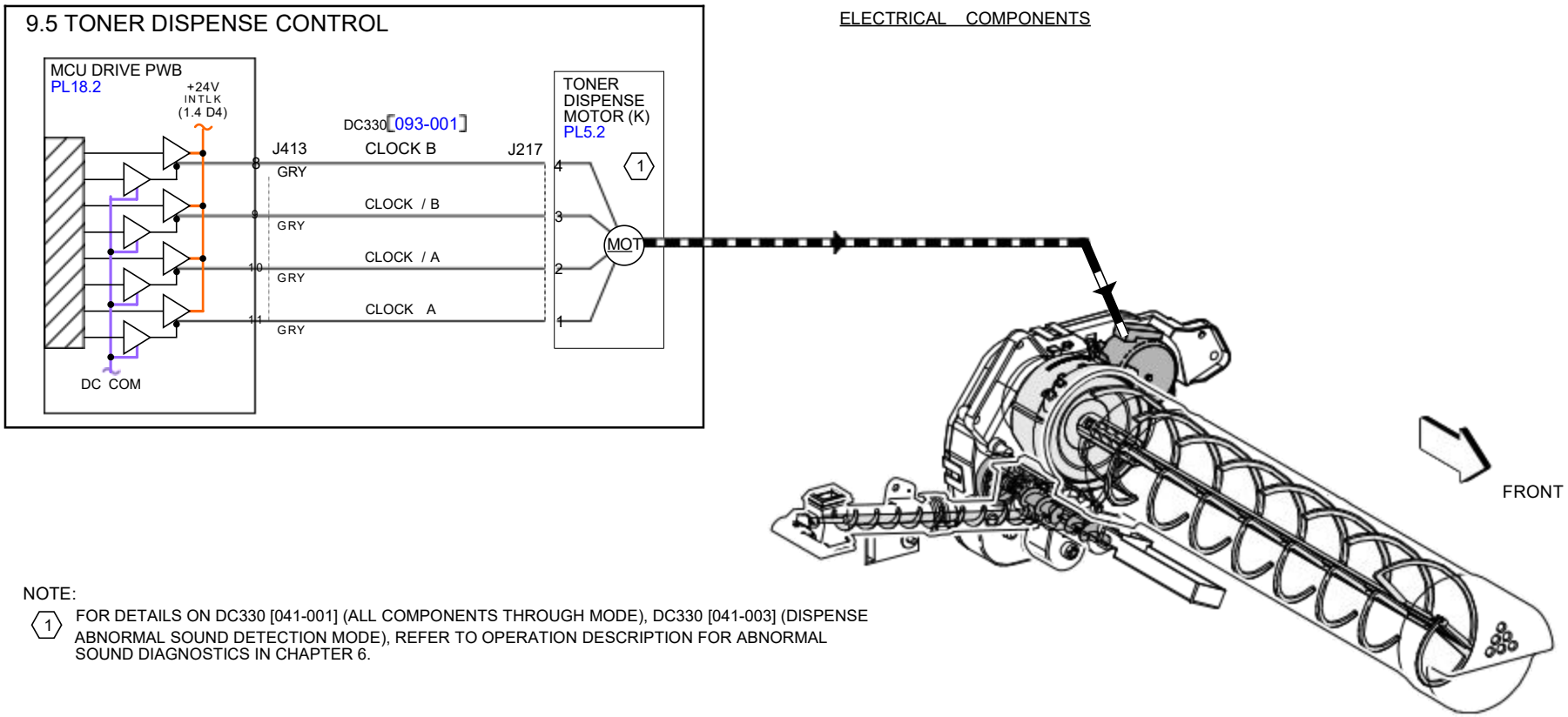
- 092-914 Toner Cartridge Uncertain Empty K
- 093-335 Toner CRUM K Authentication IC Is Not Available
- 093-400 Toner Cartridge K Near Empty
- 093-406 Toner Cartridge K Pre Near Empty
- 093-912 Toner Cartridge K Empty
- 093-916 Toner K CRUM Not In Position
- 093-926 Toner K CRUM Data Mismatch

ELECTRICAL COMPONENTS



mnl730904

ELECTRICAL COMPONENTS

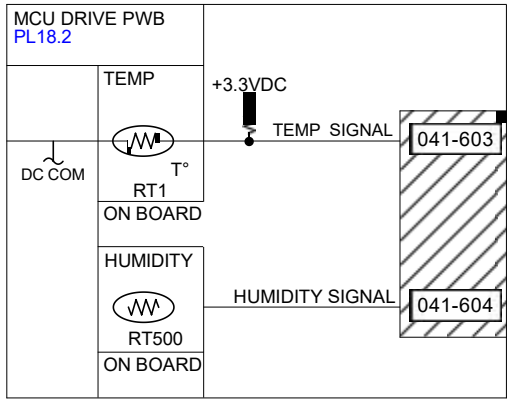


NOTE:

(1) FOR DETAILS ON DC330 [041-001] (ALL COMPONENTS THROUGH MODE), DC330 [041-003] (DISPENSE ABNORMAL SOUND DETECTION MODE), REFER TO OPERATION DESCRIPTION FOR ABNORMAL SOUND DIAGNOSTICS IN CHAPTER 6.

mnl730905

9.6 ENVIRONMENT SENSING



FAIL CODE

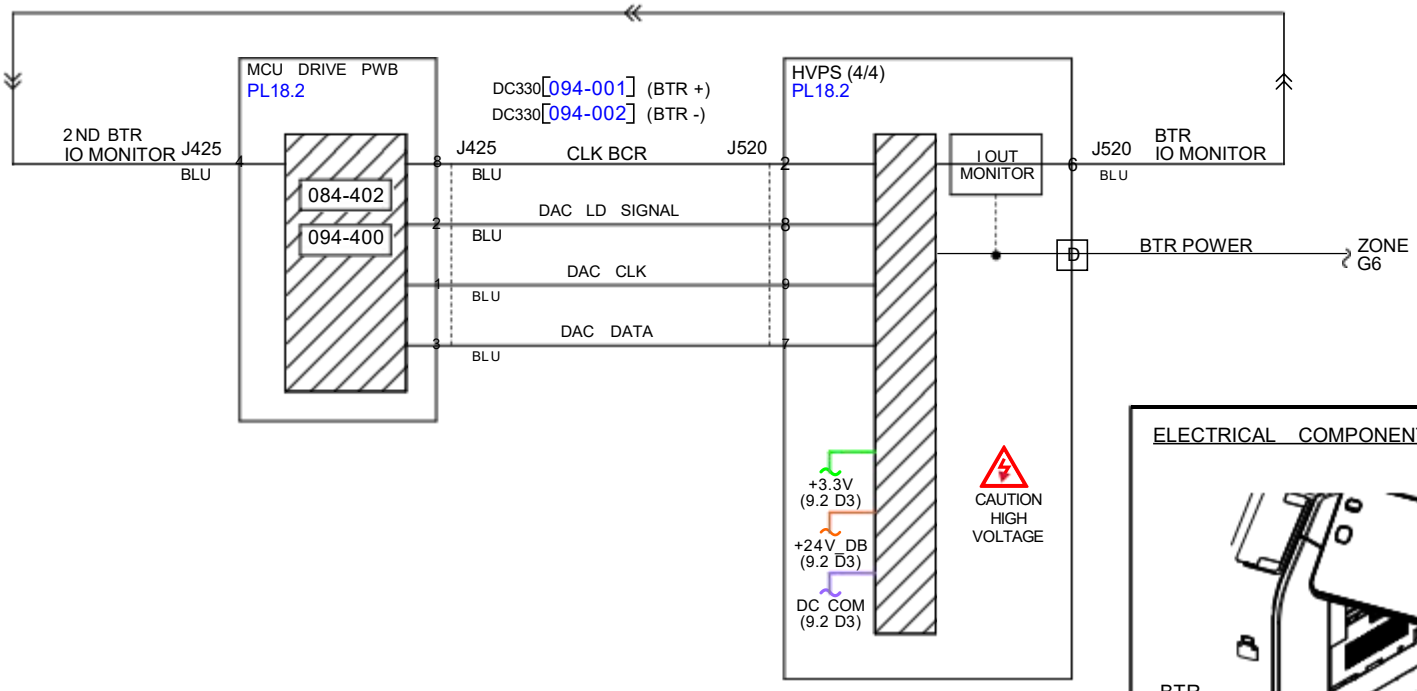
041-603	Temperature Sensor Fail
041-604	Humidity Sensor Fail

mnl730906

A B C D E F G H J

1 2 3 4 5 6

9.7 IMAGE TRANSFER TO PAPER

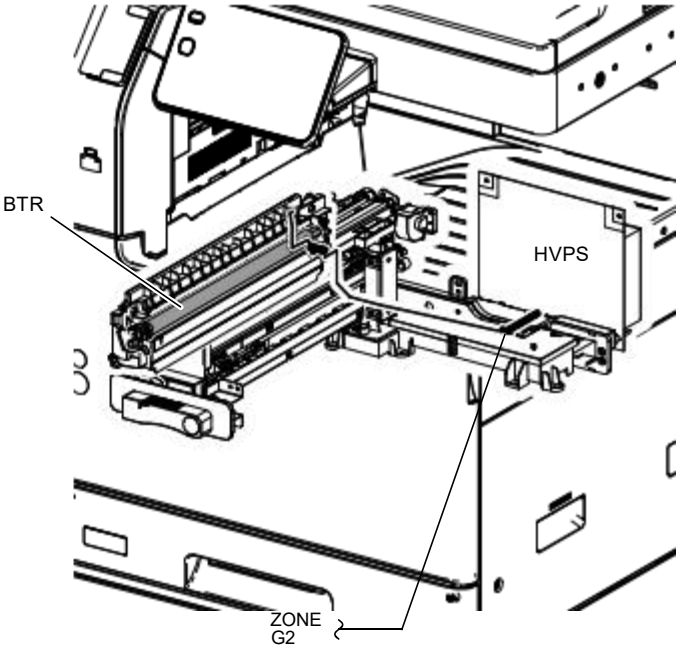


FAIL CODE

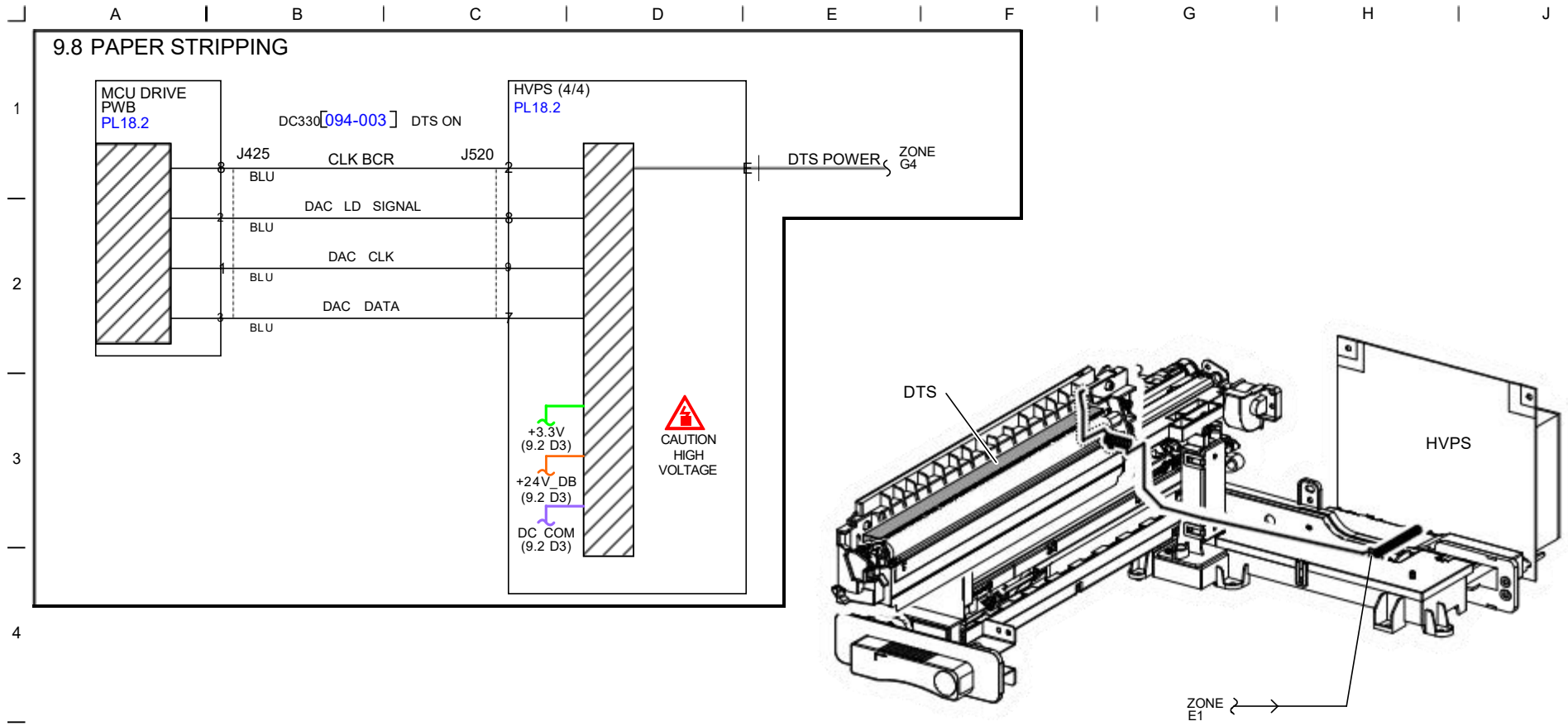
084-402
BTR Unit End Warning

094-400
BTR Unit Near End Warning

ELECTRICAL COMPONENTS

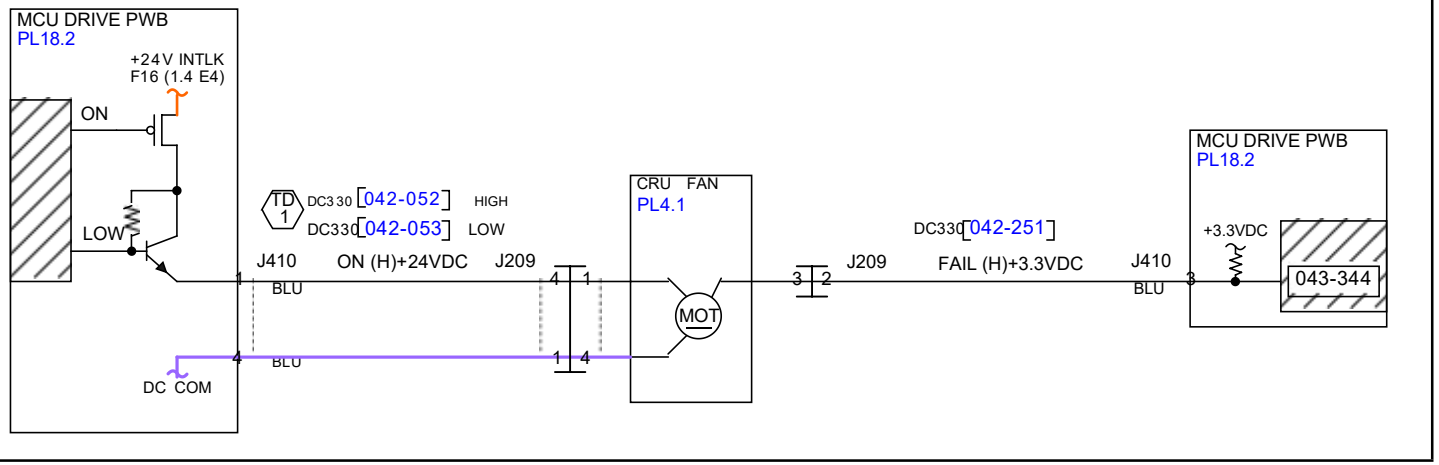


mnl730907


9.8 PAPER STRIPPING
MCU DRIVE PWB
PL18.2
DC330[094-003] DTS ON
HVPS (4/4)
PL18.2
J425
CLK BCR
J520
8
BLU
2
DAC LD SIGNAL
2
BLU
1
DAC CLK
1
BLU
3
DAC DATA
3
BLU
2
8
9
7
E
DTS POWER
ZONE G4
+3.3V (9.2 D3)
+24V_DB (9.2 D3)
DC COM (9.2 D3)
CAUTION HIGH VOLTAGE
DTS
HVPS
ZONE E1

mnl730908

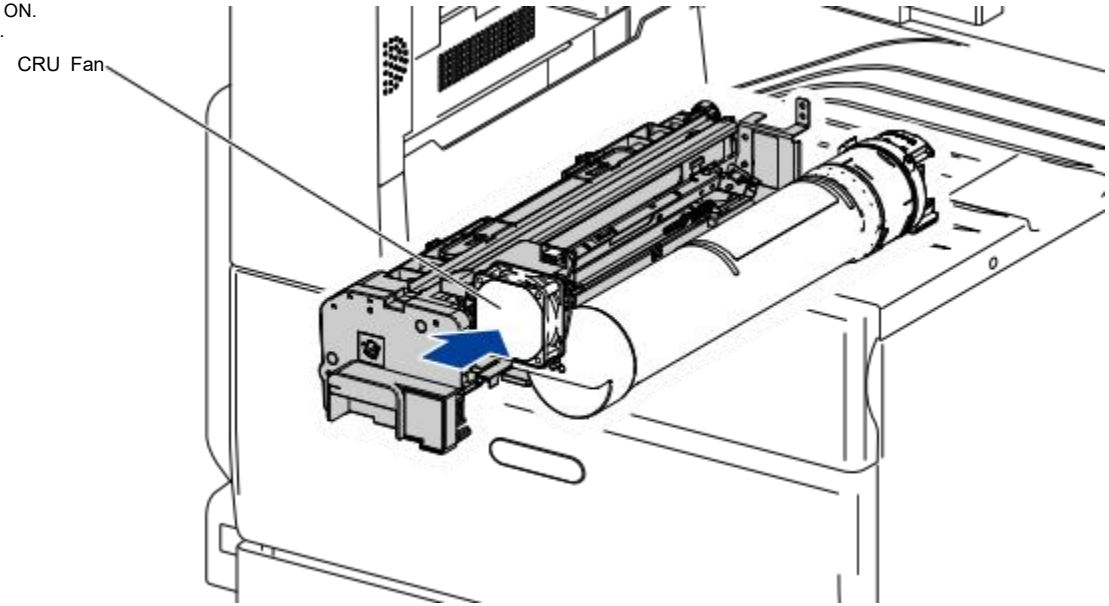
9.9 MARKING COOLING



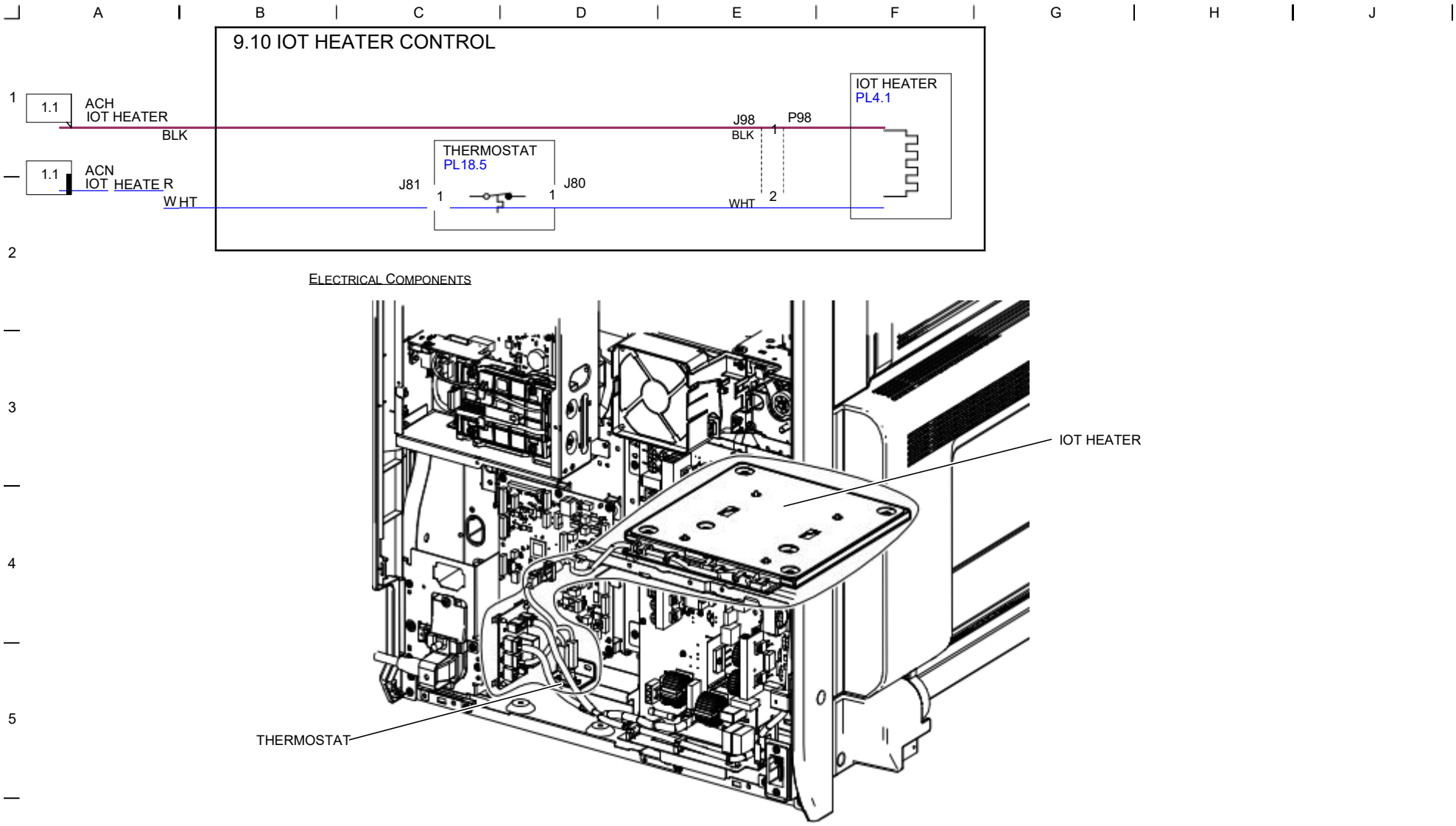
FAIL CODE

043-344
MARKING FAN Fail

TD 1 TEST POINT: MCU DRIVE PWB J410-1(+)GND(-)
VOLTAGE IS APPROX. +23VDC, WHEN DC330[042-052](HIGH) IS ON.
VOLTAGE IS APPROX. +12VDC, WHEN DC330[042-053](LOW)ON.

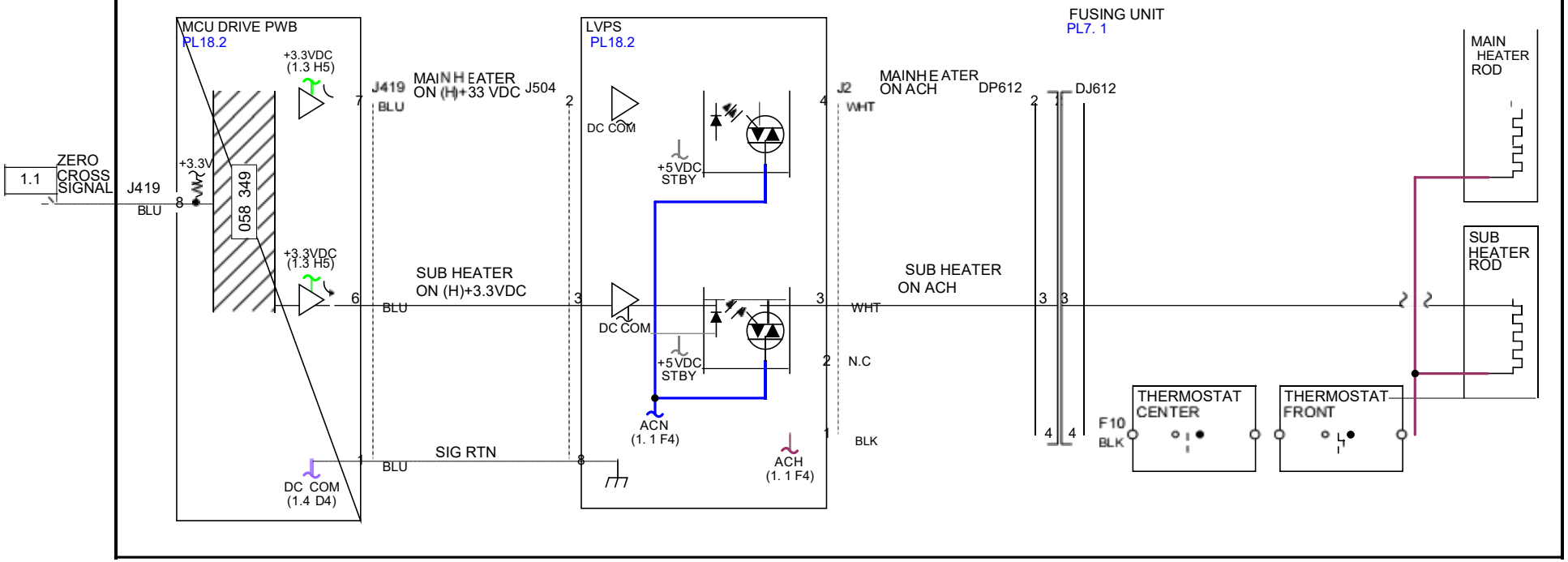


mnl730909

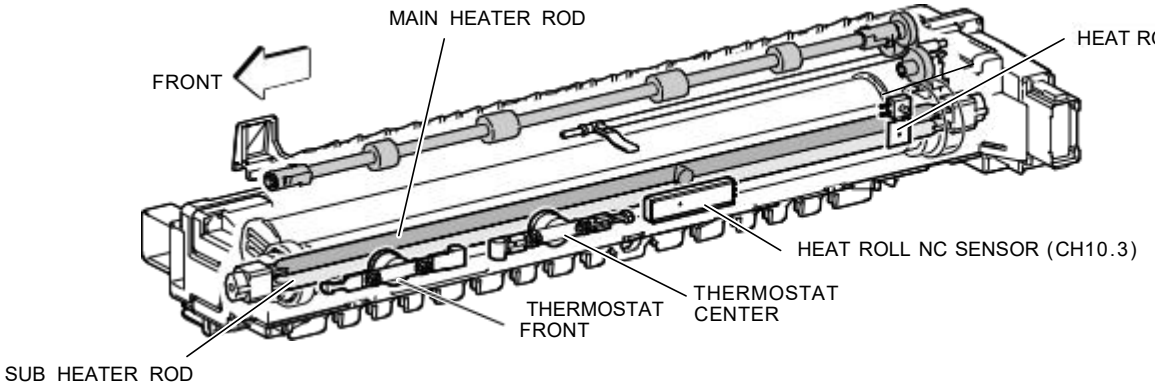

A
B
C
D
E
F
G
H
J
1
2
3
4
5
6
9.10 IOT HEATER CONTROL
1.1
ACH
IOT HEATER
BLK
1.1
ACN
IOT HEATE R
W HT
THERMOSTAT
PL18.5
J81
1
1
J80
J98
BLK
1
P98
2
WHT
IOT HEATER
PL4.1
ELECTRICAL COMPONENTS
IOT HEATER
THERMOSTAT

mnl730910

10.1 FUSING HEAT CONTROL (1/2)



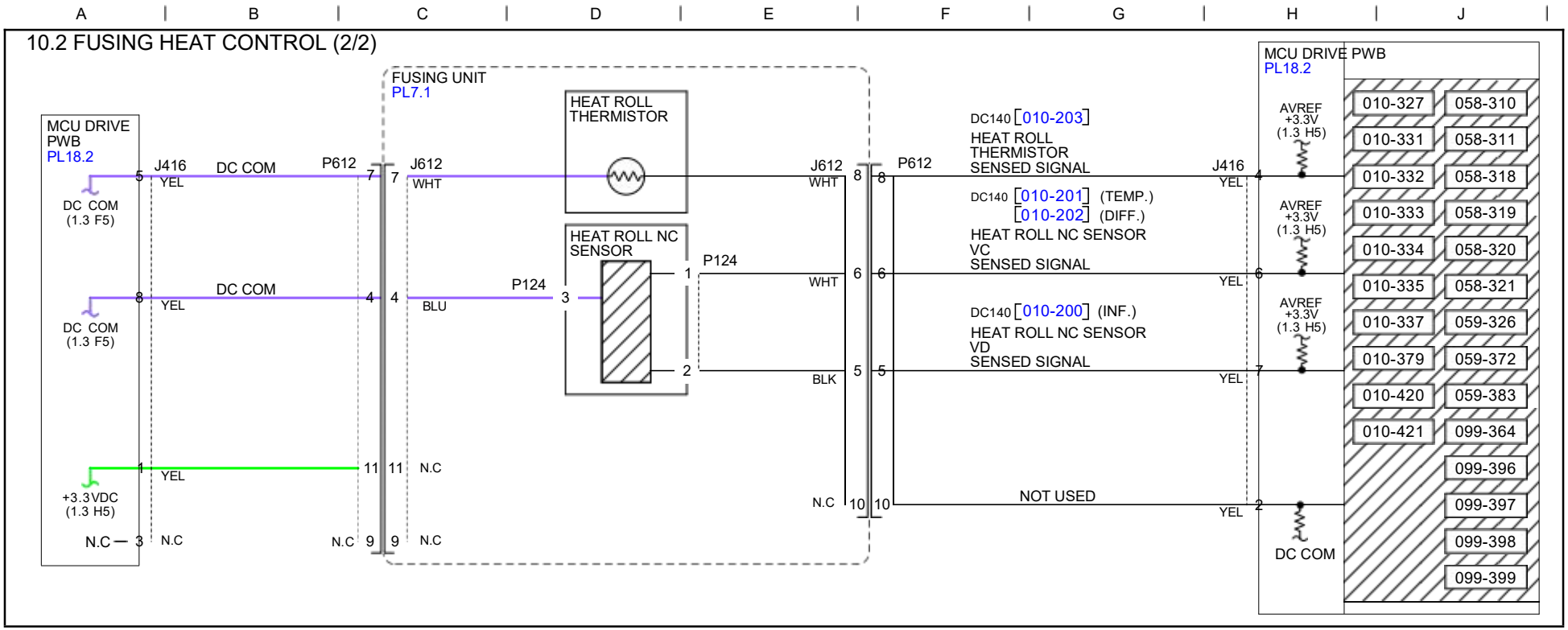
ELECTRICAL COMPONENTS



FAIL CODE

058-349	DC100V Input Fail

mnl731001

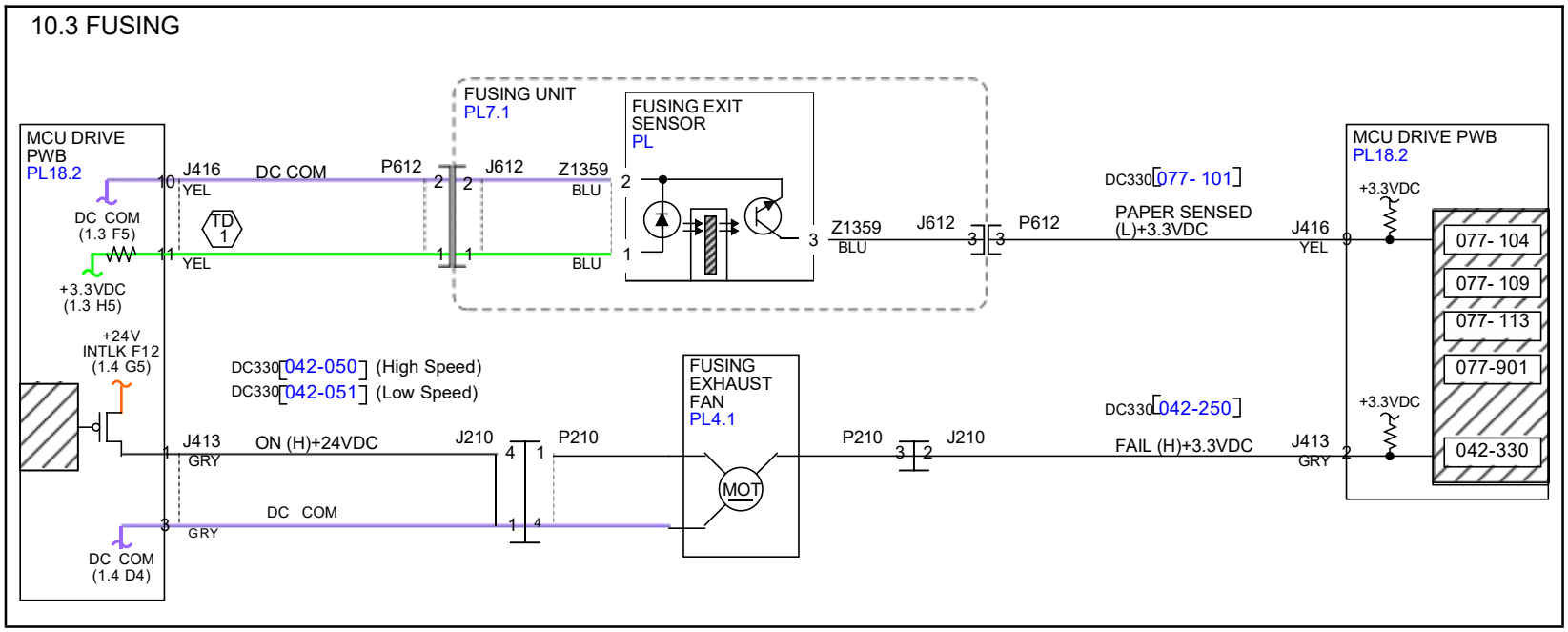


FAIL CODE

010-327 Fusing On Time Fail	010-334 Heat Roll NC Sensor Broken Fail	010-421 Fusing Unit Life Over Warning	058-320 Fusing Ep U4 Noheat Side Fail	099-364 Fusing Cold Not Ready Return Time Fail
010-331 Heat Roll STS Over Temperature Fail	010-335 Heat Roll NC Sensor Range Fail	058-310 Fusing Ep U4 Notrdy Nc Fail	058-321 Fusing Ep U4 Slowheat Side Fail	099-396 Fusing Ep U4 Noheat Center Fail
010-332 Heat Roll NC Sensor Disconnection Fail	010-337 Heat Roll Paper Winding Fail	058-311 Fusing Ep U4 Notrdy Sts Fail	059-326 Heat Roll STS Disconnection Fail	099-397 Fusing Ep U4 Slowheat Center Fail
010-333 Heat Roll NC Sensor Over Temperature Fail	010-379 Fusing Unit Hot Not Ready Return Time Fail	058-318 Fusing Ep U4 Fastheat Side Fail	059-372 Heat Roll NC Sensor Differential Amp Fail	099-398 Fusing Ep U4 Fastheat Center Fail
	010-420 Fusing Unit Near Life Warning	058-319 Fusing Ep U4 Lamp position Fail	059-383 Warm Up Time Fail	099-399 Fusing Ep U4 Under Side Fail

mnl731002

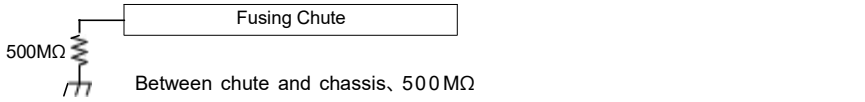
10.3 FUSING



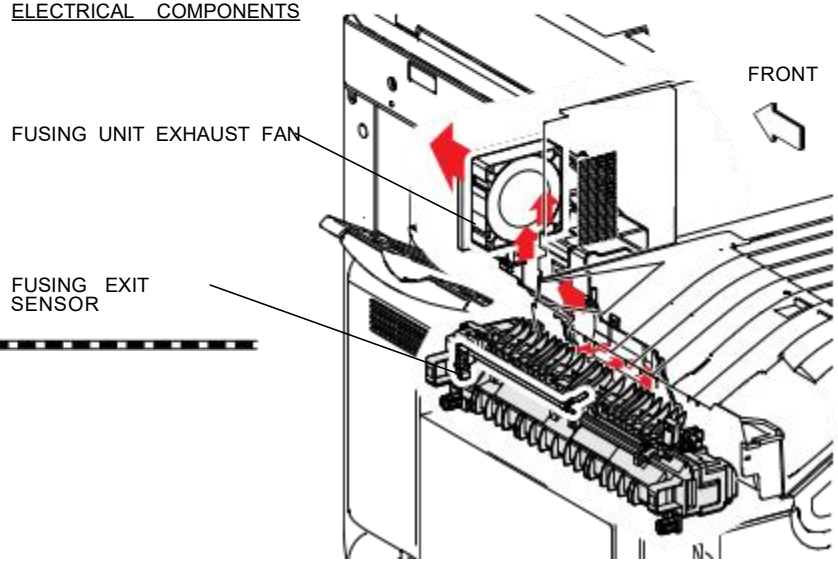
FAIL CODE

- 042-330 Fusing Unit Exhaust Fan Fail
- 077- 104 Fusing Unit Exit Sensor Off Jam (Short)
- 077- 109 Fusing Unit Exit Sensor On Jam
- 077- 113 Fusing Unit Exit Sensor Off Jam (Long)
- 077-901 Fusing Unit Exit Sensor Static Jam

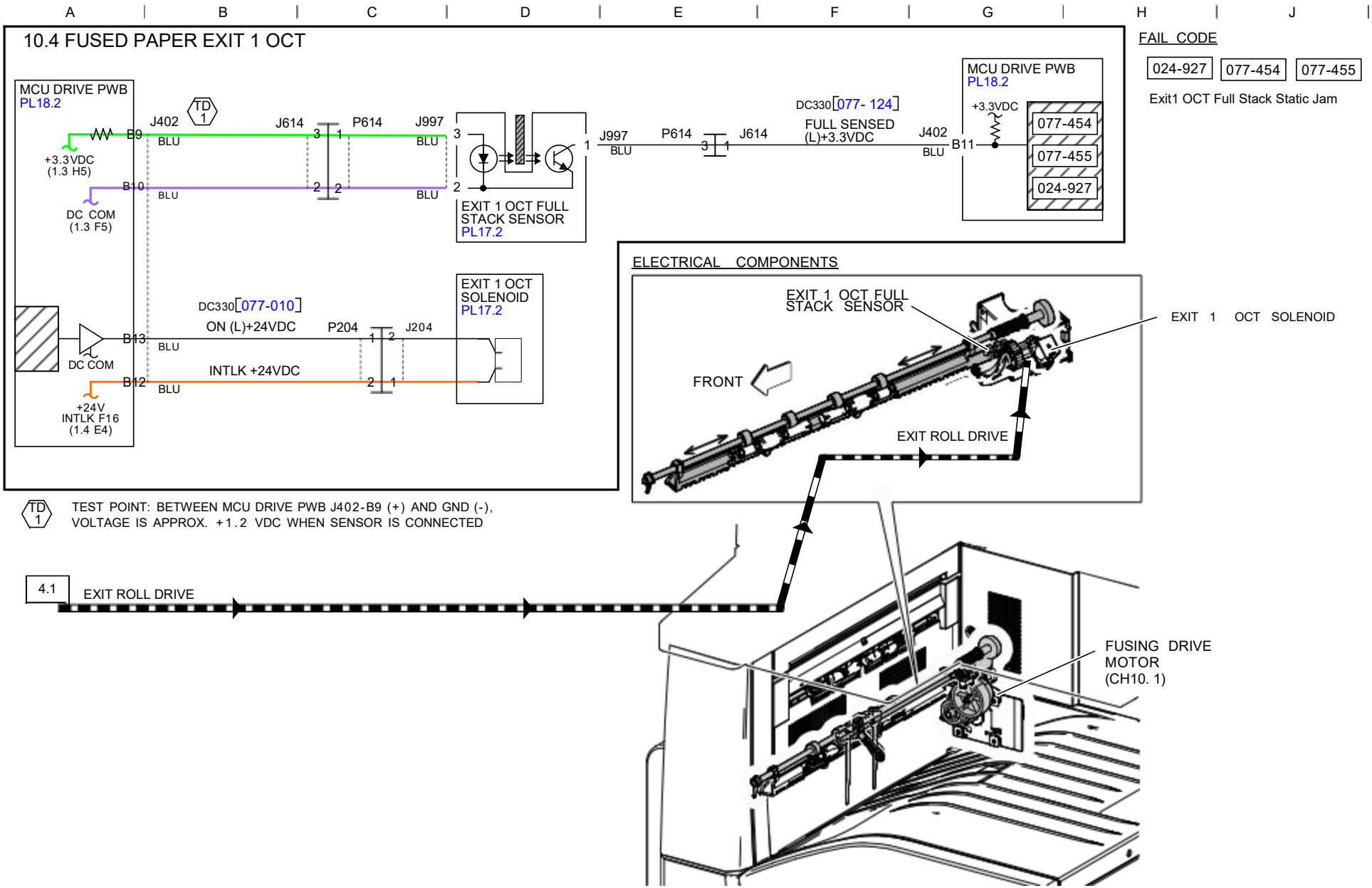
TD 1 TEST POINT: BETWEEN MCU DRIVE PWB J416- 11 (+) AND GND (-), VOLTAGE IS APPROX. +1.2 VDC WHEN SENSOR IS CONNECTED



ELECTRICAL COMPONENTS

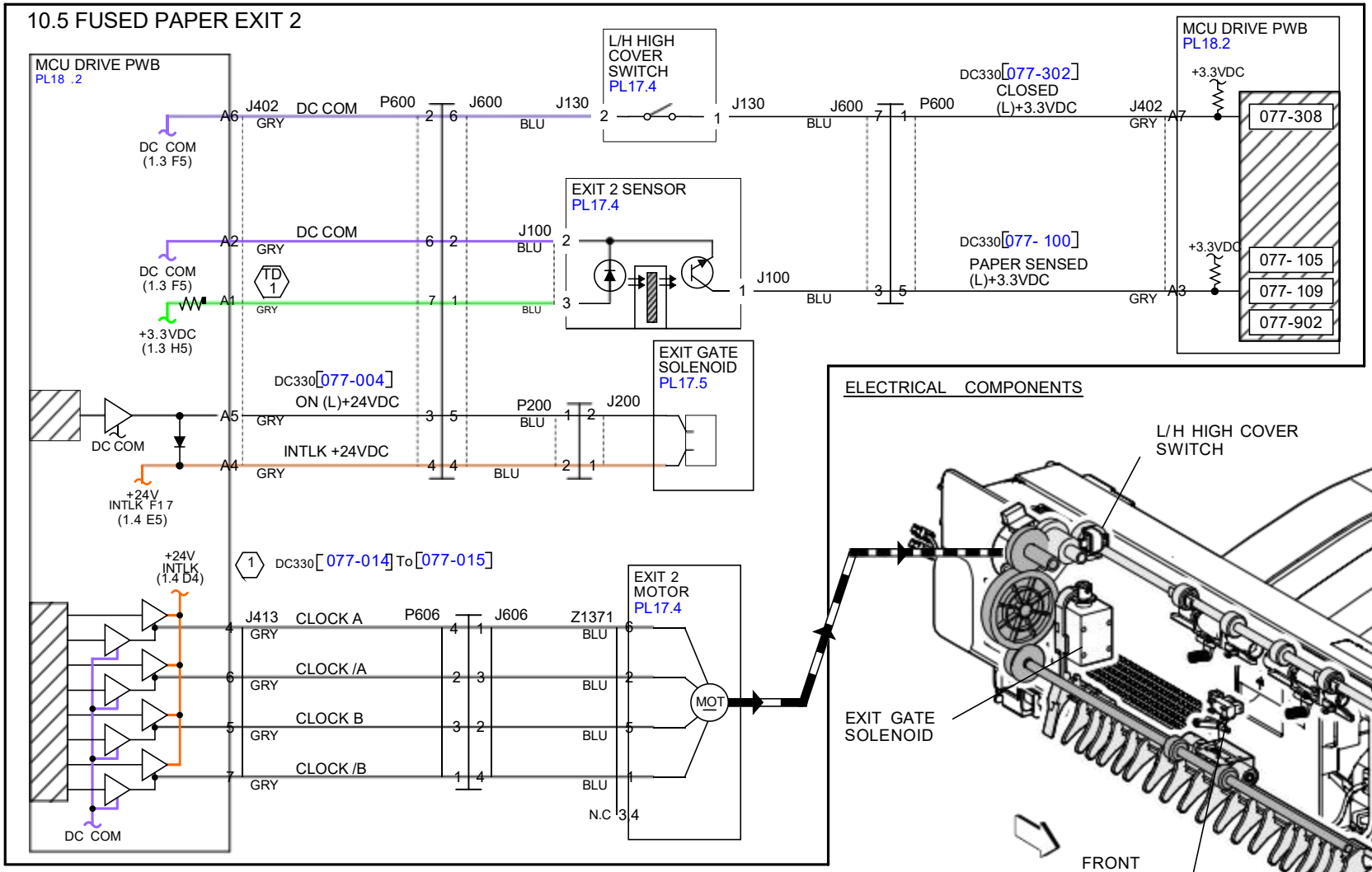


mnl731003

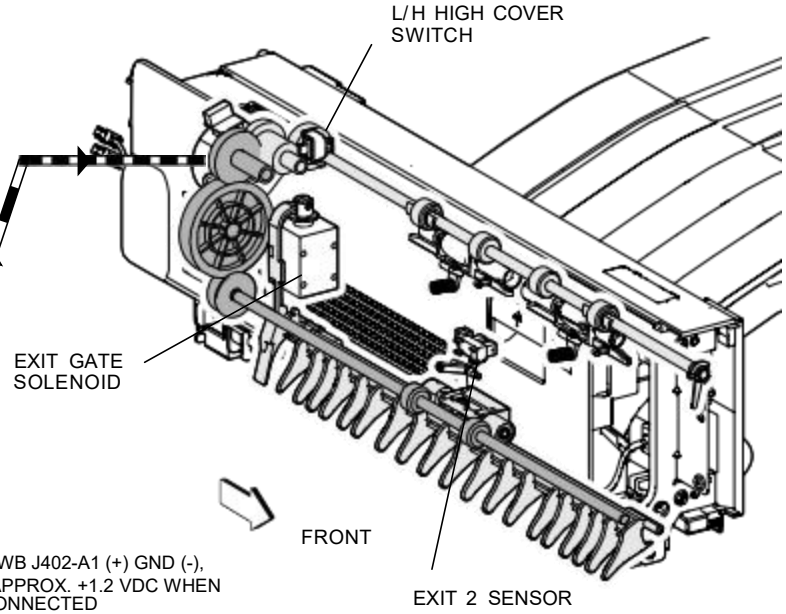

10.4 FUSED PAPER EXIT 1 OCT
MCU DRIVE PWB
PL18.2
J402
TD 1
B9
BLU
+3.3VDC
(1.3 H5)
B10
BLU
DC COM
(1.3 F5)
J614
P614
J997
BLU
EXIT 1 OCT FULL
STACK SENSOR
PL17.2
DC330[077- 124]
FULL SENSED
(L)+3.3VDC
J402
B11
MCU DRIVE PWB
PL18.2
+3.3VDC
077-454
077-455
024-927
FAIL CODE
024-927
077-454
077-455
Exit1 OCT Full Stack Static Jam
EXIT 1 OCT
SOLENOID
PL17.2
DC330[077-010]
ON (L)+24VDC
P204
J204
B13
BLU
DC COM
INTLK +24VDC
B12
BLU
+24V
INTLK F16
(1.4 E4)
ELECTRICAL COMPONENTS
EXIT 1 OCT FULL
STACK SENSOR
EXIT 1 OCT SOLENOID
FRONT
EXIT ROLL DRIVE
TD 1
TEST POINT: BETWEEN MCU DRIVE PWB J402-B9 (+) AND GND (-),
VOLTAGE IS APPROX. +1.2 VDC WHEN SENSOR IS CONNECTED
4.1
EXIT ROLL DRIVE
FUSING DRIVE
MOTOR
(CH10. 1)

mnl731004

10.5 FUSED PAPER EXIT 2



ELECTRICAL COMPONENTS



FAIL CODE

- 077- 105 — Exit Sensor 2 Off Jam
- 077- 126 — Exit Sensor 2 On Jam
- 077-308 — L/H High Cover Open
- 077-902 — Exit 2 Sensor Static Jam

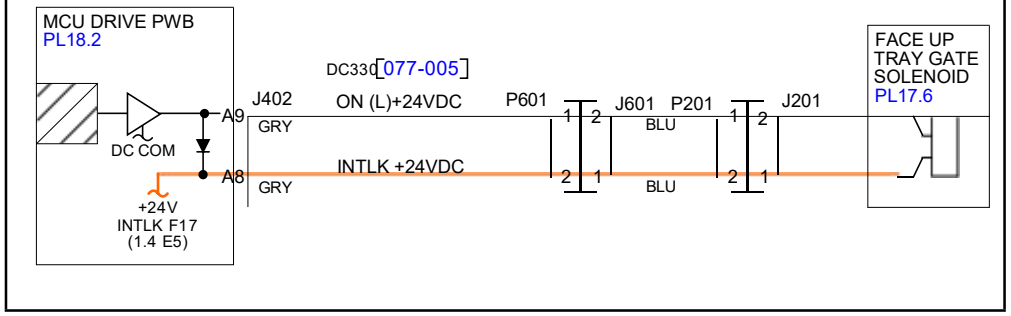
NOTE: (1) OPERATION DIFFERS DEPENDING ON DIAGNOSIS CODE.

EXIT 2 DRIVE MOTOR	OPERATION
DC330 [077-014]	Rotates the Motor in forward direction. (Output direction)
DC330 [077-015]	Rotates the Motor in reverse direction. (Intake direction)

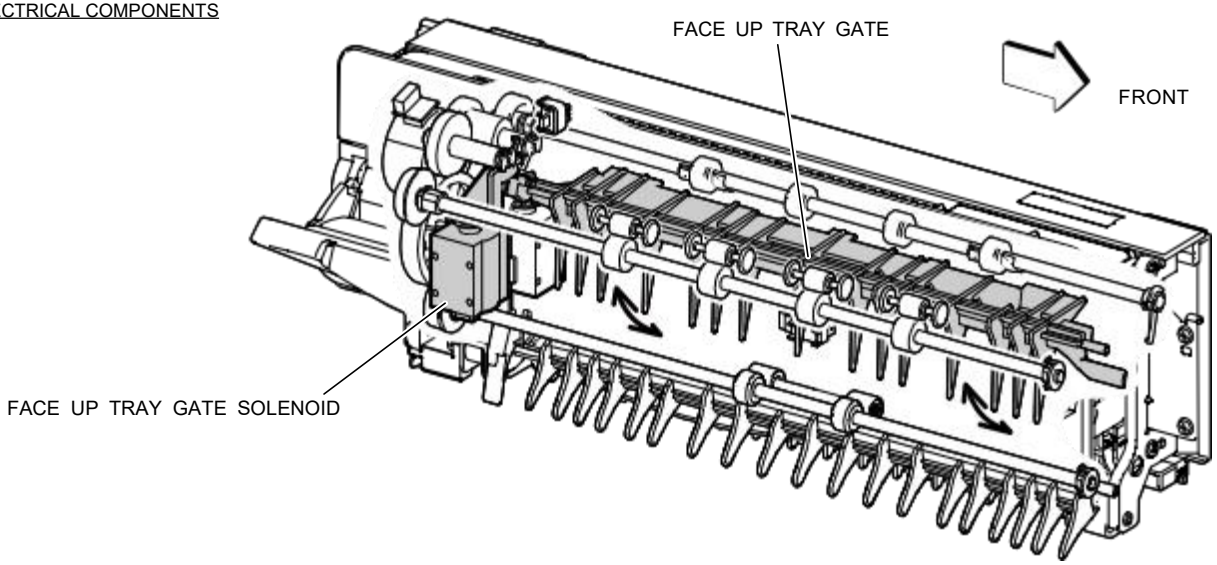
(TD 1) MCU DRIVE PWB J402-A1 (+) GND (-), VOLTAGE IS APPROX. +1.2 VDC WHEN SENSOR IS CONNECTED

mnl731005

10.6 FACE UP TRAY EXIT (OPTION)



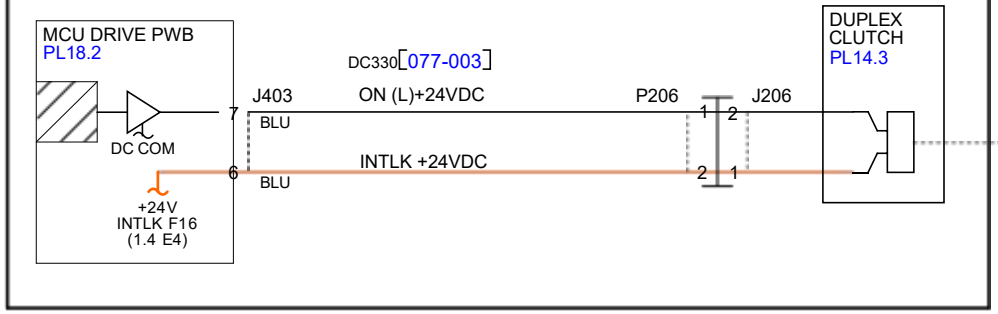
ELECTRICAL COMPONENTS



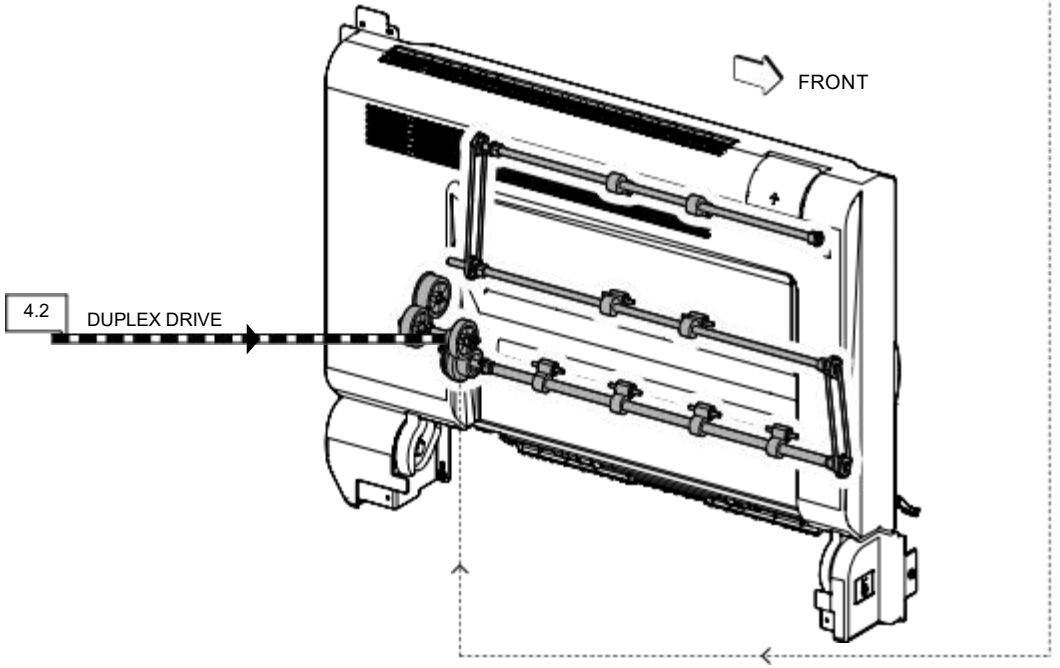
mnl731006

A | B | C | D | E | F | G | H | J

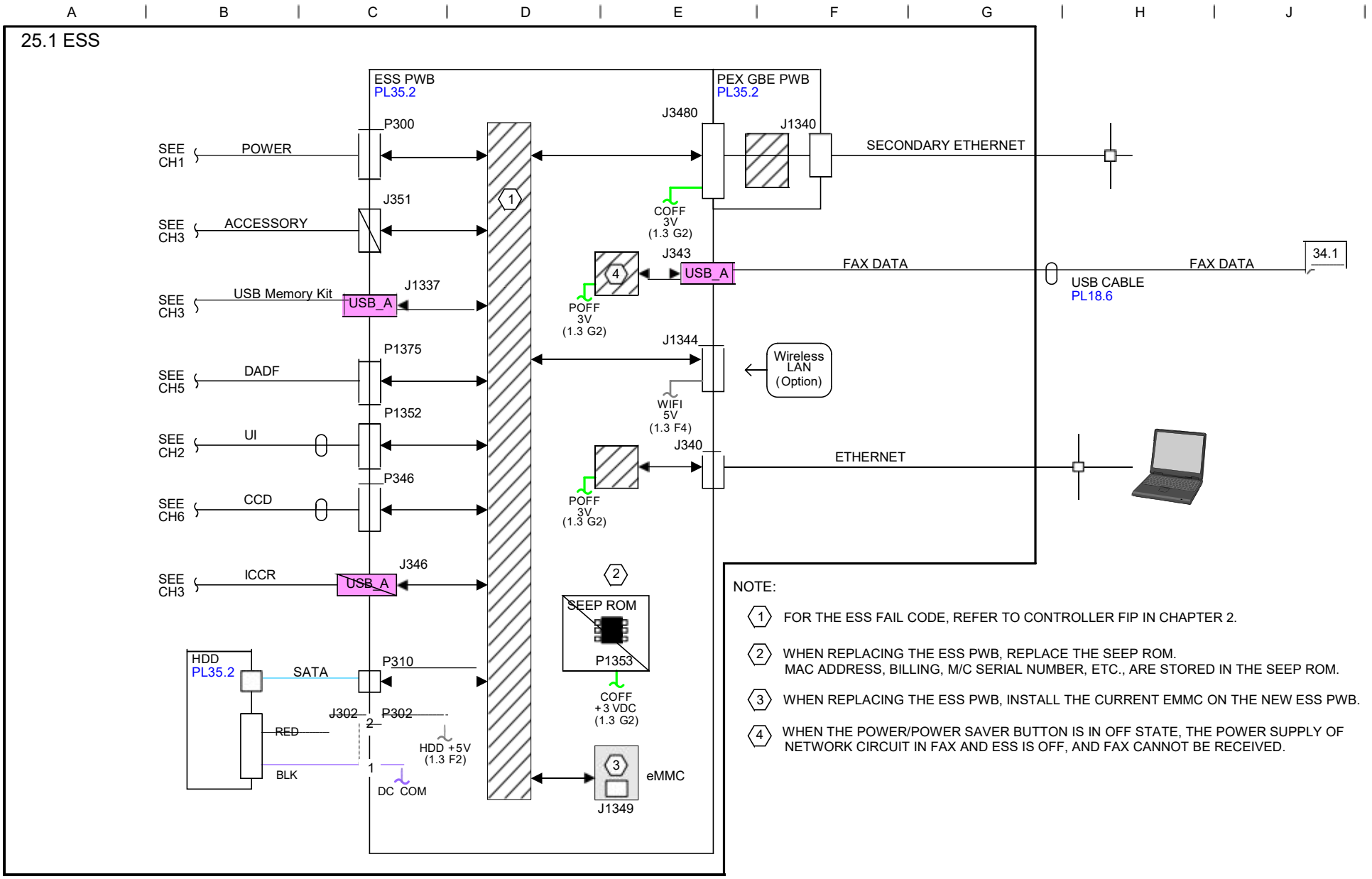
10.7 DUPLEX TRANSPORTATION



ELECTRICAL COMPONENTS



1 2 3 4 5 6


25.1 ESS
ESS PWB
PL35.2
PEX GBE PWB
PL35.2
P300
SEE CH1
POWER
J351
SEE CH3
ACCESSORY
J1337
SEE CH3
USB Memory Kit
USB_A
P1375
SEE CH5
DADF
P1352
SEE CH2
UI
P346
SEE CH6
CCD
J346
SEE CH3
ICCR
USB_A
HDD
PL35.2
SATA
P310
J302
P302
RED
BLK
HDD +5V
(1.3 F2)
DC COM
J3480
J1340
SECONDARY ETHERNET
COFF
3V
(1.3 G2)
J343
USB_A
FAX DATA
FAX DATA
34.1
USB CABLE
PL18.6
POFF
3V
(1.3 G2)
J1344
Wireless LAN
(Option)
WIFI
5V
(1.3 F4)
J340
ETHERNET
POFF
3V
(1.3 G2)
SEEP ROM
P1353
COFF
+3 VDC
(1.3 G2)
eMMC
J1349
NOTE:
1 FOR THE ESS FAIL CODE, REFER TO CONTROLLER FIP IN CHAPTER 2.
2 WHEN REPLACING THE ESS PWB, REPLACE THE SEEP ROM.
MAC ADDRESS, BILLING, M/C SERIAL NUMBER, ETC., ARE STORED IN THE SEEP ROM.
3 WHEN REPLACING THE ESS PWB, INSTALL THE CURRENT EMMC ON THE NEW ESS PWB.
4 WHEN THE POWER/POWER SAVER BUTTON IS IN OFF STATE, THE POWER SUPPLY OF
NETWORK CIRCUIT IN FAX AND ESS IS OFF, AND FAX CANNOT BE RECEIVED.

mnl732501

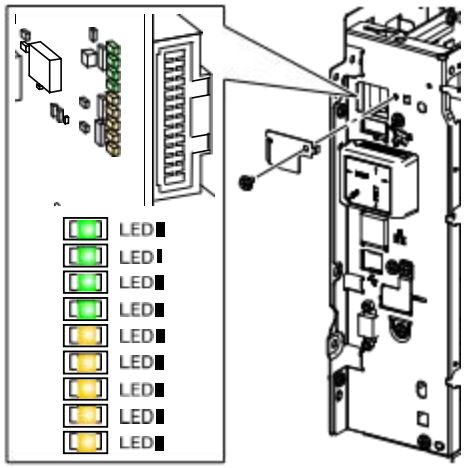
25.2 ESS STATUS LED (1/5)

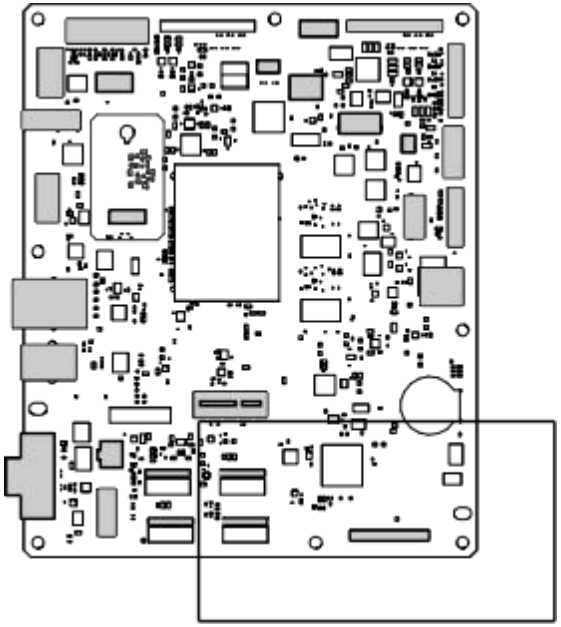
On Board Debug LED ON States and their Meaning

- *As the device that can be connected differs depending on the M/C, it does not always necessarily mean that diagnostic is possible*
- *In the following table, items that are installed as features are marked with "O"*
- *Until it starts, execute/diagnose in the following order*

Number	LED Pattern (■ On □ Off) LED7 LED6 LED5 LED4 LED3 LED2 LED1 LED0	State/Condition	Fault location/contents	Usual Diagnostic	Long Boot Diagnostic	Related Fail Code
1	□□□□ □□□□	Initial state at Power ON	-			-
2	□□□□ □□□■	SCPBL process has started (CPLD opened)	-	-	-	-
3	□□□□ □□■□	-	-	-	-	-
4	□□□□ □□■■	-	-	-	-	-
5	□□□□ □■□□	-	-	-	-	-
6	□□□□ □■□■	-	-	-	-	-
7	□□□□ □■■□	-	-	-	-	-
8	□□□□ □■■■	SCPBL process has completed	-	-	-	-
9	□□□□ ■□□□	SCPFW process has started	-	-	-	-
10	□□□□ ■□□■	-	-	-	-	-
11	□□□□ ■□■□ / □□□□ □□□□	DDR initialization error (not installed)	-	-	-	-
12	□□□□ ■□■■	-	-	-	-	-
13	□□□□ ■■□□	-	-	-	-	-
14	□□□□ ■■□■	-	-	-	-	-
15	□□□□ ■■■□	-	-	-	-	-
16	□□□□ ■■■■	SCPFW process has completed	-	-	-	-
17	□□□■ □□□□	HW initialization process has started	ON: ESS Error	○	○	-
18	□□□■ □□□■	UART initialization has completed	ON: ESS Error	○	○	-
19	□□□■ □□■□	Timer initialization has completed	ON: ESS Error	○	○	-
20	□□□■ □□■■	i2c initialization has completed	ON: ESS Error	○	○	-
21	□□□■ □■□□	QSPI initialization has completed	ON: ESS Error	○	○	-
22	□□□■ □■□■	CPLD initialization has completed	ON: ESS Error	○	○	-
23	□□□■ □■■□	mmc initialization by boot loader has completed	ON: ESS Error	○	○	-
24	□□□■ □■■■	RTC initialization has completed	ON: ESS Error	○	○	-
25	□□□■ ■□□□	CIC (FB Block Common Settings) initialization has completed	ON: ESS Error	○	○	-
26	□□□■ ■□□■	SNR initialization has completed	ON: ESS Error	○	○	-
27	□□□■ ■□■□	SW resource initialization process has started	ON: ESS Error	○	○	-
28	□□□■ ■□■■	Boot mode flag clear has completed	ON: ESS Error	○	○	-
29	□□□■ ■■□□	Acquisition of mmc ROM header/initialization related data has completed	ON: ESS Error	○	○	-
30	□□□■ ■■□■	Global data initialization at booting has completed	ON: ESS Error	○	○	-
31	□□□■ ■■■□	H/W initialization in the second half has completed	ON: ESS Error	○	○	-

ELECTRICAL COMPONENTS





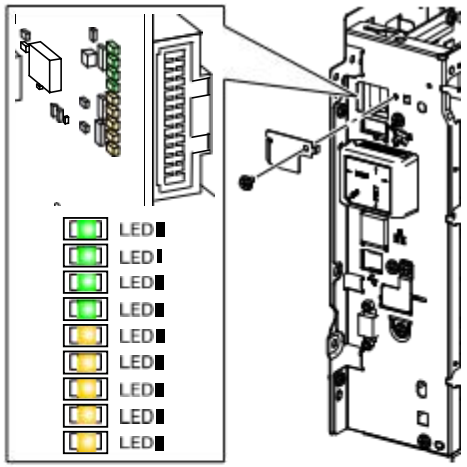
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25.3 ESS STATUS LED (2/5)

On Board Debug LED ON States and their Meaning

- *As the device that can be connected differs depending on the M/C, it does not always necessarily mean that diagnostic is possible*
- *In the following table, items that are installed as features are marked with "O"*
- *Until it starts, execute/diagnose in the following order*

Number	LED Pattern (■ On □ Off) LED7 LED6 LED5 LED4 LED3 LED2 LED1 LED0	State/Condition	Fault location/contents	Usual Diagnostic	Long Boot Diagnostic	Related Fail Code
32	□□□■ ■■■■	Command table initialization has completed	ON: ESS Error	○	○	-
33	□□■□ □□□□	Environmental parameter initialization has completed	ON: ESS Error	○	○	-
34	□□■□ □□□■	Global data initialization in the second half has completed	ON: ESS Error	○	○	-
35	□□■□ □□■□	-	-	-	-	-
36	□□■□ □□■■	-	-	-	-	-
37	□□■□ □■□□	-	-	-	-	-
38	□□■□ □■□■	-	-	-	-	-
39	□□■□ □■■□	-	-	-	-	-
40	□□■□ □■■■	-	-	-	-	-
41	□□■□ ■□□□	-	-	-	-	-
42	□□■□ ■□□■	-	-	-	-	-
43	□□■□ ■□■□	-	-	-	-	-
44	□□■□ ■□■■	-	-	-	-	-
45	□□■□ ■■□□	-	-	-	-	-
46	□□■□ ■■□■	-	-	-	-	-
47	□□■□ ■■■□	-	-	-	-	-
48	□□■□ ■■■■	-	-	-	-	-
49	□□■■ □□□□	Jump to Kernel	ON: ESS Error	○	○	-
50	□□■■ □□□■	Jump to Panbug prompt	ON: ESS Error	○	○	-
51	■■■■ ■■■■ / □□□□ □□□□	-	-	-	-	-
52	■■■■ □□□□ / □□□□ ■■■■	-	-	-	-	-
53	■□■□ □□□□ / □□□□ ■□■□	-	-	-	-	-
54	←←←← ←←←■ / ■→→→ →→→→	-	-	-	-	-
55	□□■■ □■□□	-	-	-	-	-
56	□□■■ □■□■	-	-	-	-	-
57	□□■■ □■■■	-	-	-	-	-
58	■■□□ □□□□ / □□□□ ■■□□	-	-	-	-	-
59	□□■■ □□■■	Immediately after the system has recovered from ATF to Linux and before it calls Panbug	ON: ESS Error	-	-	-



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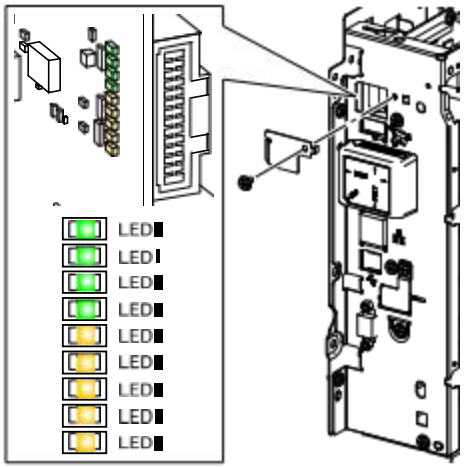
25.4 ESS STATUS LED (3/5)

On Board Debug LED ON States and their Meaning

- *As the device that can be connected differs depending on the M/C,it does not always necessarily mean that diagnostic is possible*
- *In the following table, items that are installed as features are marked with "O"*
- *Until it starts, execute/diagnose in the following order*

Number	LED Pattern (■ On □ Off) LED7 LED6 LED5 LED4 LED3 LED2 LED1 LED0	State/Condition	Fault location/contents	Usual Diagnostic	Long Boot Diagnostic	Related Fail Code
60	□□■■ □■■□	-	-	-	-	-
61	□□■■ ■□□□	-	-	-	-	-
62	□□■■ ■□□■	-	-	-	-	-
63	□□■■ ■□■□	-	-	-	-	-
64	□□■■ ■□■■	-	-	-	-	-
65	■□□□ □□□□ □□□□ □□□■	-	-	-	-	-
66	■■■□ □□□□ □□□□ □■■■	-	-	-	-	-
67	■■□■ □□□□	eMMC module initialization has started	Blinking: RAM or eMMC Error	-	-	117-319
68	■■□■ □□□■	Reserved (OFF)	-	-	-	-
69	■■□■ □□■□	eMMC module initialization has completed	Blinking: RAM or eMMC Error	-	-	117-319
70	■■□■ □□■■	eMMC driver error	Blinking: RAM or eMMC Error	-	-	117-319
71	■■□■ □■□□	An unsupported eMMC is inserted	Blinking: RAM or eMMC Error	-	-	117-321
72	■■□■ □■□■	eMMC is not inserted (not detected)	Blinking: RAM or eMMC Error	-	-	117-329
73	■■□■ □■■□	-	-	-	-	-
74	■■□■ □■■■	-	-	-	-	-
75	■■□■ ■□□□	-	-	-	-	-
76	■■□■ ■□□■	-	-	-	-	-
77	■■□■ ■□■□	-	-	-	-	-
78	■■□■ ■□■■	-	-	-	-	-
79	■■□■ ■■□□	-	-	-	-	-
80	■■□■ ■■□■	-	-	-	-	-
81	■■□■ ■■■□	-	-	-	-	-
82	■■□■ ■■■■	-	-	-	-	-
83	■■□□ □□□■	BackPlane Disconnect Detection	ON: BackPlane Connection Error	-	-	016-327
84	■■□□ □□■□	UI Cable Disconnect Detection	ON: UI Cable Connection Error	-	-	016-326
85	■■□□ □□■■	MCU Harness Disconnect Detection	ON: MCU Harness Connection Error	-	-	016-328
86	■■□□ □■□□	Detects the connection of a Device with unknown PCI Option	ON: Detected a Device that does not support PCI Option	-	-	117-336
87	■■□□ □■□■	Detects the connection of a Device with unknown PCIE Option	ON: Detected a Device that does not support PCI EX Option	-	-	117-337
88	■■□□ □■■□	Memory Card Disconnect Detection	ON: Memory Card Connection Error	-	-	117-338
89	□■□□ □□□□	IO ASIC diagnostic has started	ON: ASIC Error	-	-	016-355
90	□■□□ □□□■	IO ASIC diagnostic has completed	-	-	-	-

ELECTRICAL COMPONENTS



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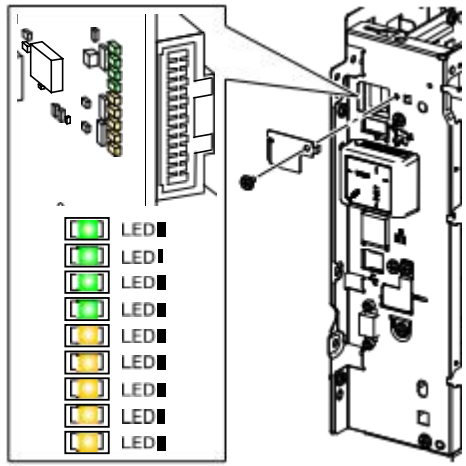
25.5 ESS STATUS LED (4/5)

On Board Debug LED ON States and their Meaning

- *As the device that can be connected differs depending on the M/C,it does not always necessarily mean that diagnostic is possible*
- *In the following table, items that are installed as features are marked with "O"*
- *Until it starts, execute/diagnose in the following order*

Number	LED Pattern (■ Of, □ Off) LED7	LED6	LED5	LED4	LED3	LED2	LED1	LED0	State/Condition	Fault location/contents	Usual Diagnostic	Long Boot Diagnostic	Related Fail Code
91	□	■	□	□	□	□	■	□	Codec ASIC diagnostic has started	ON: ASIC Error	-	-	016-356
92	□	■	□	□	□	□	■	■	Codec ASIC diagnostic has completed	-	-	-	-
93	□	■	□	□	□	■	□	□	Standard Font ROM diagnostic has started	ON: ASIC Error	-	-	-
94	□	■	□	□	□	■	□	■	Standard Font ROM diagnostic has completed	-	-	-	-
95	□	■	□	□	□	■	■	□	Extension Font ROM diagnostic has started	ON: ASIC Error	-	-	116-380 116-310 116-317
96	□	■	□	□	□	■	■	■	Extension Font ROM diagnostic has completed	-	-	-	-
97	□	■	□	□	■	□	□	□	SEEP diagnostic has started	ON: SEEP ROM Error	-	-	016-351 016-350
98	□	■	□	□	■	□	□	■	SEEP diagnostic has completed	-	-	-	-
99	□	■	□	□	■	□	■	□	Timer diagnostic has started	ON: Timer Error	-	-	016-343
100	□	■	□	□	■	□	■	■	Timer diagnostic has completed	-	-	-	-
101	□	■	□	□	■	■	□	□	Page Memory diagnostic has started	ON: RAM Error	-	-	016-317
102	□	■	□	□	■	■	□	■	Page Memory diagnostic has completed	-	-	-	-
103	□	■	□	■	□	□	□	□	OS- to- OS communication diagnostic has started	ON: OS-to-OS Communication Error	-	-	016-383
104	□	■	□	□	□	□	□	■	OS- to- OS communication diagnostics has completed	-	-	-	-
105	□	■	□	■	□	□	■	□	RTC diagnostic has started	ON: RTC Error	-	-	016-342
106	□	■	□	■	□	□	■	■	RTC diagnostic has completed	-	-	-	-
107	□	■	□	■	□	■	□	□	UI Check has started	ON: ESS/UI Error	-	-	016-362
108	□	■	□	■	□	■	□	■	UI Check has completed	-	-	-	-
109	□	■	□	■	■	□	■	□	USB 2.0 Host diagnostic has started	ON: ESS Error	-	-	016-364
110	□	■	□	■	■	□	■	■	USB 2.0 Host diagnostic has completed	-	-	-	-
111	□	■	□	■	■	■	□	□	USB 2.0 Device diagnostic has started	ON: ESS Error	-	-	016-365
112	□	■	□	■	■	■	□	■	USB 2.0 Device diagnostic has completed	-	-	-	-
113	□	■	□	■	■	■	■	□	Hard Disk diagnostic has started	ON: HDD/ESS Error	-	-	016-366 016-367
114	□	■	□	■	■	■	■	■	Hard Disk diagnostic has completed	-	-	-	-
115	□	■	■	□	□	□	□	□	Hard Disk (UFS) diagnostic has started	ON: HDD Error	-	-	016-372 ~382
116	□	■	■	□	□	□	□	■	Hard Disk (UFS) diagnostic has completed	-	-	-	-
117	□	■	■	□	□	■	□	□	Selene diagnostic has started	ON: Selene/ESS Error	-	-	016-369
118	□	■	■	□	□	■	□	■	Selene diagnostic has completed	-	-	-	-
119	□	■	■	□	□	■	■	□	Ethernet diagnostic has started	ON: MAC Address Error	-	-	016-349

ELECTRICAL COMPONENTS



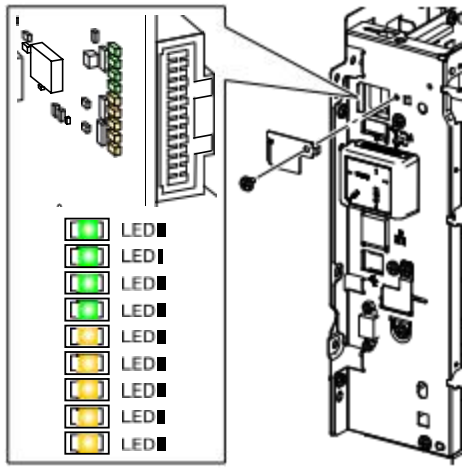
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25.6 ESS STATUS LED (5/5)

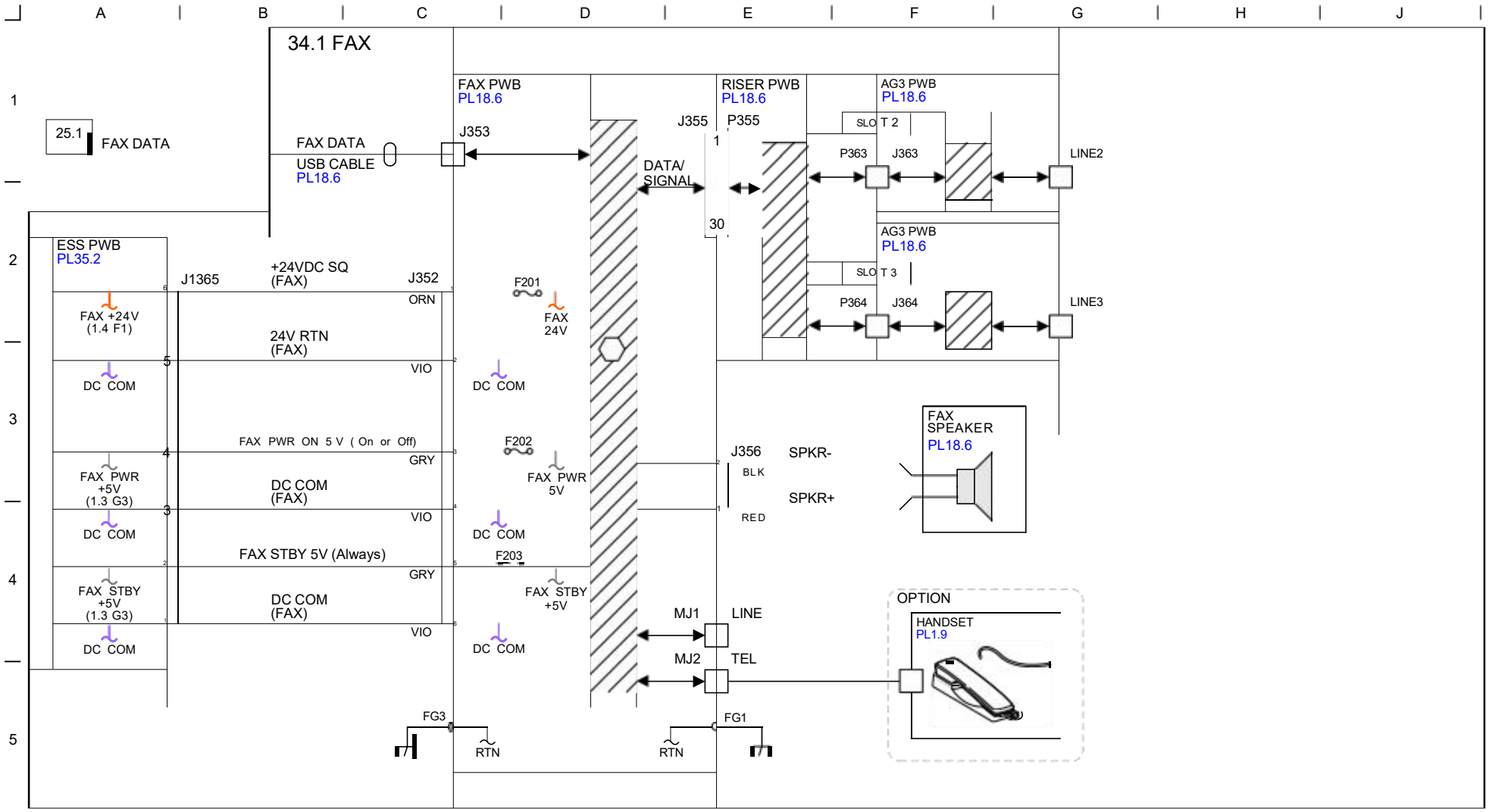
On Board Debug LED ON States and their Meaning

- *As the device that can be connected differs depending on the M/C,it does not always necessarily mean that diagnostic is possible*
- *In the following table, items that are installed as features are marked with " O"*
- *Until it starts, execute/ diagnose in the following order*

Number	LED Pattern (On / Off) LED7 LED6 LED5 LED4 LED3 LED2 LED1 LED0	State/Condition	Fault location/contents	Usual Diagnostic	Long Boot Diagnostic	Related Fail Code
120	■■■□ □■■■	Ethernet diagnostic has completed	-	-	-	-
121	■■■□ ■□□□	Memory Card diagnostic has completed	ON: Memory Card Error	-	-	117-324 117-320 117-321 117-323
122	■■■□ ■□□■	Memory Card diagnostic has completed	-	-	-	-
123	■■■□ ■□■□	IOT communication diagnostic has started	ON: IOT Communication Error	-	-	016-353
124	■■■□ ■□■■	IOT communication diagnostic has completed	-	-	-	-
125	■■■□ ■■□□	IIT communication diagnostic has started	ON: IIT Communication Error	-	-	016-354
126	■■■□ ■■□■	IIT communication diagnostic has completed	-	-	-	-
127	■■■□ □■■■	Standard ROM diagnostic has started	ON: Standard ROM Error	-	-	116-317 016-336
128	■■■□ □■■■	Standard ROM diagnostic has completed	-	-	-	-
129	■■■■ □□□□	EP Accessory diagnostic has started	ON: EP Accessory Error	-	-	016-357
130	■■■■ □□□■	EP Accessory diagnostic has completed	-	-	-	-
131	■■■■ □□■□	Parallel diagnostic has started	ON: Parallel Error	-	-	016-358
132	■■■■ □□■■	Parallel diagnostic has completed	-	-	-	-
133	■■■■ □■□□	USB HUB diagnostic has started	ON: USB HUB Error	-	-	016-359
134	■■■■ □■□■	USB HUB diagnostic has completed	-	-	-	-
135	■■■■ □■■□	USB 3.0 Drv diagnostic has started	ON: ESS Communication Error	-	-	016-361
136	■■■■ □■■■	USB 3.0 Drv diagnostic has completed	-	-	-	-
137	■■■■ ■□□□	Wi-Fi diagnostic has started	ON: Wi-Fi Diagnostic Error	-	-	016-384
138	■■■■ ■□□■	Wi-Fi diagnostic has completed	-	-	-	-
139	■■■■ ■□■□	A4 Fax diagnostic has started	ON: A4 Fax Diagnostic Error	-	-	016-346
140	■■■■ ■□■■	A4 Fax diagnostic has completed	-	-	-	-
141	■□□□ □□□□	Power Saver transition (Standby => Low Power)	Power Saving	-	-	-
142	■□□□ □□□■	Power Saving (Low Power)	Power Saving	-	-	-
143	■□□□ □□■■	Power Saver transition (Low Power => Sleep)	Power Saving	-	-	-
144	■□□□ □□■□	Power Saving (Sleep)	Power Saving	-	-	-
145	□□□□ □□□□	Power Saving (CPU OFF)	Power Saving	-	-	-
146	■□□□ ■□□■	Power Saver transition (Low Power => Standby)	Power Saving	-	-	-
147	■□□□ ■□■□	Power Saver transition (Sleep => Standby)	Power Saving	-	-	-
148	■□□■ □■□■	Power Saving (Sleep) [Power Save has completed]	Power Saving	-	-	-
149	■■■■ ■■■■	Boot has completed Recovering from Power Saver	Normal Operation	-	-	-



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NOTE:

(1) FOR MORE DETAILS ON THE FAX FAIL CODE, REFER TO TROUBLESHOOTING IN CHAPTER 2.

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Chapter 8 Accessories

8 Accessories

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8.1 Accessories (Direct Connection)

8.1.1 Accessories that can be directly connected

This section describes the procedure for directly connecting accessories to the D-Sub14-pin connector (EPA-IF) for accessories on the Device Main Unit.

Refer to [8.2 Accessories (Connection via Adaptor-BOX)] for the procedure to connect accessories to the Device Main Unit via Adaptor-BOX type D.

The accessories that can be directly connected to the D-Sub14-pin connector (EPA-IF) for accessories of the Device Main Unit are as follows. At the time of installation, a connection cable, table, etc. are required. (Refer to [8.1.4 Accessories Installation Position & Required Products (Direct Connection)])

Product Name	Product Code	MOD Code
Coin Cashier *	Q9100021	347V
Dispenser2 *	E9100207	334V
IC Card Cashier	Q9100022	344V
Connection BOX 1 for EM	Q9100009	346V
Adaptor- BOX type D	T9100095	339V
Attention Light II	E9100211	193V

*: Perform the installation of 8.3.1 Accessories AC Kit (EC103111). Also, change the power cord to the External GFI Kit (EC103194). (Refer to 9.2.18 Condensation Prevention Kit)

8.1.2 IC Card Reader and Compatible Accessories

When the built-in IC card reader or external IC card reader is attached to the Main Unit, the following accessories can be added.

Product Name	Product Code	MOD Code
Coin Cashier * 1	Q9100021	347V
Dispenser2 * 1 * 2	E9100207	334V
IC Card Cashier * 3	Q9100022	344V
Adaptor- BOX type D * 4	T9100095	339V
Attention Light II	E9100211	193V

*1: Perform the installation of 8.3.1 Accessories AC Kit (EC103111). Also, change the power cord to the External GFI Kit (EC103194). (Refer to 9.2.18 Condensation Prevention Kit)

*2: Can be installed together only when [New subtraction type] is set.

*3: Compatible only if [New Subtractive + Dispenser 2 Declaration Mode + User Information not Notified] are set

*4: Can be connected only when connecting as a relay device of a foot switch

8.1.3 Accessory Connection Diagram (Direct Connection)

When directly connecting the accessories to the D-Sub 14-pin connector (EPA-IF) for accessories of the Main Unit, only one of (1) to (8) in the figure below can be connected. (Figure 1)

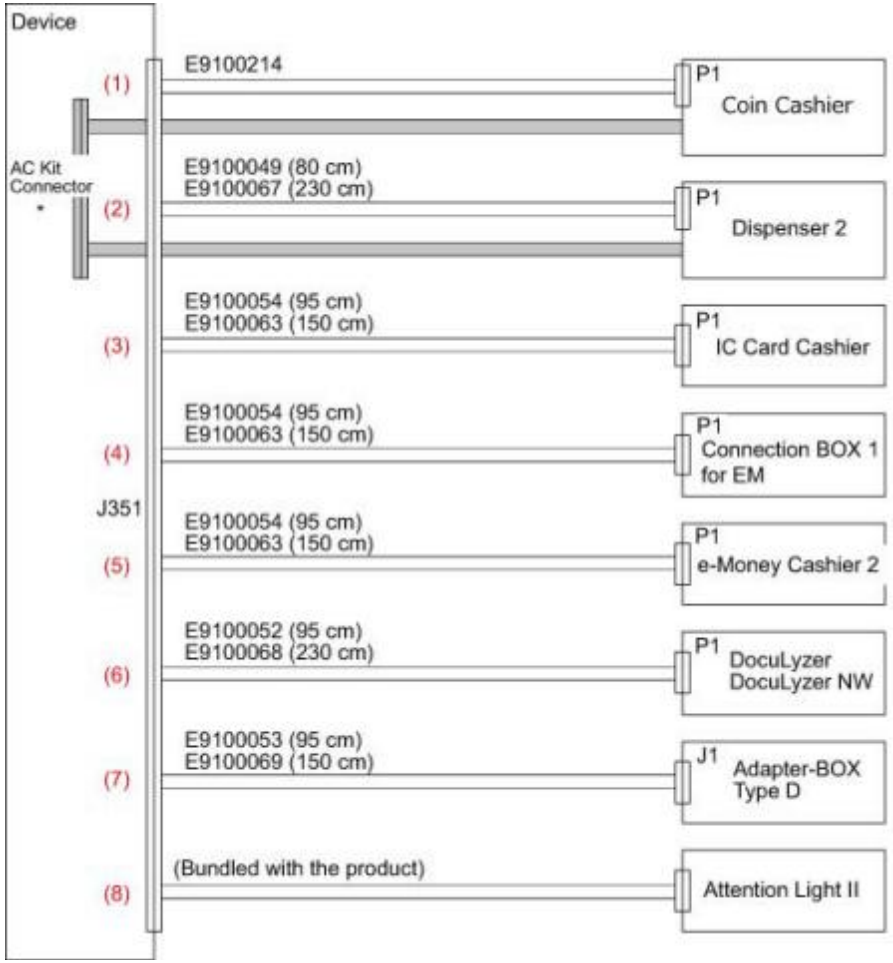


Figure 1 gre800009

*: Perform the installation of 8.3.1 Accessories AC Kit (EC103111). Also, change the power cord to the External GFI Kit (EC103194). (Refer to 9.2.18 Condensation Prevention Kit)

8.1.4 Accessories Installation Position & Required Products (Direct Connection)

The tables and connection cables required to connect accessories directly to the Main Unit are as follows.

Main Unit/Options Installation	Main Unit only		Main Unit + Finisher	
Accessories Installation Position	**Left Side of Main Unit**	**Right Side of Main Unit**	**Left Side of Main Unit**	**Right Side of Main Unit (placed directly on Finisher)**
Coin Cashier (Q9100021)	• Coin Cashier / MC connection cable (for D-Sub 14 pin) (E9100214)			
Dispenser2 (E9100207)	• Wing Table (EC104201) • Dispenser 2 / MC connection cable (230cm for D-Sub 14 pin) (E9100067)	• Accessory Table A (EC104221) • Dispenser 2 / MC connection cable (80cm for D-Sub 14 pin) (E9100049)	• Wing Table (EC104201) • Dispenser 2 / MC connection cable (230cm for D-Sub 14 pin) (E9100067)	• Dispenser 2 / MC connection cable (80cm for D-Sub 14 pin) (E9100049)
IC Card Cashier (Q9100022)	• Wing Table (EC104201) • IC Card Gate / MC connection cable (150 cm) (for D-Sub 14 pin) (E9100063)	• Accessory Table A (EC104221) • IC Card Gate / MC connection cable (95 cm) (for D-Sub 14 pin) (E9100054)	• Wing Table (EC104201) • IC Card Gate / MC connection cable (150 cm) (for D-Sub 14 pin) (E9100063)	• IC Card Gate / MC connection cable (95 cm) (for D-Sub 14 pin) (E9100054)
Connection BOX 1 for EM (Q9100009)	• Wing Table (EC104201) • IC Card Gate / MC connection cable (150 cm) (for D-Sub 14 pin) (E9100063)	• Accessory Table (Sales Purchased Products) • IC Card Gate / MC connection cable (95 cm) (for D-Sub 14 pin) (E9100054)	• Wing Table (EC104201) • IC Card Gate / MC connection cable (150 cm) (for D-Sub 14 pin) (E9100063)	• IC Card Gate / MC connection cable (95 cm) (for D-Sub 14 pin) (E9100054)
Adaptor-BOX type D (T9100095)	• Wing Table (EC104201) • Adapter-BOX / MC connection cable (150 cm for D-Sub 14 pin) (E9100069)	• Accessory Table A (EC104221) • Adapter-BOX / MC connection cable (95 cm for D-Sub 14 pin) (E9100053)	• Wing Table (EC104201) • Adapter-BOX / MC connection cable (150 cm for D-Sub 14 pin) (E9100069)	• Adapter-BOX / MC connection cable (95 cm for D-Sub 14 pin) (E9100053)
Attention Light II (E9100211)	• Wing Table (EC104201) • Connection cable is bundled with the product	• Accessory Table A (EC104221) • Connection cable is bundled with the product	• Wing Table (EC104201) • Connection cable is bundled with the product	• Connection cable is bundled with the product

NOTE

When the above accessories are installed, always change the following NVM in order for the Device to recognize the type of accessories.

NVM (850-007): Accessory Types

- 0: None, or Foot Switch
- 3 : Dispenser2
- 4 : Coin Cashier
- 7: Parallel Installation of Dispenser 2 and Coin Cashier

8.1.5 Installation of Coin Cashier (direct connection)

Refer to the Coin Cashier Service Manual for the detailed procedures and settings.

Procedures before servicing

- Before installing the Coin Cashier, perform the installation of 8.3.1 Accessories AC Kit (EC103111).
  (AC 100V power is supplied from the Main Unit)
- Change the power cord to the External GFI Kit (EC103194).

Preparation

[Connection Cables]

Product Name	Product Code
Coin Cashier / MC connection cable (for D-Sub 14 pin)	E9100214

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
2. Connect the Coin Cashier / MC connection cable to P1 of Coin Cashier.
3. Connect the Coin Cashier / MC connection cable to J351 of the main unit of the device. (Figure 1)

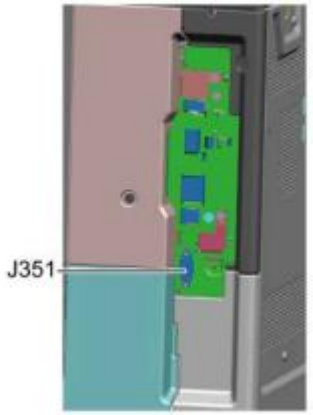


Figure 1 mbl801001

4. Remove the EP-IF Cover from the Rear Lower Cover. (Figure 2)
   (1) Release the hook (x2) and remove the EP-IF Cover.



Figure 2 mb912009

5. Remove the Blind Cover from the EP-IF Cover. (Figure 3)
   (1) Remove the Blind Cover.

NOTE
Make sure that there are no protrusions on the cut surface. If any burrs remain on the cut surface, remove them cleanly.



Figure 3 mb912010

6. Connect the connector of the Coin Cashier power cable to the connector of the Device's Main Unit. (Figure 4)
   (1) Connect the connector of the Coin Cashier power cable to the connector of the Device's Main Unit.
   (2) Pass the cord of the accessory through the clamp.
   (3) Secure it by using the screw.
   (4) Reinstall the EP-IF Cover, and route the Wire Harness of Dispenser 2 power cable into the U-Groove.

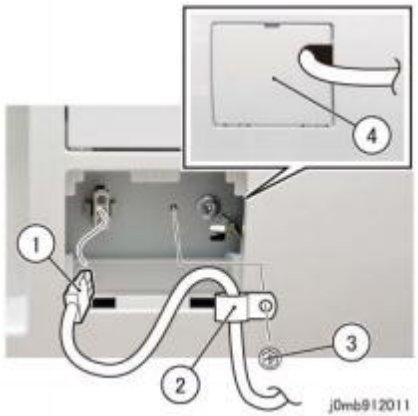


Figure 4 mb912011

7. Install the GFI Breaker from the External GFI Kit to the power plug. (Figure 5)
   (1) Remove the power cord and install the GFI Breaker.

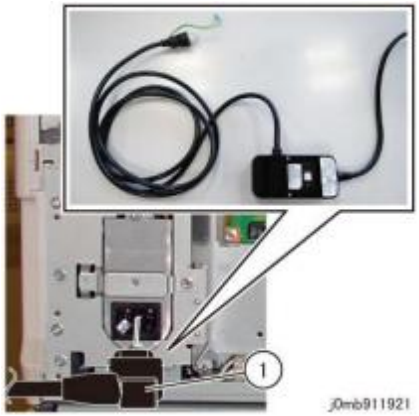


Figure 5 mb911921

8. Plug in the power plug and turn ON the power switch.
9. Enter the UI Diag Mode and change the following NVM values.
   (1) Set the value of DC131 (850-007) from 0 → 4 (Accessory Type: Coin Cashier).
   (2) Set the value of DC131 (850-009) from 0 (initial value) → 1 (Print Control function: Track).

   NOTE
   Set the Print control function of the main unit to [Track] in order to set the print to [Billable]. However, if the customer requests that the print be set to [Not billable], set the value of DC131 (850-009) to 0 (initial value).

   (3) Confirm that the value of DC131 (850-016) is 0 (initial value) (job cancellation setting when charge is insufficient: cancel).

   NOTE
   After changing NVM 121-335: When EP Accessory Wake Up Answer Fail is displayed, turn the power OFF/ON. The Device will return to normal operation after OFF/ON.

10. Refer to the Coin Cashier Service Manual to configure Coin Cashier.
11. Check the overall operation.
12. If necessary, explain the handling to the customer.
13. Create a report with the following MOD code as the MOD of the main unit of the device.
    - Coin Cashier: 347V

8.1.6 Installation of Dispenser 2 (Direct Connection)

Refer to the Dispenser 2 Service Manual for the detailed procedures and settings.

Procedures before servicing

- Before installing the Coin Cashier, perform the installation of 8.3.1 Accessories AC Kit (EC103111).
  (AC 100V power is supplied from the Main Unit)
- Change the power cord to the External GFI Kit (EC103194).

Also, before performing the procedure, refer to "8.1.4 Accessories Installation Position & Required Products (Direct Connection)" and prepare the required table, etc. that match with the desired installation position.

Preparation

[Connection Cables]

Prepare either one according to the installation position.

Product Name	Product Code
Dispenser 2 / MC connection cable (80 cm for D-Sub 14 pin)	E9100049
Dispenser 2 / MC connection cable (230 cm for D-Sub 14 pin)	E9100067

⚠ WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
2. Connect the Dispenser 2 / MC connection cable to P1 of Dispenser 2. (Figure 1)



Figure 1 sr80092

3. Connect the Dispenser 2 / MC connection cable to J351 of the main unit of the device. (Figure 2)

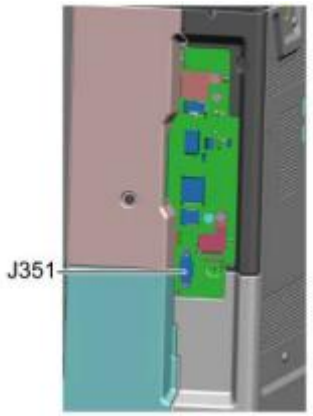


Figure 2 mbl801001

4. Remove the EP-IF Cover from the Rear Lower Cover. (Figure 3)

(1) Release the hook (x2) and remove the EP-IF Cover.



Figure 3 mb912009

5. Remove the Blind Cover from the EP-IF Cover. (Figure 4)
   (1) Remove the Blind Cover.

NOTE
Make sure that there are no protrusions on the cut surface. If any burrs remain on the cut surface, remove them cleanly.



Figure 4 mb912010

6. Connect the connector of the Dispenser 2 power cable to the connector of the Device's Main Unit. (Figure 5)
   (1) Connect the connector of the Dispenser 2 power cable to the connector of the Device's Main Unit.
   (2) Pass the cord of the accessory through the clamp.
   (3) Secure it by using the screw.
   (4) Reinstall the EP-IF Cover, and route the Wire Harness of Dispenser 2 power cable into the U-Groove.

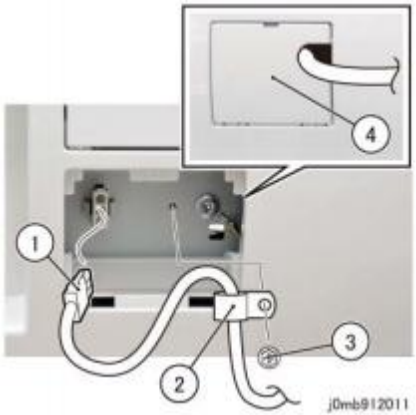


Figure 5 mb912011

7. Install the GFI Breaker from the External GFI Kit to the power plug. (Figure 6)
   (1) Remove the power cord and install the GFI Breaker.

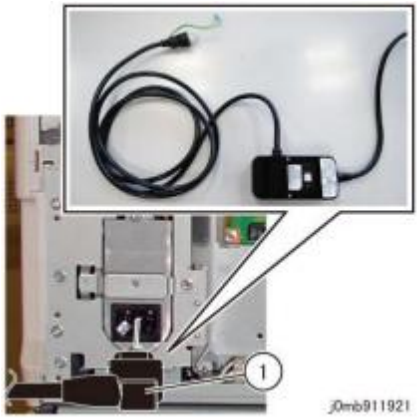


Figure 6 mb911921

8. Plug in the power plug and turn ON the power switch.
9. Enter the UI Diag Mode and change the following NVM values.
   (1) Set the value of DC131 (850-007) from 0 → 3 (Accessory Type: Dispenser 2).
   (2) Set the value of DC131 (850-009) from 0 (initial value) → 1 (Print Control function: Track).

NOTE

Set the Print control function of the main unit to [Track] in order to set the print to [Billable]. However, if the customer requests that the print be set to [Not billable], set the value of DC131 (850-009) to 0 (initial value).

(3) Confirm that the value of DC131 (850-016) is 0 (initial value) (job cancellation setting when charge is insufficient: cancel).

10. Refer to the Dispenser 2 Service Manual to configure Dispenser 2.
    - Follow the steps below to set the I/F setting of Dispenser 2 to [Standard MC].
      (1) Set the rotary switch to "3" and turn on the power.
      (2) Press the card eject button to display "1: Standard MC".
      (3) Set the rotary switch to "1" and turn the power OFF/ON.
    - Follow the procedure below to set the frequency setting at the start to [Minimum frequency].
      (1) Set the rotary switch to "5" and turn on the power.
      (2) Press the card eject button to display "2: Minimum frequency (New MC)".
      (3) Set the rotary switch to "1" and turn the power OFF and ON.
11. If necessary, explain the handling to the customer.
12. Create a report using [334V] as the MOD for the Main Unit.

8.1.7 Installation of IC Card Cashier (Direct Connection)

Refer to the IC Card Cashier Service Manual for detailed procedures and settings.

Procedures before servicing

Before performing the procedure, refer to "8.1.4 Accessories Installation Position & Required Products (Direct Connection)" and prepare the required table, etc. that match with the desired installation position.

Preparation

[Connection Cables]

Prepare either one according to the installation position.

Product Name	Product Code
IC Card Gate / MC connection cable (95 cm) (for D-Sub 14 pin)	E9100054
IC Card Gate / MC connection cable (150 cm) (for D-Sub 14 pin)	E9100063

[Tools]

Tool Name	Tool No.
IC Card Gate TEST CA (IC Card for CE)	499T 06622

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.

2. Insert the AC adapter connector into the [DC IN 15V] of the IC Card Cashier and attach the connector cover to prevent the AC adapter connector from coming off. (Figure 1)

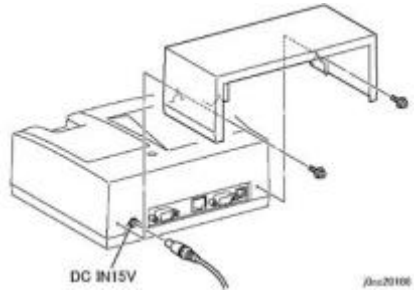


Figure 1 cc20106

3. Affix the fastener (x4) to the bottom of the IC Card Cashier. (Figure 2)

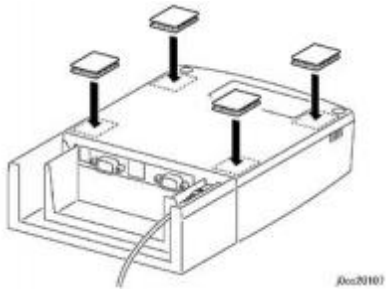


Figure 2 cc20107

4. Secure the IC Card Cashier to its designated installation position using the fastener (x4).
5. Connect the IC Card Gate / MC connection cable to [MC] of IC Card Cashier. (Figure 3)

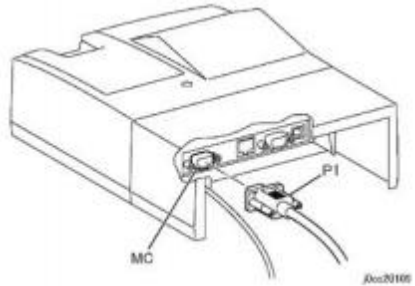


Figure 3 cc20109

6. Connect the IC Card Gate / MC connection cable to J351 of the main unit of the device. (Figure 4)

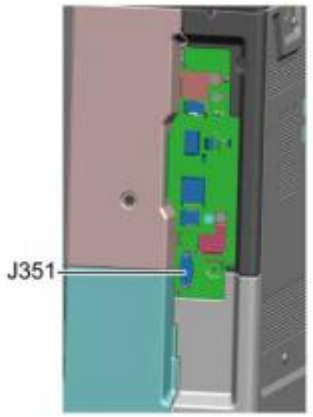


Figure 4 mbl801001

7. Activate and initialize the IC Card Cashier.
   - Refer to [2. 1.4 IC Card Cashier Activation and Initial Settings] in Chapter 2 Installation/ Removal of the IC Card Cashier Service Manual.
8. Plug in the power plug and turn ON the power switch.
9. Enter the UI Diag Mode and change the following NVM values.
   (1) Set the value of DC131 (850-007) from 0 → 3 (Accessory Type: Dispenser 2).

   NOTE
   IC Card Cashier is treated as Dispenser 2 when identifying as an accessory on the Device.

   (2) Set the value of DC131 (850-009) from 0 (initial value) → 1 (Print Control function: Track).

   NOTE
   Set the Print control function of the main unit to [Track] in order to set the print to [Billable]. However, if the customer requests that the print be set to [Not billable], set the value of DC131 (850-009) to 0 (initial value).

   (3) Confirm that the value of DC131 (850-016) is 0 (initial value) (job cancellation setting when charge is insufficient: cancel).
10. Check the operation of IC Card Cashier.
    (1) Insert the CE IC Card into the IC Card Cashier.
    (2) Confirm that the LCD display is "Can be used".
    (3) Make sure you can make a copy.

11. Ask the customer (System Administrator) to perform the initial settings of the IC Card Cashier by referring to "(2) Initial Settings" in the user guide.
12. Create a report using [344V] as the MOD for the Main Unit.

8.1.8 Installation of Connection BOX 1 for EM (Direct Connection)

Refer to the Connection BOX 1 for EM Service Manual for detailed procedures and settings.

Procedures before servicing

Before performing the procedure, refer to "8.1.4 Accessories Installation Position & Required Products (Direct Connection)" and prepare the required table, etc. that match with the desired installation position.

Preparation

[Connection Cables]

Prepare either one according to the installation position.

Product Name	Product Code
IC Card Gate / MC connection cable (95 cm) (for D-Sub 14 pin)	E9100054
IC Card Gate / MC connection cable (150 cm) (for D-Sub 14 pin)	E9100063

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
2. Affix the fastener (x4) to the bottom of Connection BOX 1 for EM. (Figure 1)
   (1) Peel off the seal of the fastener (x4).

(2) Affix the fastener (x4) to the bottom of Connection BOX 1 for EM.

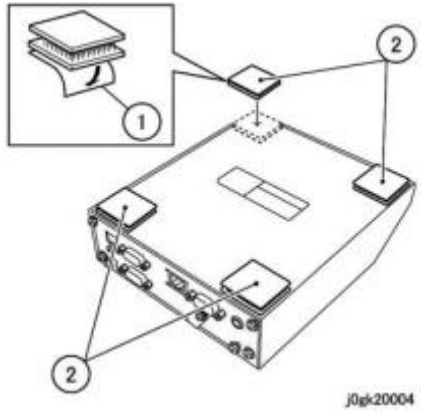


Figure 1 gk20004

3. Connect the AC adapter to Connection BOX 1 for EM. (Figure 2)
   (1) Remove the screw that secures the Clamp and remove the Clamp.
   (2) Attach the Clamp to the cord of the AC adapter.
   (3) Connect the plug of the AC adapter to the power jack of Connection BOX 1 for EM.
   (4) Secure Clamp with screw.

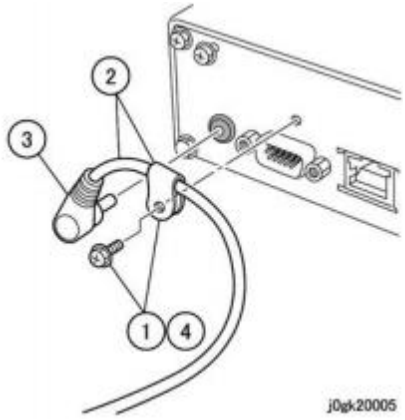


Figure 2 gk20005

4. Connect the IC Card Gate / MC connection cable to the MC connection connector of Connection BOX 1 for EM. (Figure 3)

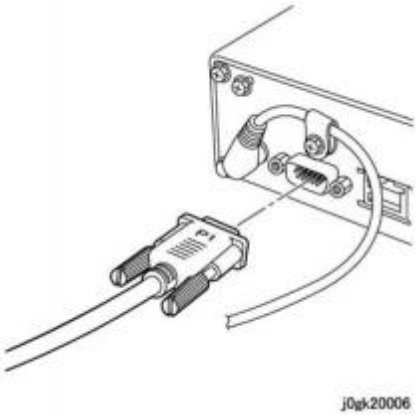


Figure 3 gk20006

5. Connect the transport system e-money R/W connection cable to the card reader connection connector of Connection BOX 1 for EM. (Figure 4)

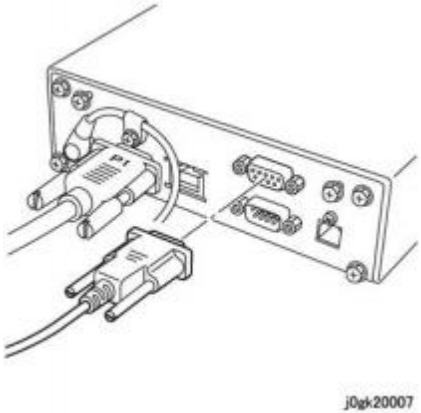


Figure 4 gk20007

6. Attach the cable cover to Connection BOX 1 for EM. (Figure 5)
   (1) Loosen the screw (x4).
   (2) Attach the cable cover.

(3) Tighten the screw (x4).

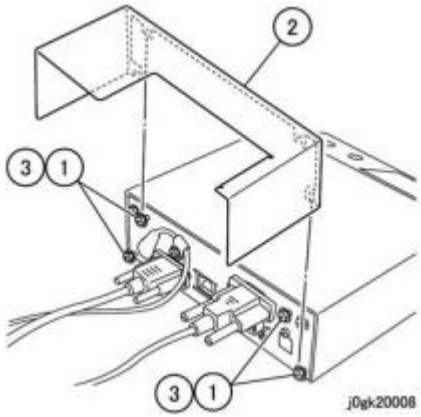


Figure 5 gk20008

7. Secure the Connection BOX 1 for EM to its designated installation position using the fastener (x4). (Figure 6)
   (1) Peel off the seal of the fastener (x4).
   (2) Place the Connection BOX 1 for EM on the designated installation location and gently press the Connection BOX 1 for EM from above so that the fastener (x4) does not peel off.

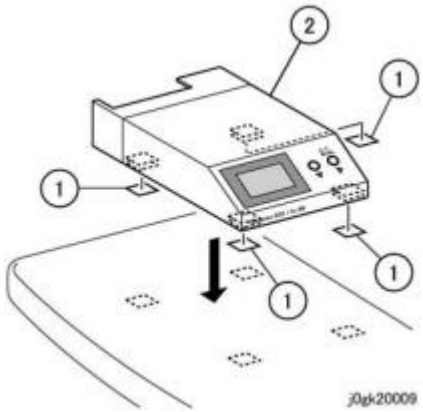


Figure 6 gk20009

8. Affix the fastener (x4) to the bottom of the Card Reader. (Figure 7)

NOTE

Pay attention to the orientation of the fastener (x4), and affix it along the four corners of the bottom of the Card Reader.

(1) Peel off the seal of the fastener (x4).
(2) Affix the fastener (x4) to the bottom of the Card Reader.

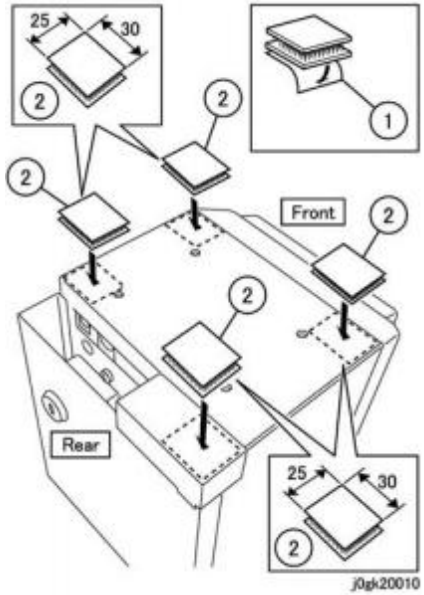


Figure 7 gk20010

9. Secure the Card Reader to the top of Connection BOX 1 for EM with the fastener (x4). (Figure 8)

NOTE

Secure the rear end of Connection BOX 1 for EM cable cover and the rear end of the Card Reader so that they are aligned.

(1) Peel off the seal of the fastener (x4).

(2) Place the Card Reader on the top of Connection BOX 1 for EM, and lightly press the card reader from above so that the fastener (x4) does not peel off.

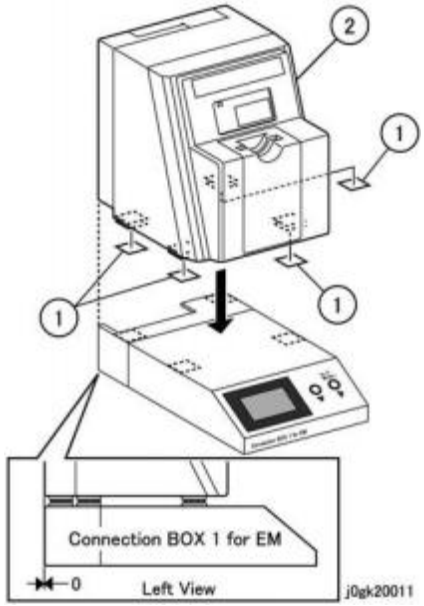


Figure 8 gk20011

10. Connect the AC adapter to the Card Reader. (Figure 9)
    (1) Open the maintenance door of the Card Reader.
    (2) Connect the plug of the AC adapter to the power jack of the Card Reader.

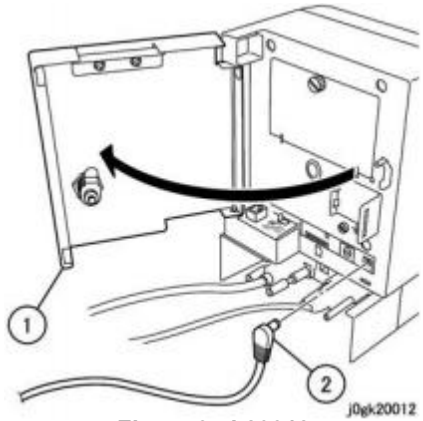


Figure 9 gk20012

11. Connect the transport system e-money R/W connection cable to the Card Reader. (Figure 10)

NOTE

Route any slack in the transport system e-money R/W connection cable inside the Card Reader maintenance door.

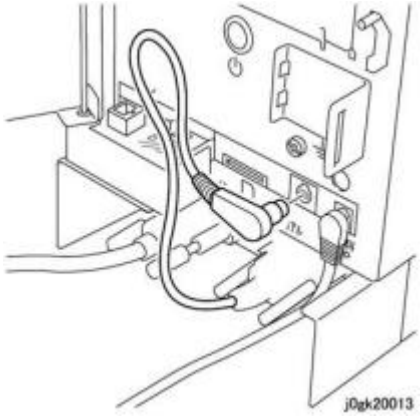


Figure 10 gk20013

12. If necessary, attach security wires. (Figure 11)
    (1) Attach the security wire to the caster.



Figure 11 kt80004

13. Connect the LAN cable for ISDN network connection to the LAN connector of the card reader. (Figure 12)

NOTE

Since the Card Reader communicates with the transport system e-money center through the ISDN network, it is necessary for the customer to prepare a LAN cable for connecting to the ISDN network in advance.

14. When attaching the security wire, tie the ring at the tip of the security wire drawn from the caster and the frame hole with the included cable tie. (Figure 12)

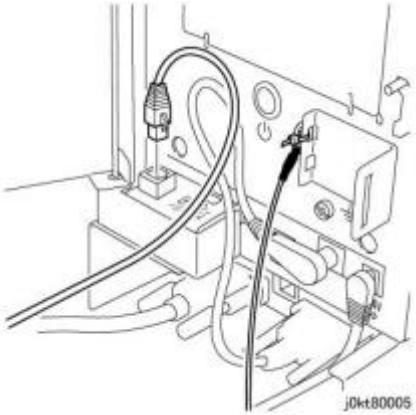


Figure 12 kt80005

15. When the maintenance door of the Card Reader is closed, tie it with the included cable tie so that the transport system e-money R/W connection cable and LAN cable may not be pinched.
16. Connect the IC Card Gate / MC connection cable to J351 of the main unit of the device. (Figure 13)

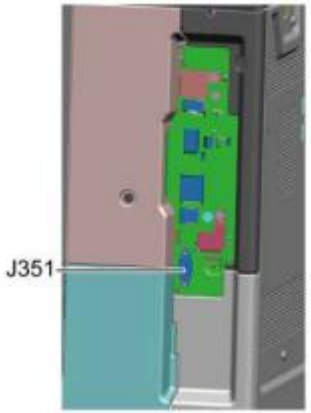


Figure 13 mbl801001

17. Activate Connection BOX 1 for EM, and if necessary, perform initial settings for items that can only be set in CE mode in Web UI setting mode.
    - Refer to Connection BOX 1 for EM Service Manual Chapter 2 Installation/Removal [2. 1.5 Activation and Initial Settings]
18. Plug in the power plug and turn ON the power switch.
19. Enter the UI Diag Mode and change the following NVM values.
    (1) Set the value of DC131 (850-007) from 0 (initial value) → 3 (Accessory Type: Dispenser 2).

    NOTE

    Connection BOX 1 for EM is treated as Dispenser 2 when identifying as an accessory on the Device.

    (2) Set the value of DC131 (850-009) from 0 (initial value) → 1 (Print Control function: Track).

    NOTE

    Set the Print control function of the main unit to [Track] in order to set the print to [Billable]. However, if the customer requests that the print be set to [Not billable], set the value of DC131 (850-009) to 0 (initial value).

    (3) Confirm that the value of DC131 (850-016) is 0 (initial value) (job cancellation setting when charge is insufficient: cancel).
20. Check the operation of Connection BOX 1 for EM.
    (1) Insert the CE card into the Card Reader.
    (2) Make sure you can make a copy.
21. Ask the customer (System Administrator) to perform the initial settings of Connection BOX 1 for EM by referring to [2 Initial Settings] in the user guide.

    NOTE

    The price setting (price system) mode differs depending on the customer's operation. If you want to separate the copy fee and the charge print fee, set the [Price by service / color / size] mode, and if you want to make them the same, set the [Price by color / size] (initial value) mode.

    NOTE

    Be sure to use the [Restrict color output] setting in [Allow color output] (default as shipped from factory).
22. Create the report using [346V] as the MOD for the Main Unit.

8.1.9 Installation of Adapter-BOX type D (FB Only)

Refer to the Adapter-BOX service manual for detailed procedures and settings.

MOT3

This section describes the procedure for connecting Adapter-BOX type D to the main unit of the device. Refer to [8.2 Accessories (Connection via Adaptor-BOX)] for the procedure to connect accessories to Adaptor-BOX type D.

qUoo9buU92 d9toU9 29Uvioine

Before performing the procedure, refer to "8.1.4 Accessories Installation Position & Required Products (Direct Connection)" and prepare the required table, etc. that match with the desired installation position.

qU9q6U6当ion

[Connection Cables]

Prepare either one according to the installation position.

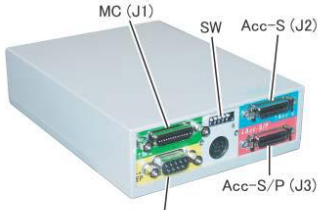
Product Name	Product name
Adapter-BOX / MC connection cable (95 cm for D-Sub 14 pin)	E9100053
Adapter-BOX / MC connection cable (150 cm for D-Sub 14 pin)	E9100069

Warning

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
2. Connect the Adapter-BOX / MC connection cable to the MC (J1) of Adapter-BOX type D. (Figure 1)



3. Connect the Adapter-BOX / MC connection cable to J351 of the main unit of the device. (Figure 2)

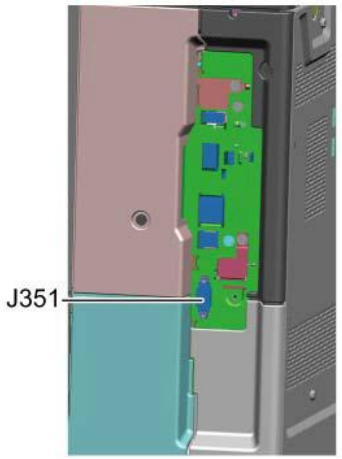


Figure 2 mbl801001

4. Install accessories to connect to Adapter-BOX type D. (Refer to [8.2 Accessories (Connection via Adapter-BOX)])

MOT3

There is no installation configuration for the Adapter-BOX standalone. Be sure to turn ON the power with the accessories connected. In a disconnected state, 121-335: EP Accessory Wake Up Answer Fail will be displayed. In this case, turn OFF the power and connect accessories to cancel.

5. If necessary, explain the handling to the customer.

6. Create the report using [339V] as the MOD for the Main Unit.

8.1.10 Installation of Attention Light II

The Attention Light option informs the operators who are away from the Device, the Device status (paper jams etc) by the blinking/lighting up.

Product Code

Product Name	Product Code
Attention Light II	E9100211

Connection via Attention Light II of Accessories

It is also possible to connect accessories via the Attention Light II connected to the Device Main Unit.

The following accessories can be connected via Attention Light II.

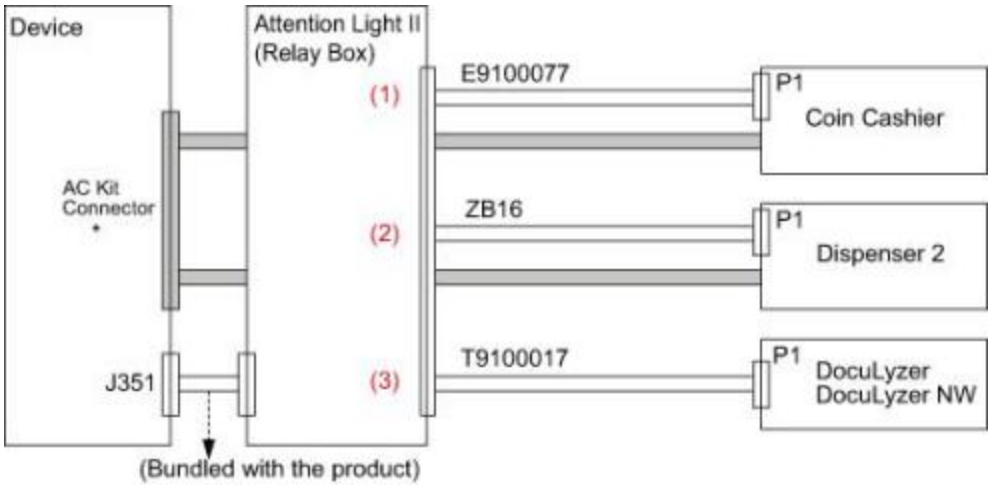
Product Name	Product Code	MOD Code
Coin Cashier *	Q9100021	347V
Dispenser2 *	E9100207	334V

*: Perform the installation of 8.3 Accessories AC Kit (EC103111). Also, change the power cord to the External GFI Kit (EC103194).

When connecting accessories via Attention Light II, the following connection cables are required depending on the accessories.

Product Name	Connection cable
Coin Cashier	Coin Cashier / MC connection cable (E9100077)
Dispanser 2	10pin harness (ZB16)

When connecting accessories via Attention Light II, only one of (1) to (3) in the figure below can be connected. (Figure 1)



ヲieuU9 卜 eU98000卜0

*: Perform the installation of 8.3 Accessories AC Kit (EC103111). Also, change the power cord to the External GFI Kit (EC103194).

Warning

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Caution

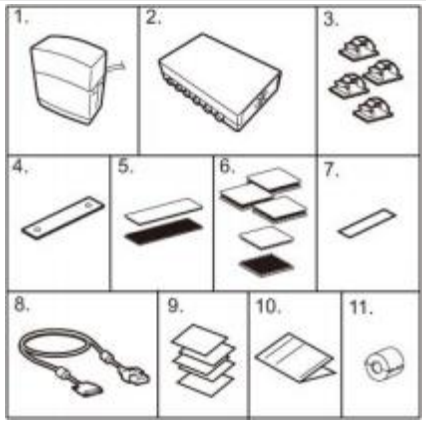
Static electricity may damage electrical parts. Always wear a wrist band during servicing. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Installation Procedure

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
2. Check the Bundled Items

The Attention Light II is bundled with the following items: (Figure 2)

Mo.	M6m9	o当V
1	Attention Light (cable length: 2 .5 m)	1
2	Relay Box	1
3	Clamp	4
4	Plate	1
5	Fastener (47x21 mm)	1
6	Fastener (30x25.4 mm)	4
7	Label (Label to be pasted on the Attention Light)	1
8	Cable (P2-J1 cable for D-Sub14 pin)	1
9	User Guide	1
10	Ferrite Core Installation Manual	1
11	Ferrite Core (TFT-152613N: Internal diameter: 15mm)	1



3. Remove the cover of the Relay Kit. (Figure 3)
   (1) Remove the screw (x4).

(2) Remove the Cover.

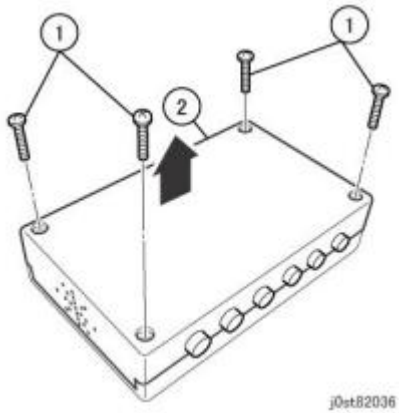


Figure 3 st82036

4. Set the switch according to the switch settings of the Relay Kit. (Figure 4)
   (1) Switch the setting.

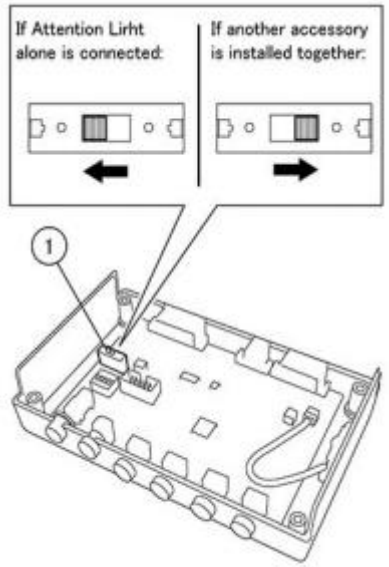


Figure 4 st82047

5. Reinstall the cover removed in Step 3.
6. Affix the fastener (30x25.4 mm) (x4) to the Relay Kit. (Figure 5)
   (1) Affix the fastener (x4).

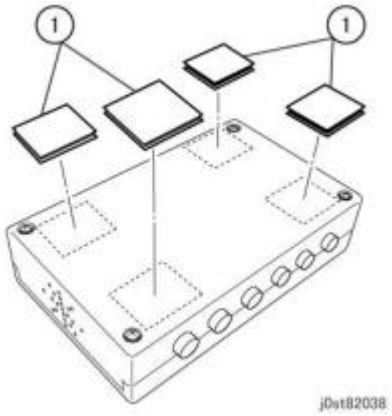


Figure 5 st82038

7. Connect the Relay Kit and J351 of the Device using the cable.
   [If there are no other accessories connected to J351] (Figure 6)
   (1) Connect the cable in the Kit to J351.

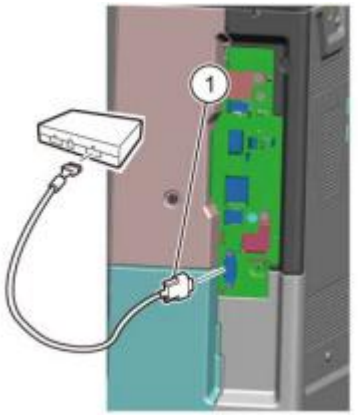


Figure 6 mbl801002

[If there are other accessories connected to J351] (Figure 7)
(1) Disconnect the cable of the accessory from J351.
(2) Replace the accessory cable with the cable for connection via Attention Light II shown in Table 3, and connect it to the Relay Kit.

Accessories

(3) Connect the cable in the Kit to J351.

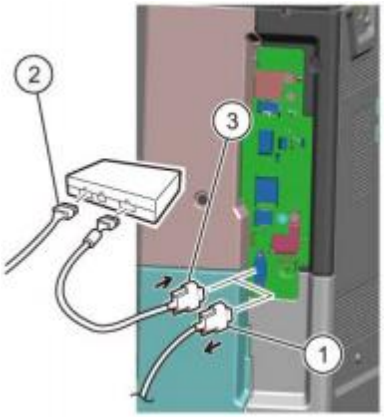


Figure 7 mbl801003

8. Attach the Relay Kit.
[When Accessory Table A is not installed] (Figure 8)

NOTE
To prevent contamination from foreign matter and staples, install with the connector facing downwards.

(1) Attach the Relay Kit to the Rear Lower Cover.

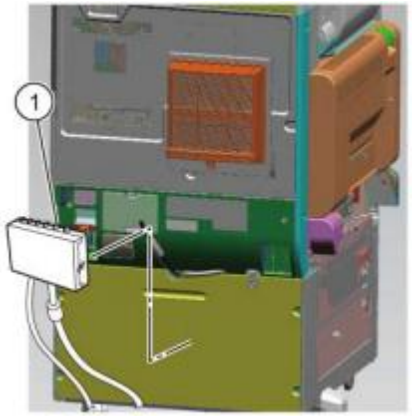


Figure 8 mbl801004

[When Accessory Table A is installed] (Figure 9)

(1) Attach the Relay Kit to Accessory Table A.

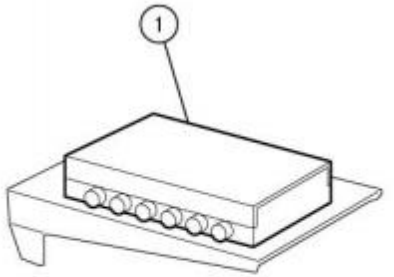


Figure 9 st82071

9. Connect the cable from the Attention Light to the Relay Kit. (Figure 10)

(1) Connect the cable.

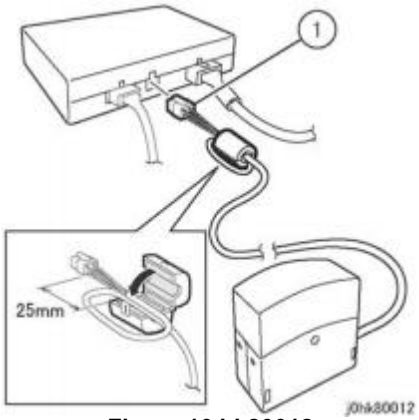


Figure 10 hk80012

10. If the surface of the Attention Light installation location is made of metal, attach the Attention Light with a magnet.
11. If the surface of the Attention Light installation location is not made of metal, attach the Attention Light with a plate.

(1) Affix the fastener (47x21 mm) to the plate. (Figure 11)

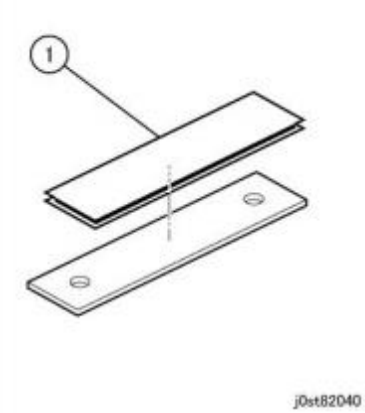


Figure 11 st82040

(2) Affix the plate with the fastener affixed to the installation location and then the Attention Light with a magnet.

12. When attaching the Attention Light to a wall, change the installation of the base. (Figure 12)

(1) Remove the base.

(2) Install the base.

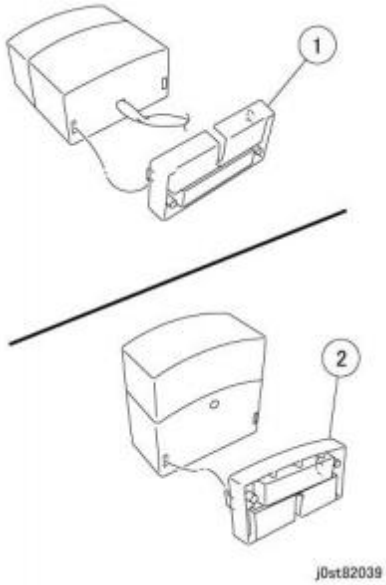


Figure 12 st82039

13. If necessary, hold the cable of the Attention Light and the cable connecting the Relay Kit and the Device with the clamps (x4) provided in the Kit.

14. Plug in the power plug and turn ON the power switch.

15. Set the individual features according to the needs of the customer. (Figure 13)

(1) Turn the lamp and chimes OFF temporarily.

(2) Use the dial to adjust the chime volume.

(3) Set the conditions for the Green Lamp to light up/go off.

(4) Set the Light ON time for the Green Lamp. (15, 30, 60, 180 sec)

REFERENCE

When the Green Lamp is set to [OFF] or [C: Copying/Printing], this setting will become invalid.

(5) Set whether to turn the Orange Lamp ON.

REFERENCE

If set to "ON", the lamp will turn ON when any of the following events occur during scanning: add paper, auto paper supply selection failed, paper jam, document jam and cover open.

(6) Set the Light ON time for the Orange Lamp. (15, 30, 60, 180 sec)



Figure 13 shb800004

16. Create the report using [193V] as the MOD for the Main Unit.

8.2 Accessories (Connection via Adapter-BOX)

8.2.1 Accessories that can be connected via Adapter-BOX

This section describes the procedure for connecting accessories to the Device Main Unit via Adapter-BOX type D.

Refer to [8. 1 Accessories (Direct Connection)] for the procedure to connect accessories directly to the Device Main Unit.

The accessories that can be connected to the Device Main Unit via Adapter-BOX type D are as follows. At the time of installation, a connection cable, table, etc. are required. (Refer to [8.2.4 Accessories Installation Position & Required Products (Connection via Adapter-BOX)])

Product Name	Product Code	MOD Code
Coin Cashier *	Q9100021	347V
Dispenser2 *	E9100207	334V
IC Card Cashier	Q9100022	344V
Connection BOX 1 for EM	Q9100009	346V

*: Perform the installation of 8.3.1 Accessories AC Kit (EC103111). Also, change the power cord to the External GFI Kit (EC103194). (Refer to 9.2.18 Condensation Prevention Kit)

8.2.2 Accessories that can be added via Adapter-BOX

When connecting two or more accessories via Adapter-BOX type D, the following combinations can be used together.

Product Name	Coin Cashier	Dispenser2	IC Card Cashier	Connection BOX 1 for EM	Foot Switch	Key Switch
Coin Cashier	-	O *7 *8	O *7	O *7	O *5	-
Dispenser2	O *7 *8	-	O *2	O	O	O
Dispenser 2 + Foot Switch	O *7 *8	-	O *2	O	-	-
Dispenser 2 + Key Switch	O *7 *8	-	O *2	O	-	-
IC Card Cashier	O *7	O *2	-	O	O	O *6
Connection BOX 1 for EM	O *7	O	O	-	O	-
Foot Switch	O *5	O	O	O	-	-
Key Switch	-	O	O *6	-	-	-

*2: IC Card Cashier can be installed together with Dispenser 2 in Ver 3.0 or later.

*5: If the Coin Cashier and Foot Switch are jointly installed, the color switching key embedded in the Coin Cashier cannot be used

*6: When the IC Card Cashier and the Key Switch are installed side by side, the Key Switch can only be used as a color switching key.

*7: [Fax Charges] cannot be set.

*8: AC harness (WZ24) for accessories is required when Coin Cashier and Dispenser 2 are installed side by side.

8.2.3 Accessories Connection Diagram (Connection via Adapter-BOX)

When connecting accessories to the Device Main Unit via Adaptor-BOX type D, you can connect up to two of (1) to (10) in the figure below with the combination shown in [8.2.2 Accessories that can be installed together via Adapter-BOX]. (Figure 1, Figure 2)

NOTE

Refer to [8.2.2 Accessories that can be installed together via Adapter-BOX] for notes and restrictions when installing.

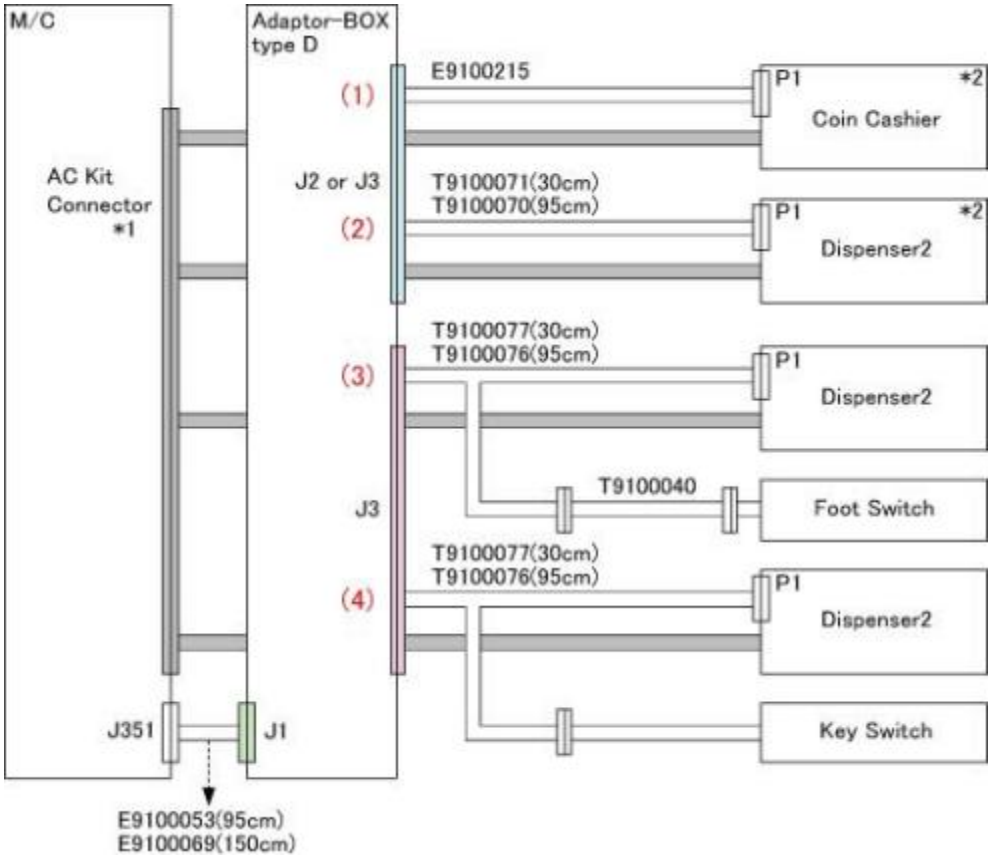


Figure 1 gre800012

*1: Perform the installation of 8.3.1 Accessories AC Kit (EC103111). Also, change the power cord to the External GFI Kit (EC103194). (Refer to 9.2.18 Condensation Prevention Kit)
*2: AC harness (WZ24) for accessories is required when Coin Cashier and Dispenser 2 are installed side by side (Figure 3)

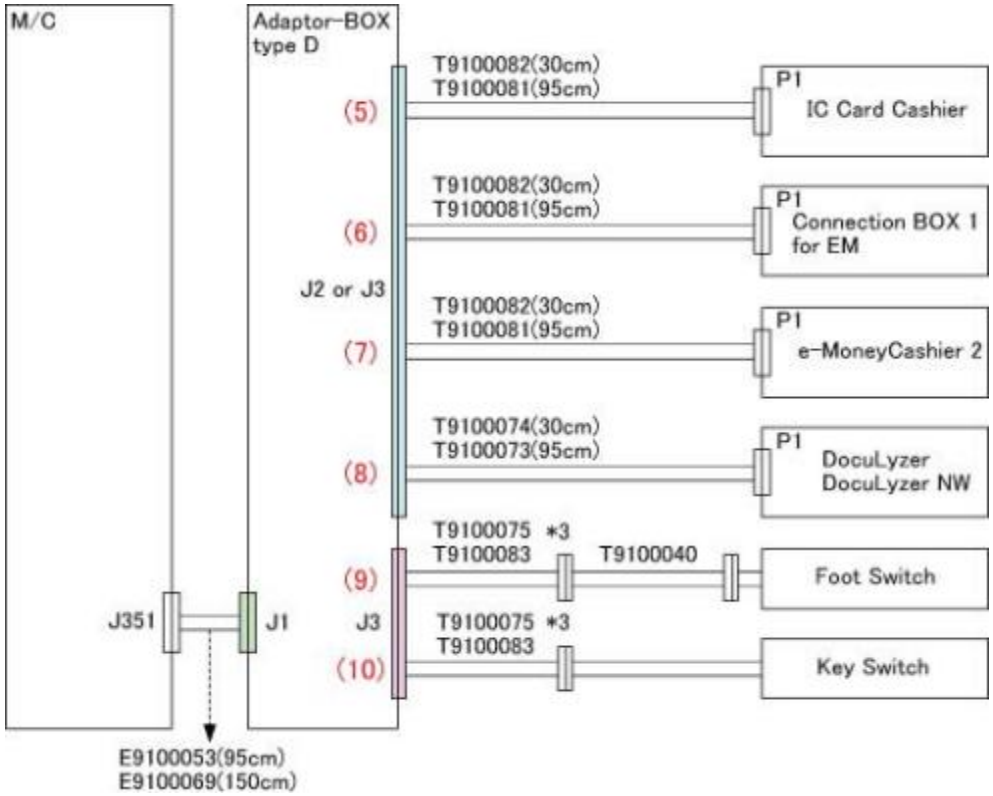


Figure 2 gre800013

*3: When the Foot Switch or Key Switch is connected as a standalone and no other accessories are installed, use the Adapter-BOX / Existing Accessories Connection Cable (T9100075). When the Foot Switch or Key Switch is connected as a standalone and other accessories are also installed, use the Adapter-BOX / Key Switch / Foot Switch Connection Cable (T9100083).

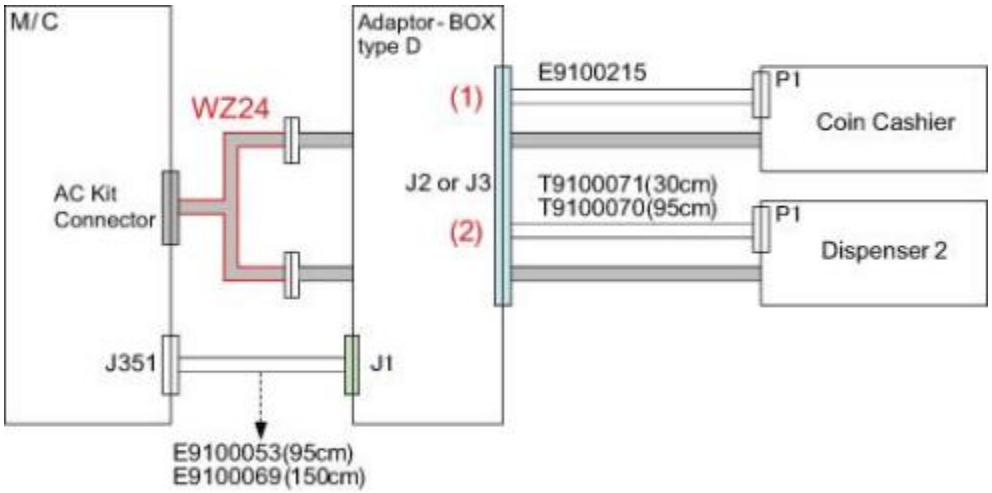


Figure 3 gre800014

8.2.4 Accessories Installation Position & Required Products (Connection via Adapter-BOX)

The tables and connection cables required to connect accessories via Adapter-BOX type D are as follows.

NOTE

For the connection cable between the Device Main Unit and Adaptor-BOX Type D, refer to "8. 1.4 Accessories Installation Position & Required Products (Direct Connection)".

Main Unit/Options Installation	Main Unit only		Main Unit + Finisher	
Accessories Installation Position	**Left Side of Main Unit**	**Right Side of Main Unit**	**Left Side of Main Unit**	**Right Side of Main Unit (placed directly on Finisher)**
Coin Cashier(Q9100021)	• Adapter-BOX / Coin Cashier connection cable (E9100215)			
Dispenser2 (E9100207)	• Wing Table (EC104201) • Adapter-BOX / EP Accessories Connection Cable (Long, 95 cm) (T9100070)	• Accessory Table A (EC104221) • Adapter-BOX / EP Accessories Connection Cable (Short, 30 cm) (T9100071)	• Wing Table (EC104201) • Adapter-BOX / EP Accessories Connection Cable (Long, 95 cm) (T9100070)	• Adapter-BOX / EP Accessories Connection Cable (Short, 30 cm) (T9100071)
Dispenser 2 (E9100207) + Foot Switch (TE39)	• Wing Table (EC104201) • Adapter-BOX / EP Accessories + Existing Accessory Parallel Cable (Long, 95 cm) (T9100076) • Foot Switch Connection Cable (T9100040)	• Accessory Table A (EC104221) • Adapter-BOX / EP Accessories + Existing Accessory Parallel Cable (Short, 30 cm) (T9100077) • Foot Switch Connection Cable (T9100040)	• Wing Table (EC104201) • Adapter-BOX / EP Accessories + Existing Accessory Parallel Cable (Long, 95 cm) (T9100076) • Foot Switch Connection Cable (T9100040)	• Adapter-BOX / EP Accessories + Existing Accessory Parallel Cable (Short, 30 cm) (T9100077) • Foot Switch Connection Cable (T9100040)
Dispenser 2 (E9100207) + key switch (E9100213)	• Wing Table (EC104201) • Adapter-BOX / EP Accessories + Existing Accessory Parallel Cable (Long, 95 cm) (T9100076)	• Accessory Table A (EC104221) • Adapter-BOX / EP Accessories + Existing Accessory Parallel Cable (Short, 30 cm) (T9100077)	• Wing Table (EC104201) • Adapter-BOX / EP Accessories + Existing Accessory Parallel Cable (Long, 95 cm) (T9100076)	• Adapter-BOX/ EP Accessories + Existing Accessory Parallel Cable (Short, 30 cm) (T9100077)
IC Card Cashier (Q9100022)	• Wing Table (EC104201) • Adapter-BOX / IC Card Gate Connection Cable (Long, 95 cm) (T9100081)	• Accessory Table A (EC104221) • Adapter-BOX / IC Card Gate Connection Cable (Short, 30 cm) (T9100082)	• Wing Table (EC104201) • Adapter-BOX / IC Card Gate Connection Cable (Long, 95 cm) (T9100081)	• Adapter-BOX / IC Card Gate Connection Cable (Short, 30 cm) (T9100082)
Connection BOX 1 for EM (Q9100009)	• Wing Table (EC104201) • Adapter-BOX / IC Card Gate Connection Cable (Long, 95 cm) (T9100081)	• Accessory Table (Sales Purchased Products) • Adapter-BOX / IC Card Gate Connection Cable (Short, 30 cm) (T9100082)	• Wing Table (EC104201) • Adapter-BOX / IC Card Gate Connection Cable (Long, 95 cm) (T9100081)	• Adapter-BOX / IC Card Gate Connection Cable (Short, 30 cm) (T9100082)
Foot Switch (TE39)	• Adapter-BOX / Existing Accessories Connection Cable (T9100075) or Adapter-BOX / Key Switch, Foot Switch Connection Cable (T9100083) *1 • Foot Switch Connection Cable (T9100040)			
Key Switch(E9100213)	• Adapter-BOX / Existing Accessories Connection Cable (T9100075) or Adapter-BOX / Key Switch, Foot Switch Connection Cable (T9100083) *1			

*1: When the Foot Switch or Key Switch is connected as a standalone and no other accessories are installed, use the Adapter-BOX / Existing Accessories Connection Cable (T9100075).
When the Foot Switch or Key Switch is connected as a standalone and other accessories are also installed, use the Adapter-BOX / Key Switch / Foot Switch Connection Cable (T9100083).

MOT3

When the above accessories are installed, always change the following NVM in order for the Device to recognize the type of accessories.

NVM (850-007): Accessory Types

- 0: None, or Foot Switch
- 3 : Dispenser2
- 4 : Coin Cashier
- 7: Parallel Installation of Dispenser 2 and Coin Cashier

8.2.5 Installation of Coin Cashier (Connection via Adapter-BOX)

Refer to the Coin Cashier Service Manual for the detailed procedures and settings.

Procedures before servicing

- Before installing the Coin Cashier, perform the installation of 8.3.1 Accessories AC Kit (EC103111).
  (AC 100V power is supplied from the Main Unit)
- Change the power cord to the External GFI Kit (EC103194).

Preparation

[Connection Cables]

Product Name	Product Code
Adapter- BOX / Coin Cashier connection cable	E9100215

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
2. Connect the Adapter-BOX / Coin Cashier connection cable to P1 of Coin Cashier.
3. Connect the Adapter-BOX / Coin Cashier connection cable to the Adapter-BOX type D Acc-S (J2) or Acc-S / P (J3). (Figure 1)

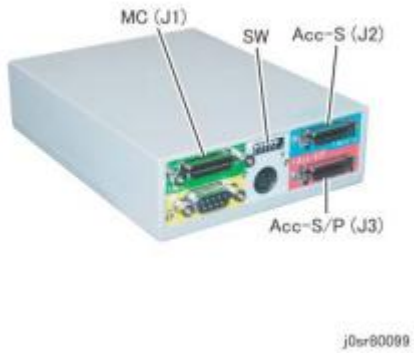


Figure 1 sr80099

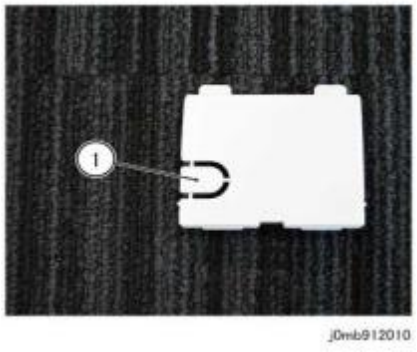
4. Remove the EP-IF Cover from the Rear Lower Cover. (Figure 2)
   (1) Release the hook (x2) and remove the EP-IF Cover.



Figure 2 mb912009

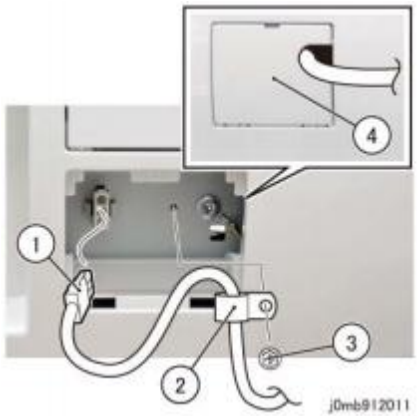
5. Remove the Blind Cover from the EP-IF Cover. (Figure 3)
   (1) Remove the Blind Cover.

MOT3
Make sure that there are no protrusions on the cut surface. If any burrs remain on the cut surface, remove them cleanly.



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6. Connect the connector of the Coin Cashier power cable to the connector of the Device's Main Unit. (Figure 4)
   (1) Connect the connector of the Coin Cashier power cable to the connector of the Device's Main Unit.
   (2) Pass the cord of the accessory through the clamp.
   (3) Secure it by using the screw.
   (4) Reinstall the EP-IF Cover, and route the Wire Harness of Dispenser 2 power cable into the U-Groove.



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7. Install the GFI Breaker from the External GFI Kit to the power plug. (Figure 5)
   (1) Remove the power cord and install the GFI Breaker.



Figure 5 mb911921

8. Plug in the power plug and turn ON the power switch.
9. Enter the UI Diag Mode and change the following NVM values.
   (1) Set the value of DC131 (850-007) from 0 → 4 (Accessory Type: Coin Cashier).

   MOT3
   When installing with other accessories, set the value of DC131 (850-007) to the following value.
   - 7: Combination of Dispenser and Coin Cashier

   (2) Set the value of DC131 (850-009) from 0 (initial value) → 1 (Print Control function: Track).

   MOT3
   Set the Print control function of the main unit to [Track] in order to set the print to [Billable]. However, if the customer requests that the print be set to [Not billable], set the value of DC131 (850-009) to 0 (initial value).

   (3) Confirm that the value of DC131 (850-016) is 0 (initial value) (job cancellation setting when charge is insufficient: cancel).

   MOT3
   After changing NVM 121-335: When EP Accessory Wake Up Answer Fail is displayed, turn the power OFF/ON. The Device will return to normal operation after OFF/ON.

10. Refer to the Coin Cashier Service Manual to configure Coin Cashier.
11. Check the overall operation.
12. If necessary, explain the handling to the customer.

13. Create a report with the following MOD code as the MOD of the main unit of the device.
    - Coin Cashier: 347V

8.2.6 Installation of Dispenser 2 (Connection via Adapter-BOX) (FB Only)

Refer to the Dispenser 2 Service Manual for the detailed procedures and settings.

Procedures before servicing

- Before installing the Coin Cashier, perform the installation of 8.3.1 Accessories AC Kit (EC103111).
  (AC 100V power is supplied from the Main Unit)
- Change the power cord to the External GFI Kit (EC103194).

Also, before performing the procedure, refer to [8.2.4 Accessories Installation Position & Required Products (Connection via Adapter-BOX)] and prepare the required table, etc. that match with the desired installation position.

qU9q6U6当ion

[Connection Cables]

When connecting Dispenser 2 as a standalone, prepare either one according to the installation position.

qUobuo当 M6m9	qUobuo当oob9
Adapter- BOX / EP Accessories Connection Cable (Long, 9 5 cm)	T9100070
Adapter- BOX / EP Accessories Connection Cable (Short, 3 0 cm)	T9100071

When connecting Dispenser 2 and a foot switch or key switch at the same time (*), prepare either one according to the installation position.

*: Case (3) or (4) of "8.2.3 Accessories Connection Diagram (Connection via Adapter-BOX)"

Product Name	Product code
Adapter- BOX / EP Accessories + Existing Accessories Connection Long (95 cm) (Foot switch connection cable (T9100040) is also required when connecting a foot switch)	T9100076
Adapter- BOX / EP Accessories + Existing Accessories Connection Short (30 cm) (Foot switch connection cable (T9100040) is also required when connecting a foot switch)	T9100077

Warning

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.



Figure 1 sr80092

3. Connect the Adaptor-BOX/EP Accessories Connection Cable to Acc-S (J2) or Acc-S/P (J3) of the Adaptor-BOX type D. (Figure 2)

MOT3

When connecting Dispenser 2 and foot switch or key switch at the same time (*), be sure to connect to Acc-S/P (J3).

*: Case (3) or (4) of "8.2.3 Accessories Connection Diagram (Connection via Adapter-BOX)"

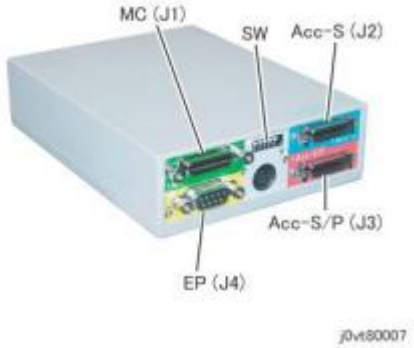


Figure 2 vt80007

4. Remove the EP-IF Cover from the Rear Lower Cover. (Figure 3)
   (1) Release the hook (x2) and remove the EP-IF Cover.



Figure 3 mb912009

5. Remove the Blind Cover from the EP-IF Cover. (Figure 4)
   (1) Remove the Blind Cover.

NOTE
Make sure that there are no protrusions on the cut surface. If any burrs remain on the cut surface, remove them cleanly.

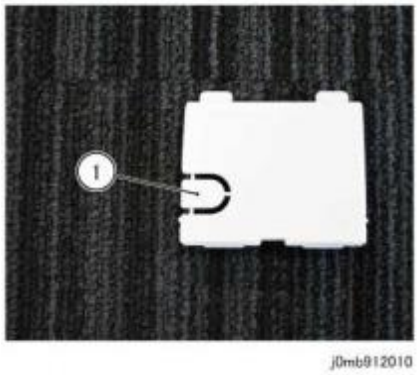


Figure 4 mb912010

6. Connect the connector of the Dispenser 2 power cable to the connector of the Device's Main Unit. (Figure 4)
   (1) Connect the connector of the Dispenser 2 power cable to the connector of the Device's Main Unit.
   (2) Pass the cord of the accessory through the clamp.
   (3) Secure it by using the screw.

(4) Reinstall the EP-IF Cover, and route the Wire Harness of Dispenser 2 power cable into the U-Groove.

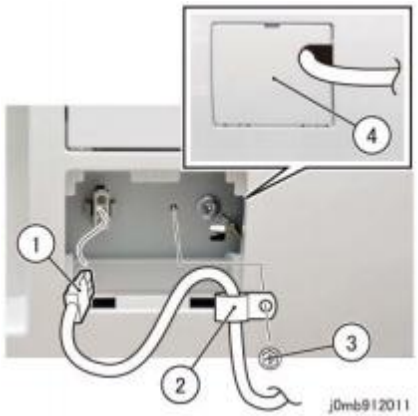


Figure 5 mb912011

7. Install the GFI Breaker from the External GFI Kit to the power plug. (Figure 6)
   (1) Remove the power cord and install the GFI Breaker.



Figure 6 mb911921

8. Plug in the power plug and turn ON the power switch.
9. Enter the UI Diag Mode and change the following NVM values.
   (1) Set the value of DC131 (850-007) from 0 → 3 (Accessory Type: Dispenser 2).

   NOTE

   When installing with other accessories, set the value of DC131 (850-007) to the following value.

   - 7: Parallel Installation of Dispenser 2 and Coin Cashier

   (2) Set the value of DC131 (850-009) from 0 (initial value) → 1 (Print Control function: Track).

   NOTE

   Set the Print control function of the main unit to [Track] in order to set the print to [Billable]. However, if the customer requests that the print be set to [Not billable], set the value of DC131 (850-009) to 0 (initial value).

   (3) Confirm that the value of DC131 (850-016) is 0 (initial value) (job cancellation setting when charge is insufficient: cancel).
10. Refer to the Dispenser 2 Service Manual to configure Dispenser 2.
    - Follow the steps below to set the I/F setting of Dispenser 2 to [EP-SV].
      (1) Set the rotary switch to "3" and turn on the power.
      (2) Press the card eject button to display "0: EP-SV".
      (3) Set the rotary switch to "1" and turn the power OFF and ON.
    - Follow the procedure below to set the frequency setting at the start to [Minimum frequency].
      (1) Set the rotary switch to "5" and turn on the power.
      (2) Press the card eject button to display "2: Minimum frequency (New MC)".
      (3) Set the rotary switch to "1" and turn the power OFF and ON.
11. If necessary, explain the handling to the customer.
12. Create the report using [334V] as the MOD for the Main Unit.

8.2.7 Installation of IC Card Cashier (Connection via Adapter-BOX)

Refer to the IC Card Cashier Service Manual for detailed procedures and settings.

Procedures before servicing

Before performing the procedure, refer to "8.2.4 Accessories Installation Position & Required Products (Connection via Adapter-BOX)" and prepare the required table, etc. that match with the desired installation position.

Preparation

[Connection Cables]

Prepare either one according to the installation position.

Product Name	Product Code
Adapter- BOX / IC Card Gate Connection Cable (Long, 9 5 cm)	T9100081
Adapter- BOX / IC Card Gate Connection Cable (Short, 3 0 cm)	T9100082

[Tools]

Tool Name	Tool No.
IC Card Gate TEST CA (IC Card for CE)	499T 06622

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
2. Insert the AC adapter connector into the [DC IN 15V] of the IC Card Cashier and attach the connector cover to prevent the AC adapter connector from coming off. (Figure 1)

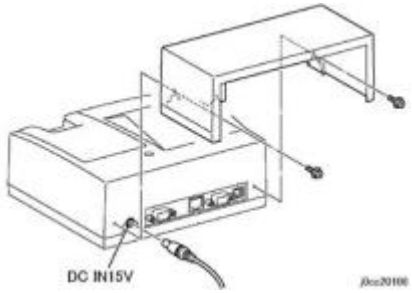


Figure 1 cc20106

3. Affix the fastener (x4) to the bottom of the IC Card Cashier. (Figure 2)

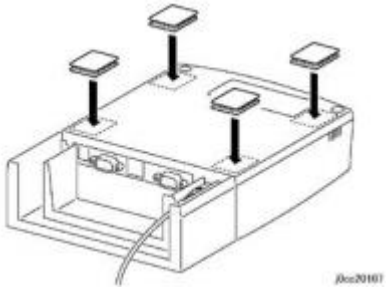


Figure 2 cc20107

4. Secure the IC Card Cashier to its designated installation position using the fastener (x4).
5. Connect the Adapter-BOX / IC Card Gate connection cable to [MC] of the IC Card Cashier. (Figure 3)

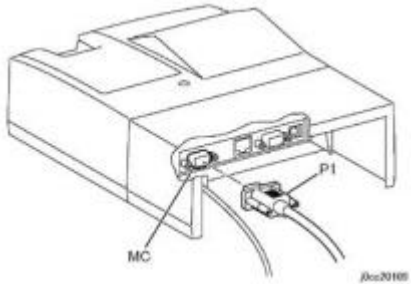


Figure 3 cc20109

6. Connect the Adapter-BOX / IC Card Gate connection cable to Acc-S (J2) or Acc-S / P (J3) of Adapter-BOX type D. (Figure 4)

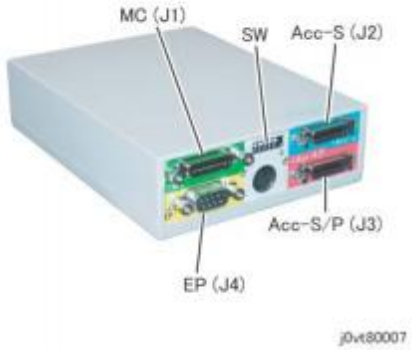


Figure 4 vt80007

7. Activate and initialize the IC Card Cashier.
   - Refer to [2. 1.4 IC Card Cashier Activation and Initial Settings] in Chapter 2 Installation/ Removal of the IC Card Cashier Service Manual.

MOT3

When installed together with other accessories, set [Connection Configuration Setting (For Parallel Installation)] of IC Card Cashier as follows.

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Coin Cashier	Coin Cashier installed in parallel
Dispenser2	Dispenser 2 installed in parallel
Connection BOX 1 for EM	Coin Cashier installed in parallel

8. Plug in the power plug and turn ON the power switch.
9. Enter the UI Diag Mode and change the following NVM values.
   (1) Set the value of DC131 (850-007) from 0 (initial value) → 3 (Accessory Type: Dispenser 2).

MOT3

IC Card Cashier is treated as Dispenser 2 when identifying as an accessory on the Device.

MOT3

When installing with other accessories, set the value of DC131 (850-007) to the following value. (Set the following values when installing in parallel with Coin Cashier, Dispenser 2, or Connection BOX 1 for EM)

- 7: Combination of Dispenser and Coin Cashier

   (2) Set the value of DC131 (850-009) from 0 (initial value) → 1 (Print Control function: Track).

MOT3

Set the Print control function of the main unit to [Track] in order to set the print to [Billable]. However, if the customer requests that the print be set to [Not billable], set the value of DC131 (850-009) to 0 (initial value).

   (3) Confirm that the value of DC131 (850-016) is 0 (initial value) (job cancellation setting when charge is insufficient: cancel).

10. Check the operation of IC Card Cashier.
    (1) Insert the CE IC Card into the IC Card Cashier.
    (2) Confirm that the LCD display is "Can be used".
    (3) Make sure you can make a copy.
11. Ask the customer (System Administrator) to perform the initial settings of the IC Card Cashier by referring to "(2) Initial Settings" in the user guide.
12. Create a report using [344V] as the MOD for the Main Unit.

8.2.8 Installation of Connection BOX 1 for EM (Connection via Adapter-BOX)

Refer to the Connection BOX 1 for EM Service Manual for detailed procedures and settings.

Procedures before servicing

Before performing the procedure, refer to "8.2.4 Accessories Installation Position & Required Products (Connection via Adapter-BOX)" and prepare the required table, etc. that match with the desired installation position.

Preparation

[Connection Cables]

Prepare either one according to the installation position.

Product Name	Product Code
Adapter- BOX / IC Card Gate Connection Cable (Long, 9 5 cm)	T9100081
Adapter- BOX / IC Card Gate Connection Cable (Short, 3 0 cm)	T9100082

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
2. Affix the fastener (x4) to the bottom of Connection BOX 1 for EM. (Figure 1)
   (1) Peel off the seal of the fastener (x4).
   (2) Affix the fastener (x4) to the bottom of Connection BOX 1 for EM.

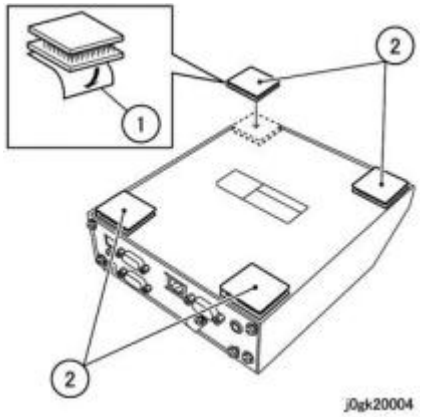


Figure 1 gk20004

3. Connect the AC adapter to Connection BOX 1 for EM. (Figure 2)
   (1) Remove the screw that secures the Clamp and remove the Clamp.
   (2) Attach the Clamp to the cord of the AC adapter.
   (3) Connect the plug of the AC adapter to the power jack of Connection BOX 1 for EM.
   (4) Secure Clamp with screw.

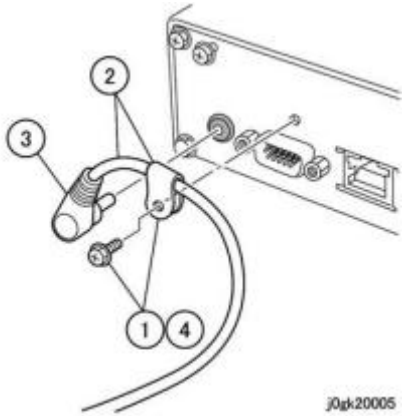


Figure 2 gk20005

4. Connect the Adapter-BOX / IC Card Gate connection cable to the MC connection connector of Connection BOX 1 for EM. (Figure 3)

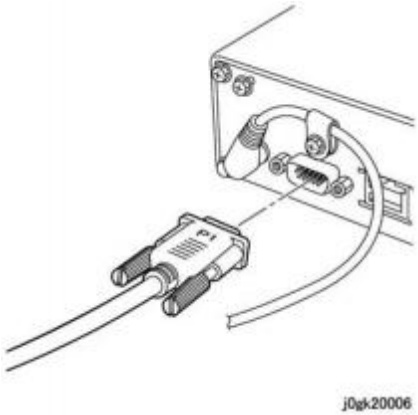


Figure 3 gk20006

5. Connect the transport system e-money R/W connection cable to the card reader connection connector of Connection BOX 1 for EM. (Figure 4)

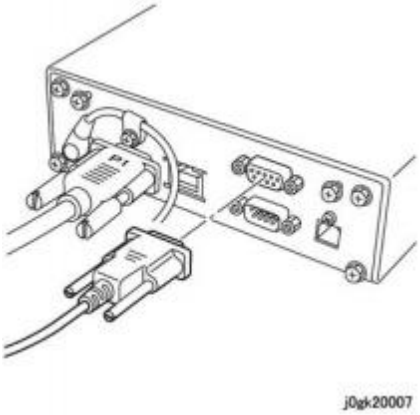


Figure 4 gk20007

6. Attach the cable cover to Connection BOX 1 for EM. (Figure 5)
   (1) Loosen the screw (x4).
   (2) Attach the cable cover.
   (3) Tighten the screw (x4).

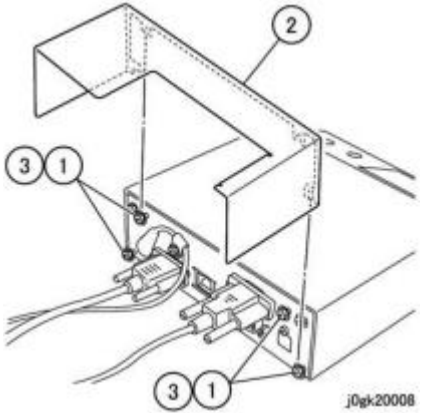


Figure 5 gk20008

7. Secure the Connection BOX 1 for EM to its designated installation position using the fastener (x4). (Figure 6)
   (1) Peel off the seal of the fastener (x4).
   (2) Place the Connection BOX 1 for EM on the designated installation location and gently press the Connection BOX 1 for EM from above so that the fastener (x4) does not peel off.

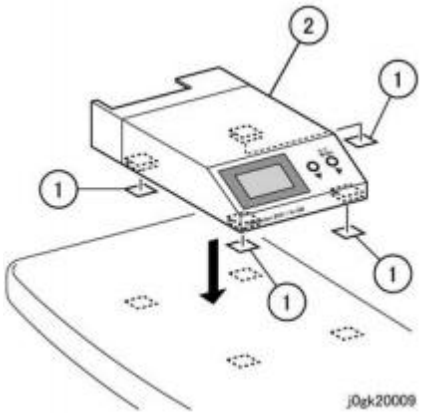


Figure 6 gk20009

8. Affix the fastener (x4) to the bottom of the Card Reader. (Figure 7)

NOTE

Pay attention to the orientation of the fastener (x4), and affix it along the four corners of the bottom of the Card Reader.

(1) Peel off the seal of the fastener (x4).

(2) Affix the fastener (x4) to the bottom of the Card Reader.

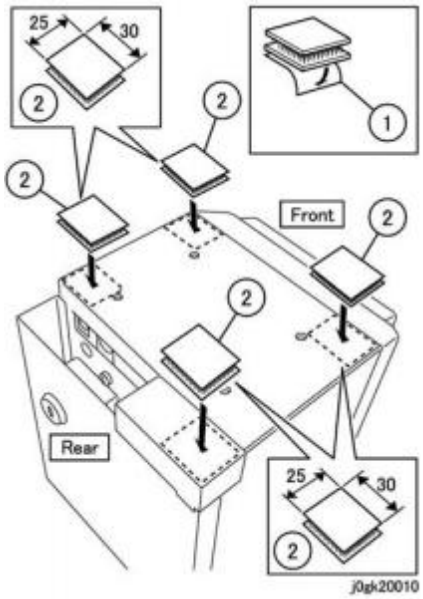


Figure 7 gk20010

9. Secure the Card Reader to the top of Connection BOX 1 for EM with the fastener (x4). (Figure 8)

NOTE

Secure the rear end of Connection BOX 1 for EM cable cover and the rear end of the Card Reader so that they are aligned.

(1) Peel off the seal of the fastener (x4).

(2) Place the Card Reader on the top of Connection BOX 1 for EM, and lightly press the card reader from above so that the fastener (x4) does not peel off.

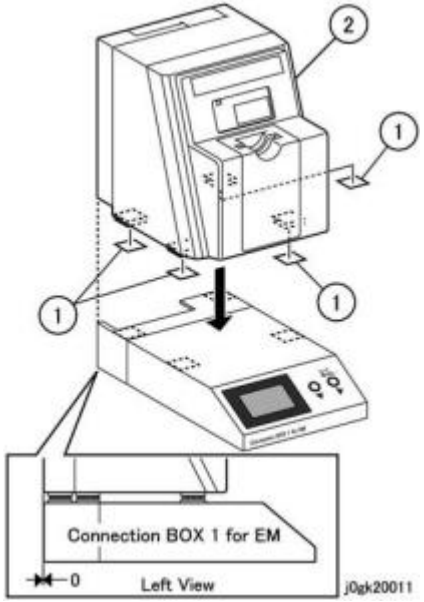


Figure 8 gk20011

10. Connect the AC adapter to the Card Reader. (Figure 9)

(1) Open the maintenance door of the Card Reader.

(2) Connect the plug of the AC adapter to the power jack of the Card Reader.

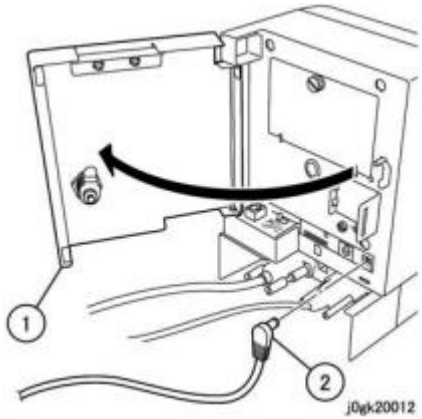
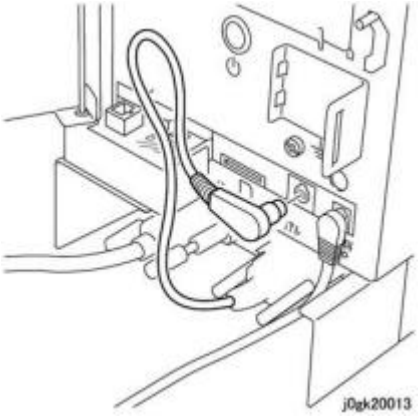


Figure 9 gk20012

11. Connect the transport system e-money R/W connection cable to the Card Reader. (Figure 10)

MOT3

Route any slack in the transport system e-money R/W connection cable inside the Card Reader maintenance door.



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12. If necessary, attach security wires. (Figure 11)

(1) Attach the security wire to the caster.



Figure 11 kt80004

13. Connect the LAN cable for ISDN network connection to the LAN connector of the card reader. (Figure 12)

MOT3

Since the Card Reader communicates with the transport system e-money center through the ISDN network, it is necessary for the customer to prepare a LAN cable for connecting to the ISDN network in advance.

14. When attaching the security wire, tie the ring at the tip of the security wire drawn from the caster and the frame hole with the included cable tie. (Figure 12)

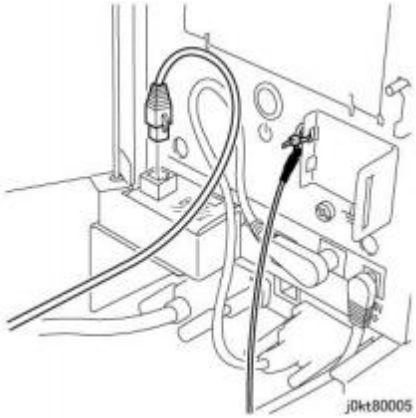


Figure 12 kt80005

15. When the maintenance door of the Card Reader is closed, tie it with the included cable tie so that the transport system e-money R/W connection cable and LAN cable may not be pinched.

16. Connect the Adapter-BOX / IC Card Gate connection cable to Acc-S (J2) or Acc-S / P (J3) of Adapter-BOX type D. (Figure 13)

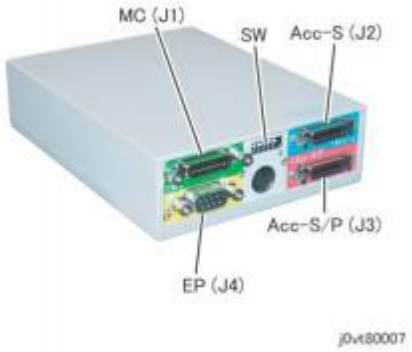


Figure 13 vt80007

17. Activate Connection BOX 1 for EM, and if necessary, perform initial settings for items that can only be set in CE mode in Web UI setting mode.
    - Refer to Connection BOX 1 for EM Service Manual Chapter 2 Installation/Removal [2. 1.5 Activation and Initial Settings]

NOTE
When installing with other accessories, set [Parallel Installation Configuration (with accessories)] of Connection BOX 1 for EM as follows.

Parallel Installation Accessories	Parallel Installation Configuration (with accessories)
Dispenser2	Configuration 4 (Dispenser 2, IC Card Cashier, etc.)
IC Card Cashier	Configuration 4 (Dispenser 2, IC Card Cashier, etc.)

18. Plug in the power plug and turn ON the power switch.
19. Enter the UI Diag Mode and change the following NVM values.
    (1) Set the value of DC131 (850-007) from 0 (initial value) → 3 (Accessory Type: Dispenser).

NOTE
Connection BOX 1 for EM is treated as Dispenser 2 when identifying as an accessory on the Device.

NOTE
When installing with other accessories, set the value of DC131 (850-007) to the following value. (Set the following values when installing in parallel with Coin Cashier, Dispenser 2, or IC Card Cashier)
- 7: Parallel installation of Dispenser 2 and Coin Cashier

    (2) Set the value of NVM 850-009 from 0 (initial value) → 1 (Print Control function: Track).

NOTE
Set the Print control function of the main unit to [Track] in order to set the print to [Billable]. However, if the customer requests that the print be set to [Not billable], set the value of DC131 (850-009) to 0 (initial value).

    (3) Confirm that the value of NVM (850-016) is 0 (initial value) (job cancellation setting when charge is insufficient: cancel).
20. Check the operation of Connection BOX 1 for EM.
    (1) Insert the CE card into the Card Reader.
    (2) Make sure you can make a copy.
21. Ask the customer (System Administrator) to perform the initial settings of Connection BOX 1 for EM by referring to [2 Initial Settings] in the user guide.

NOTE
The price setting (price system) mode differs depending on the customer's operation. If you want to separate the copy fee and the charge print fee, set the [Price by service / color / size] mode, and if you want to make them the same, set the [Price by color / size] (initial value) mode.

NOTE
Be sure to use the [Restrict color output] setting in [Allow color output] (default as shipped from factory).

22. Create the report using [346V] as the MOD for the Main Unit.

8.2.9 Installation of Foot Switch (Connection via Adapter-BOX)

Description not available for this product.

8.2.10 Installation of Key Switch (Connection via Adapter-BOX)

Description not available for this product.

8.3 Accessories AC Kit

8.3.1 Installation of Accessories AC Kit

This Kit is required to connect the Coin Cashier and Dispenser 2.

(AC 100V power is supplied from the Main Unit)

Product Code

EC103111

Installation Procedure

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. If the Power is turned ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.

2. Check the Kit contents.
   (1) Relay PWB : 1
   (2) Heater Harness AC : 1
   (3) Harness24V : 1
   (4) Accessory ACC Wire Harness : 1
   (5) ACC Bracket : 1
   (6) PWB Support : 4
   (7) P/ Clamp: 1 (not used)
   (8) Clamp Locking: 1 (not used)
   (9) With Screw Spring Lock (M4x6): 1
   (10) Screw (M3x6): 2 (Use only 1)

3. Remove the Rear Cover. (REP 19.2.1)

4. Remove the Connector Cover. (Figure 1)
   (1) Release the hook and remove the Connector Cover.



Figure 1 mo912002

5. Remove the Rear Lower Cover. (Figure 2)
   (1) Disconnect the connector.



Figure 2 mb913003

6. Remove the Rear Lower Cover. (Figure 4)
   (1) Remove the screw (x4).

(2) Remove the Rear Lower Cover.



Figure 3 mb911901

7. Connect the Heater Harness AC and Harness 24V to the Relay PWB. (Figure 4)
   (1) Install the PWB Support (x4) to the Relay PWB.
   (2) Connect the AC Heater Harness to the Relay PWB.
   (3) Connect the Harness 24V to the Relay PWB.

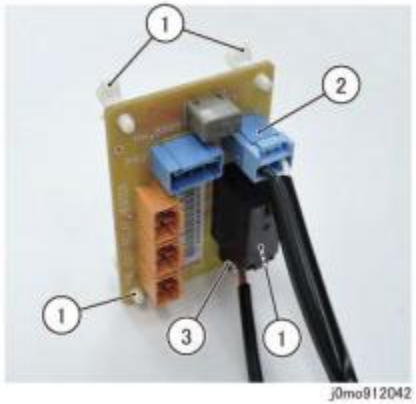


Figure 4 mo912042

8. Install the Relay PWB to the AC Chassis Assembly. (Figure 5)
   (1) Install the Relay PWB to the AC Chassis Assembly by using the PWB Support (x4).



Figure 5 mo912043

9. Connect the AC Heater Harness connector to the LVPS. (Figure 6)
   (1) Connect the AC Heater Harness connector to the LVPS.
   (2) Release the clamp (x2) and use them to secure the connected connector.

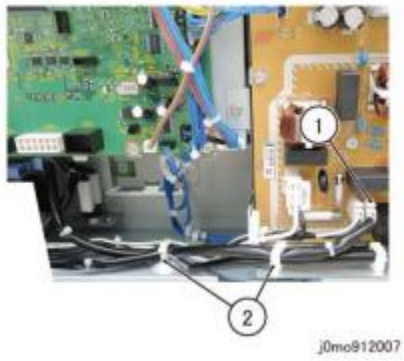


Figure 6 mo912007

10. Connect the connector of Harness 24V to the Drive PWB. (Figure 7)
    (1) Connect the connector of Harness 24V to the Drive PWB.

(2) Secure the Harness 24V using the existing clamp.

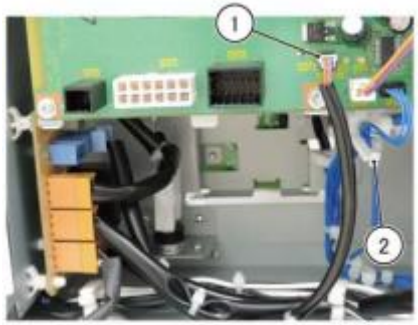


Figure 7 mo912008

11. Install the ACC Wire Harness to the ACC Bracket. (Figure 8)
    (1) Install the ACC Wire Harness to the ACC Bracket.
    (2) Secure the Ground Wire with the Screw Spring Lock (M4x6).



Figure 8 mb912006

12. Install the assembled AC Kit to the AC Chassis Assembly, and connect to the Relay PWB. (Figure 9)
    (1) Install the AC Kit to the AC Chassis Assembly and secure it with the screw (x1).

(2) Connect the ACC Wire Harness to the Relay PWB.

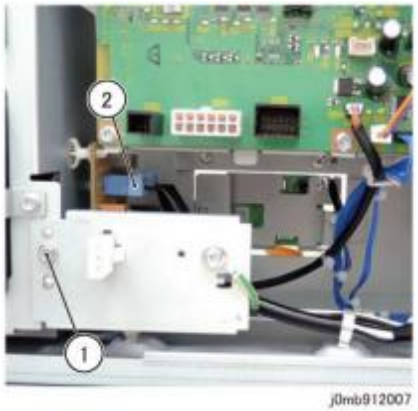


Figure 9 mb912007

13. Reinstall all parts that were removed.
14. Plug in the power plug and turn ON the power.

Chapter 9 Installation/Removal

9 Installation/Removal

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9.1 Preface

This chapter contains the installation procedures for the Device and options.

The contents of Chapter 9 are as follows.

- 9.1 Preface
- 9.2 Installation of Hardware
- 9.3 Installation of Software
- 9.4 SCC/SW Key Settings
- 9.5 Removal

NOTE

In relation to item numbers, they are common to Service Manuals of other models, therefore, while there may be some numbers missing from this Service Manual, there is no problem.

9.2 Installation of Hardware

9.2.1 Main Unit

! CAUTION

After the installation, remove the manual package from the Tray, pass it to the customer, and advise them to not keep it in the Tray.

When installing options at the same time, refer to the following for more efficient servicing.

- Finisher A2 related (Service Manual - Supplementary Edition)
- Finisher B4/B5 related (Service Manual - Supplementary Edition)
- For other options, refer to the various items in Chapter 9 of the Service Manual.
- For Accessory related, refer to Chapter 8 of the Service Manual.

Installation Procedure

1. Remove the packaging materials and tape from the DADF and the packaging tape from the Main Unit.
2. Check the Bundled Items
   Main Unit - Bundled Items
   (1) Device
   (2) INST USERS MANUAL PACKAGING

No	Name	Qty
1	Software/ Product Manual (DVD)	1
2	User Guide	1
3	Paper Size Label	1
4	Energy Efficiency Label	1
5	Warranty Card	1
6	NVM List	1
7	Copy Sample	1
8	Service Log	1
9	INSTRUCTION	1
10	SW KEY SHEET	1
11	Power Cord	1
12	Bracket (for Power Cord)	1
13	Screw (for Power Cord)	1
14	Data Cable (Fax standard model only)	1

(3) Separately Packaged items

No	Name	Qty
1	Toner Cartridge	1

3. When installing 1 Tray Module, 1 Tray Module with Cabinet, or 3 Tray Module (hereafter 3TM) at the same time, they have to be assembled together first before installing to the Main Unit.
   (The assembly task is to be performed by the mover) For Desktop Type, proceed to Step 13.
4. Remove the Connector Cover of the Main Unit.
   (1) Remove the Connector Cover. (Figure 1)



Figure 1 mb910302

5. Connect the applicable Tray Module connector. (Figure 2)
   (1) Connect the connector.

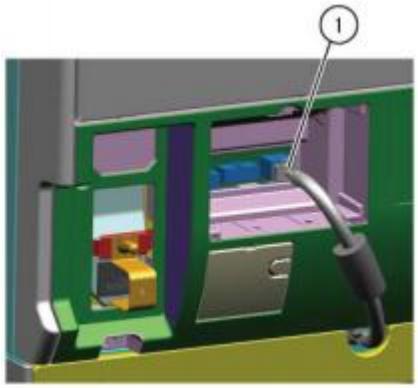


Figure 2 mnl910004

6. Remove Tray 1.
7. Install the Docking Screw (x2). (Figure 3)
   (1) Tighten the Docking Screw (x2).

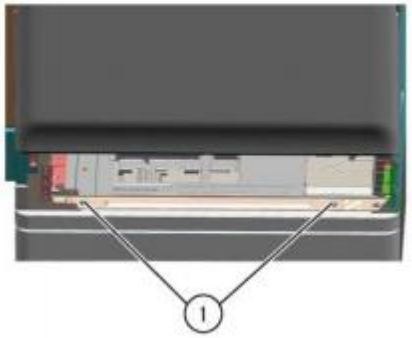


Figure 3 mnl910003

8. Reinstall the Connector Cover that was removed in Step 4 and Tray 1 that was removed in Step 6.
9. [In the case of 1 Tray Module with Cabinet or 3 Tray Module]
   Remove the Rear Cover of Tray. (Figure 4)
   (1) Remove the screw (x4).
   (2) Remove the Rear Cover of Tray.

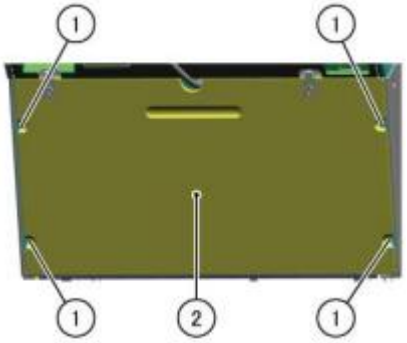


Figure 4 mnl910002

10. Install the Docking Bracket. (Figure 5)
    (1) Install the Docking Bracket.
    (2) Tighten the screw.

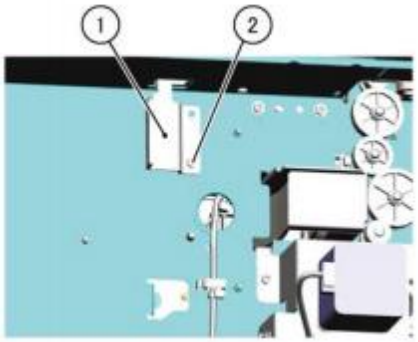


Figure 5 mnl910001

11. Reinstall the Tray Rear Cover that was removed in Step 9.
12. [In the case of 1 Tray Module or 1 Tray Module + Caster Board]
    Install the Docking Bracket. (Figure 6)
    (1) Install the Docking Bracket.

(2) Tighten the screw.

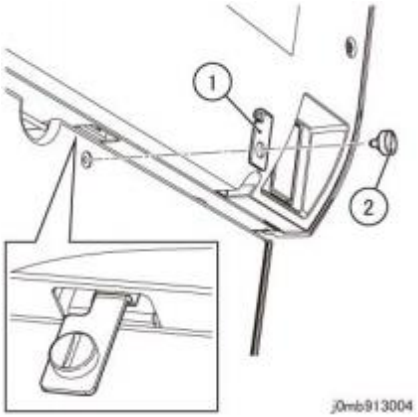


Figure 6 mb913004

NOTE

For the installation of 1 Tray Module and Caster Board, refer to Item 9.2.6 in Chapter 9 of the Service Manual.

13. Open the Front Cover.
14. Pull the tassel and remove the packaging material that is slotted into the Dispense opening. (Figure 7)



Figure 7 mo912035

15. Open the L/H Cover Unit.
16. Peel off the tapes securing it and remove the packaging material (black paper). (Figure 8)
    (1) Peel off the tape.
    (2) Remove the packaging material (black paper).

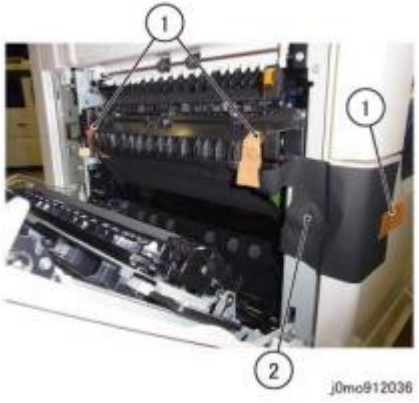


Figure 8 mo912036

17. Shake the Toner Cartridge horizontally several times and insert it all the way in to install it.
18. Close the Front Cover and L/H Cover Unit.
19. Remove the packaging materials from each Tray (2 per Tray). (Figure 9)
    (1) Remove the packaging materials from each Tray.

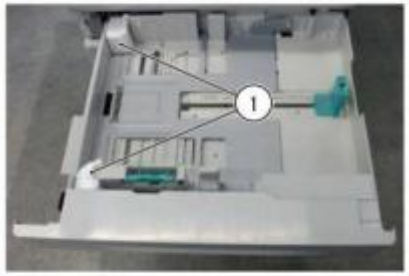


Figure 9 mnl910047

20. Install the Device at its installation location.
21. Load paper into the Tray. (Figure 10)
    Change the paper size to suit the needs of the customer
    (1) Pinch the lever and move the End Guide.

(2) Pinch the lever and move the Side Guide.

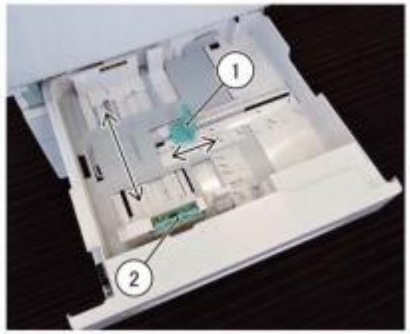


Figure 10 mnl910048

22. Affix the Paper Size Label. (Figure 11)

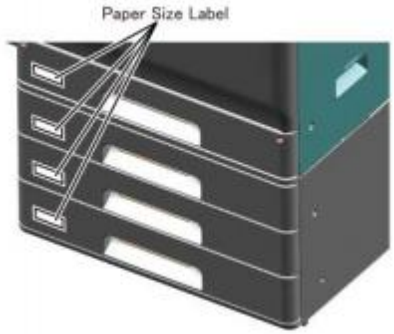


Figure 11 mnl910026

23. Connect the Power Cord. (Figure 12)

(1) Connect the Power Cord.

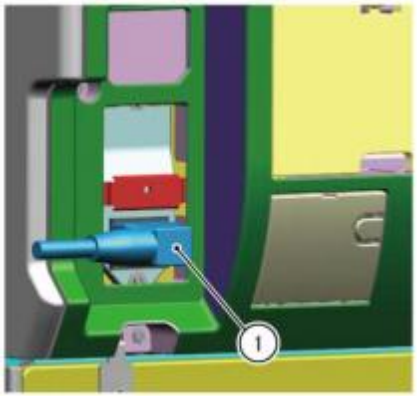


Figure 12 mnl910005

24. Install the stopper to the Power Cord. (Figure 13)

(1) Install the Stopper.

(2) Tighten the Thumbscrew.

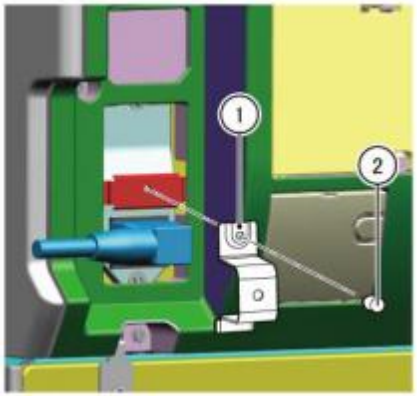


Figure 13 mnl910012

25. Lock the Caster (x2) and Foot (x2) at the front. (Figure 14)

(1) Lock the Caster (x2).

(2) Rotate the Foot (x2) to lower them.

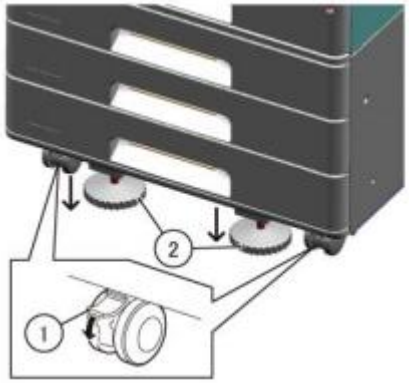


Figure 14 mnl910023

26. Rotate the Foot (x2) at the rear to lower them. (Figure 15)

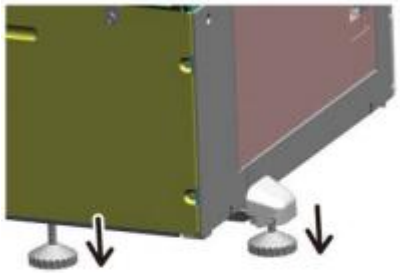


Figure 15 mnl910014

27. Go to Step 28 for the models without Fax.
[Devices with Fax]
Connect the Fax Cable. (Figure 16)

(1) Connect the Fax Cable to "Line 1".



Figure 16 mo912027

28.
Check the labels that are pasted on the envelope of Software Key Options Kit. (Figure 17) (Figure 18)

Label Display Contents	SCC/Software Key Status
Acquire SW Key using NW	Issued
Issue Inquiry Code	Not issued



Figure 17 btn910140



Figure 18 bth910141

29. Turn the Power Switch ON. (Figure 19)



Figure 19 mnl910013

30. On the [Language] screen, select the display language and select [Next]. (Figure 20)

For FBAP, go to Step 36.



Figure 20 mbl920001

31. Manually enter the SCC Key at Main Unit or perform auto deploy. [Manual Entry]

(1) Check the SCC Key using any of the following methods.
[Reference]

- 9.4.1 Looking Up the SCC/Software Key to be Entered (Internet Version)
- 9.4.2 Looking Up the SCC/Software Key to be Entered (Intranet Version)

(2) In the [Set Software Options] screen, enter the SCC key and tap [OK].

[Auto Deployment from App]

(1) Check that the [Software Options] screen is displayed on the MFD panel.

(2) From COMPASS/Windows, COMPASS/Android, your Windows device or Android device, search for the SCC key using the relevant procedure in the following references.
[Reference]

- 9.4.3.1 SCC/Software Key Auto Deploy Initial Settings (Windows)
- 9.4.3.2 SCC/Software Key Auto Deploy Initial Settings (Android)
- 9.4.4.1 Search SCC/Software Key from App (Windows)
- 9.4.4.2 Search SCC/Software Key from App (Android)

NOTE

If the connection to issuing system has failed, proceed with the task by the procedure from the following references.

- 9.4.7.1 When the Connection to Software Key Issuing System has Failed (Windows)

- 9.4.7.2 When the Connection to Software Key Issuing System has Failed (Android)
- 9.4.8.1 Search SCC/Software Key from App (Windows)
- 9.4.8.2 Search SCC/Software Key from App (Android)

(3) Deploy the SCC Key automatically.
[Reference]

- 9.4.5.1 Deploy SCC Key Automatically from App (Windows)
- 9.4.5.2 Deploy SCC Key Automatically from App (Android)

32. After setting the SCC key, the MFD is automatically restarted.
33. Affix the Model Label from the bundle to the Main Unit. (Figure 21)

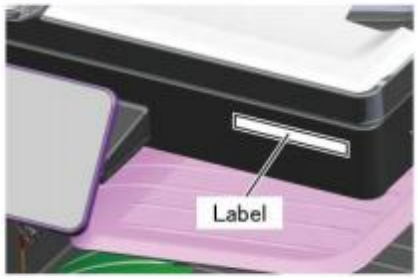


Figure 21 mnl910015

34. The Install Wizard will start. Follow the instructions on the screen.
35. On the [Language] screen, select the display language and select [Next]. (Figure 22)



Figure 22 mbl920001

36. On the Software Update of Optional Devices screen, select [Next]. (Figure 23)
<Installing Optional Device>
(1) After completing the IOT installation, turn OFF the power.
(2) Connect the Optional Device and then turn ON the IOT.
(3) Select [Start Update].
(4) The firmware that is stored in the IOT is installed into the Optional Device.

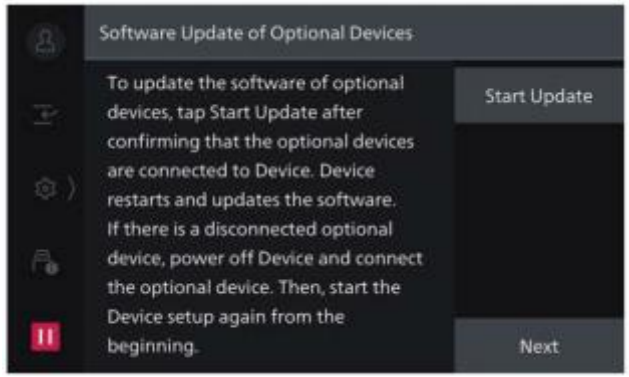


Figure 23 mbl920002

37. Perform the initial settings by following the Steps displayed on the screen. (Figure 24)

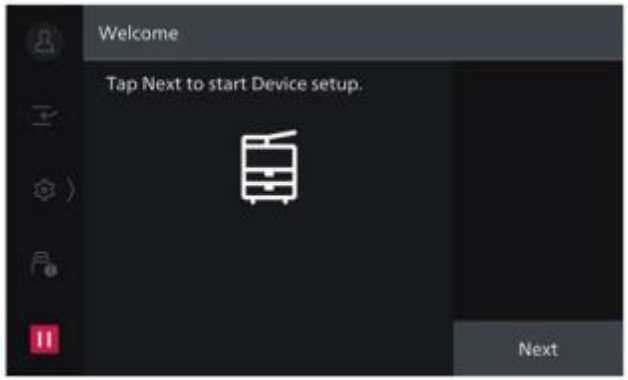


Figure 24 mbl920003

38. Set the Date. (Figure 25)

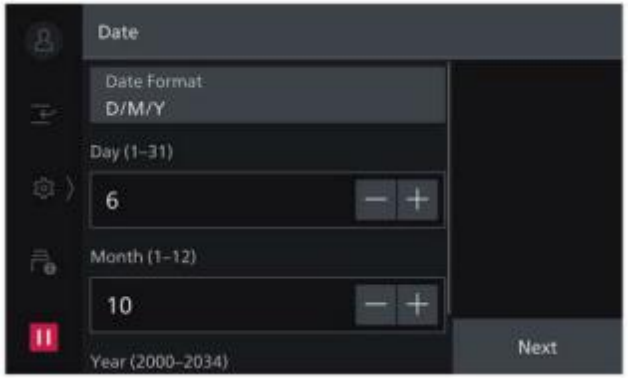


Figure 25 mbl920004

39. Set the Time. (Figure 26)

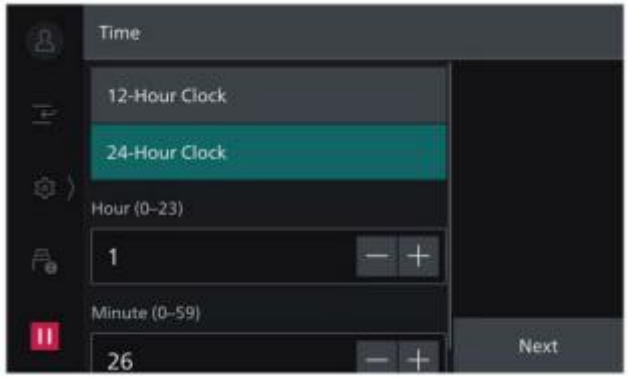


Figure 26 mbl920005

40. On the [Software Download via Network] screen, select any of the following. (Figure 27)



Figure 27 mbl920006

41. Perform the Screen / Button, IP Address, and Fax Service Settings. (Figure 28)
    (1) Set the Screen Default according to the customer's request.
    (2) Set the IP Address by using the TCP/IP - IP Mode. (IPv4 Mode, IPv6 Mode, Dual Stack)
    (3) For Devices with Fax feature, set the following based on the customer's environment.
    Local Name, Fax Name, G3 Line 1 - Fax ID, G3 Line 1 - Dial Type, and G3 Line 1 - Line Type

Refer to Step 46 for how to check the Line Type and Dial Type.

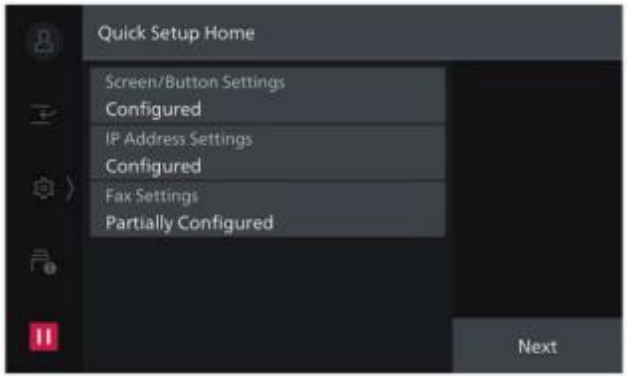


Figure 28 mbl920007

42. Set the Software Options.
Enter the Software Key for the various Software Options as required.
Manually enter the Option Software Key or perform auto deploy .

NOTE
For customers that have not purchased the Option Software Key, this step is not required. Select [Next] on the MFD panel and go to Step 44.

[Manual Entry]

(1) Check the Option Software Key using any of the following methods.
[Reference]

- 9.4.1 Looking Up the SCC/Software Key to be Entered (Internet Version)
- 9.4.2 Looking Up the SCC/Software Key to be Entered (Intranet Version)

(2) On the MFD Panel, enter the Option Software Key and select [Restart]. (Figure 29)



Figure 29 mbl920008

NOTE
After the MFD restarts, the [Device Setup Complete] screen is not displayed.

[Auto Deployment from App]

(1) On the MFD Panel, select [Next].

NOTE
When this task is performed with auto deploy, the step for Software Key entry at MFD Panel is not required.

(2) After the initial settings, use COMPASS/Windows, COMPASS/Android, your Windows device or Android device and proceed with the procedure from the following references.
[Reference]

- 9.4.4.1 Search SCC/Software Key from App (Windows)
- 9.4.4.2 Search SCC/Software Key from App (Android)
- 9.4.6.1 Deploy Option Software Key Automatically from App (Windows)
- 9.4.6.2 Deploy Option Software Key Automatically from App (Android)

43. This completes the initial settings. (Figure 30)

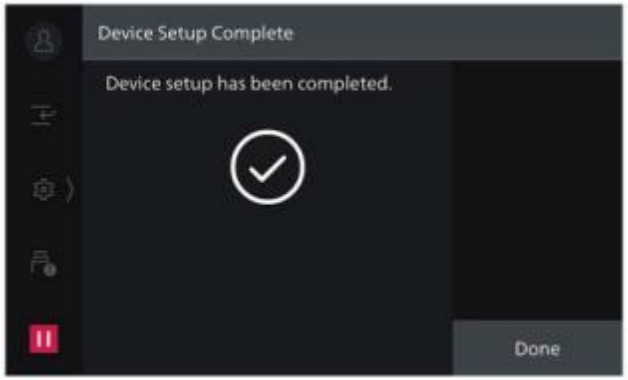


Figure 30 mbl920009

NOTE
The SCC / SW key input flow should be provided as a reference at the end of this procedure.

44. [Devices without Fax]
Proceed to Step 48.
[Devices with Fax]
Proceed to Step 45.

45. Enter the Fax Local Terminal Information.

NOTE
Before doing this, ask the customer or use the following methods to find out the Dial Type and Line Type.

[Dial Type Determination]
Enter the System Administrator Mode, select [Device] → [App Settings] → [Fax Settings] → [Local Terminal Information].
Select a dial type from PB (Push Line), 10pps (Dial Line), and 20pps (Pulse Line).
Default value = [PB]
< Check Method>
Select the On-hook (Manual Send/Receive) button.
[Fax Settings] → [On-hook (Manual Send/Receive)]

(1) For NTT Line
Dial 117 (time tone service).
When the time tone cannot be heard, set [20pps].

(2) For PBX Line
Dial 0 (Special number for complementing the Outside Line. Check with the client as the number may not always be 0 depending on the line).
If the intermittent tone is heard (does not switch to a continuous tone), set [20pps].

[G3 Line Transmission Determination]
Select the G3 Transmission from "Detect Tone", "Do Not Detect Tone".
In normal circumstances, select "Detect Tone".
Default value = [Detect Tone]
< Check Method>
Perform the Fax auto send test. If the 033-546 error occurs, select "Do Not Detect Tone".

No	Local Terminal Information	Description
1	Local Name	Registers the name of the local terminal as a local name. The local name appears on the remote device display and Activity Reports. However, it may not be displayed depending on the remote device.
2	Fax Name	Register the name of the sender. Fax Name is the local name displayed on the upper edge (header) of the received document or the cover page. Up to 30 characters can be registered for Fax Name.
3	Device Password	The Device Password is set when limiting the senders that send Fax to the Device. If the Device Password is set, the Device will only accept Polling or Receive requests when the correct Device Password in F Code is received from the remote sender. It will not be able to receive from Devices that do not have the F Code feature.
4	G3 Line 1 - Fax ID	G3 ID is notified by G3 communication signals and displayed in the Activity Report. The local Fax No. is usually set in the G3 ID. Up to 20 digits from 0 to 9, +, and spaces may be used for G3 ID

46. Perform system settings.
<How to Set> (Refer to [Administrator Guide - System Settings])

(1) Press the humanoid icon on the upper left of the touch panel to enter the System Administrator mode.
Enter the User ID (11111 at shipment) and select [OK]. (For newly installed Devices, the passcode (password) will not be displayed.)

(2) Set the Local Terminal Information below.

[Device] → [App Settings] → [Fax Settings] → [Local Terminal Information]

No	Local Terminal Information	Description
1	Local Name	Registers the name of the local terminal as a local name. The local name appears on the remote device display and Activity Reports. However, it may not be displayed depending on the remote device. Up to 20 single-byte katakana/alphanumeric/symbol characters may be registered for the local name.
2	Fax Name	Register the name of the sender. Fax Name is the local name displayed on the upper edge (header) of the received document or the cover page. Up to 30 characters can be registered for Fax Name.
3	Device Password	The Device Password is set when limiting the senders that send Fax to the Device. If the Device Password is set, the Device will only receive Polling or Receive requests when the correct Device Password in F Code is received from the remote sender. It will not be able to receive from Devices that do not have the F Code feature.
4	Line 1 - Fax Name	Register the sender name that is used during port specification communication for every line.
5	G3 Line 1 - Fax ID	G3 ID is notified by G3 communication signals and displayed in the Activity Report. The local Fax No. is usually set in the G3 ID. Up to 20 digits from 0 to 9, +, and spaces may be used for G3 ID.
6	G3 Line 1 - Dial Type	Select a dial type from PB (Push Line), 10pps (Dial Line), and 20pps (Pulse Line).
7	G3 Line 1 - Transmission	In normal circumstances, select "Detect Tone" If the 033-546 error occurs during auto send, select "Do Not Detect Tone".

(3) Continue to perform other [System Settings].
(Refer to [Administrator Guide - System Settings])

(4) After settings are done, press [Home] to exit the Device screen.

NOTE

Restart is required for settings to take effect. Follow the instructions on the screen to restart.

47. Perform the Fax send/receive test.
Perform Fax send/receive test with the various service offices or head office.
(You can check the transmission results by selecting [Jobs] → [All Jobs] → [Completed Jobs].)

48. [When installing 4Gnet-BOX]

NOTE

There is no need to specify a proxy server as the 4Gnet-BOX connects to the EP Center by using 4G communication line.

The 4Gnet-BOX will invalidate all proxy server related settings and firmware update function related settings described under [EP-BB Registration] in the Device's Service Manual.

49. Perform EP-BB registration.

NOTE

EP-BB connection requires a concluded memorandum regarding EP use with the customer.

(1) Enter the System Administrator Mode.

(a) Press the humanoid icon on the upper left of the touch panel and enter the [System Administrator ID] (11111).

(2) Make settings for the items described in the EP-BB Installation Order.

No	Setting Item	Menu
1	IP Settings ▪ IP Address ▪ Subnet Mask ▪ Gateway Address ▪ DNS Settings	[Device] → [Network Settings] → [Protocol Settings]
2	EP Proxy Server Setup ▪ Server Name ▪ Port Number ▪ Login Name ▪ Password	[Device] → [Network Settings] → [EP Proxy Server Setup]

(3) Enter the UI Diag CE Diagnostics screen.

(a) Press and hold down [Home] for 5 seconds or longer and then release it.

(b) Within 2 seconds after releasing it, press and hold down [Home] for 5 seconds or longer and then release it again.

(c) Within 2 seconds after releasing the [Home] button, tap somewhere at the bottom left of the screen.

(d) Enter the passcode (1739), and tap [OK].

(4) Register the EP-BB.

(a) On the touch panel, tap [Device] → [Maintenance] → [Maintenance / Diagnostics] → [EP Service] → [EP Registration / Cancel Registration] → [BB Registration].

(b) Enter the [Staff ID] and tap [Start]. After that, tap [Start].

(c) When the message: [Successfully registered.] is displayed, select [OK].

(5) Finish the installation.

(a) Return to the [Maintenance/Diagnosis] screen and tap [Exit (Clear History)] on the screen.

(b) The Device restarts automatically.
(If it does not restart automatically, return to the Home screen and turn the power OFF/ON manually)

(c) Make sure you have exit the CE Diag mode.

REFERENCE

For more information on the installation of Communication Aggregation Server, refer to the Service Manual.

50. Set the Firmware Update Service.

NOTE

- The EP-BB registration must already be completed before performing the setting.
- The setting is to be performed when the [Firmware Update Feature Disabled] of the [EP Service License Application Form] is not checked.

(1) Enter the UI Diag CE Diagnostics screen.

(a) Press and hold down [Home] for 5 seconds or longer and then release it.

(b) Within 2 seconds after releasing it, press and hold down [Home] for 5 seconds or longer and then release it again.

(c) Within 2 seconds after releasing the [Home] button, tap somewhere at the bottom left of the screen.

(d) Enter the passcode (1739), and tap [OK].

(2) Change the NVM to display the [Update] button.

(a) On the touch panel, tap [Device] → [Maintenance] → [Maintenance / Diagnostics] → [Diagnostics] → [DC131 NVM Read/Write].

(b) Enter [920-053] in Chain-Link and tap [Change].

(c) Enter [1] for the change value and tap [OK].

(d) Enter [920-054] in Chain-Link and tap [Change].

(e) Enter [1] for the change value and tap [OK].
The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
920-053	Software Auto Update (KO)	0: Disabled 1: Enabled
920-054	Software Auto Update (CE)	0: Disabled 1: Enabled

(f) Return to the [Maintenance / Diagnostics] screen and tap [EP Service] → [EP Service Parameters].

(g) Verify that [21. Display Software Update Button (KO)] and [22. Display Software Update Button (CE)] have become [Enabled].

(h) Tap [Send Settings to Server].

(i) After verifying the message: [EP service parameters have been sent to the server.], tap [OK].

(j) Return to the [Maintenance/Diagnostic] screen, press [Exit (Clear History)] → and select [Exit (Clear History)].

(k) The Device restarts automatically.

(3) Enter the System Administrator Mode.

(a) Press the humanoid icon on the upper left of the touch panel and enter the [System Administrator ID] (11111).

(4) Update the Firmware.

(a) On the touch panel, tap [Device] → [Maintenance] → [Software Update].

(b) When the message is displayed on the Panel, perform the following actions.

Message	Actions
The Device has already been updated to the latest version.	• Tap the humanoid icon on the upper left of the touch panel to exit the System Administrator mode.
Software version verified.	(a) Tap [Start Update]. (b) When the confirmation screen appears, tap [Start]. (c) When the Firmware download has completed, check the progress of the software update. (Approx. 10 minutes Including restart) (d) Finish the setup.

Message	Actions
An error has occurred. Unable to retrieve the software version. (021-532 or 021-533)	(a) To enter UI Diag mode, press and hold [Home] for 5 seconds or longer and then release it. (b) Within 2 seconds after releasing [Home], press and hold down [Home] again for 5 seconds or longer and then release it. (c) Within 2 seconds after releasing the [Home] button, tap somewhere at the bottom left of the screen. (d) After entering the passcode (1739), and tap [OK] to enter UI-Diag mode. (e) On the touch panel, tap [Device] → [Maintenance] → [Maintenance / Diagnostics] → [Others] → [Software Update]. (f) When the confirmation screen appears, tap [Start]. (g) When the Firmware download has completed, check the progress of the software update. (Approx. 10 minutes Including restart) (h) After the update has completed, change the required NVM settings. (i) Finish the setup.
An error has occurred. Unable to retrieve the software version. (For other than the above error codes)	• Refer to the Service Manual and take the appropriate actions.

51. Check the various operations such as copy/print/fax.
52. Print the Configuration Report and check whether the configuration is correct.
53. Keep the IOT NVM list, Service Log, IOT factory inspection sample and copy sample in the Tray 1 Front Right pocket.
54. Give the set of Manual Package to the customer and request that they DO NOT keep it in an unused Tray or the empty space in any Tray. (This is to prevent problems such as abnormal noise during Tray Lift Up (Motor out-of-step) or them being mis-detected as paper, etc. from occurring)
55. Record the following V code in the Service Report.

Type	V Code	Note
Caster Locked	447V	Check and report when this is performed and at every service call
Caster Locked/ Adjuster Foot Secured	448V	Check and report when both of these are performed and at every service call

56. Explain to the customer the following Caster Lock related items where necessary.
    - Caster Lock: This is not for earthquake preparedness, but to prevent the Device from shifting about.
    - Caster lock/ Adjuster Foot fixation: Not for earthquake protection, but to prevent tipping over due to leaning.

[Reference]

SCC/SW Key Input Flow Diagram (Figure 32) (Figure 33) (Figure 34)

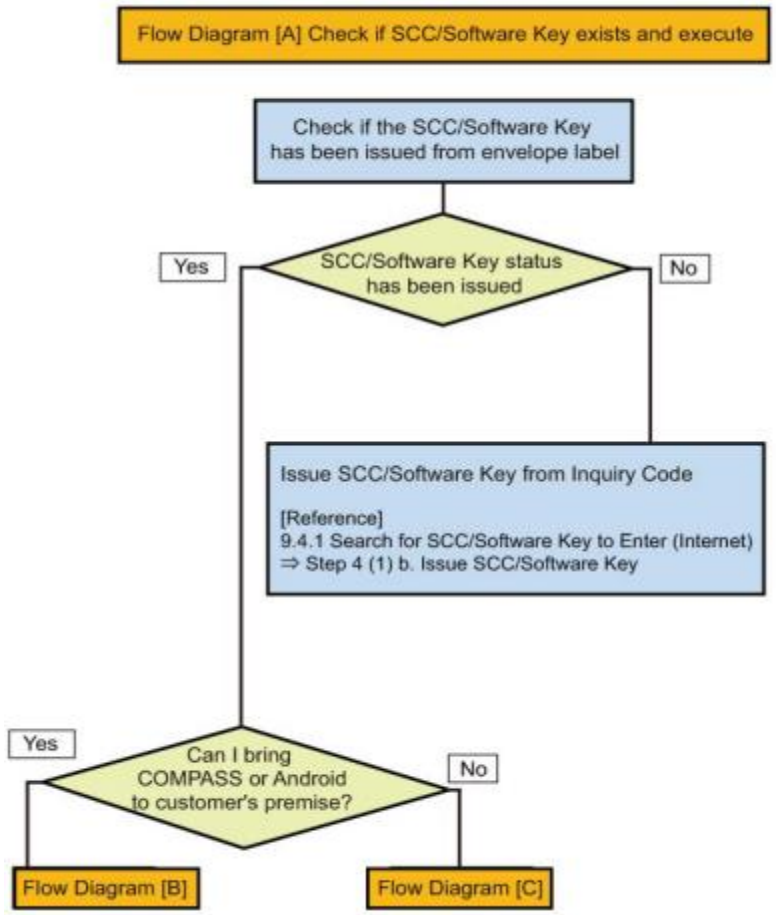


Figure 31 gre920239

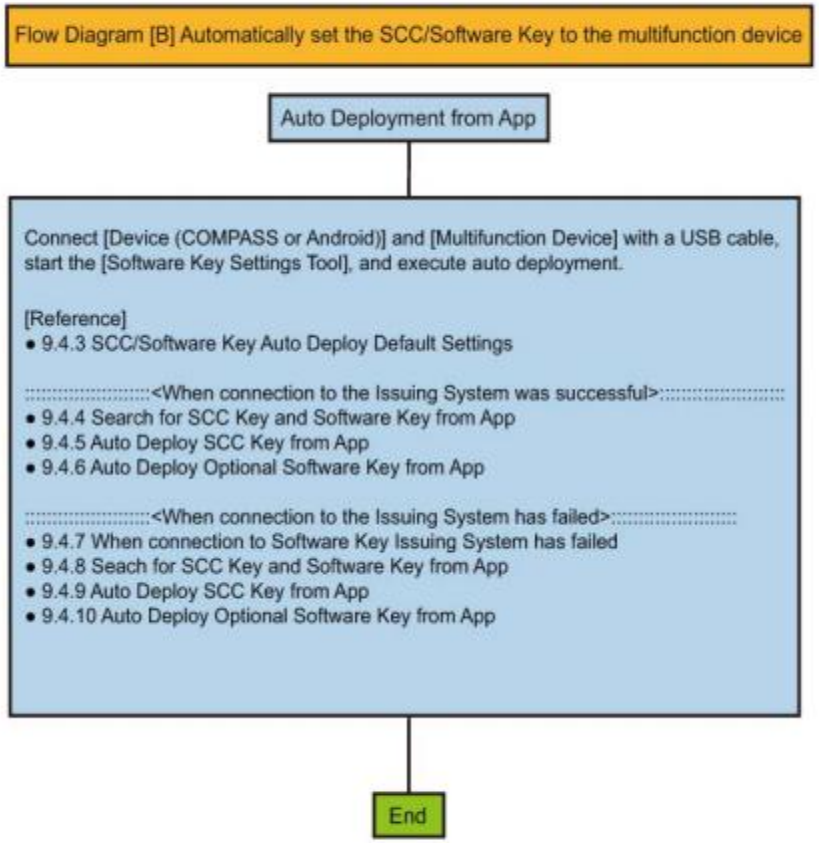


Figure 32 gre920240

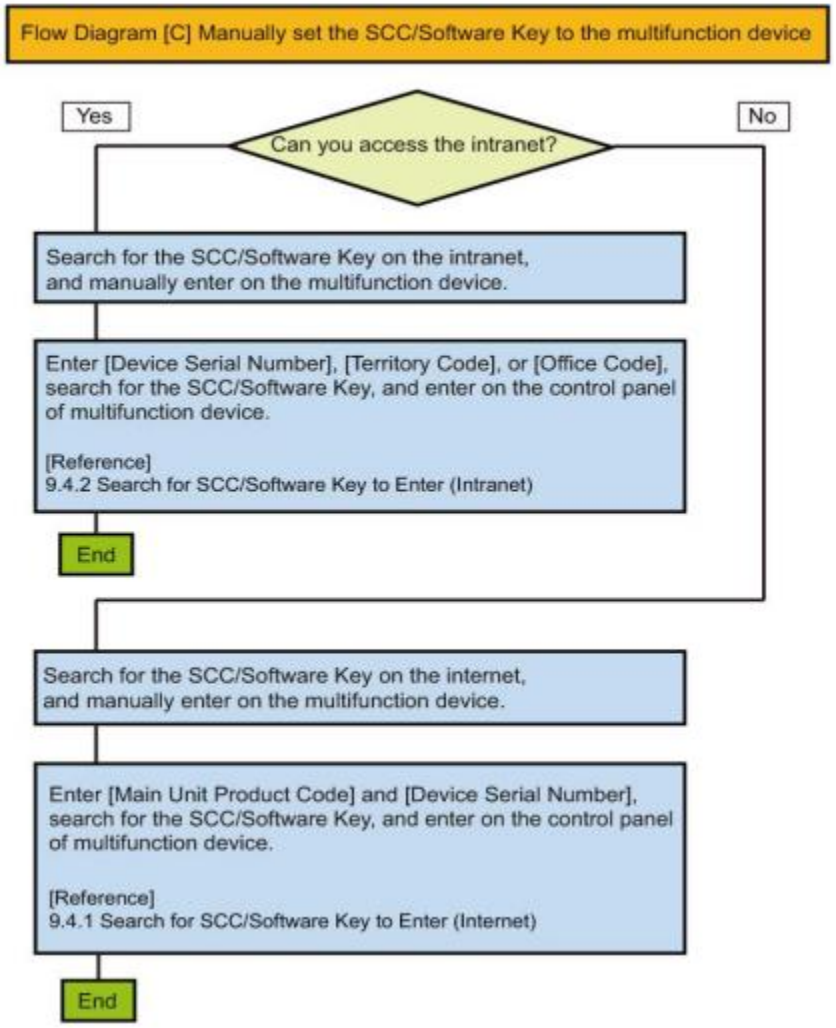


Figure 33 gre920241

9.2.2 Duplex Automatic Document Feeder

Product Code

- QC100244

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION

When installing this Kit, update the firmware of the Main Unit Controller and the DADF to the latest version.

! CAUTION

Static electricity may damage electrical parts.

Static electricity may damage electrical parts. Always wear a wrist band during servicing.
If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

Installation Procedure

1. Check the bundled items. (Figure 1)
   (1) DADF : 1
   (2) Platen Cushion : 1
   (3) DADF Label : 1Set



Figure 1 mnl910050

2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
3. Remove the Platen Cover from the Main Unit.
   (1) Pull out and remove the Platen Cover from the Main Unit. (Figure 2)

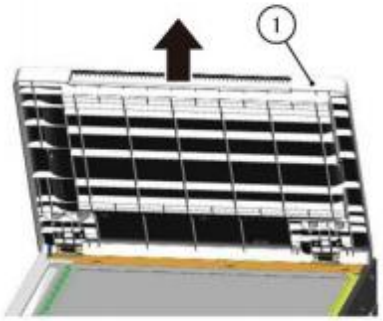


Figure 2 mnl910044

4. Install the DADF. (Figure 3)
   (1) Insert the tab (x2) of the Counter Balance into the grooves of the installation holes.

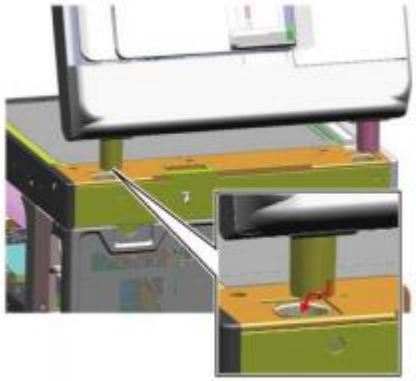


Figure 3 mnl910045

5. Affix the Platen Cushion to the DADF. (Figure 4)
   (1) Place the Platen Cushion on the Platen Glass.
   (2) Set up the gap between the Regi Guide and Platen Guide.
   (3) Slowly close the DADF and press it onto the DADF Platen Cushion.

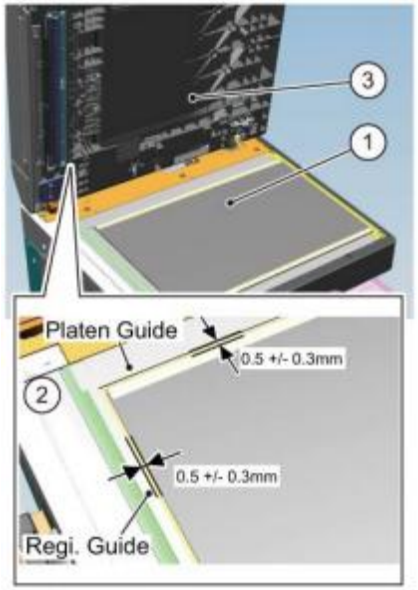


Figure 4 mnl910046

6. Remove the IOT Rear Cover. (REP 19.2.1)
7. Remove the Rear Cover. (PL 1.1)
8. Connect the DADF Cable. (Figure 5, 6)
   (1) Pass the Wire Harness through the hole and connect the connector.

   NOTE
   Check that it is connected securely.

   (2) Secure the Push Tie.
   (3) Install the Rear Cover that was removed in Step 7.
   (4) Secure the Push Tie.

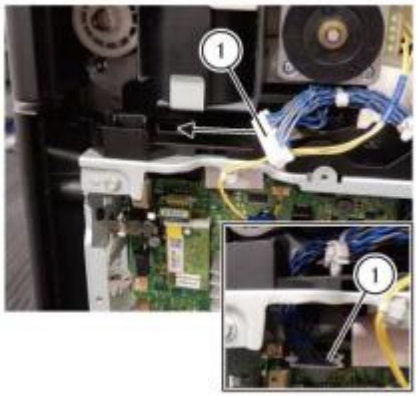


Figure 5 mnl910061

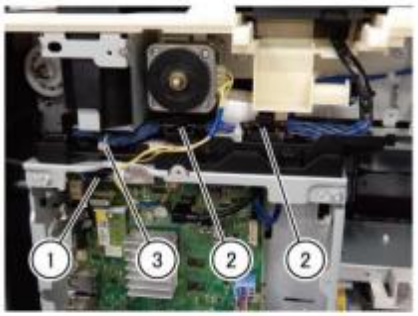


Figure 6 mnl910062

9. Install the IOT Rear Cover that was removed in Step 6.

10. Affix the Label to the DADF Top Cover. (Figure 7)
    (1) Affix the Label at the following measurements.

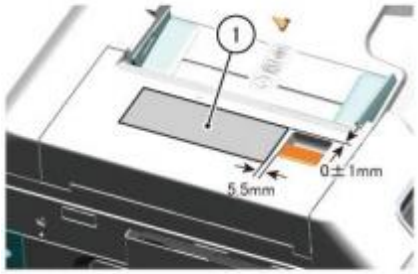


Figure 7 mnl910016

11. Plug in the Power Plug.
12. Press the <Power> button to turn ON the power and check the operation.
13. Check that the Controller and the DADF have been updated to their latest firmware.
14. Check the operation of the DADF and perform adjustments as required.
15. Explain how to handle the Device to the customer where necessary.
16. Record "DADF: 151V" in the Service Report.

9.2.3 Tray Module

9.2.3.1 1 Tray Module

Product Code

- EC104653

⚠ WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Check the 1 Tray Module bundled items.
   (1) 1 Tray Module : 1
   (2) Docking Screw : 3
   (3) Docking Bracket : 1
   (4) Size Label : 1

2. Remove the packaging materials from the 1 Tray Module.
3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Align and install the Main Unit to the Positioning Stud (x3) of the 1 Tray Module. (Figure 1)

⚠ CAUTION

When mounting the Main Unit onto the 1 Tray Module, make sure that you have 4 or more persons to perform the task.

- DADF- 110 Weight: approx. 77 kg; Platen Weight: approx. 71 kg

(1) Hold onto the Main Unit at the indicated areas (x4 locations), align it to the Positioning Stud (x3) of the 1 Tray Module, and install it.

NOTE
To prevent the Frame from getting deformed, your fingers from getting pinched, etc., do not hold onto the Main Unit at areas other than indicated (x4 locations). Also, take care so as not to pinch the cable of 1 Tray Module.

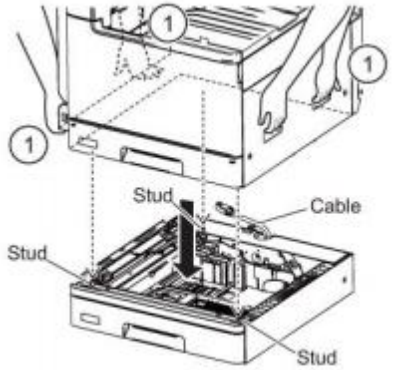


Figure 1 mbl920010

5. Remove the Connector Cover. (Figure 2)
   (1) Remove the Connector Cover.



Figure 2 mb910302 j0mb910302

6. Connect the 1 Tray Module connector. (Figure 3)
   (1) Connect the connector.

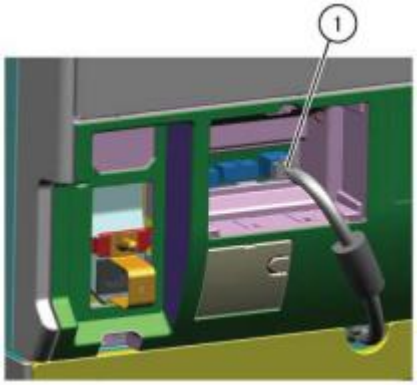


Figure 3 mnl910004

7. Reinstall the Connector Cover that was removed in Step 5.
8. Install the Docking Bracket. (Figure 4)
   (1) Install the Docking Bracket.
   (2) Tighten the screw.

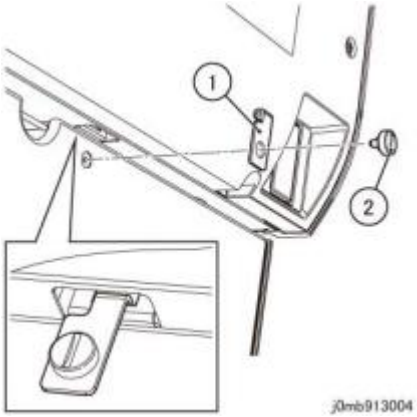


Figure 4 mb913004

9. Pull out and remove Tray 1.

10. Install the Docking Screw (x2). (Figure 5)
    (1) Tighten the Docking Screw (x2).

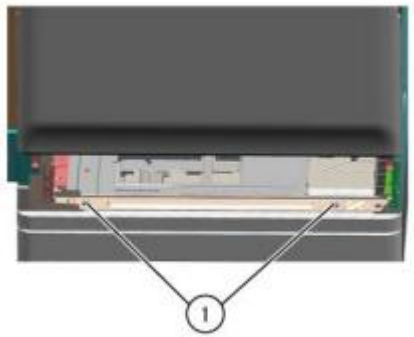


Figure 5 mnl910003

11. Reinstall Tray 1.
12. Load paper into Tray 2.
13. Affix the Paper Size Label to Tray 2. (Figure 6)

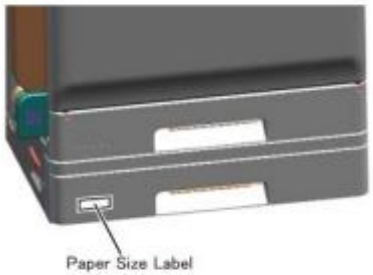


Figure 6 mnl910022

14. Plug in the Power Plug.
15. Press the <Power> button to turn ON the power.
16. Record the following V code in the Service Report.

Type	V Code	Note
1 Tray Module	168V	
Caster Locked	447V	Check and report when this is performed and at every service call
Caster Locked/ Motion Prevention Stopper Affixed	448V	Check and report when both of these are performed and at every service call

17. Explain to the customer the following Caster Lock related items where necessary.
    - Caster Lock: This is not for earthquake preparedness, but to prevent the Device from shifting about.
    - Caster Lock/Motion Prevention Stopper Fixture: This is not for earthquake preparedness, but to prevent the Device from toppling when something is leaned against it.

9.2.3.2 1 Tray Module with Cabinet

Product Code

- EC104654

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Check the 1 Tray Module bundled items.
   (1) 1 Tray Module with Cabinet : 1
   (2) Docking Screw : 2
   (3) Docking Bracket : 1
   (4) Screw : 1
   (5) Size Label : 1

2. Remove the packaging materials from the 1 Tray Module with Cabinet.
3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Align and install the Main Unit to the Positioning Stud (x3) of the 1 Tray Module with Cabinet. (Figure 1)

   CAUTION
   When mounting the Main Unit onto the 1 Tray Module with Cabinet, make sure that you have 4 or more persons to perform the task.

   - DADF-110 Weight: approx. 73 kg; Platen Weight: approx. 68 kg

   (1) Hold onto the Main Unit at the indicated areas (x4 locations), align it to the Positioning Stud (x2) of the 1 Tray Module with Cabinet, and install it.

NOTE
To prevent the Frame from getting deformed, your fingers from getting pinched, etc., do not hold onto the Main Unit at areas other than indicated (x4 locations). Also, take care so as not to pinch the cable of 1 Tray Module with Cabinet.

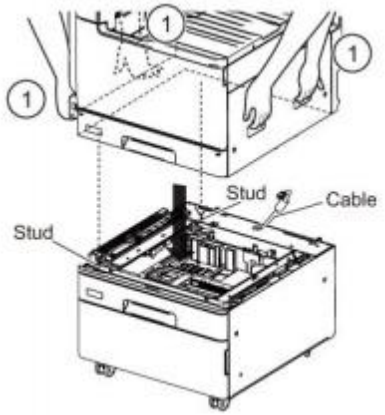


Figure 1 mbl920011

5. Remove the Connector Cover. (Figure 2)
   (1) Remove the Connector Cover.



jOmb910302

Figure 2 mb910302

6. Connect the 1 Tray Module with Cabinet connector. (Figure 3)
   (1) Connect the connector.

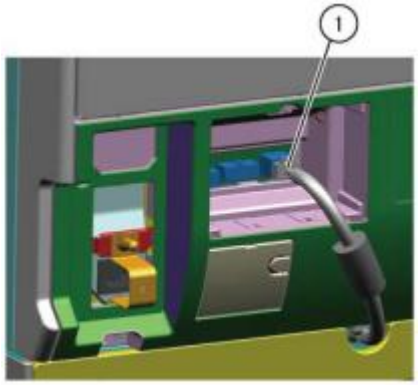


Figure 3 mnl910004

7. Reinstall the Connector Cover that was removed in Step 5.
8. Remove the Rear Cover of 1 Tray Module with Cabinet. (Figure 4)
   (1) Remove the screw (x4).
   (2) Remove the Rear Cover. (PL 10.1)

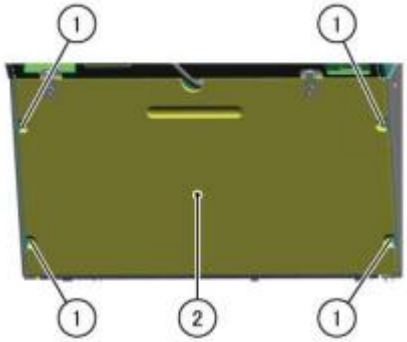


Figure 4 mnl910002

9. Install the Docking Bracket. (Figure 5)
   (1) Install the Docking Bracket.
   (2) Tighten the screw.

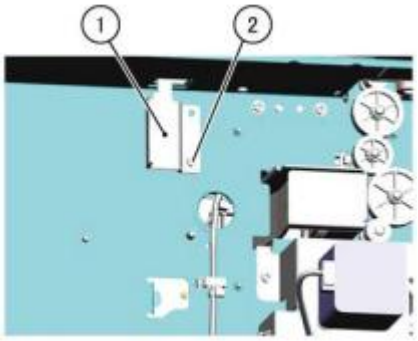


Figure 5 mnl910001

10. Reinstall the parts that was removed in Step 8.
11. Pull out and remove Tray 1.
12. Install the Docking Screw (x2). (Figure 6)
   (1) Tighten the Docking Screw (x2).

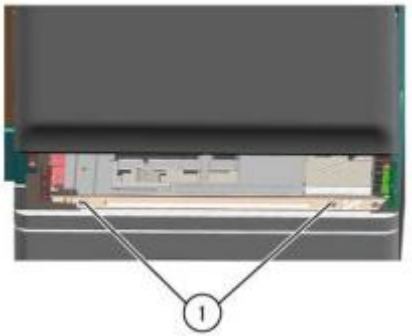


Figure 6 mnl910003

13. Reinstall Tray 1.
14. Lock the Caster (x2) and Foot (x2) at the front. (Figure 7)
   (1) Lock the Caster (x2).

(2) Rotate the Foot (x2) to lower them.

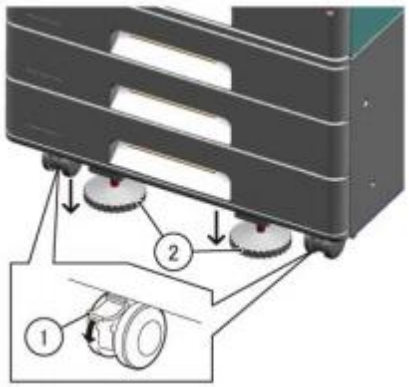


Figure 7 mnl910023

15. Rotate the Foot (x2) at the rear to lower them. (Figure 8)

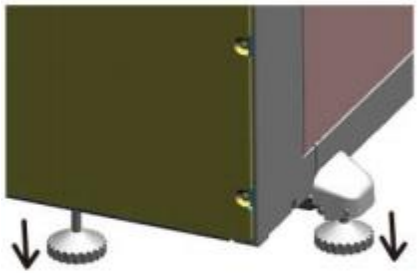


Figure 8 mnl910024

16. Load paper into Tray 2.

17. Affix the Paper Size Label to Tray 2. (Figure 9)

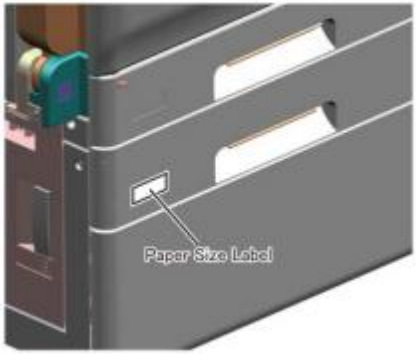


Figure 9 mnl910025

18. Plug in the Power Plug.
19. Press the <Power> button to turn ON the power.
20. Record the following V code in the Service Report.

Type	V Code	Note
1 Tray Module with Cabinet	167V	
Caster Locked	447V	Check and report when this is performed and at every service call
Caster Locked/ Motion Prevention Stopper Affixed	448V	Check and report when both of these are performed and at every service call

21. Explain to the customer the following Caster Lock related items where necessary.
    - Caster Lock: This is not for earthquake preparedness, but to prevent the Device from shifting about.
    - Caster Lock/Motion Prevention Stopper Fixture: This is not for earthquake preparedness, but to prevent the Device from toppling when something is leaned against it.

9.2.3.3 3 Tray Module

Product Code

- EC104655

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Check the 1 Tray Module bundled items.
   (1) 3 Tray Module : 1
   (2) Docking Screw : 2
   (3) Docking Bracket : 1
   (4) Screw : 1
   (5) Size Label : 1

2. Remove the packaging materials from the 3 Tray Module.
3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Align and install the Main Unit to the Positioning Stud (x2) of the 3 Tray Module. (Figure 1)

! CAUTION

When mounting the Main Unit onto the 3 Tray Module, make sure that you have 4 or more persons to perform the task.

- DADF-110 Weight: approx. 80 kg; Platen Weight: approx. 75 kg

(1) Hold onto the Main Unit at the indicated areas (x4 locations), align it to the Positioning Stud (x2) of the 3 Tray Module, and install it.

NOTE

To prevent the Frame from getting deformed, your fingers from getting pinched, etc., do not hold onto the Main Unit at areas other than indicated (x4 locations). Also, take care so as not to pinch the cable of 3 Tray Module.

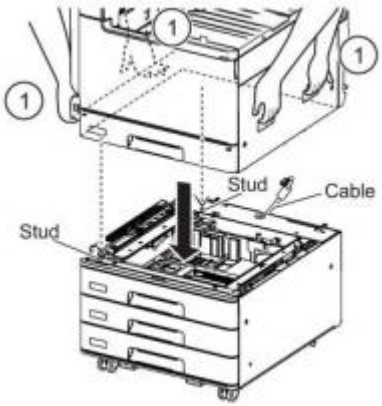


Figure 1 mbl920012

5. Remove the Connector Cover. (Figure 2)
   (1) Remove the Connector Cover.



Figure 2 mb910302

6. Connect the 3 Tray Module connector. (Figure 3)

(1) Connect the connector.

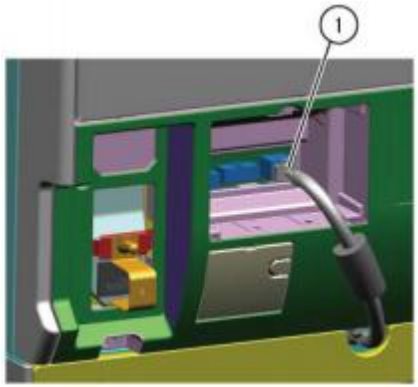


Figure 3 mnl910004

7. Reinstall the Connector Cover that was removed in Step 5.
8. Remove the Rear Cover of 3 Tray Module. (Figure 4)
   (1) Remove the screw (x4).
   (2) Remove the Rear Cover. (PL 11.1)

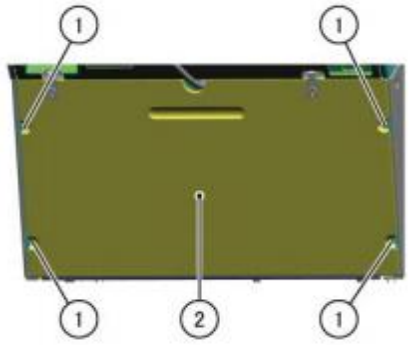


Figure 4 mnl910002

9. Install the Docking Bracket. (Figure 5)
   (1) Install the Docking Bracket.
   (2) Tighten the screw.

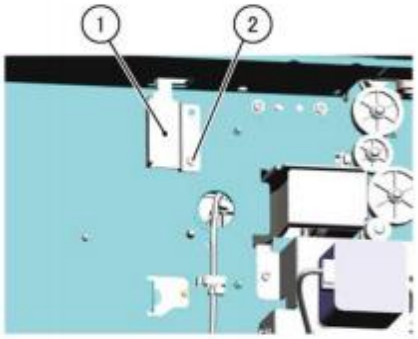


Figure 5 mnl910001

10. Reinstall the parts that was removed in Step 8.
11. Pull out and remove Tray 1.
12. Install the Docking Screw (x2). (Figure 6)
   (1) Tighten the Docking Screw (x2).

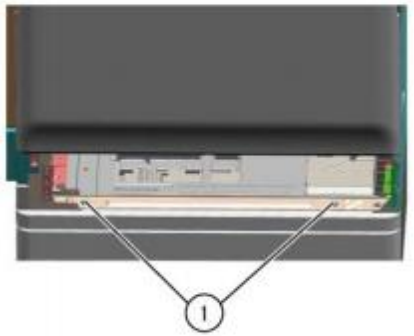


Figure 6 mnl910003

13. Reinstall Tray 1.
14. Move the Device to its installation location and lock the Caster and the Foot. (Figure 7)
   (1) Lock the Caster (x2).

(2) Rotate the Foot (x2) to lower them.

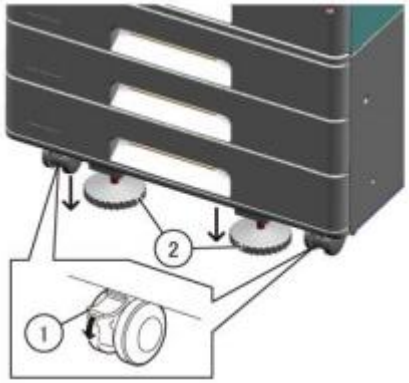


Figure 7 mnl910023

15. Rotate the Foot (x2) at the rear to lower them. (Figure 8)

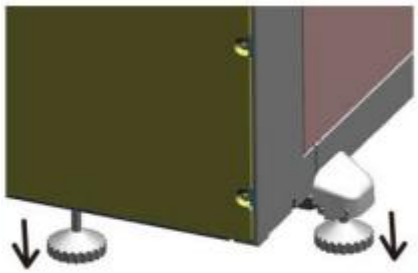


Figure 8 mnl910024

16. Load paper into each Tray.

17. Affix the Paper Size Label to each Tray. (Figure 9)

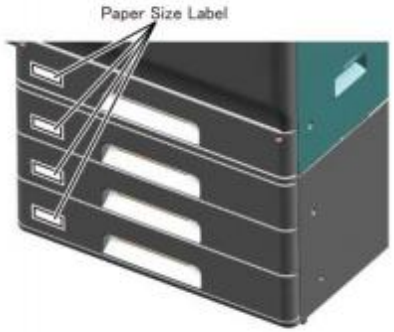


Figure 9 mnl910026

18. Plug in the Power Plug.
19. Press the <Power> button to turn ON the power.
20. Record the following V code in the Service Report.

Type	V Code	Note
3 Tray Module	170V	
Caster Locked	447V	Check and report when this is performed and at every service call
Caster Locked/ Motion Prevention Stopper Affixed	448V	Check and report when both of these are performed and at every service call

21. Explain to the customer the following Caster Lock related items where necessary.
    - Caster Lock: This is not for earthquake preparedness, but to prevent the Device from shifting about.
    - Caster Lock/Motion Prevention Stopper Fixture: This is not for earthquake preparedness, but to prevent the Device from toppling when something is leaned against it.

9.2.5 Extra Center Tray

Product Code

- EC104656

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NVM To Be Changed After Installation

NOTE
The settings will be different depending on whether the Side Tray (9.2.8) is available.

Side Tray (Product Code: EC104657)	NVM[742-156] (Output Tray Availability Switch)
None	0 → 1 (Extra Center Tray Available)
Available	2 → 3 (Extra Center Tray Available/ Left- Side Output Tray Available)

Installation Procedure

1. Before Starting
   - Installing this Kit enables bi-directional Face Down output.
   - This Kit cannot be installed together with the Finisher Kit.
2. Check the bundled items.
   (1) Exit 2 Tray : 1
3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Install the Exit 2 Tray. (Figure 1)
   (1) Install the Exit 2 Tray.

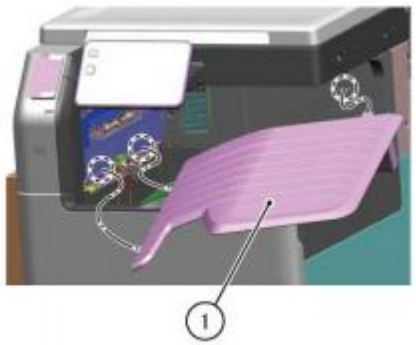


Figure 1 mnl910041

5. Turn ON the power and enter UI Diag - DC131 [NVM Read/Write].
   Change the value of NVM [742- 156] from "0" to "1".

   NOTE
   If a Side Tray (Product Code: EC104657) is already installed, change the value from "2" to "3" instead.

   The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
742- 156	Output Tray Availability	Select the availability of output trays (whether or not output is possible) . Setting Value (values other than the following are invalid): 0: Option Tray not available 1: Exit 2 Tray available 2: Face Up Tray available 3: Exit 2 Tray available/Face Up Tray available

6. Record "Extra Center Tray: 200V" in the Service Report.
7. Explain to the customer how to operate the Device where necessary.

9.2.6 Caster

Product Code

- 1 Tray Module: EC104653
- Caster Board (Special Caster Stand): EC104642

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Before Starting
   When installing this Kit, also prepare the 1 Tray Module (EC104653) and perform the installation in sequence.

2. Check the Caster Board bundled items.
   Caster Board (Special Caster Stand)
   (1) Caster Board: 1
   (2) Docking Screw : 3

3. Check the 1 Tray Module bundled items.
   (1) 1 Tray Module : 1
   (2) Docking Screw : 3
   (3) Docking Bracket : 1
   (4) Size Label : 1

4. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.

5. For safety reasons, lock the casters of the Caster Board. (Figure 1)
   (1) Lock the caster (x2 locations).



Figure 1 mb910407

6. Align and install the 1 Tray Module to the Positioning Plate (x2) of the Caster Board. (Figure 2)
   (1) Remove Tray 2.
   (2) Align the 4 corners of 1 Tray Module to the 4 corners of the Caster Board and mount it on carefully.
   (3) Make sure that the Plate (x2) of the Caster Board are inserted securely into the Foot of the 1 Tray Module.

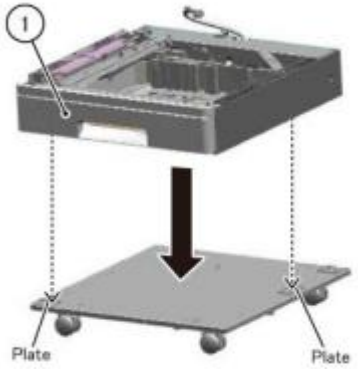


Figure 2 mnl910076

7. Secure the 1 Tray Module and the Caster Board with the Docking Screw (x3). (Figure 3)
   (1) Tighten the Docking Screw (x3).



Figure 3 mb910601

8. Align and install the Main Unit to the Positioning Stud (x3) of the 1 Tray Module. (Figure 4)

! CAUTION
When mounting the Main Unit onto the 1 Tray Module, make sure that you have 4 or more persons to perform the task.

- DADF-110 Weight: approx. 77 kg; Platen Weight: approx. 71 kg

(1) Hold onto the Main Unit at the indicated areas (x4 locations), align it to the Positioning Stud (x3) of the 1 Tray Module, and install it.

NOTE
To prevent the Frame from getting deformed, your fingers from getting pinched, etc., do not hold onto the Main Unit at areas other than indicated (x4 locations). Also, take care so as not to pinch the cable of 1 Tray Module.

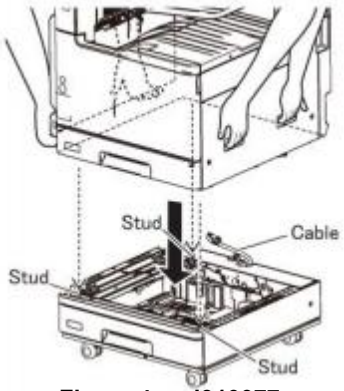


Figure 4 mnl910077

9. Remove the Connector Cover of the Main Unit. (Figure 5)
   (1) Remove the Connector Cover.



Figure 5 mb910302

10. Connect the 1 Tray Module connector. (Figure 6)
    (1) Connect the connector.

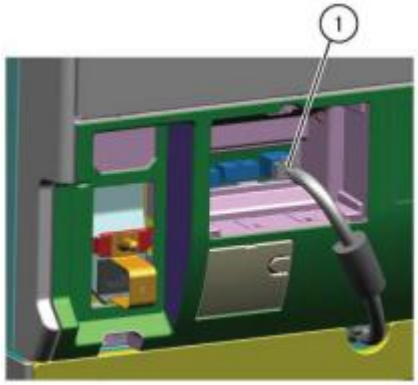


Figure 6 mnl910004

11. Install the Docking Bracket. (Figure 7)
    (1) Install the Docking Bracket.
    (2) Tighten the screw.

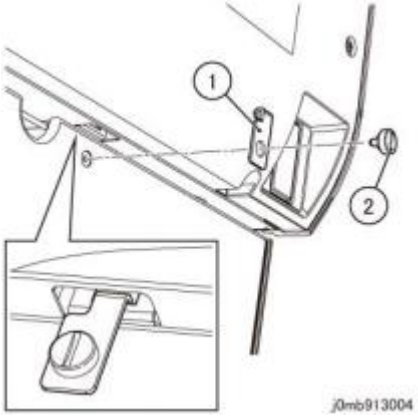


Figure 7 mb913004

12. Reinstall the Connector Cover that was removed in Step 9.
13. Pull out and remove Tray 1.
14. Install the Docking Screw (x2). (Figure 8)
    (1) Tighten the Docking Screw (x2).

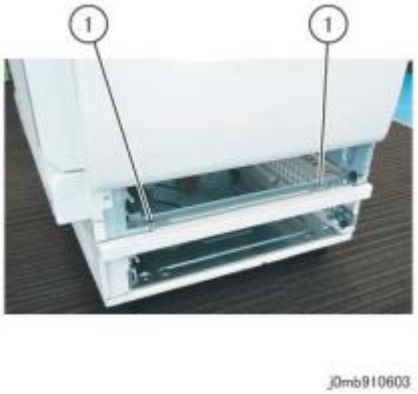


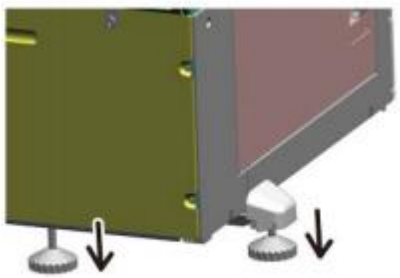
Figure 8 mb910603

15. Reinstall Tray 1 and Tray 2.
16. Move the Device to the installation location and lock the Front Caster (x2). (Figure 9)



Figure 9 mb914007

17. Rotate the Foot (x2) to lower them. (Figure 10)



18. Load paper into Tray 2.
19. Affix the Paper Size Label to Tray 2. (Figure 11)

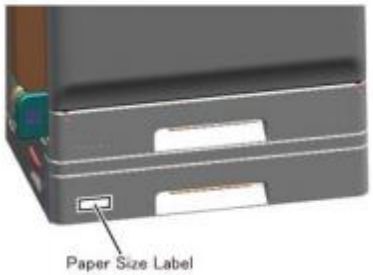


Figure 11 mnl910022

20. Plug in the Power Plug.
21. Press the <Power> button to turn ON the power.
22. Record the following V code in the Service Report.

Type	V Code	Note
Caster Board	166V	
1 Tray Module	168V	
Caster Locked	447V	Check and report when this is performed and at every service call
Caster Locked/ Motion Prevention Stopper Affixed	448V	Check and report when both of these are performed and at every service call

23. Explain to the customer the following Caster Lock related items where necessary.
    - Caster Lock: This is not for earthquake preparedness, but to prevent the Device from shifting about.
    - Caster Lock/Motion Prevention Stopper Fixture: This is not for earthquake preparedness, but to prevent the Device from toppling when something is leaned against it.

9.2.8 Side Tray Kit

Product Code

- EC104657

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

NVM To Be Changed After Installation

Extra Center Tray (Product Code: EC104656)	NVM[742-156] (Output Tray Availability Switch)
None	0 → 2 (Left- Side Output Tray Available)
Available	1 → 3 (Extra Center Tray Available/ Left- Side Output Tray Available)

Installation Procedure

1. Check the bundled items.
   (1) Exit 2 Face Up Chute Assembly : 1
   (2) Face Up Tray : 1
   (3) Face Up Tray Cover : 1

2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
3. Open the L/H Cover Assembly.
4. Open the Exit 2 High Chute Assembly.
5. Remove the Exit 2 High Chute Assembly. (Figure 1)
   (1) Rotate the Front Support 90 degrees counterclockwise and remove it.
   (2) Rotate the Rear Support 90 degrees counterclockwise and remove it.
   (3) Remove the Exit 2 High Chute Assembly.
   (4) Remove the Connector Cover.

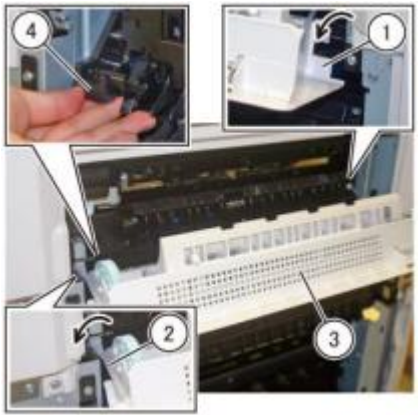


Figure 1 mbl920022

6. Remove the Rear Support from the Exit 2 High Chute Assembly that was removed. (Figure 2)
   (1) Remove the Rear Support.

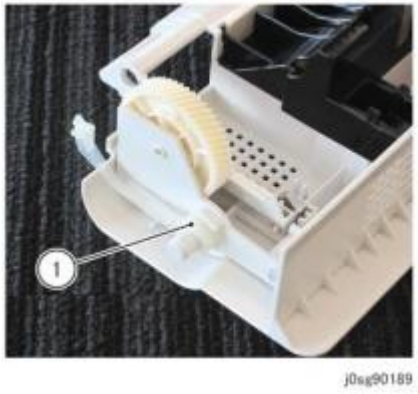


Figure 2 sg90189

7. Install the Rear Support that was removed in Step 6 to the Exit 2 Face Up Chute Assembly.

8. Pull out and remove the spacer from the Exit 2 Face Up Chute Assembly. (Figure 3)
   (1) Pull out and remove the spacer.



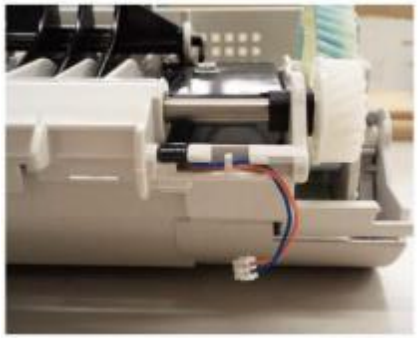
j0mb910902

Figure 3 mb910902

9. Install the Exit 2 Face Up Chute Assembly. (Figure 5)
   (1) Install the Exit 2 Face Up Chute Assembly.

   NOTE

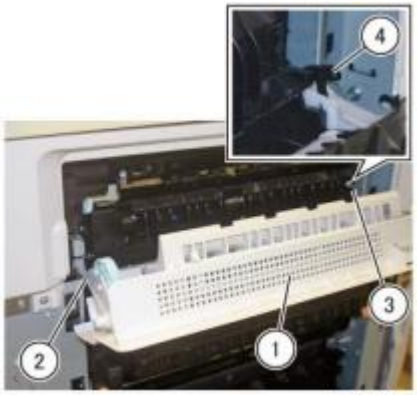
   Perform the installation with the harness threaded as shown in the following figure. (Figure 4)



j0mb912018

Figure 4 mb912018

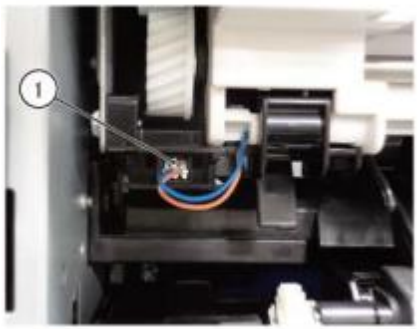
   (2) Insert the Rear Support.
   (3) Insert the Front Support.
   (4) Push in the spacer.



j0mb910903

Figure 5 mb910903

10. Close the Exit 2 Face Up Chute Assembly.
11. Connect the connector. (Figure 6)
   (1) Connect the connector.



j0mb912019

Figure 6 mb912019

12. Install the Connector Cover. (Figure 7)
    (1) Install the Connector Cover.

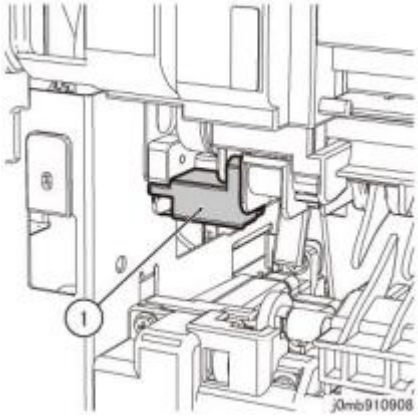


Figure 7 mb910908

13. Install the Face Up Tray and Face Up Tray Cover. (Figure 8)
    (1) Install the Face Up Tray.
    (2) Install the Face Up Tray Cover.

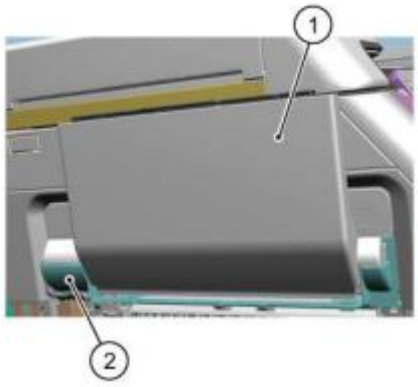


Figure 8 mbl910049

14. Close the L/H Cover Assembly.
15. Plug in the Power Plug.
16. Press the <Power> button to turn ON the power.
17. Enter UI Diag DC131 [NVM Read/Write].
    Change the value of NVM [742- 156 (Output Tray Availability Switch)] from "0" to "2".

NOTE
If an Extra Center Tray (Product Code: EC104656) is already installed, change the value from "1" to "3" instead.

The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
742-156	Output Tray Availability	Select the availability of output trays (whether or not output is possible). Setting Value (values other than the following are invalid): 0: Option Tray not available 1: Exit 2 Tray available 2: Face Up Tray available 3: Exit 2 Tray available/Face Up Tray available

18. Record "Left Top Tray: 190V" in the Service Report.
19. Explain to the customer how to operate the Device where necessary.

9.2.10 FAX KIT

9.2.10.1 FAX KIT 3

Product Code

- QC100243
- EC104650
- EC104651

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Check the bundled items.
   (1) Fax Box : 1
   (2) Screw : 2
   (3) USB Cable : 1
   (4) Harness ASSY-FAX MM : 1
   (5) Data Cable : 1
   (6) Caution Label : 1
   (7) Clamp Locking : 1
   (8) Serial Label (for Front Cover): 1
   (9) NCC Label : 1

2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
3. Remove the Rear Cover. (REP 19.2.1)
4. Install the Harness ASSY-FAX MM and USB Cable. (Figure 1)
   (1) Open the existing clamp and pass the Harness ASSY-FAX MM and USB Cable through the Frame.

   NOTE
   Pass the Harness ASSY-FAX MM connector end that has the short plastic tape through.
   Pass the connector at USB-A end of the USB Cable.

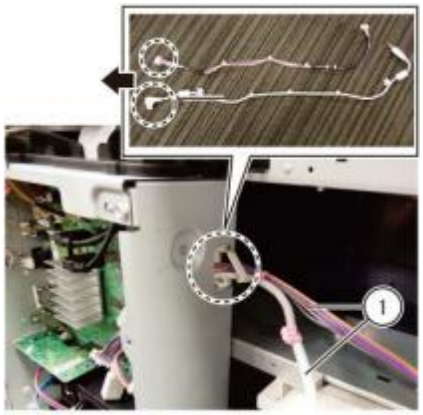


Figure 1 mbt911014

5. Connect the Harness ASSY-FAX MM and USB Cable connectors. (Figure 2)
   (1) Connect the Harness ASSY-FAX MM connector.
   (2) Connect the connector (USB-A) of USB Cable.
   (3) Install the Push Tie of the USB Cable.

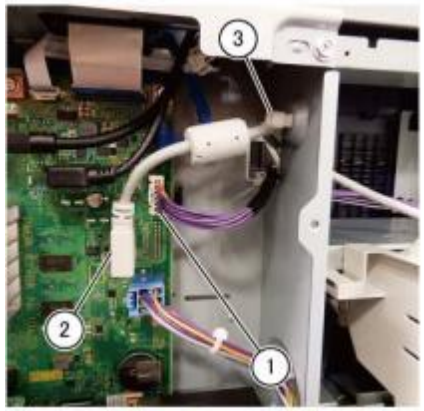


Figure 2 mbt911015

6. Affix the clamps of the Harness ASSY-FAX MM and USB Cable to the Frame. (Figure 3)
   (1) Affix the clamp (x3) of the Harness ASSY-FAX MM to the Frame at the inner side.
   (2) Affix the clamp (x3) of the USB Cable to the Frame at the front.

(3) Close the clamp.

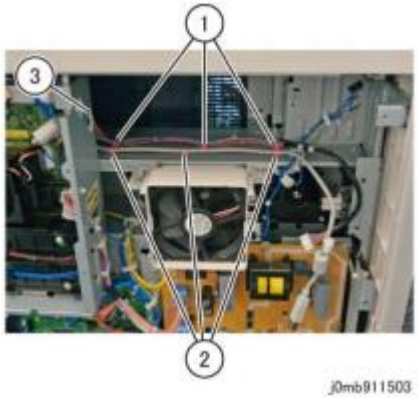


Figure 3 mb911503

7. Install the Fax Chassis Assembly. (Figure 4)
   (1) Align the Fax Chassis Assembly to the positioning boss.
   (2) Install it by using the screw (x2).

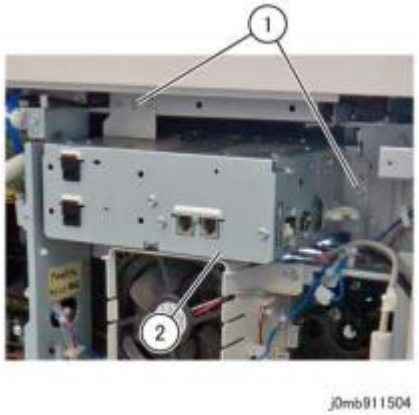


Figure 4 mb911504

8. Connect the USB Cable and Harness ASSY-FAX MM to the Fax Chassis Assembly. (Figure 5)
   (1) Connect the connector (USB-B) of USB Cable to the Fax Chassis Assembly.
   (2) Connect the Harness ASSY-FAX MM connector to the Fax Chassis Assembly.

(3) Install the Push Tie of the USB Cable.

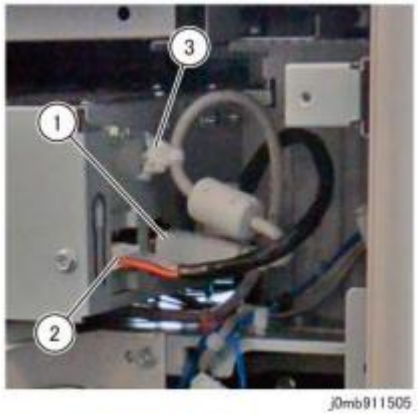


Figure 5 mb911505

9. Reinstall the Rear Cover that was removed in Step 3.
10. Open the Front Cover and affix the Serial Label (for Front Cover). (Figure 6)
    (1) Affix the Serial Label (for the Front Cover).

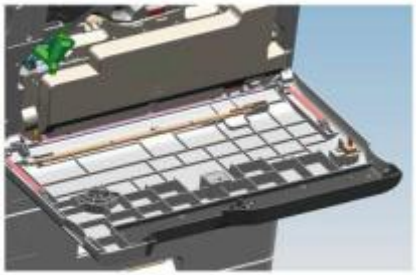


Figure 6 mnl910063

11. Paste the NCC Label. (Figure 7)

NOTE

- Fax Kit 3 only → FAX Line1 (CCAB21F10010T8)
- Fax Kit 3 + Fax Expanasion Port Kit3 x 1 → FAX Line1 (CCAB21F10010T8) + FAX Line2 (CCAB21F10020T1)

- Fax Kit 3 + Fax Expanasion Port Kit3 x 2 → FAX Line1 (CCAB21F10010T8) + FAX Line2 (CCAB21F10020T1) + FAX Line3 (CCAB21F10030T1)

(1) Connect the Data Cable to "Line 1".

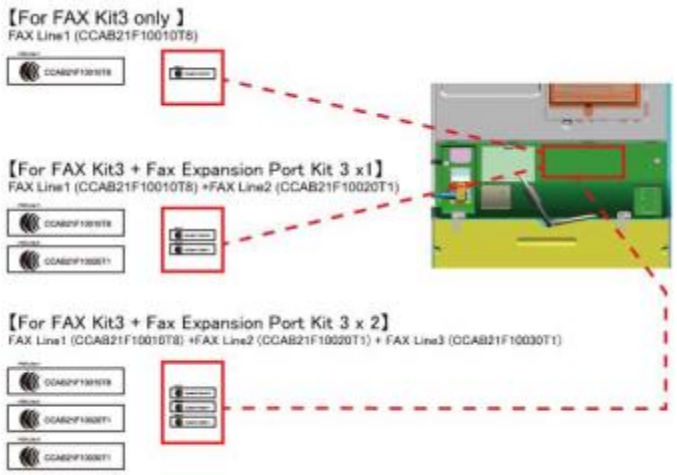


Figure 7 mnl910064

12. Attach the Data Cable. (Figure 8)

(1) Connect the Data Cable to "Line 1".

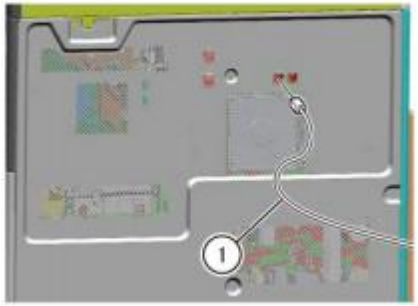


Figure 8 mnl910027

13. Reconnect the Power Cord and return the Device to its installation location.
14. Turn ON the power.
[Ready to Copy] is displayed approx. 30 seconds later.
15. Change Chain-Link: 820-221 from "1" to "0".

- 0: With Fax Card
- 1: Without Fax Card

The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
820-221	Fax Card Availability	0 : With Fax Card 1: Without Fax Card

16. Enter the Fax Local Terminal Information.

NOTE

Check the line type and dial type in advance with the customer or by the following confirmation method.

[Dial Type Determination]
Enter the System Administrator Mode, select [Device] → [App Settings] → [Fax Settings] → [Local Terminal Information].
Select a dial type from PB (Push Line), 10pps (Dial Line), and 20pps (Pulse Line).
Default value = [PB]
< Check Method>
Select the On-hook (Manual Send/Receive) button.
[Fax Settings] → [On-hook (Manual Send/Receive)]

(1) For NTT Line
Dial 117 (time tone service).
When the time tone cannot be heard, set [20pps].

(2) For PBX Line
Dial 0 (Special number for complementing the Outside Line. Check with the client as the number may not always be 0 depending on the line).
If the intermittent tone is heard (does not switch to a continuous tone), set [20pps].

[G3 Line Transmission Determination]
Select the G3 Transmission from "Detect Tone", "Do Not Detect Tone".
In normal circumstances, select "Detect Tone".
Default value = [Detect Tone]
< Check Method>
Perform the Fax auto send test. If the 033-546 error occurs, select "Do Not Detect Tone".

No.	Local Terminal Information	Description
1	Local Name	Registers the name of the local terminal as a local name. The local name appears on the remote device display and Activity Reports. However, it may not be displayed depending on the remote device.

No.	Local Terminal Information	Description
2	Fax Name	Register the name of the sender. Fax Name is the local name displayed on the upper edge (header) of the received document or the cover page. Up to 30 characters can be registered for Fax Name.
3	G3 Line 1 - ID	G3 ID is notified by G3 communication signals and displayed in the Activity Report. The local Fax No. is usually set in the G3 ID. Up to 20 digits from 0 to 9, +, and spaces may be used for G3 ID.
4	G3 Line 1 - Dial Type	Select a dial type from PB (Push Line), 10pps (Dial Line), and 20pps (Dial Line).
5	G3 Line 1 - Transmission	In normal circumstances, select "Detect Tone" If the 033-546 error occurs during auto send, select "Do Not Detect Tone".
6	Line 1 Add Service	Availability of Caller ID, Dial-In.

17. Perform the Fax send/receive test.
Make a request to the respective sales department. You can also check the transmission results by selecting [Jobs] → [All Jobs] → [Completed Jobs].

NOTE

Make sure you perform the transmission and reception test.

18. Perform EP-BB registration.

NOTE

EP-BB connection requires a concluded memorandum regarding EP use with the customer.

(1) Enter the System Administrator Mode.

(a) Tap the humanoid icon on the upper left of the touch panel and enter the [System Administrator ID] (11111).

No.	V-code installation item	Menu
1	IP settings • IP Address • Subnet Mask • Gateway Address • DNS settings	[Device] → [Network Settings] → [Protocol Settings]
2	EP Proxy Server Setup • Server Name • Port Number • Login Name • Password	[Device] → [Network Settings] → [EP Proxy Server Setup]

(2) Enter the UI Diag CE Diagnostics screen.

(a) Press and hold down [Home] for 5 seconds or longer and then release it.

(b) Within 2 seconds after releasing it, press and hold down [Home] for 5 seconds or longer and then release it again.

(c) Within 2 seconds after releasing the [Home] button, tap somewhere at the bottom left of the screen.

(d) Enter the passcode (1739), and tap [OK].

(3) Register the EP-BB.

(a) On the touch panel, tap [Device] → [Maintenance] → [Maintenance / Diagnostics] → [EP Service] → [EP Registration / Cancel Registration] → [BB Registration].

(b) Enter the [Staff ID] and tap [Start]. After that, tap [Start].

(c) When the message: [Successfully registered.] is displayed, select [OK].

(4) Finish the installation.

(a) Return to the [Maintenance/Diagnosis] screen and tap [Exit (Clear History)] on the screen.

(b) The Device restarts automatically.
(If it does not restart automatically, return to the Home screen and turn the power OFF/ON manually)

(c) Make sure you have exit the CE Diag mode.

REFERENCE

For more information on the installation of Communication Aggregation Server, refer to the Service Manual.

19. Set the Firmware Update Service.

NOTE

- The EP-BB registration must already be completed before performing the setting.
- The setting is to be performed when the [Firmware Update Feature Disabled] of the [EP Service License Application Form] is not checked.

(1) Enter the UI Diag CE Diagnostics screen.

(a) Press and hold down [Home] for 5 seconds or longer and then release it.
(b) Within 2 seconds after releasing it, press and hold down [Home] for 5 seconds or longer and then release it again.
(c) Within 2 seconds after releasing the [Home] button, tap somewhere at the bottom left of the screen.
(d) Enter the passcode (1739), and tap [OK].

(2) Change the NVM to display the [Update] button.

(a) On the touch panel, tap [Device] → [Maintenance] → [Maintenance / Diagnostics] → [Diagnostics] → [DC131 NVM Read/Write].
(b) Enter [920-053] in Chain-Link and tap [Change].
(c) Enter [1] for the change value and tap [OK].
(d) Enter [920-054] in Chain-Link and tap [Change].
(e) Enter [1] for the change value and tap [OK].
The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
920-053	Software Auto Update (KO)	0: Disabled 1: Enabled
920-054	Software Auto Update (CE)	0: Disabled 1: Enabled

(f) Return to the [Maintenance / Diagnostics] screen and tap [EP Service] → [EP Service Parameters].
(g) Verify that [21. Display Software Update Button (KO)] and [22. Display Software Update Button (CE)] have become [Enabled].
(h) Tap [Send Settings to Server].
(i) After verifying the message: [EP service parameters have been sent to the server.], tap [OK].
(j) Return to the [Maintenance/Diagnostic] screen, press [Exit (Clear History)] → and select [Exit (Clear History)].
(k) The Device restarts automatically.

(3) Enter the System Administrator Mode.

(a) Press the humanoid icon on the upper left of the touch panel and enter the [System Administrator ID] (11111).

(4) Update the Firmware.

(a) On the touch panel, tap [Device] → [Maintenance] → [Software Update].
(b) When the message is displayed on the Panel, perform the following actions.

Message	Actions
The Device has already been updated to the latest version.	▪ Tap the humanoid icon on the upper left of the touch panel to exit the System Administrator mode.
Software version verified.	(a) Tap [Start Update]. (b) When the confirmation screen appears, tap [Start]. (c) When the Firmware download has completed, check the progress of the software update. (Approx. 10 minutes Including restart) (d) Finish the setup.
An error has occurred. Unable to retrieve the software version. (021-532 or 021-533)	(a) To enter UI Diag mode, press and hold [Home] for 5 seconds or longer and then release it. (b) Within 2 seconds after releasing [Home], press and hold down [Home] again for 5 seconds or longer and then release it. (c) Within 2 seconds after releasing the [Home] button, tap somewhere at the bottom left of the screen. (d) After entering the passcode (1739), and tap [OK] to enter UI-Diag mode. (e) On the touch panel, tap [Device] → [Maintenance] → [Maintenance / Diagnostics] → [Others] → [Software Update]. (f) When the confirmation screen appears, tap [Start]. (g) When the Firmware download has completed, check the progress of the software update. (Approx. 10 minutes Including restart) (h) After the update has completed, change the required NVM settings. (i) Finish the setup.
An error has occurred. Unable to retrieve the software version. (For other than the above error codes)	▪ Refer to the Service Manual and take the appropriate actions.

20. Check the various operations such as copy/print/fax.
21. Record "Fax Kit 3: 250V" in the Service Report.

If you have received image quality related feedback from the customer, proceed to 9.2.10.3 Fax 3 Image Quality Adjustment and perform adjustment.

9.2.10.3 Fax 3 Image Quality Adjustment

Obtain image quality related feedback from the customer and perform the following adjustments as you deem necessary.

[Image Quality Adjustment during Fax 3]

The following are the image quality adjustment values for Fax 3 Fax receive print as well as IP Fax receive print/change in send resolution.

NOTE

- Perform this after getting the customer's feedback.
- Make sure that you carefully explain the restrictions that would apply after the adjustments before you make the changes.

When customer feedback based on their preferences has been obtained for the following image quality, change the value of NVM (826-501).

NVM (826-501: Default value: 0x74F (1871))

	Image quality	Change from Default Value (1871)
Fax receive print	Crossband noise	Change from the default value by +128.
IP Fax receive print/ change in send resolution	Crossband noise	Change from the default value by +128.
	TI separation	Change from the default value by -512 .
	Moire	Change from the default value by +1024.

Image samples and restrictions corresponding to the adjustments (Reference)

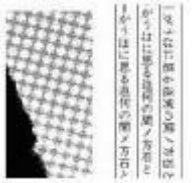
Table 1 Crossband noise suppression adjustment

Before	After	Restrictions after adjustment
 Figure 1 tt91033	 Figure 2 tt91034	The print time is increased. The send time becomes longer.

Table 2 TI separation removal adjustment

Before	After	Restrictions after adjustment
 Figure 3 tt91035	 Figure 4 tt91036	When sending, the text image quality is degraded.

Table 3 Moire suppression adjustment

Before	After	Restrictions after adjustment
 Figure 5 tt91037	 Figure 6 tt91038	The send time becomes longer. The text image quality is degraded.

The following lists some specific default values.

1. Fax receive print

Table 4 Fax receive print

Image quality	Supported	Change from Default Value (1871)
Crossband noise	Suppresses the crossband noise.	0x7CF (1999)

2. IP Fax receive print/change in send resolution

Table 5 IP Fax receive print/change in send resolution

Image Quality (including combinations)	Supported	Change from Default Value (1871)
Crossband noise	Suppresses the crossband noise .	0x7CF (1999)
TI separation	Removes the TI separation.	0x54F (1359)
Moire	Suppresses the moire.	0xF4F (2895)
Crossband noise + TI separation	Suppresses the crossband noise. Removes the TI separation.	0x5CF (1487)

Table 5 IP Fax receive print/change in send resolution

Image Quality (including combinations)	Supported	Change from Default Value (1871)
Crossband noise + Moire	Suppresses the crossband noise. Suppresses the moire.	0xBCF (3023)
TI separation + Moire	Removes the TI separation. Suppresses the moire.	0xC4F (2383)
Crossband noise + TI separation + Moire	Suppresses the crossband noise. Removes the TI separation. Suppresses the moire.	0x9CF (2511)

9.2.10.4 Fax Port Expansion KIT 3/G3 Expansion Port KIT 3

Product Code

- Fax Port Expansion Kit 3: EC103140
- G3 Expansion Port Kit 3: QC100166
- G3 Expansion Port Kit 3: EC103129

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

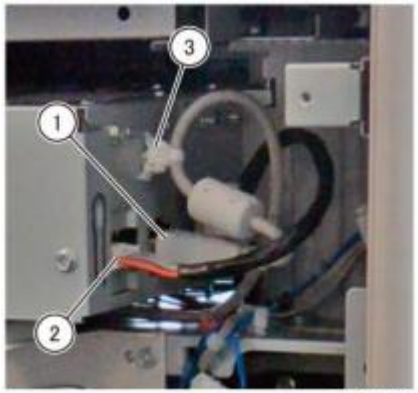
Installation Procedure

1. Before Starting
   - This Kit can be installed on models with Fax feature.
   - When installing the first G3 Expansion Port, prepare the Fax Port Expansion Kit 3 (EC103140) and perform the installation in sequence.

2. Check the bundled items.
   - G3 Expansion Port Kit 3
     (1) Sub Fax PWB : 1
     (2) Screw : 2
     (3) Data Cable : 1
     (4) Serial Label (for Front Cover): 1
   - Fax Port Expansion Kit 3
     (1) Riser PWB
     (2) Screw : 2

3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Remove the Rear Cover. (REP 19.2.1)
5. Disconnect the Fax Chassis Assembly connector. (Figure 1)

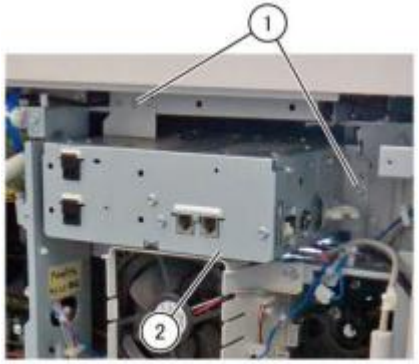
(1) Disconnect the USB Cable.
(2) Disconnect the connector.
(3) Remove the clamp.



j0mb911505

Figure 1 mb911505

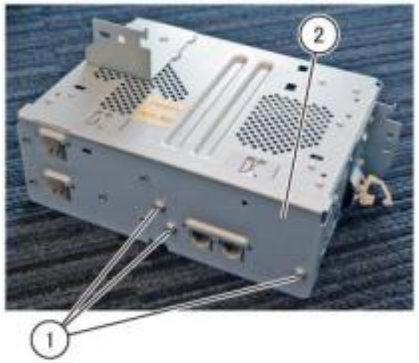
6. Remove the Fax Chassis Assembly. (Figure 2)
(1) Remove the screw (x2).
(2) Remove the Fax Box.



j0mb911504

Figure 2 mb911504

7. Remove the Fax Panel. (Figure 3)
(1) Remove the screw (x3).
(2) Remove the Fax Panel.



j0mb911602

Figure 3 mb911602

8. Steps 9 to 11 are the procedure to install the Fax Port Expansion Kit 3.

! CAUTION

Static electricity may damage electrical parts.

Static electricity may damage electrical parts. Always wear a wrist band during servicing. If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

9. Remove the Fax PWB. (Figure 4)
(1) Remove the screw (x2) of the Fax Assy.
(2) Pull out the Fax PWB together with the Fax Assy.

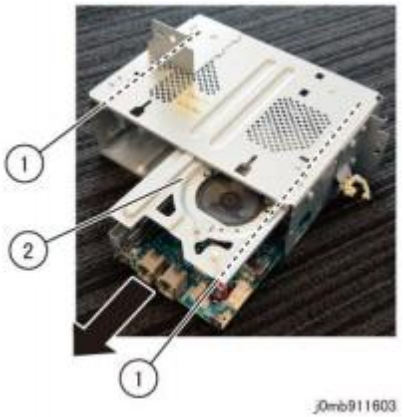


Figure 4 mb911603

10. Install the Riser PWB that is provided in the Fax Port Expansion Kit 3 to the Fax Assy. (Figure 5)
    (1) Insert the Riser PWB to the Fax Assy.
    (2) Use the screw (x2) to secure it.

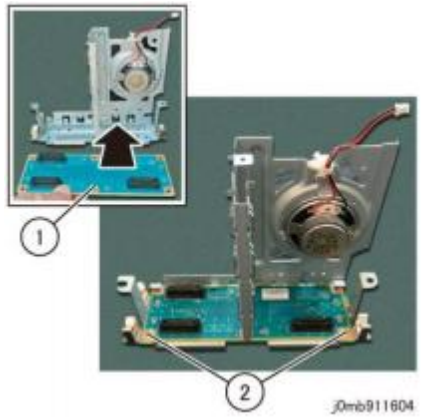


Figure 5 mb911604

11. Reinstall the Fax PWB that was removed in Step 9.

12. Insert the Sub Fax PWB. (Figure 6)
    (1) Align the Sub Fax PWB to the Bottom Rail and insert it.

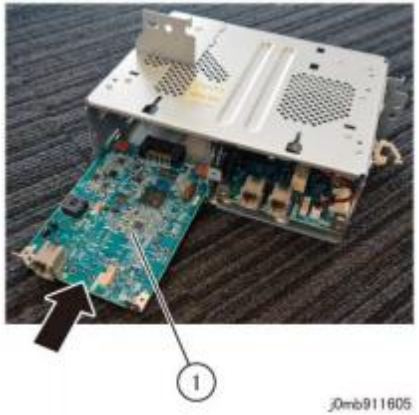


Figure 6 mb911605

NOTE
When installing a second Sub Fax PWB, align and insert it to the Top Rail.

13. Remove the lower Snap Fax Cover from the Fax Panel. (Figure 7)
    (1) Remove the Snap Fax Cover.

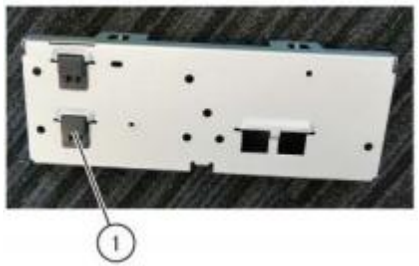


Figure 7 mb911606

NOTE
When a second Sub Fax PWB is installed, remove the upper Snap Fax Cover too.

14. Restore the Fax Panel to its original state.
15. Secure the Sub Fax PWB with the screw (x5). (Figure 8)

(1) Secure the Sub Fax PWB with the screw (x5) provided in the Kit.

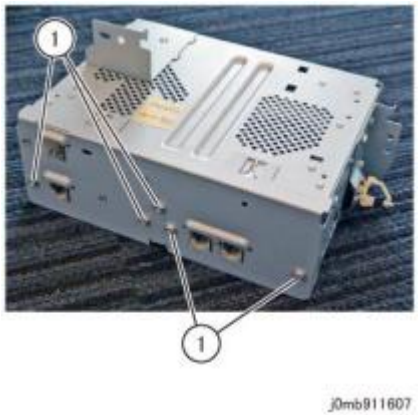


Figure 8 mb911607

16. Reinstall the Fax Chassis Assembly that was removed in Step 6.
17. Reconnect the connectors that were disconnected in Step 5.
18. Reinstall the Rear Cover that was removed in Step 4.
19. Open the Front Cover and affix the Serial Label (for Front Cover). (Figure 9)
    (1) Affix the Serial Label.

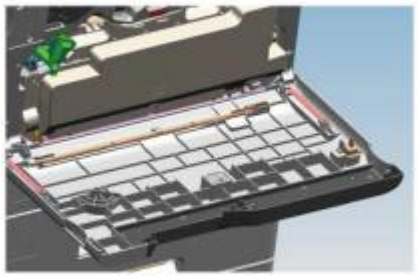


Figure 9 mnl910063

20. Paste the NCC Label. (Figure 10)

NOTE

- Fax Kit 3 + Fax Expanasion Port Kit3 x 1 → FAX Line1 (CCAB21F10010T8) + FAX Line2 (CCAB21F10020T1)
- Fax Kit 3 + Fax Expanasion Port Kit3 x 2 → FAX Line1 (CCAB21F10010T8) + FAX Line2 (CCAB21F10020T1) + FAX Line3 (CCAB21F10030T1)

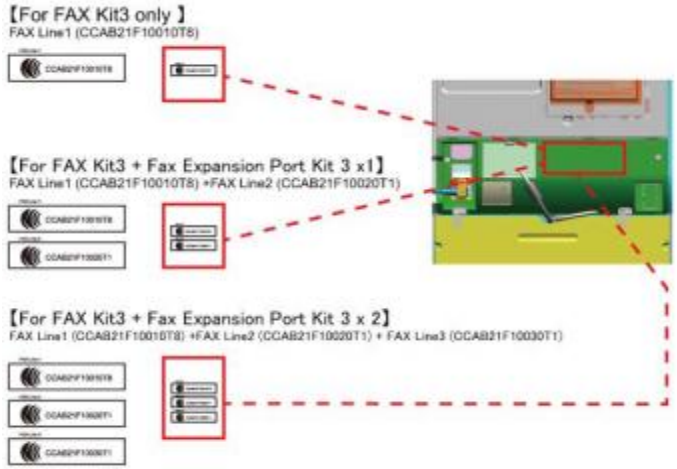


Figure 10 mnl910064

21. Connect the Data Cable.
    (1) 1st: "Line 2"
    (2) 2nd: "Line 3"
22. Restore the Device to the installation position.
23. Plug in the Power Plug.
24. Press the <Power> button to turn ON the power.
25. If a line is not available, calling is restricted.
26. Enter the Fax Local Terminal Information.

NOTE

Check the line type and dial type in advance with the customer or by the following confirmation method.

[Dial Type Determination]

Enter the System Administrator Mode, select [Device] → [App Settings] → [Fax Settings] → [Local Terminal Information].
Select a dial type from PB (Push Line), 10pps (Dial Line), and 20pps (Pulse Line).

Default value = [PB]
< Check Method>
Select the On-hook (Manual Send/Receive) button.
[Fax Settings] → [On-hook (Manual Send/Receive)]
(1) For NTT Line
Dial 117 (time tone service).
When the time tone cannot be heard, set [20pps].
(2) For PBX Line
Dial 0 (Special number for complementing the Outside Line. Check with the client as the number may not always be 0 depending on the line).
If the intermittent tone is heard (does not switch to a continuous tone), set [20pps].

[G3 Line Transmission Determination]
Select the G3 Transmission from "Detect Tone", "Do Not Detect Tone".
In normal circumstances, select "Detect Tone".
Default value = [Detect Tone]
< Check Method>
Perform the Fax auto send test. If the 033-546 error occurs, select "Do Not Detect Tone".

No.	Local Terminal Information	Description
1	Local Name	Registers the name of the local terminal as a local name. The local name appears on the remote device display and Activity Reports. However, it may not be displayed depending on the remote device.
2	Fax Name	Register the name of the sender. Fax Name is the local name displayed on the upper edge (header) of the received document or the cover page. Up to 30 characters can be registered for Fax Name.
3	G3 Line 1 - ID	G3 ID is notified by G3 communication signals and displayed in the Activity Report. The local Fax No. is usually set in the G3 ID. Up to 20 digits from 0 to 9, +, and spaces may be used for G3 ID.
4	G3 Line 1 - Dial Type	Select a dial type from PB (Push Line), 10pps (Dial Line), and 20pps (Dial Line).
5	G3 Line 1 - Transmission	In normal circumstances, select "Detect Tone" If the 033-546 error occurs during auto send, select "Do Not Detect Tone".
6	Line 1 Add Service	Availability of Caller ID, Dial- In.

27. Perform the Fax send/receive test.
Make a request to the respective sales department. You can also check the transmission results by selecting [Jobs] → [All Jobs] → [Completed Jobs].

NOTE
Make sure you perform the transmission and reception test.

28. Perform EP-BB registration.

NOTE
EP-BB connection requires a concluded memorandum regarding EP use with the customer.

(1) Enter the System Administrator Mode.
(a) Press the humanoid icon on the upper left of the touch panel and enter the [System Administrator ID] (11111).

No.	V-code installation item	Menu
1	IP settings • IP Address • Subnet Mask • Gateway Address • DNS settings	[Device] → [Network Settings] → [Protocol Settings]
2	EP Proxy Server Setup • Server Name • Port Number • Login Name • Password	[Device] → [Network Settings] → [EP Proxy Server Setup]

(2) Enter the UI Diag CE Diagnostics screen.
(a) Press and hold down [Home] for 5 seconds or longer and then release it.
(b) Within 2 seconds after releasing it, press and hold down [Home] for 5 seconds or longer and then release it again.
(c) Within 2 seconds after releasing the [Home] button, tap somewhere at the bottom left of the screen.
(d) Enter the passcode (1739), and tap [OK].
(3) Register the EP-BB.
(a) On the touch panel, tap [Device] → [Maintenance] → [Maintenance / Diagnostics] → [EP Service] → [EP Registration / Cancel Registration] → [BB Registration].
(b) Enter the [Staff ID] and tap [Start]. After that, tap [Start].
(c) When the message: [Successfully registered.] is displayed, select [OK].
(4) Finish the installation.

(a) Return to the [Maintenance/Diagnosis] screen and tap [Exit (Clear History)] on the screen.

(b) The Device restarts automatically.
(If it does not restart automatically, return to the Home screen and turn the power OFF/ON manually)

(c) Make sure you have exit the CE Diag mode.

REFERENCE

For more information on the installation of Communication Aggregation Server, refer to the Service Manual.

29. Set the Firmware Update Service.

NOTE

- The EP-BB registration must already be completed before performing the setting.
- The setting is to be performed when the [Firmware Update Feature Disabled] of the [EP Service License Application Form] is not checked.

(1) Enter the UI Diag CE Diagnostics screen.

(a) Press and hold down [Home] for 5 seconds or longer and then release it.

(b) Within 2 seconds after releasing it, press and hold down [Home] for 5 seconds or longer and then release it again.

(c) Within 2 seconds after releasing the [Home] button, tap somewhere at the bottom left of the screen.

(d) Enter the passcode (1739), and tap [OK].

(2) Change the NVM to display the [Update] button.

(a) On the touch panel, tap [Device] → [Maintenance] → [Maintenance / Diagnostics] → [Diagnostics] → [DC131 NVM Read/Write].

(b) Enter [920-053] in Chain-Link and tap [Change].

(c) Enter [1] for the change value and tap [OK].

(d) Enter [920-054] in Chain-Link and tap [Change].

(e) Enter [1] for the change value and tap [OK].
The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
920-053	Software Auto Update (KO)	0: Disabled 1: Enabled
920-054	Software Auto Update (CE)	0: Disabled 1: Enabled

(f) Return to the [Maintenance / Diagnostics] screen and tap [EP Service] → [EP Service Parameters].

(g) Verify that [21. Display Software Update Button (KO)] and [22. Display Software Update Button (CE)] have become [Enabled].

(h) Tap [Send Settings to Server].

(i) After verifying the message: [EP service parameters have been sent to the server.], tap [OK].

(j) Return to the [Maintenance/Diagnostic] screen, press [Exit (Clear History)] → and select [Exit (Clear History)].

(k) The Device restarts automatically.

(3) Enter the System Administrator Mode.

(a) Tap the humanoid icon on the upper left of the touch panel and enter the [System Administrator ID] (11111).

(4) Update the Firmware.

(a) On the touch panel, tap [Device] → [Maintenance] → [Software Update].

(b) When the message is displayed on the Panel, perform the following actions.

Message	Actions
The Device has already been updated to the latest version.	• Tap the humanoid icon on the upper left of the touch panel to exit the System Administrator mode.
Software version verified.	(a) Tap [Start Update]. (b) When the confirmation screen appears, tap [Start]. (c) When the Firmware download has completed, check the progress of the software update. (Approx. 10 minutes Including restart) (d) Finish the setup.

Message	Actions
An error has occurred. Unable to retrieve the software version. (021-532 or 021-533)	(a) To enter UI Diag mode, press and hold [Home] for 5 seconds or longer and then release it. (b) Within 2 seconds after releasing [Home], press and hold down [Home] again for 5 seconds or longer and then release it. (c) Within 2 seconds after releasing the [Home] button, tap somewhere at the bottom left of the screen. (d) After entering the passcode (1739), and tap [OK] to enter UI-Diag mode. (e) On the touch panel, tap [Device] → [Maintenance] → [Maintenance / Diagnostics] → [Others] → [Software Update]. (f) When the confirmation screen appears, tap [Start]. (g) When the Firmware download has completed, check the progress of the software update. (Approx. 10 minutes Including restart) (h) After the update has completed, change the required NVM settings. (i) Finish the setup.
An error has occurred. Unable to retrieve the software version. (For other than the above error codes)	• Refer to the Service Manual and take the appropriate actions.

30. Check the various operations such as copy/print/fax.
31. Enter Fax Port Expansion Kit 3: 263V and Expansion G3 Port Kit 3: 251V in the Service Report.

NOTE

[About calling method from extended line]

Specify the recipient by using the Keyboard.

- In the System Administrator Mode, the [Keyboard] button will be disabled when the sending to some specific recipient is prohibited.
- If the optional Outside Line or G3 Expansion Port Kit 3 is installed, a line (port) will be specified to perform sending. As a Local Terminal Information can be registered for each line, use it when you want to use the lines separately.

(1) Press [Keyboard].
(2) Enter the Recipient's Telephone Number by using the displayed keyboard.
- If the optional External Line or G3 Expansion Port Kit 3 is installed, input [<] [Port Number] [>] [Recipient's Telephone Number].

(3) Press [Start].
- The Port Number becomes as follows.
  Line 1 (Line 1 Terminal) →[1]
  If the G3 Expansion Port Kit 3 is installed at Line 2, Line 2 → [2]
  If the G3 Expansion Port Kit 3 is installed at Line 3, Line 3 → [3]
- Line 2 and Line 3 can be specified when the option is installed.

9.2.10.5 Hand Set

Product Code

- EC104224

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Before Starting
   This Kit can be installed on models with Fax feature.
2. Check the bundled items.
   (1) Cradle Assembly: 1
   (2) Curl Cord: 1
   (3) Handset: 1
   (4) Wing Screw: 2
   (5) Modular Conversion Cord: 1
   (6) Clamp: 3 (use as required)
   (7) Fastener: 3 (not used)
   (8) Double Sided Tape: 1
   (9) Screw: 2 (not used)
   (10) Handset Installation Manual: 1
3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. [When Wing Table is not available]
   Use the Wing Screw (x2) to install the Cradle Assembly to the IIT. (Figure 1)
   (1) Install the Cradle Assembly.
   (2) Secure it by using the Wing Screw (x2).

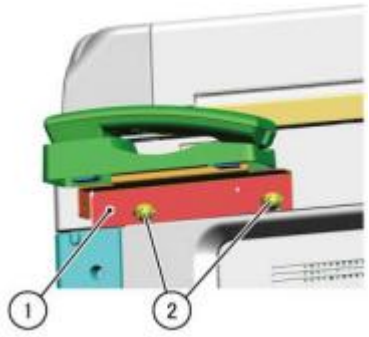


Figure 1 mnl910079

5. Connect the shorter end of the modular jack of the curl cord to the handset.
6. Place the handset on the Cradle Assembly, secure the curl cord clamp to the Cradle Assembly, and go to Step 12. (Figure 2)
   (1) Secure the clamp.



Figure 2 mnl910078

7. [When Wing Table is installed]
   Remove the Support from the Cradle Assembly. (Figure 3)
   (1) Remove the screw (x2).

(2) Remove the support.

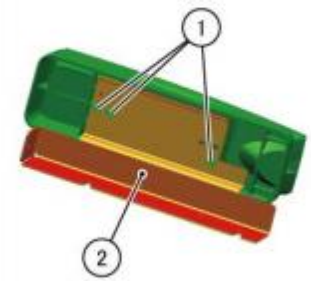


Figure 3 mnl910081

8. Attach the fastener (x3) to the Cradle Assembly. (Figure 4)
   (1) Attach the fastener (x3).

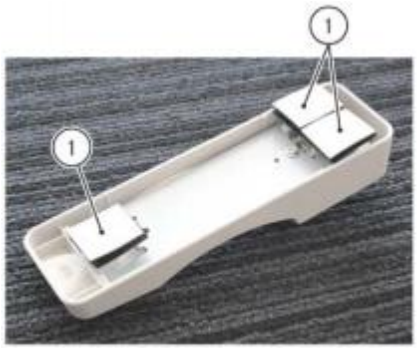


Figure 4 sg90139

9. Connect the shorter end of the modular jack of the curl cord to the handset.
10. Place the handset on the Cradle Assembly and attach the clamps to secure the curl cord. (Figure 5)
    (1) Attach the clamp.
    (2) Secure the curl cord using the clamp.



Figure 5 sg90140

11. Install the Cradle Assembly to the Wing Table. (Figure 6)
    (1) Install the Cradle Assembly to the Wing Table.



Figure 6 mnl910080

12. Connect the Modular Conversion Cord and curl cord and attach them to the cover. (Figure 7)
    (1) Connect to the Modular Conversion Cord to "TEL".
    (2) Connect the modular jack of the curl cord.
    (3) Affix the double sided tape to the Modular Conversion Cord.

(4) Attach the Modular Conversion Cord to the cover.

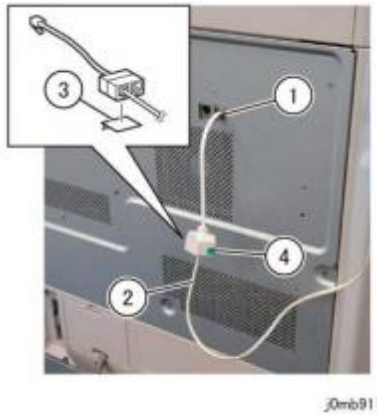


Figure 7 mb911704

13. Secure the curl cord using the clamp as required.
14. Plug in the Power Plug.
15. Press the <Power> button to turn ON the power.
16. Place the handset to your ear to check that a dial tone can be heard.
17. Record "Handset: 259V" in the Service Report.

9.2.11 USB Expansion Kit

Product Code: EC104643

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Check the bundled items.
   (1) USB Hab Bracket : 1
   (2) USB Cable(Hab) : 1
   (3) CLAMP : 2
   (4) Screw : 3
2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
3. Remove the Rear Cover. (REP 19.2.1)
4. Disconnect the USB Cable. (Figure 1)

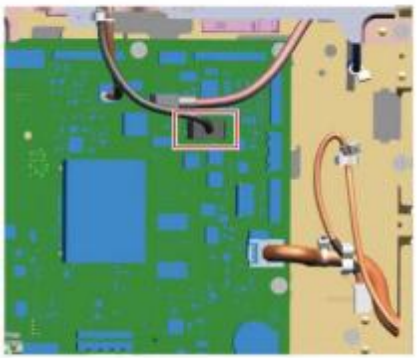


Figure 1 mnl910082

5. Pull up the Wire Harness. (Figure 2)
   (1) Release the Wire Harness from the clamp.
   (2) Pull up the Wire Harness.

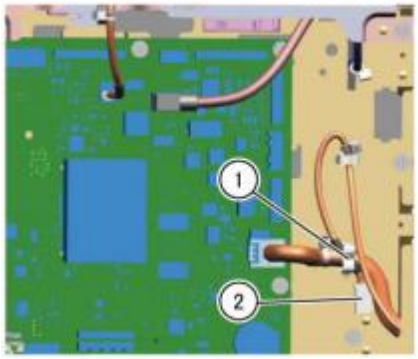


Figure 2 mnl910083

NOTE
Pull up the USB Cable to the position of the red circle as shown in the figure below. (Figure 3)

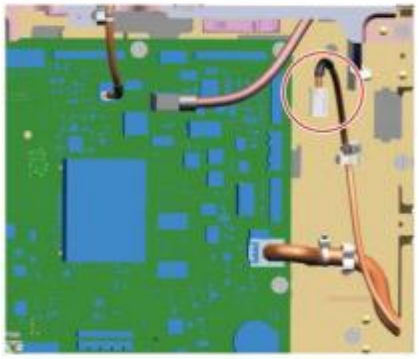


Figure 3 mnl910084

6. Install the USB Cable (HUB) in the position of the USB Cable removed at step 9. (Figure 4)

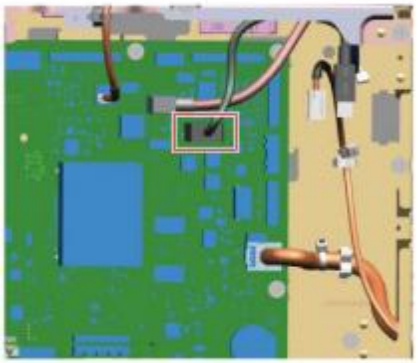
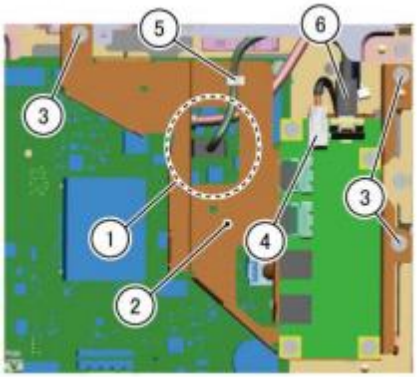


Figure 4 mnl910085

7. Install the USB Hub Bracket and the USB Cable (HUB) provided in the kit. (Figure 5)
   (1) Pass the USB Cable (HUB) through the hole of the USB Hub Bracket.
   (2) Install the USB Hub Bracket.
   (3) Install it by using the screw (x3).
   (4) Connect the Wire Harness.
   (5) Install the clamp.
   (6) Connect the USB Cable (HUB) to the USB Hub Bracket.



8. Connect the USB Cable that was disconnected in Step 9. (Figure 6)

(1) Install the clamp.

(2) Connect the USB Cable.

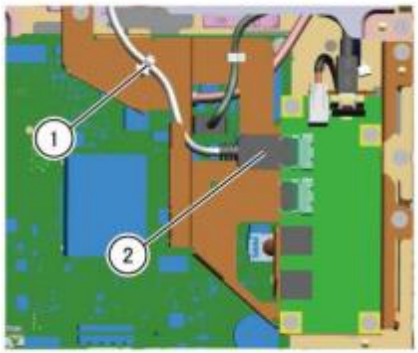


Figure 6 mnl910104

9. Reinstall the removed covers.
10. Plug in the power plug and return the Device to its installation location.
11. Connect a device that can use the USB connection and verify that it is operating normally.
12. Explain to the customer how to operate the Device where necessary.
13. Record "USB Expansion Kit: 227V" in the Service Report.

9.2.12 USB Memory Kit

Product Overview

Provides the Device with the Media Print and Scan Memory storage features.

Product Code

- EL201249
- EL201270 (SW Kit)
- EC104649 (HW Kit)

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Before Starting

   This requires the installation of Scanner Kit (Software Key) (FB: EL201247).
   Steps 3 to 22 are for FBAP only.

2. Check the bundled items.
   (1) USB Cable Assembly : 1
   (2) USB Bracket : 1
   (3) Screw : 4
   (4) Software Key Option License Agreement (Passcode)
   (5) USB Label

   FB only installs the Software Key, so go to Step 25.

3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Open the Platen Cover or DADF.
5. Remove the Pillar Cover. (Figure 1)
   (1) Remove the screw (x3).

(2) Remove the Pillar Cover.

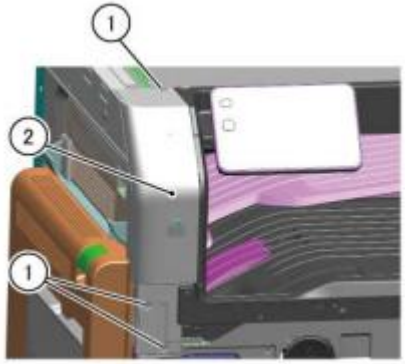


Figure 1 mnl910073

6. Remove the USB Cover of Pillar Cover. (Figure 2)



Figure 2 mnl910028

7. Remove the Rear Cover. (REP 19.2.1)
8. Remove the Connector Cover. (Figure 3)

(1) Remove the Connector Cover.



Figure 3 mo912002

9. Disconnect the connector. (Figure 4)

(1) Disconnect the connector.

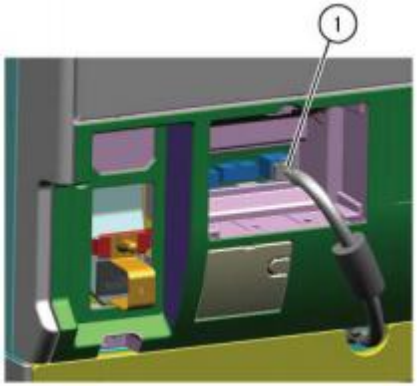


Figure 4 mnl910004

10. Remove the Rear Lower Cover. (Figure 5)

(1) Remove the screw (x4).

(2) Remove the Rear Lower Cover.

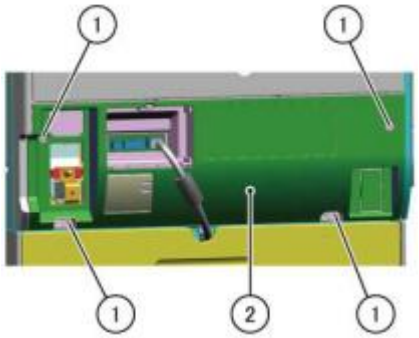


Figure 5 mnl910020

11. Remove the Left Rear Upper Cover. (Figure 6)
    (1) Remove the screw (x2).
    (2) Remove the Left Rear Upper Cover.

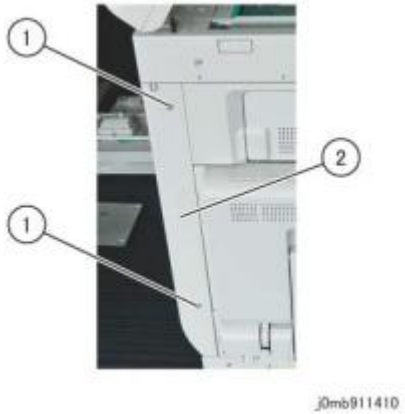


Figure 6 mb911410

12. Open the LH Cover Unit.
13. Open the L/H High Chute of Exit 2.
14. Remove the Left Upper Cover. (Figure 7)
    (1) Remove the screw (x2).
    (2) Remove the Left Upper Cover.

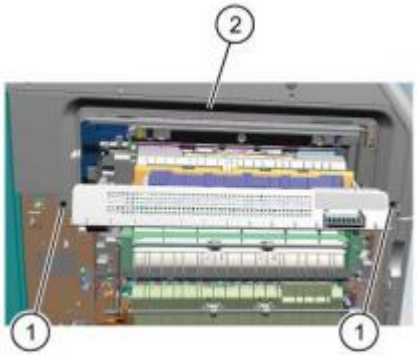


Figure 7 mbl920016

15. Remove the Rear Cover of IIT. (Figure 8)
    (1) Remove the screw (x2).
    (2) Remove the Rear Cover of IIT.

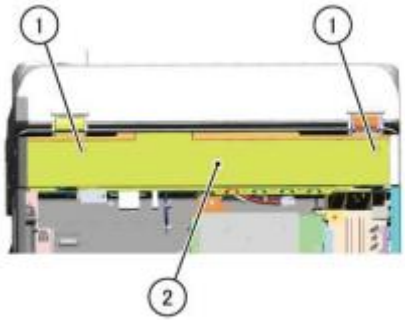


Figure 8 mnl910065

16. Install the USB Bracket. (Figure 9)
    (1) Align the USB Bracket to the embossing.

(2) Secure it by using the screws (x2).

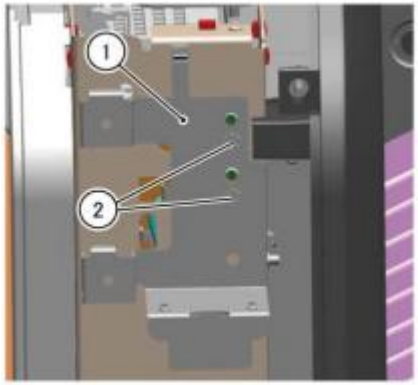


Figure 9 mnl910086

17. Install the USB Cable Assembly. (Figure 10)
    (1) Align the USB Cable Assembly to the embossing.
    (2) Secure it by using the screws (x2).
    (3) Insert the Cable into the section circled in red and secure it using the clamp.

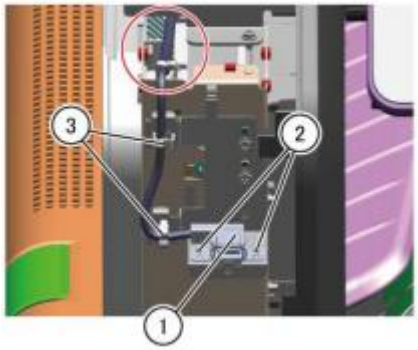


Figure 10 mnl910087

18. Thread the USB Cable towards the rear. (Figure 11)
    (1) Pass the cable through the section framed in red and thread it towards the rear.
    (2) Secure the Cable using the clamp.

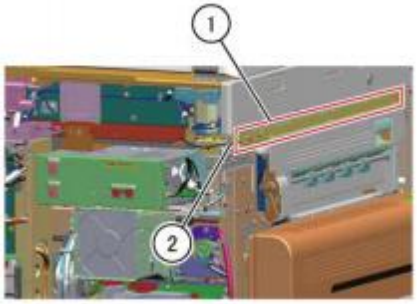


Figure 11 mnl910051

NOTE
Install the Cable so that it is placed on the top of the Clamp, not through the Clamp. If it is pass through the Clamp, it will be difficult to remove the Cable when replacing it. (Figure 12)

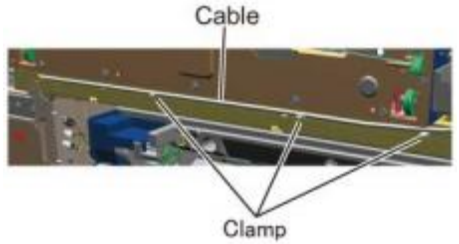


Figure 12 mbl910072

19. Pass the USB Cable Assembly through the hole. (Figure 13)
    (1) Pass the cable through the section circled in red.

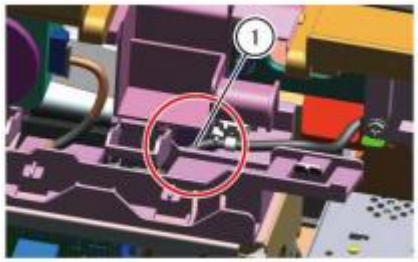


Figure 13 mnl910052

20. Connect the USB Cable Assembly to the ESS PWB. (Figure 14)
    (1) Connect the USB Cable Assembly to the ESS PWB.

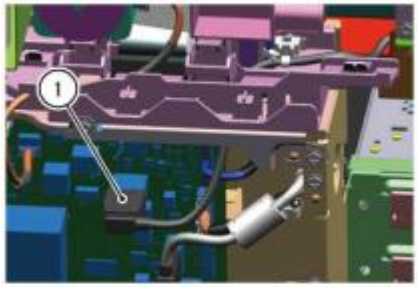


Figure 14 mnl910053

21. Install the Rear Cover of the IIT.

22. Pass the Cable through the guide of the IIT Rear Cover. (Figure 15)



Figure 15 mbl920013

23. Reinstall all removed covers.
24. Affix the USB Label. (Figure 16)
    (1) Affix the Label (USB).

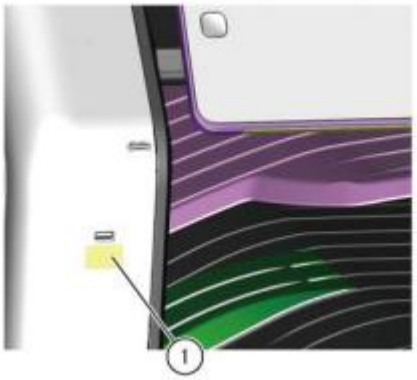


Figure 16 mbl920023

25. Press the <Power> button to turn ON the power.
26. Transition to UI-Diag mode and select [Device] → [Maintenance] → [Maintenance / Diagnostics] → [Others] → [Software Options].
27. Enter the Software Key and select [Restart]. (The Device will restart).
28. Select the [Home] button and verify that the [USB] button is displayed on the [Home] screen.
29. Record "USB Memory Kit: 241V" in the Service Report.

9.2.13 Secondary Ethernet Kit

Product Code

- EC103656

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION
Static electricity may damage electrical parts.
Static electricity may damage electrical parts. Always wear a wrist band during servicing.
If a wrist band is not available, touch some metallic parts before servicing to discharge the static electricity.

! CAUTION
Do not get yourself hurt by a soldered portion on the back of the PWB.

Installation Procedure

1. Check the bundled items.
   (1) PEX GBE PWB Assembly: 1
   (2) Screw: 1

2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
3. Remove the Rear Cover. (REP 19.2.1)
4. Remove the GBE Cover. (PL 35.2) (Figure 1)
   (1) Remove the screw.
   (2) Remove the GBE Cover.

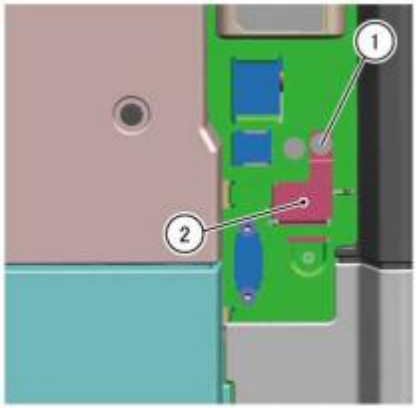


Figure 1 mnl910018

5. Install the PEX GBE PWB Assembly. (Figure 2)
   (1) Insert the PEX GBE PWB Assembly into the slot.

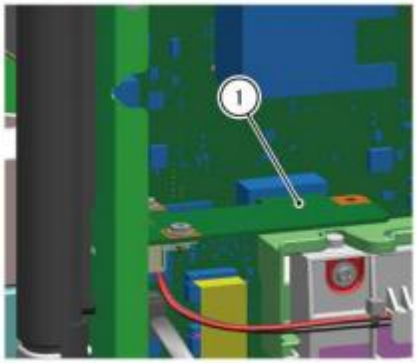


Figure 2 mnl910017

6. Secure the PEX GBE PWB Assembly. (Figure 3)

(1) Secure the PEX GBE PWB Assembly from the right surface of the Main Unit by reusing the screw that was removed in Step 4.

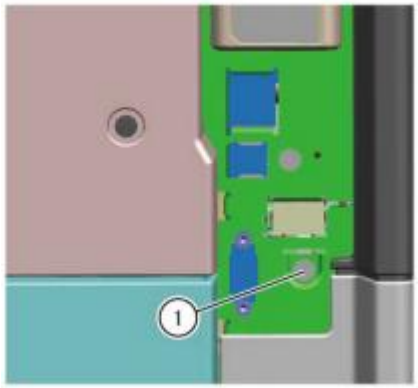


Figure 3 mnl910019

7. Reinstall the Rear Cover that was removed in Step 3.
8. Connect the LAN Cable to the PEX GBE PWB Assembly. (Figure 4)
   (1) Connect the LAN Cable.

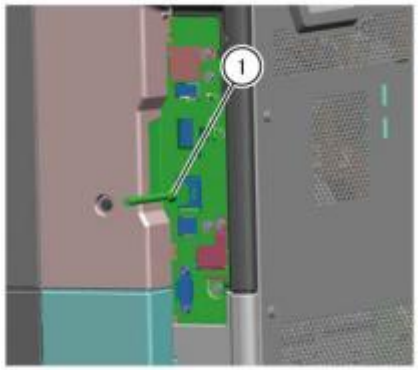


Figure 4 mnl910054

9. Plug in the Power Plug.
10. Press the <Power> button to turn ON the power.
11. Record [Secondary Ethernet: 238V] in the Service Report.

9.2.14 Wireless Kit 2

Product Code: EC104218

Prerequisite

For the preferences after installation, have the customer check the [Setup Guide] and perform it.

Table 1 The CE should do the following for installation:

Connect Wireless Kit 2 to the multifunction device

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Check the bundled items.
   (1) Wireless Kit 2
   (2) Setup Guide
2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.

3. Install Wireless Kit 2.
Pre-installation (Figure 1)

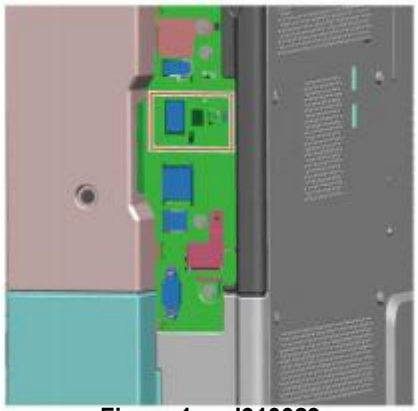


Figure 1 mnl910029

Post-installation (Figure 2)

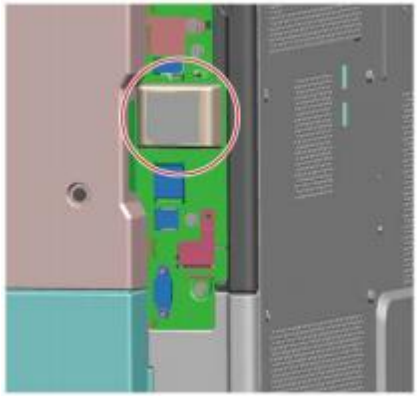


Figure 2 mnl910030

4. [If there is a problem with the EP-BB connection]
If for some reason EP-BB connection is not possible or an error occurs, change the primary from [LAN1] to [Wi-Fi].
* Internet Services → Network → Ethernet → Primary

5. Record "Wireless Kit 2: 855V" in the Service Report.

6. Pass the bundled [Setup Guide] to the customer.

NOTE
To remove it, move the lever shown in the figure in the direction of the arrow to release the Snap Fit and remove it. (Figure3)

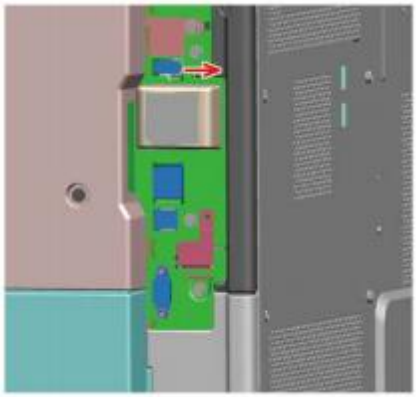


Figure 3 mnl910031

9.2.15 Data Overwrite Kit

Product Code: EC103914

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Check the bundled items.
   (1) HDD Assembly : 1
   (2) Bracket : 1
2. Set the value of NVM:701-441 to "1".
3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Remove the SSD and install the HDD. (REP 35.2.3)
5. Reinstall the covers and turn ON the power.
6. Execute the Special Boot item [04. HDD FORMAT MODE] to perform forced formatting of SSD/HDD. (ADJ 35.1.4)

   NOTE

   If custom content is being used, it will need to be reinstalled.

   NOTE

   After replacing SSD (HDD), XCP plug-in contents bundled with the main unit can be used by forcibly formatting SSD/HDD using the special boot item [04. HDD FORMAT MODE].

7. Go to Overwrite Storage, and set the Number of Overwrites to "1 Overwrite".
   Device > Authentication/Accounting > Authentication/Security Settings > Overwrite Storage
8. [When using Custom Services]
   Obtain the SFX Installer and download it into the PC.

   < Firmware download page>
   http: / / download. tsc. ksp. fujixerox. co. jp/ custom- contents. html

   - <Firmware download page for Japan prefectural branch offices>
     http://stars11.knt.fujixerox.co.jp/guest/firmware/dmp-x-cs/custom-contents.html
     (Accessible from the Firmware Download Service within 11stars.com → Serverless Print-On-Demand ALLPRO FTO 2-252, SWEA, etc.)
9. Install the required Custom Service.

   NOTE

   If it is bundled with the Main Unit, installation is not required.

   NOTE

   If this Kit is installed after the Custom Service Feature was enabled, some Custom Services may not work properly. In such cases, the HDD must be initialized using Special Boot.

10. Record "Data Overwrite Kit (HDD): 204V" in the Service Report.

9.2.17 Installation of Bypass Stamp Kit

9.2.17.1 Bypass Stamp Kit (DADF-110)

Product Overview

This Kit is used for Devices with DADF installed to check for any multiple feeding by stamping the documents. (Only valid for sending)

Product Code

- EC103141

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Before Starting
   The Bypass Stamp Kit can be installed on models with Fax feature.
2. Check the Bundled Items
   (1) Stamp Solenoid: 1
   (2) Stamp Replacement Kit (Consumables): 1
   (3) Wire Harness: 1
   (4) Adhesive Pad: 1
   (5) Guide: 1
   (6) Screw: 3
3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Turn the DADF Document Tray upside down. (Figure 1)
   (1) Open the Top Cover.
   (2) Turn the DADF Document Tray upside down.



Figure 1 mnl910066

5. Remove the screws that secure the DADF Rear Cover. (Figure 2)
   (1) Remove the screw (x2).

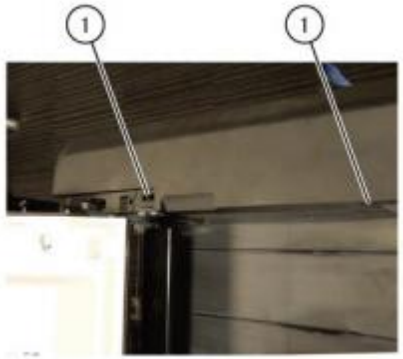


Figure 2 mnl910067

6. Open the DADF.

7. Release the hooks of the DADF Rear Cover. (Figure 3)
   (1) Release the hook (x3).

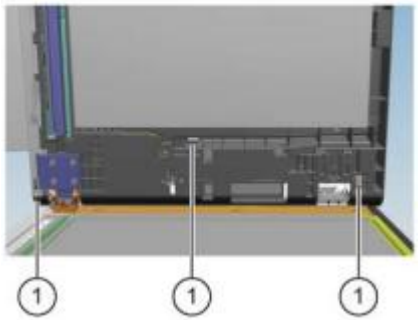


Figure 3 mnl910098

8. Close the DADF gently.
9. Remove the DADF rear cover. (Figure 4)
   (1) Remove the DADF Rear Cover in the direction of the arrow.

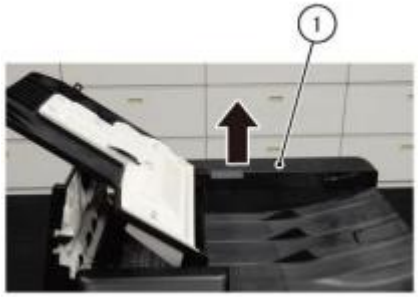


Figure 4 mnl910068

10. Open the DADF.

NOTE

The DADF Platen Cushion is attached with double sided tape.

11. Remove the DADF Platen Cushion. (Figure 5)
    (1) Detach the DADF Platen Cushion.

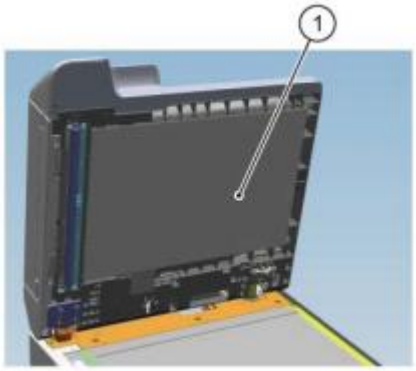


Figure 5 mnl910099

12. Install the Stamp Solenoid and Wire Harness to the Guide. (Figure 6)
    (1) Stamp Solenoid
    (2) Wire Harness

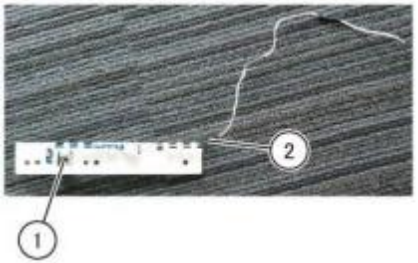


Figure 6 mb911812

13. Install the Guide Solenoid. (Figure 7)
    (1) Align the Guide Solenoid to the boss (x2 locations) at the bottom left of the DADF and install it.

(2) Use the screw (x3) to secure it.

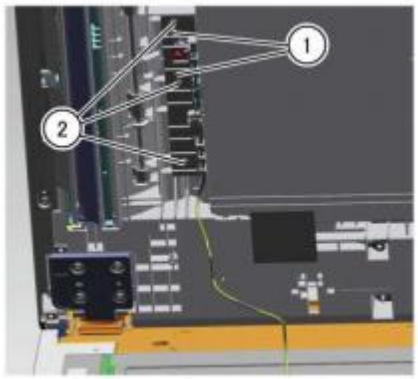


Figure 7 mnl910100

14. Thread the Wire Harness. (Figure 8)

(1) Thread the Wire Harness and pass it through the surface of the DADF.

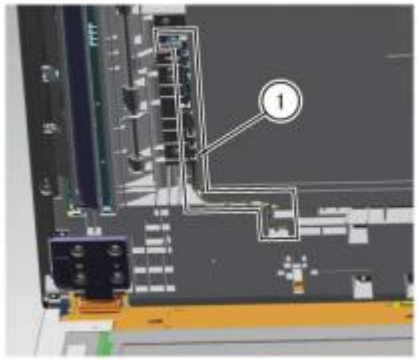


Figure 8 mnl910101

15. Connect the Wire Harness to the DADF PWB. (Figure 9)

(1) Thread the Wire Harness as shown in the following figure and connect it.

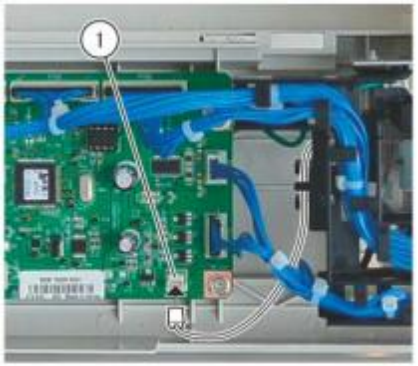


Figure 9 mb911808

16. Attach the adhesive pad. (Figure 10)

(1) Affix the adhesive pad.

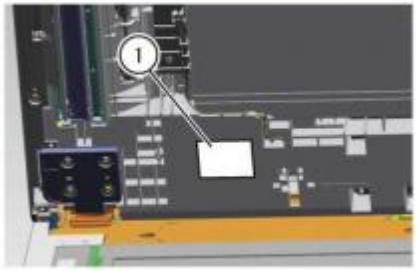


Figure 10 mnl910102

17. Affix the Platen Cushion to the DADF. (Figure 11)

(1) Place the Platen Cushion on the Platen Glass.

(2) Set up the gap between the Regi Guide and Platen Guide.

(3) Slowly close the DADF and press it onto the DADF Platen Cushion.

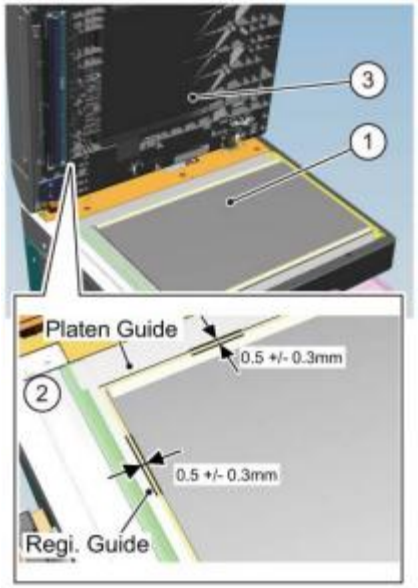


Figure 11 mnl910046

18. Open the DADF Top Cover and the Retard Roll Chute. (Figure 12)
    (1) Open the DADF Top Cover.
    (2) Open the Retard Roll Chute.

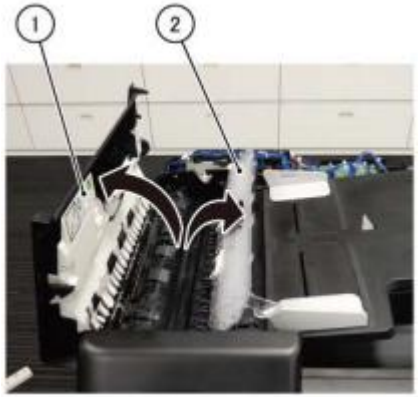


Figure 12 mnl910069

19. Insert the stamp (plunger) into the Stamp Solenoid. (Figure 13)



Figure 13 mnl910070

20. Reinstall the DADF Rear Cover.
21. Close the DADF Top Cover and the Retard Roll Chute.
22. Plug in the Power Plug and turn ON the power.
23. Turn the power OFF and ON. (Automatically recognized)
24. Check the operation and position of the stamp.
    (1) Load a document into the DADF.
    (2) Select the following on the touch display in sequence.
    Fax → Customize (scroll to the bottom) → Edit Feature List → Stamp → Confirm
    (3) Check that the Stamp icon is created directly under the Fax icon.
    (4) Process the document. Check that there is a red "O" mark on the Lead Edge of the document.
    (5) Adjust the stamp position of the document from the trail edge where necessary.
    Enter the CE Mode and change the data of DC131 [711-214] (DADF stamp position)
    - Default Value: "15" (0.5 mm/step)
    - Setting Range: 10 +/-7.5 mm

    The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
711-214	DADF Stamp Position Adjustment (Simplex Side 1)	Adjustable at a pitch of about 0.5 mm within the following range. Adjustment range: +7.5 mm to -7.5 mm

    (6) Repeat Steps (3) to (5) until the desired stamp position is achieved.

25. Keep the Stamp Replacement Kit (consumables).
26. Explain how to use the stamp and how to replace the stamp to the main operator.
27. Record "Bypass Stamp: 258V" in the Service Report.

9.2.18 Condensation Prevention Kit

9.2.18.1 Condensation Prevention Kit (Scanning Section Heater)

Product Code

- Condensation Prevention Kit (Scanning Section Heater): EC103274
- Condensation Prevention Installation Kit (for Main Unit/Tray/Scanning Section): EC103110
- External GFI Kit: EC103194

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Before Starting
   When installing this Kit, also prepare the Condensation Prevention Installation Kit [for Main Unit/Tray/Scanning Section: EC103110] and External GFI Kit: EC103194 , and perform the installation in sequence.
   When installing multiple Condensation Prevention Kits, refer to the Combination Table in 9.2.18.2.
2. Check the bundled items.

   - Condensation Prevention Kit (Scanning Section Heater)
     - IIT Heater (Long Cable): 1
     - IIT Heater (Short Cable): 1
     - Harness Bracket : 1
     - Harness Bracket : 1
     - IIT Harness Assembly 2H :1
     - Clamp : 4
     - Screw : 6
   - Usable parts from the Condensation Prevention Installation Kit (for Main Unit/Tray/Scanning Section)
     - Relay PWB : 1
     - PWB Support : 4
     - Harness 24V : 1
     - IIT Harness Assembly:1
     - Heater Harness AC: 1

- External GFI Kit
  - GFI Breaker

3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Remove the Main Unit Rear Cover (PL 19.2) and the IIT Rear Cover (PL 1.1). (Figure 1)
   (1) Remove the screw. (REP 19.2.1)
   (2) Remove the Rear Cover of the Main Unit.
   (3) Remove the screw (x2).
   (4) Remove the Rear Cover of IIT.

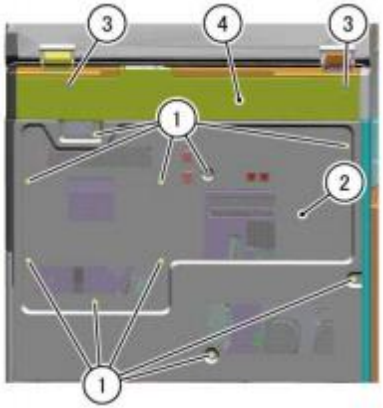


Figure 1 mnl910071

5. Remove the Connector Cover. (Figure 2)
   (1) Remove the Connector Cover.



Figure 2 mo912002

6. Disconnect the connector. (Figure 3)
   (1) Disconnect the connector.

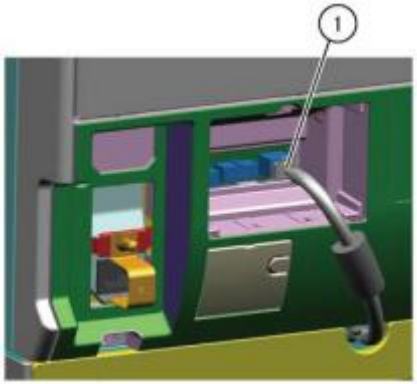


Figure 3 mnl910004

7. Remove the Rear Lower Cover. (Figure 4)
   (1) Remove the screw (x4).

(2) Remove the Rear Lower Cover.

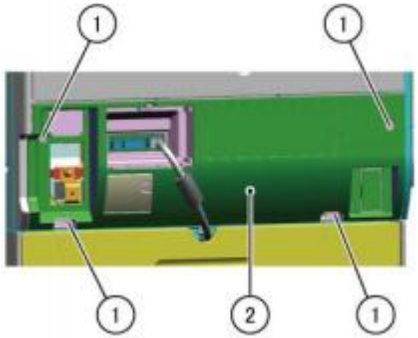


Figure 4 mnl910020

8. Install the PWB Support for installing the Relay PWB. (Figure 5)
   (1) Install the PWB Support (x4) to the Main Unit.

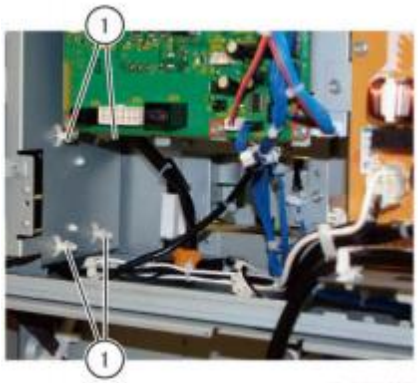


Figure 5 mb911903

9. Install the Relay PWB. (Figure 6)
   (1) Install the Relay PWB.

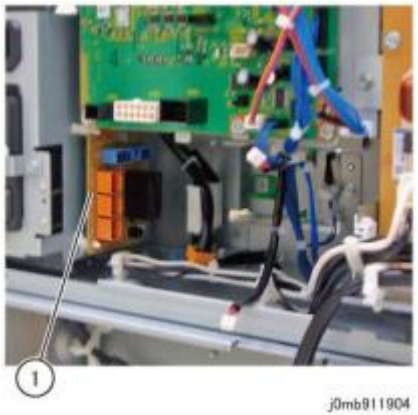


Figure 6 mb911904

10. Connect the Harness 24V between the Relay PWB and the MCU Drive PWB. (Figure 7)
    (1) Connect the Harness 24V between the Relay PWB and the MCU Drive PWB.
    (2) Secure the Harness 24V using the existing clamp.

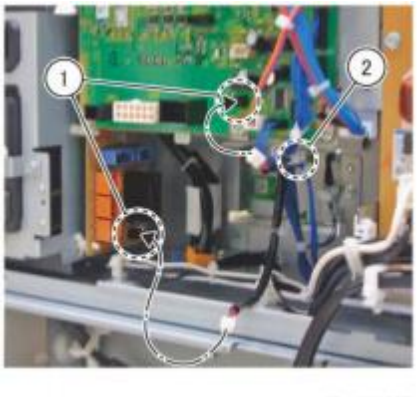


Figure 7 mb911905

11. Connect the AC Heater Harness connector to the LVPS. (Figure 8)
    (1) Connect the AC Heater Harness connector to the LVPS P4.
    (2) Release the clamp (x2) and use them to secure the connected connector.

(3) Connect the AC Heater Harness connector to the Relay PWB.

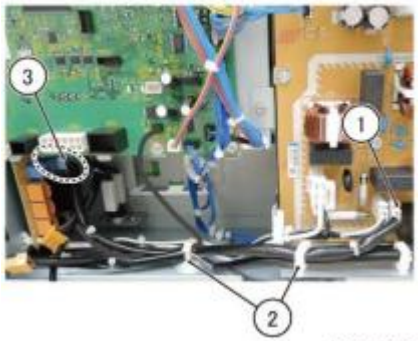


Figure 8 mb911925

12. Open the DADF or the Platen Cover.
13. Remove the Platen Glass. (Figure 9)
    (1) Remove the screw (x2).
    (2) Remove the Right Side Plate.
    (3) Remove the Platen Glass.

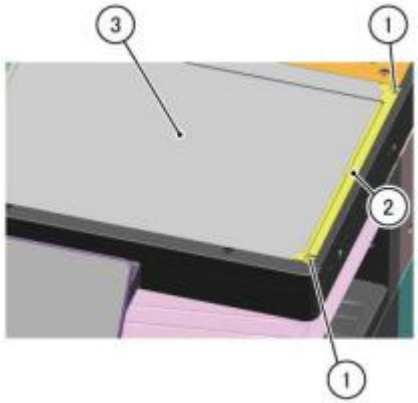


Figure 9 mnl910021

14. Pass the IIT Harness Assembly 2H connector (the side with 2 connectors) through the hole of the IIT Frame and pull it out towards the front. (Figure 10)
    (1) Pass the connector (x2) through the hole of the IIT Frame and pull it out towards the Front.

(2) Release the clamp and secure the IIT Harness Assembly 2H.

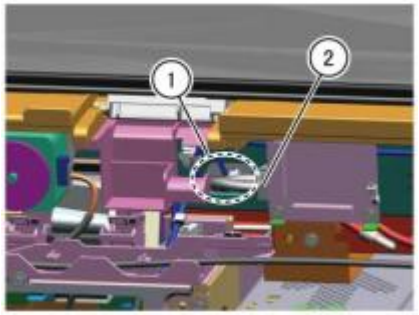


Figure 10 mnl910088

15. Assemble the IIT Heater (Short Cable) with the Harness Bracket. (Figure11)
    (1) Assemble the IIT Heater with the Harness Bracket.
    (2) Secure it by using the screw.

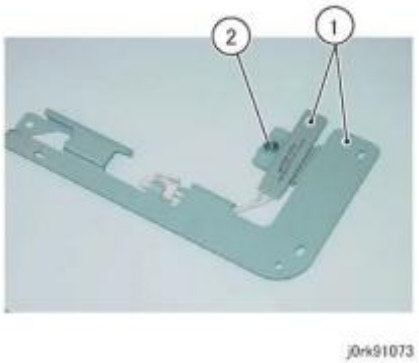
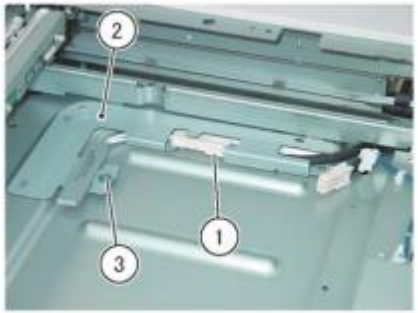


Figure 11 rk91073

16. Install the IIT Heater (Short Cable). (Figure 12)
    (1) Connect it to the Harness Assembly connector.
    (2) Install the IIT Heater.

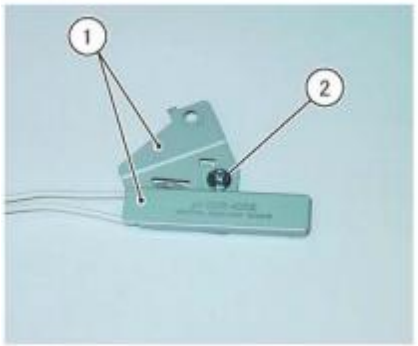
(3) Secure it by using the screw.



jOrk91074

Figure 12 rk91074

17. Assemble the IIT Heater (Long Cable) with the Harness Bracket. (Figure 13)
    (1) Assemble the IIT Heater with the Harness Bracket.
    (2) Secure it by using the screw.

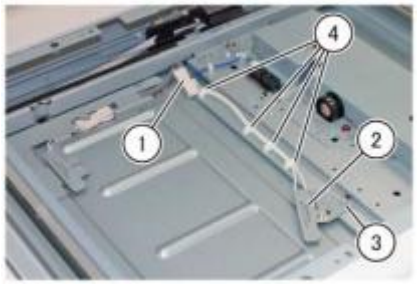


jOrk91075

Figure 13 rk91075

18. Install the IIT Heater (Long Cable). (Figure 14)
    (1) Connect it to the Harness Assembly connector.
    (2) Install the IIT Heater.
    (3) Secure it by using the screw.

(4) Secure the cable of the IIT Heater by using the clamp (x4).



jOmb911908

Figure 14 mb911908

19. Connect the IIT Harness Assembly 2H connector that was pulled through in Step 14 to the IIT Harness Assembly connector. (Figure 15)
    (1) Connect the connector.

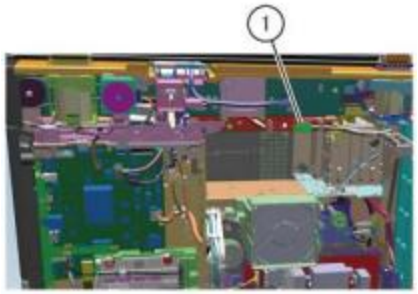


Figure 15 mbl920014

20. Connect the IIT Harness Assembly connector that was connected in Step 19 to the Relay PWB connector. (Figure 16)
    (1) Connect the IIT Harness Assembly connector to the Relay PWB connector.
    (2) Release the clamp (x6) and secure the connector.

(3) Secure the connector using the Push Tie (x4).

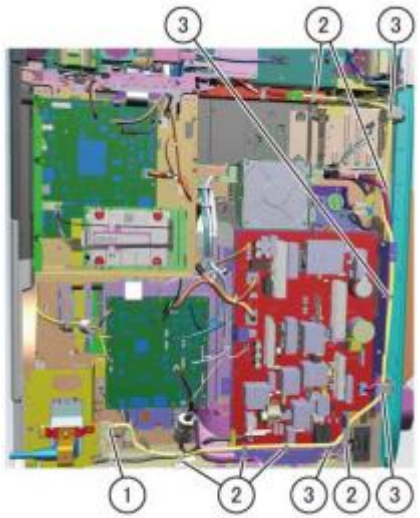


Figure 16 mbl920015

21. Reinstall the Platen Glass and the Right Side Plate.
22. Close the DADF or the Platen Cover.
23. Reinstall all parts that were removed.

24. Install the GFI Breaker from the External GFI Kit to the power plug. (Figure 17)

(1) Remove the power cord and install the GFI Breaker.



Figure 17 mb911921

25. Plug in the Power Plug.
26. Press the <Power> button to turn ON the power.
27. Enter UI Diag DC131 [NVM Read/Write].
    Change the value of DC131 [715-010] from "0" to "1".
    The meanings of NVM functions/setting values are as follows.

NVM	Feature	Conditions	When setting value is 0	When setting value is 1
715-010	Operation at Recovery from Power Saver	When turning OFF the power	Move the CRG to W-Ref	Do not move the CRG
		When turning ON the power	Initialize the CRG	Initialize the CRG
		Recovery from Power Saver	Do not initialize the CRG	Initialize the CRG

28. Record "Condensation Prevention Kit (Scanning Section Heater): 292V" in the Service Report.
29. Automatic operation of Warmer Mode by condensation prediction
    (1) As the Warmer Mode is set to Enabled by default at installation, explain this Forced Warmer Mode to the customer.
    (2) If the activation of Warmer Mode is not required,
    - Change the NVM 741-081: Condensation Prediction Operation Switch from "0" (Enabled) to "1" (Disabled)
    - Enter the System Administrator Mode > select [System Clock / Timers] > [Warmer Mode] and check that it has become "Off".
      If the Warmer Mode is still "On", change it to "Off".

    The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
741-081	Condensation Forecast Operation	0 : Condensation forecast available 1: Condensation forecast not available

9.2.18.2 Condensation Prevention Kit (Main Unit Heater)

Product Code

- Condensation Prevention Kit (Main Unit Heater): EC101901
- Condensation Prevention Installation Kit (for Main Unit/Tray/Scanning Section): EC103110
- External GFI Kit: EC103194

When installing multiple Condensation Prevention Heater Kits, refer to the following Table.

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Table 1 Required Kits Combination Table

Option to Install / Product Code		IIT Heater	IIT +IOT Heater	IIT +IOT +Tray Heater	IIT +IOT +Tray +Curl Heater	IIT +Tray Heater	IIT + Tray + Curl Heater	IIT + Curl Heater	IOT Heater	IOT +Tray Heater	IOT + Tray + Curl Heater	IOT + Curl Heater	Tray Heater	Tray + Curl Heater	Curl Heater
Condensation Prevention Kit (Scanning Section Heater)	EC103274 (100/200V)	O	O	O	O	O	O	O							
Condensation Prevention Kit (Device Heater)	EC101901 (100/200V)		O	O	O				O	O	O	O			
Condensation Prevention Kit (Tray Heater)	EC103108 (100V)			O	O	O	O			O	O		O	O	
Condensation Prevention Installation Kit (Tray 1/2 In-Between Heater)	EC103182 (100V)				O		O	O			O	O		O	O
Condensation Prevention Installation Kit (for Main Unit/Tray/Scanning Section)	EC103110 (100V)	O	O	O	O	O	O	O	O	O	O	O	O	O	O
External GFI Kit	EC103194	O	O	O	O	O	O	O	O	O	O	O	O	O	O

Installation Procedure

1. Before Starting
   When installing this Kit, also prepare the Condensation Prevention Installation Kit [for Main Unit/Tray/Scanning Section: EC103110] and External GFI Kit: EC103194 , and perform the installation in sequence.
2. Check the bundled items.
   - Condensation Prevention Kit (Device Heater)

No	Name	Qty
1	IOT Heater (Long Cable)	1
2	Heater Harness	1
3	Thermostat Assembly	1
4	Clamp	2
5	Screw	2 (1 will be used)

   - Usable parts from the Condensation Prevention Installation Kit (for Main Unit/ Tray/ Scanning Section)

No	Name	Qty
1	Relay PWB	1
2	PWB Support	4
3	Harness 2 4 V	1
4	Heater Harness MNL	1
5	Heater Harness AC	1

   - External GFI Kit
     - GFI Breaker

3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Open the Front Cover.
5. Remove the Right Cover. (Figure 1)
   (1) Remove the screw (x2).
   (2) Remove the Right Cover.

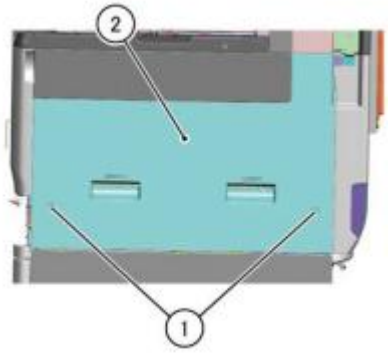


Figure 1 mnl910072

6. Install the Heater Harness MNL. (Figure 2, Figure 3)
   (1) Connect the Heater Harness MNL connector (tube side) to the Rear Frame. (Figure 2)
   (2) Secure the Heater Harness MNL by using the Push Tie (x3). (Figure 3)
   (3) Connect the Heater Harness MNL connector to the Front Frame. (Figure 3)



Figure 2 mo912011

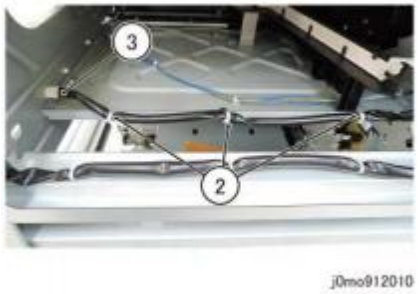


Figure 3 mo912010

7. Remove the Rear Cover. (REP 19.2.1)
8. Remove the Connector Cover. (Figure 4)
   (1) Remove the Connector Cover.



Figure 4 mo912002

9. Disconnect the connector. (Figure 5)
   (1) Disconnect the connector.

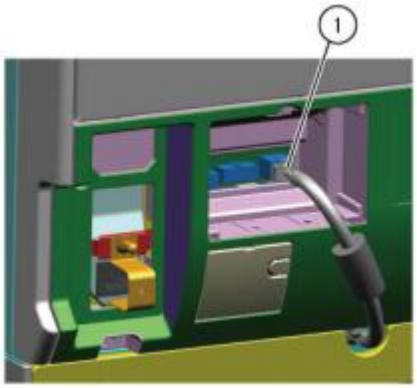


Figure 5 mnl910004

10. Remove the Rear Lower Cover. (Figure 6)
    (1) Remove the screw (x4).
    (2) Remove the Rear Lower Cover.

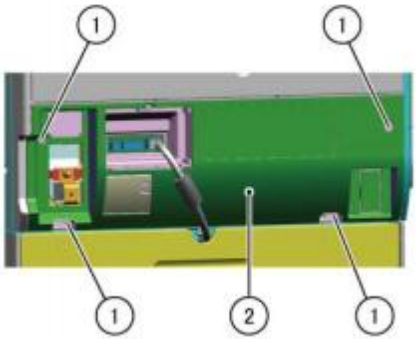


Figure 6 mnl910020

11. Connect the Heater Harness connector to the Thermostat Assembly. (Figure 7)

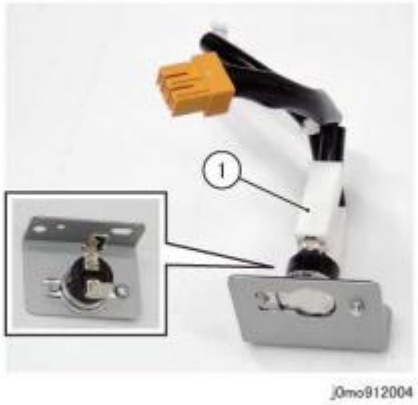


Figure 7 mo912004

12. Install the Thermostat Assembly. (Figure 8)
    (1) Install the Thermostat Assembly.
    (2) Secure it by using the screw.
    (3) Connect the Heater Harness to the Heater Harness MNL connector that was installed in Step 6.

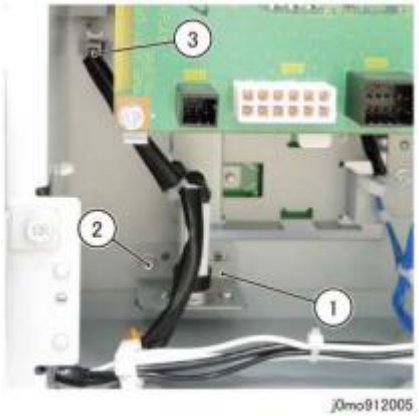


Figure 8 mo912005

13. Install the Relay PWB to the AC Chassis Assembly by using the PWB Support (x4). (Figure 9)
    (1) Install the PWB Support (x4) to the Relay PWB.
    (2) Connect the AC Heater Harness to the Relay PWB.
    (3) Connect the Harness 24V to the Relay PWB.
    (4) Install the Relay PWB to the AC Chassis Assembly.

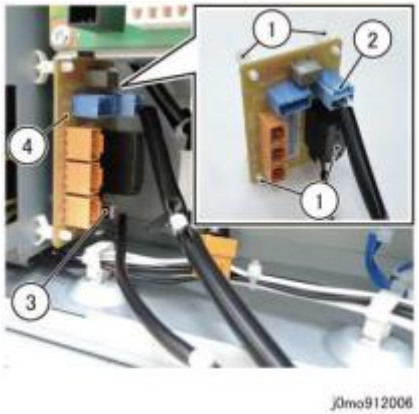


Figure 9 mo912006

14. Connect the Heater Harness connector to the Relay PWB. (Figure 10)
    (1) Connect the Heater Harness connector to the Relay PWB.

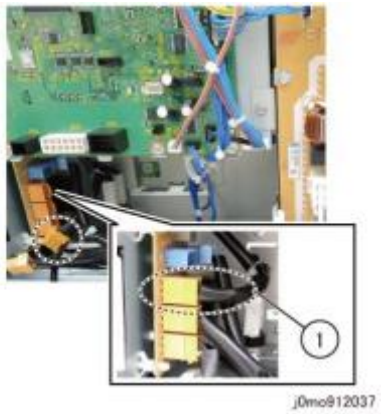


Figure 10 mo912037

15. Connect the AC Wire Harness connector to the LVPS. (Figure 11)
    (1) Connect the AC Heater Harness connector to the LVPS.

(2) Release the clamp (x2) and use them to secure the connected connector.

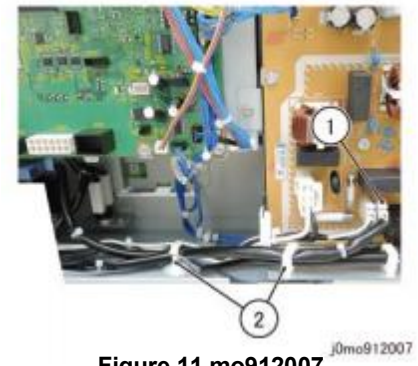


Figure 11 mo912007

16. Connect the Harness 24V to the MCU Drive PWB. (Figure 12)
    (1) Connect the connector.
    (2) Secure the Harness 24V using the existing clamp.

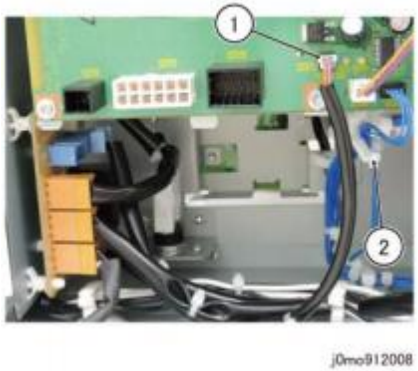


Figure 12 mo912008

17. Remove the Pillar Cover. (Figure 13)
    (1) Remove the screw (x3).
    (2) Remove the Pillar Cover.

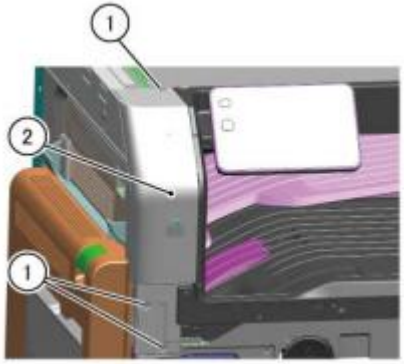


Figure 13 mnl910073

18. Remove the Paper Weight. (Figure 14)
    (1) Remove the Paper Weight.

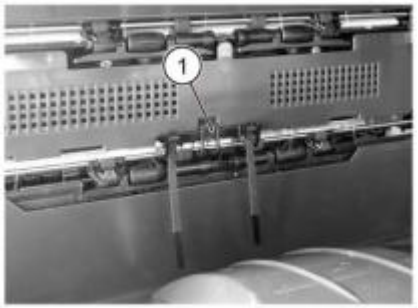


Figure 14 mnl910105

19. Remove the Top Cover. (Figure 15)
    (1) Remove the screw (x2).

(2) Remove the Top Cover.

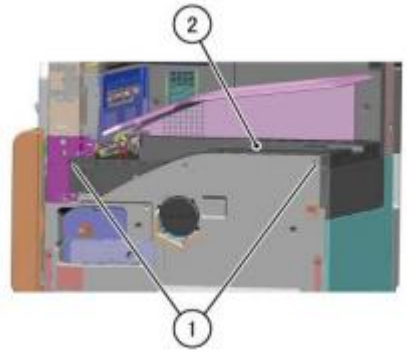


Figure 15 mnl910074

20. Open the L/H Cover Unit.
21. Turn the Handle at the front to pull out and remove the Drum Unit.
22. Pull out and remove the Toner Cartridge.
23. Remove the screw and remove the Handle. (Figure 16)
    (1) Remove the screw.
    (2) Remove the Handle.

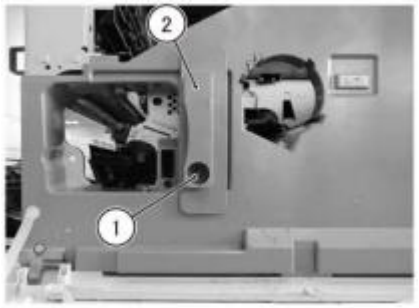


Figure 16 mnl910106

24. Remove the Front Cover together with the Inner Cover. (Figure 17)
    (1) Remove the screw (x4).
    (2) Rotate the left and right strap to remove them.
    (3) Remove the Front Cover together with the Inner Cover.

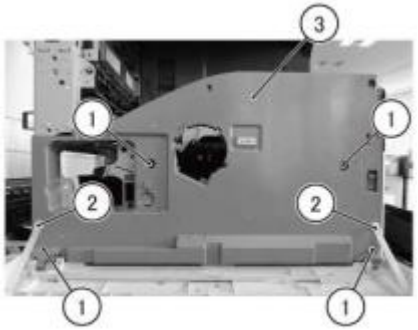


Figure 17 mnl910107

25. Install the IOT Heater. (Figure 18)
    (1) Insert the IOT Heater.
    (2) Secure it by using the screw.

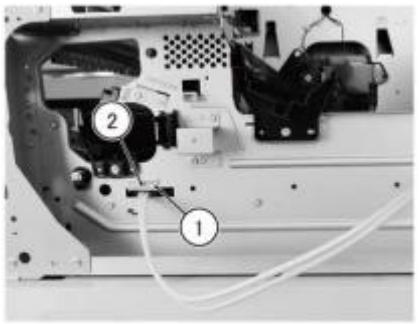


Figure 18 mnl910108

26. Install the clamp (x3), connect the IOT Heater, and then secure the wire harness. (Figure 19)
    (1) Install the clamp (x3).
    (2) Connect the connector.

(3) Install the wire harness of the IOT Heater.

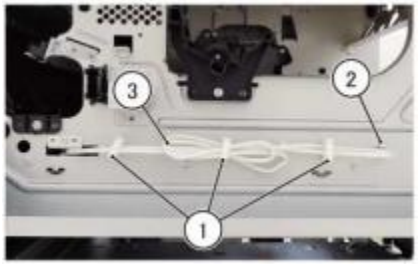


Figure 19 mo912018

27. Reinstall all parts that were removed.
28. Install the GFI Breaker from the External GFI Kit to the power plug. (Figure 20)
    (1) Remove the power cord and install the GFI Breaker.

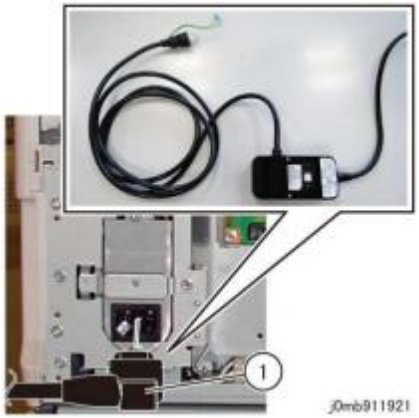


Figure 20 mb911921

29. Plug in the Power Plug.
30. Press the <Power> button to turn ON the power.
31. Enter UI Diag DC131 [NVM Read/Write].
    Change the value of DC131 [715-010] from "0" to "1".

The meanings of NVM functions/setting values are as follows.

NVM	Feature	Conditions	When setting value is 0	When setting value is 1
715-010	Operation at Recovery from Power Saver	When turning OFF the power	Move the CRG to W-Ref	Do not move the CRG
		When turning ON the power	Initialize the CRG	Initialize the CRG
		Recovery from Power Saver	Do not initialize the CRG	Initialize the CRG

32. Record "Condensation Prevention Kit (Main Unit Heater): 293V" in the Service Report.
33. Automatic operation of Warmer Mode by condensation prediction
    (1) As the Warmer Mode is set to "On" by default at installation, explain this Forced Warmer Mode to the customer.
    (2) If the activation of Warmer Mode is not required,
    - Change the NVM 741-081: Condensation Prediction Operation Switch from "0" (Enabled) to "1" (Disabled)
    - Enter the System Administrator Mode > select [System Clock / Timers] > [Warmer Mode] and check that it has become "Off".
      If the Warmer Mode is still "On", change it to "Off".

    The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
741-081	Condensation Forecast Operation	0 : Condensation forecast available 1: Condensation forecast not available

9.2.18.3 Condensation Prevention Kit (Tray Heater)

Product Code

- Condensation Prevention Kit (Tray Heater): EC103108
- Condensation Prevention Installation Kit (for Main Unit/Tray/Scanning Section): EC103110
- External GFI Kit: EC103194

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Before Starting
   When installing this Kit, also prepare the Condensation Prevention Installation Kit [for Main Unit/Tray/Scanning Section: EC103110] and External GFI Kit: EC103194, and perform the installation in sequence.
   When installing multiple Condensation Prevention Kits, refer to the Combination Table in 9.2.18.2.
2. Check the bundled items.
   - Condensation Prevention Kit (Tray Heater)
     - Tray Heater : 1
     - Clamp: 5 (x3 used)
     - Screw : 2
   - Usable parts from the Condensation Prevention Installation Kit (for Main Unit/ Tray/ Scanning Section)
     - Relay PWB : 1
     - PWB Support : 4
     - Harness 24V : 1
     - Heater Harness Tray : 1
     - Heater Harness AC : 1
   - External GFI Kit
     - GFI Breaker
3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Remove the Rear Cover. (REP 19.2.1)
5. Remove the Connector Cover. (Figure 1)
   (1) Remove the Connector Cover.



Figure 1 mo912002

6. Disconnect the connector. (Figure 2)
   (1) Disconnect the connector.

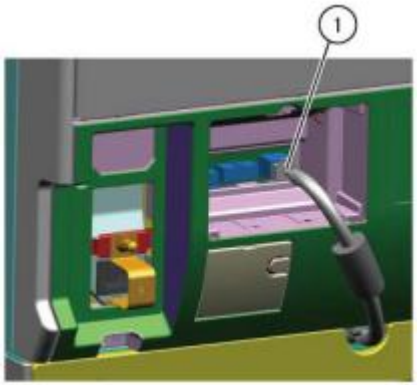


Figure 2 mnl910004

7. Remove the Rear Lower Cover. (Figure 3)
   (1) Remove the screw (x4).
   (2) Remove the Rear Lower Cover.

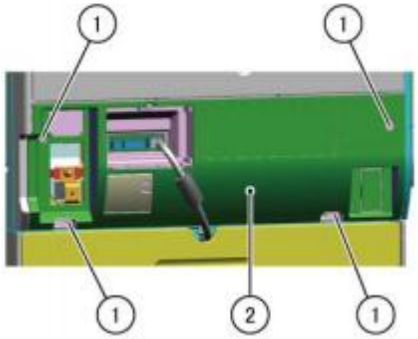


Figure 3 mnl910020

8. Install the PWB Support for installing the Relay PWB. (Figure 4)
   (1) Install the PWB Support (x4) to the Main Unit.

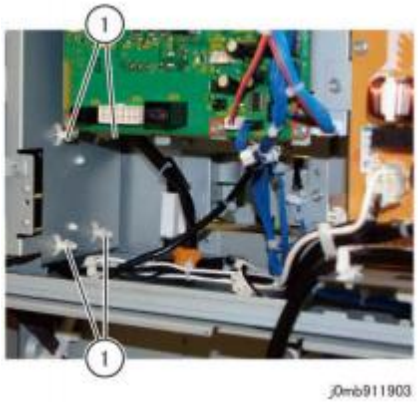


Figure 4 mb911903

9. Install the Relay PWB. (Figure 5)
   (1) Install the Relay PWB.

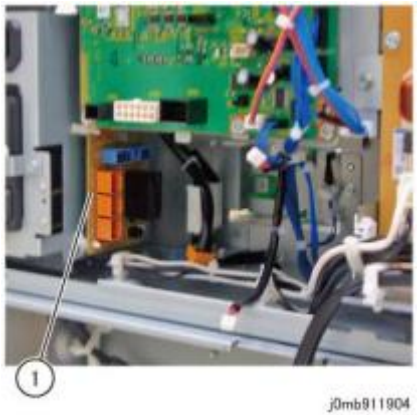


Figure 5 mb911904

10. Connect the Harness 24V between the Relay PWB and the MCU Drive PWB. (Figure 6)
    (1) Connect the Harness 24V between the Relay PWB and the MCU Drive PWB.
    (2) Secure the Harness 24V using the existing clamp.

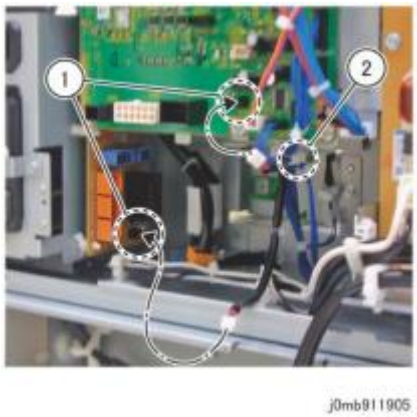


Figure 6 mb911905

11. Unload the paper from Tray 2/Tray 3/Tray 4 and remove the Tray 2/Tray 3/Tray 4.
12. Install the Tray Heater. (Figure 7)
    (1) Align the screw hole (x2) at the front to the stop hole positions and push in the Tray Heater.
    (2) Tighten the screw (x2).

(3) Pass the Wire Harness of the Tray Heater through the hole on the Frame and pull it out towards the Rear.

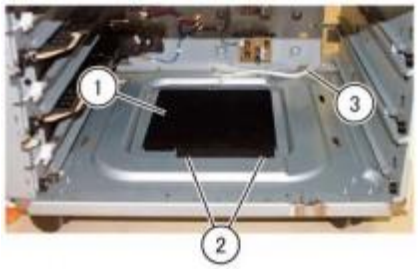


Figure 7 mb912001

13. Secure the Wire Harness that was pulled out towards the rear using the clamp and connect the Tray Heater Harness. (Figure 8)
    (1) Connect the Tray Heater Harness.
    (2) Secure the Wire Harness by using the clamp (x3).

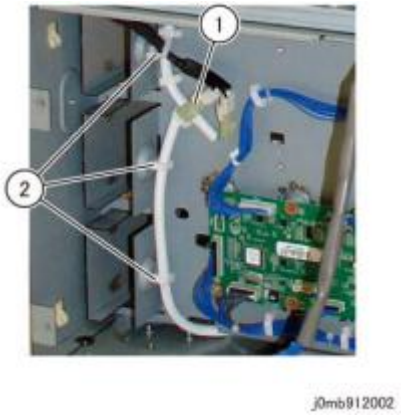


Figure 8 mb912002

14. Connect the AC Heater Harness connector to the LVPS. (Figure 9)
    (1) Connect the AC Heater Harness connector to the LVPS.
    (2) Release the clamp (x2) and use them to secure the connected connector.
    (3) Connect the Heater Harness to the Relay PWB.

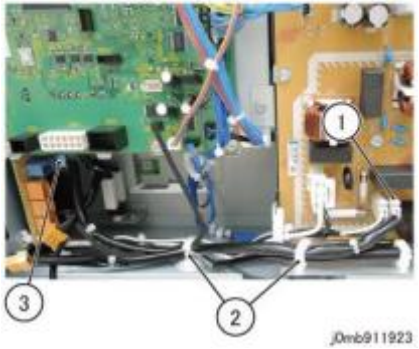


Figure 9 mb911923

15. Connect the Tray Heater Harness connector to the Relay PWB. (Figure 10)
    (1) Pass the connector through the hole of the Frame and connect it to the Relay PWB.



Figure 10 mb9120003

16. Reinstall all parts that were removed.

17. Install the GFI Breaker from the External GFI Kit to the power plug. (Figure 11)
    (1) Remove the power cord and install the GFI Breaker.

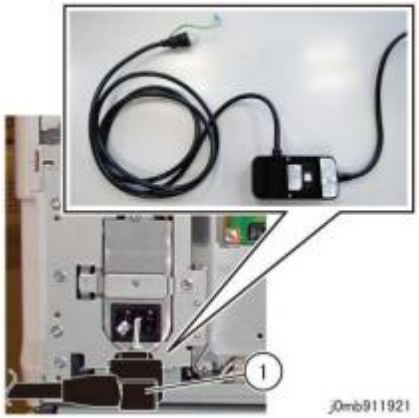


Figure 11 mb911921

18. Plug in the Power Plug.
19. Press the <Power> button to turn ON the power.
20. Enter UI Diag DC131 [NVM Read/Write].
    Change the value of DC131 [715-010] from "0" to "1".
    The meanings of NVM functions/setting values are as follows.

NVM	Feature	Conditions	When setting value is 0	When setting value is 1
715-010	Operation at Recovery from Power Saver	When turning OFF the power	Move the CRG to W-Ref	Do not move the CRG
		When turning ON the power	Initialize the CRG	Initialize the CRG
		Recovery from Power Saver	Do not initialize the CRG	Initialize the CRG

21. Record "Condensation Prevention Kit (Tray Heater): 294V" in the Service Report.
22. Automatic operation of Warmer Mode by condensation prediction
    (1) As the Warmer Mode is set to Enabled by default at installation, explain this Forced Warmer Mode to the customer.
    (2) If the activation of Warmer Mode is not required,
    - Change the NVM 741-081: Condensation Prediction Operation Switch from "0" (Enabled) to "1" (Disabled)
    - Enter the System Administrator Mode > select [System Clock / Timers] > [Warmer Mode] and check that it has become "Off".

If the Warmer Mode is still "On", change it to "Off".
The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
741-081	Condensation Forecast Operation	0 : Condensation forecast available 1: Condensation forecast not available

9.2.18.4 Condensation Prevention Kit (Trays 1/2 Heater)

Product Code

- Condensation Prevention Kit (Trays 1/2 In-Between Heater for Curl Prevention): EC103182
- Condensation Prevention Installation Kit (for Main Unit/Tray/Scanning Section): EC103110
- External GFI Kit: EC103194

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Before Starting
   When installing this Kit, also prepare the Condensation Prevention Installation Kit [for Main Unit/Tray/Scanning Section: EC103110] and External GFI Kit: EC103194, and perform the installation in sequence.
   When installing multiple Condensation Prevention Kits, refer to the Combination Table in 9.2.18.2.
2. Check the bundled items.

   - Condensation Prevention Kit (Tray 1/2 In-Between Heater for Curl Prevention)
     - Tray Heater : 1
     - Clamp : 6
     - Screw : 2
     - Plate Heater:1
     - Docking Screw:1

   - Usable parts from the Condensation Prevention Installation Kit (for Main Unit/Tray/Scanning Section)
     - Relay PWB : 1
     - PWB Support : 4
     - Harness 24V : 1
     - Heater Harness Tray : 1
     - Heater Harness AC : 1
   - External GFI Kit
     - GFI Breaker

3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Remove the Rear Cover. (REP 19.2.1)
5. Remove the Connector Cover. (Figure 1)
   (1) Remove the Connector Cover.



Figure 1 mo912002

6. Disconnect the connector. (Figure 2)
   (1) Disconnect the connector.

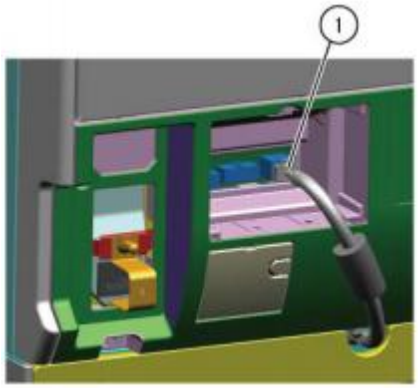


Figure 2 mnl910004

7. Remove the Rear Lower Cover. (Figure 3)
   (1) Remove the screw (x4).
   (2) Remove the Rear Lower Cover.

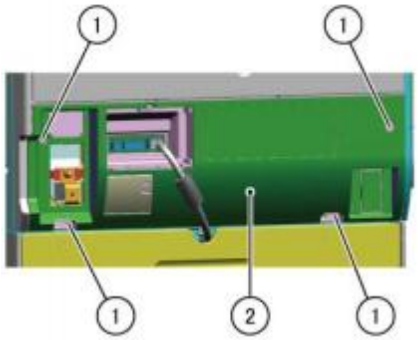


Figure 3 mnl910020

8. Install the PWB Support for installing the Relay PWB. (Figure 4)
   (1) Install the PWB Support (x4) to the Main Unit.

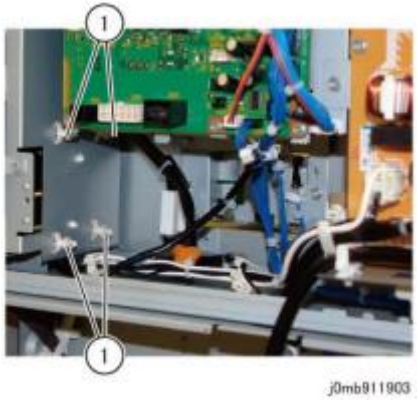


Figure 4 mb911903

9. Install the Relay PWB. (Figure 5)
   (1) Install the Relay PWB.

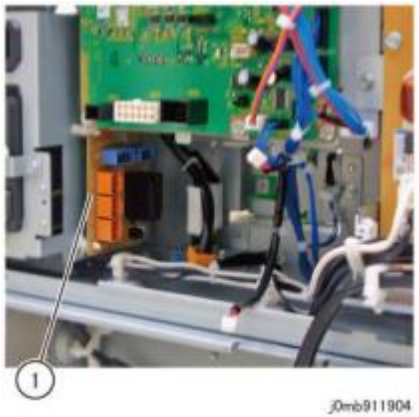


Figure 5 mb911904

10. Connect the Harness 24V between the Relay PWB and the MCU Drive PWB. (Figure 6)
    (1) Connect the Harness 24V between the Relay PWB and the MCU Drive PWB.

(2) Secure the Harness 24V using the existing clamp.

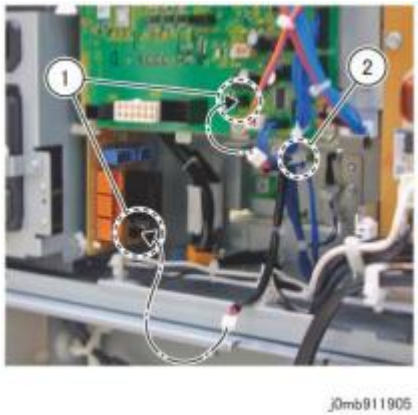


Figure 6 mb911905

11. Connect the AC Heater Harness connector to the LVPS. (Figure 7)
    (1) Connect the AC Heater Harness connector to the LVPS.
    (2) Release the clamp (x2) and use them to secure the connected connector.
    (3) Connect the AC Heater Harness connector to the Relay PWB.

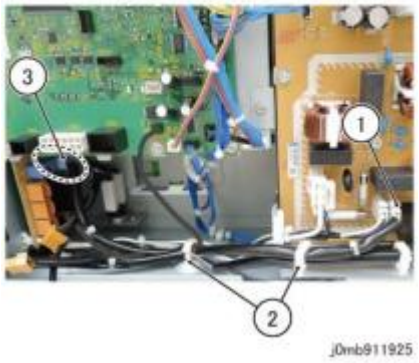


Figure 7 mb911925

12. Unload the paper from every Tray and remove every Tray.
13. Install the Tray Heater to the Plate Heater. (Figure 8)
    (1) Insert the Tray Heater into the tabs of the Plate Heater.
    (2) Align the Tray Heater to the screw holes.

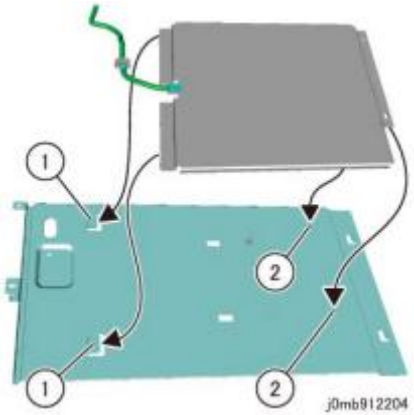


Figure 8 mb912204

14. Secure the Tray Heater using screws and secure the Wire Harness. (Figure 9)
    (1) Secure Tray Heater by using the screw (x2).
    (2) Pass the Wire Harness through the hole at the Tray Heater.
    (3) Secure the Wire Harness by using the clamp (x2).

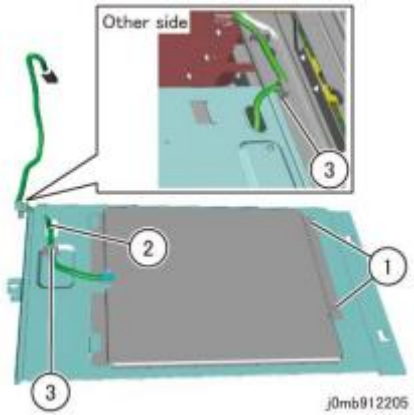


Figure 9 mb912205

15. Install the Tray Heater that was assembled in Step 13 and Step 14. (Figure 10, Figure 11)
    (1) Install the clamp to the Frame.
    (2) Align the tabs at the left of the Plate Heater to the holes at the Frame Top of the Tray.
    (3) Slide the Tray Heater to the right and push it in.

(4) Pass the Wire Harness of the Tray Heater through the hole on the Frame and pull it out towards the Rear.
(5) Secure them using the Docking Screw.
(6) Secure the Wire Harness of the Tray Heater using the clamp.

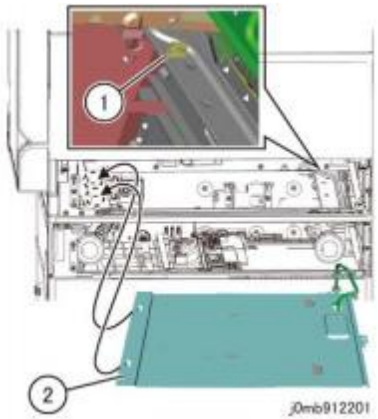


Figure 10 mb912201

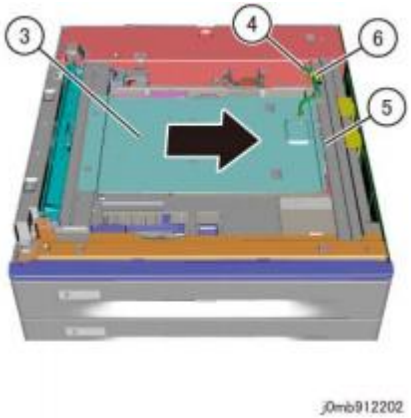


Figure 11 mb912202

16. Secure the Wire Harness of the Tray Heater. (Figure 12)
(1) Secure the Wire Harness of the Tray Heater by using the clamp (x3).

(2) Connect the Wire Harness of the Tray Heater to the Tray Heater Harness.

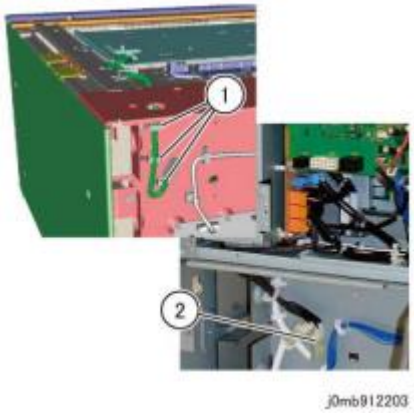


Figure 12 mb912203

17. Connect the Tray Heater Harness connector to the Relay PWB. (Figure 13)
(1) Pass the connector through the hole of the Frame and connect it to the Relay PWB.



Figure 13 mb912103

18. Reinstall all parts that were removed.

19. Install the GFI Breaker from the External GFI Kit to the power plug. (Figure 14)
    (1) Remove the power cord and install the GFI Breaker.

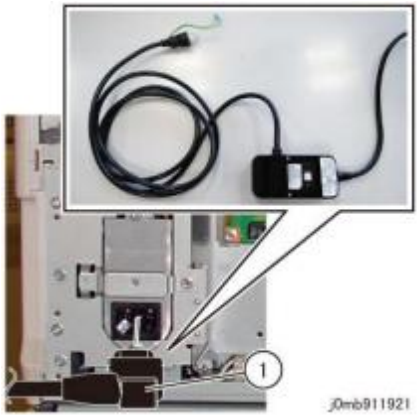


Figure 14 mb911921

20. Plug in the Power Plug.
21. Press the <Power> button to turn ON the power.
22. Enter UI Diag DC131 [NVM Read/Write].
    Change the value of DC131 [715-010] from "0" to "1".
    The meanings of NVM functions/setting values are as follows.

NVM	Feature	Conditions	When setting value is 0	When setting value is 1
715-010	Operation at Recovery from Power Saver	When turning OFF the power	Move the CRG to W-Ref	Do not move the CRG
		When turning ON the power	Initialize the CRG	Initialize the CRG
		Recovery from Power Saver	Do not initialize the CRG	Initialize the CRG

23. Record "Condensation Prevention Kit (Tray Heater): 294V" in the Service Report.
24. Automatic operation of Warmer Mode by condensation prediction
    (1) As the Warmer Mode is set to Enabled by default at installation, explain this Forced Warmer Mode to the customer.
    (2) If the activation of Warmer Mode is not required,
        - Change the NVM 741-081: Condensation Prediction Operation Switch from "0" (Enabled) to "1" (Disabled)
        - Enter the System Administrator Mode > select [System Clock / Timers] > [Warmer Mode] and check that it has become "Off".
          If the Warmer Mode is still "On", change it to "Off".

    The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
741-081	Condensation Forecast Operation	0 : Condensation forecast available 1: Condensation forecast not available

9.2.19 Center Tray Capacity Sensor

Product Code

- EC103113

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Check the bundled items.
   - Chute Assembly-Full Stack (Exit 1/OCT Assembly) : 1
   - Weight Assembly : 1
2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
3. Remove the Paper Weight. (Figure 1)
   (1) Release the hook and remove the Paper Weight.

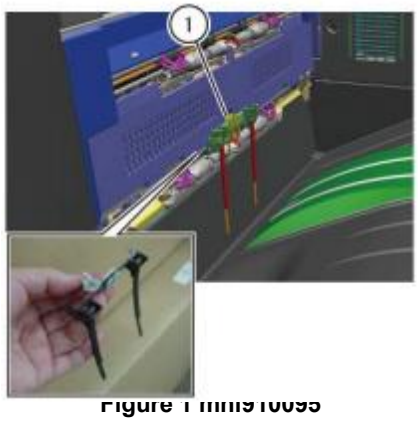


Figure 1 mlm910095

4. Open the LH Cover Unit.
5. Remove the LH Top Cover. (Figure 2)
   (1) Remove the screw (x2).
   (2) Remove the LH Top Cover.

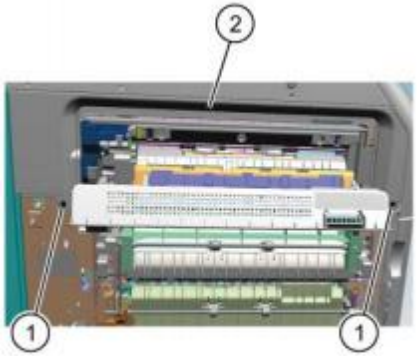


Figure 2 mbl920016

6. Remove the Exit 2 Assembly. (Figure 3)
   (1) Disconnect the connector (x3).
   (2) Remove the screw (x4).
   (3) Remove the Exit 2 Assembly.

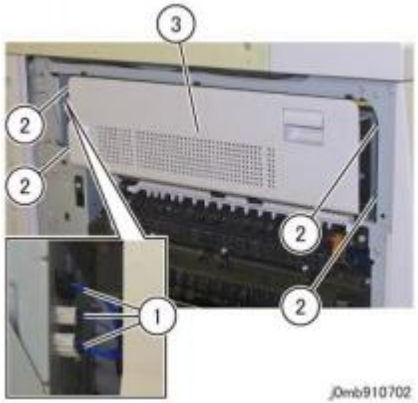
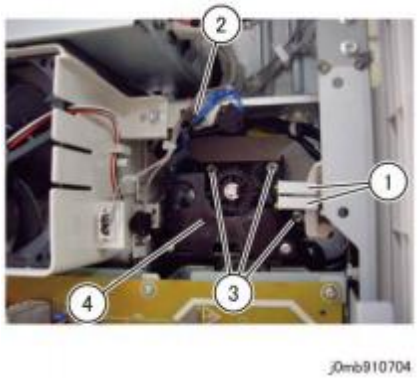


Figure 3 mb910702

7. Remove the Rear Cover. (REP 19.2.1)
8. Remove the Exit 1/OCT Assembly. (Figure 4)

(1) Disconnect the connector (x2).
(2) Disconnect the connector.
(3) Remove the screw (x3).
(4) Remove the Exit 1/OCT Assembly.



j0mb910704

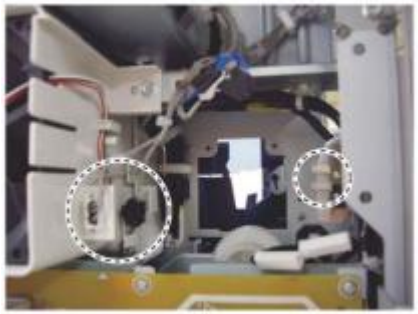
Figure 4 mb910704

NOTE
As attempting to pull the EXIT-ASSY straight out would snag it on the enclosure, shift the EXIT-ASSY so that it avoids contact with the enclosure and then remove it. (Figure 5, Figure 6)



j0mb910705

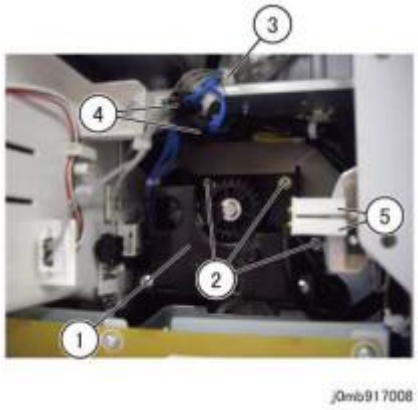
Figure 5 mb910705



j0mb910707

Figure 6 mb910707

9. Install the Exit 1/OCT Assembly provided in the Kit to the Main Unit. (Figure 7)
   (1) Install the Exit 1/OCT Assembly.
   (2) Install the screw (x3).
   (3) Connect the connector.
   (4) Connect the connector (x2).
   (5) Disconnect the companion connector from the indicated clamp and connect it to the indicated position.



j0mb917008

Figure 7 mb917008

NOTE

Check that the harness of the Full Stack Sensor is threaded as shown in the following figure. (Figure 8)

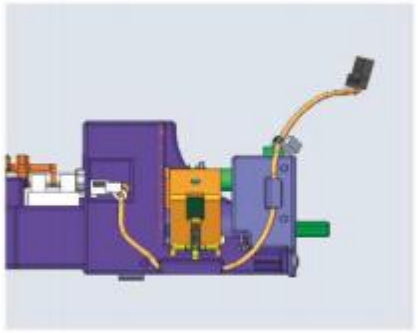


Figure 8 mb910710

NOTE

When installing the Exit 1/OCT Assembly, make sure that the Guard (x2) are at the paper output side. (Figure 9, Figure 10)

(1) The Guard (x2) are at the paper output side.

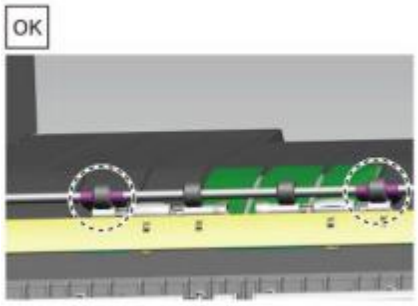


Figure 9 mm910089

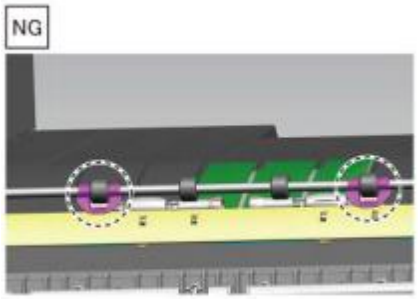


Figure 10 mm910090

NOTE

After installing the Exit 1 / OCT Assembly, check that the Exit 1 / OCT Assembly is moving smoothly. (Figure 11)

(1) Make sure that it is mounted properly on the Rail.

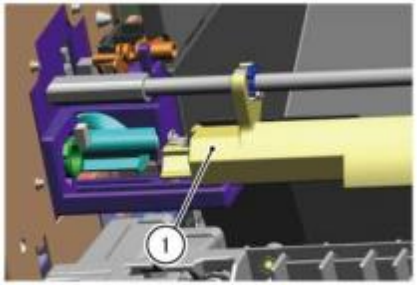


Figure 11 mm910091

NOTE

Make sure that the Actuator position is in the following [OK] position. (Figure 12. 13)

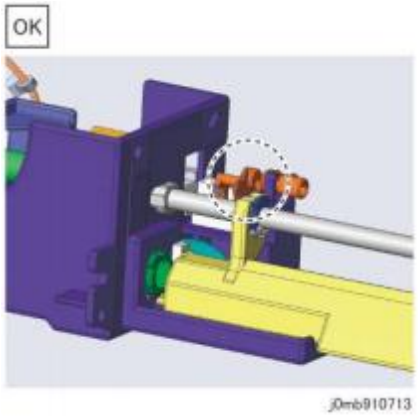


Figure 12 mb910713

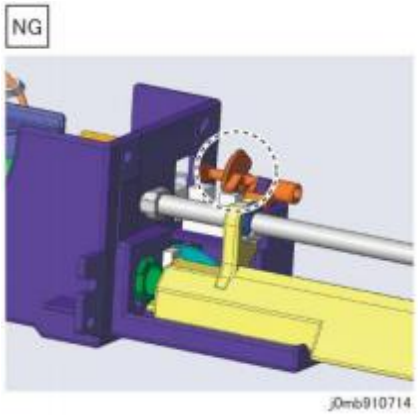


Figure 13 mb910714

10. Reinstall the Exit 2 Assembly that was removed in Step 6.

NOTE

When installing the Exit 2 Assembly, assemble it such that discharging brush goes over the Roll of Exit 1 Assembly.

(1) The discharging brush is at the paper output side. (Figure 14)

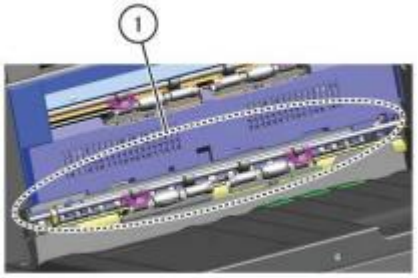


Figure 14 mnl910092

11. Install the Weight Assembly. (Figure 15)

(1) Hang the hook of the Weight Assembly to the shaft of the Exit 1/OCT Assembly.

(2) Insert the shaft of the Weight Assembly into the Actuator and, at the same time, insert the hook (x2) into the hole of the Frame.

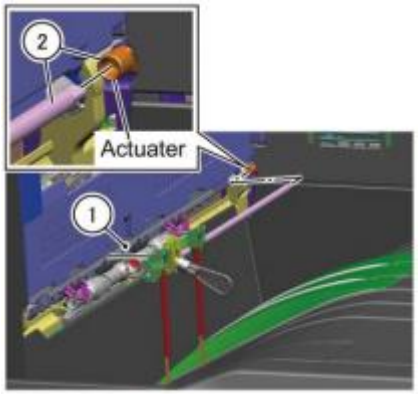


Figure 15 mnl910093

12. Reinstall the removed Covers.

13. Reconnect the Power Cord and return the Device to its installation location.

14. Turn ON the power and enter UI Diag DC131 [NVM Read/Write].
Change the value of DC131 [742-594 (OCT 1 Full Detection Switch)] from "0" to "1".
(0: Full Detection Control OFF, 1: Full Detection Control ON).
The meanings of NVM functions/ setting values are as follows.

NVM	Feature	Meaning of Setting Value
742-594	OCT 1 Full Detection Switching	0 : Full Detection Control OFF 1: Full Detection Control ON

9.2.20 Odor Filter Kit

Installation Procedure

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. Before Starting
When installation is required, please order the following parts.
   - External Deodorant Kit: 604K 96810
2. Kit Contents
   - Duct Assembly : 1
   - Duct Assembly Rear : 1
   - Filter Assembly : 1
   - Plate Assembly : 1
   - Screw : 4
   - Duct Filter Seal : 4
3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Open DADF or the Platen Cover.
5. Open the Front Cover.
6. Remove the Pillar Cover. (Figure 1)
   (1) Remove the screw (x3).

(2) Remove the Pillar Cover.

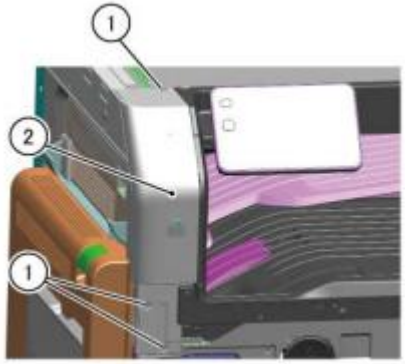


Figure 1 mnl910073

7. Remove the Paper Weight. (Figure 2)
   (1) Release the hook and remove the Paper Weight.

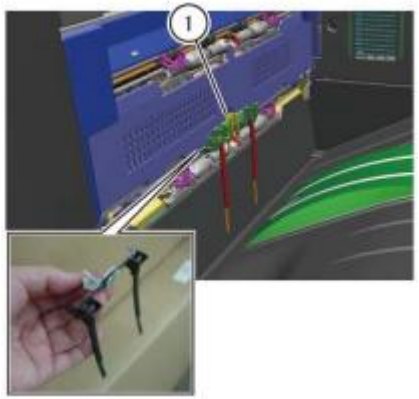


Figure 2 mnl910095

8. Remove the Top Cover. (Figure 3)
   (1) Remove the screw (x2).

(2) Remove the Top Cover.

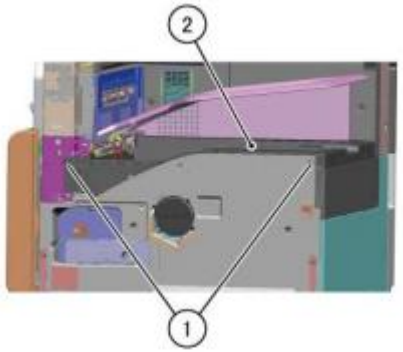


Figure 3 mnl910074

9. Remove the Inner Cover. (Figure 4)
   (1) Remove the screw (x2).
   (2) Remove the Inner Cover.

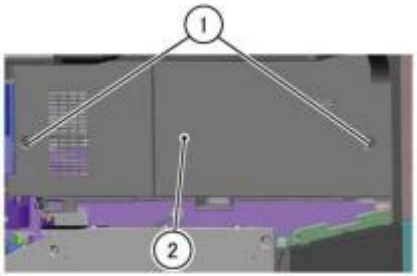


Figure 4 mnl910075

10. Install the Duct Assembly underneath the Inner Cover. (Figure 5)

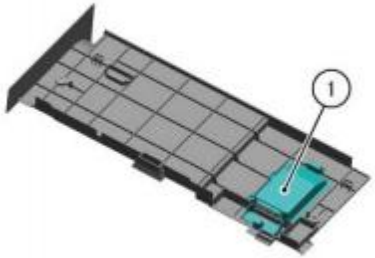


Figure 5 mnl910094

11. Reinstall the Inner Cover.
12. Reinstall the Top Cover.
13. Reinstall the Paper Weight.
14. Remove the Rear Cover. (REP 19.2.1)
15. Affix the Duct Filter Seal to the Duct section of the Rear Cover. (Figure 6)
    (1) Affix the Duct Filter Seal (x4).

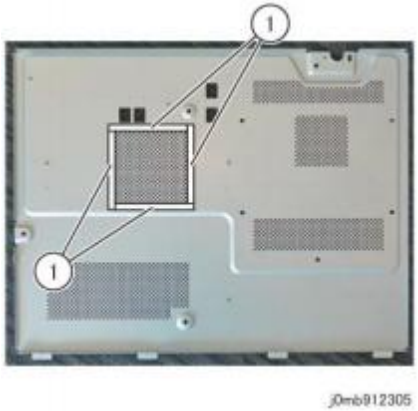


Figure 6 mb912305

16. Remove the Duct Assembly (Fusing Fan). (Figure 7)
    (1) Disconnect the connector.
    (2) Remove the screw.
    (3) Remove the screw (x4) of the LV PWB and lower it by approx. 1 cm.
    (4) Remove the Duct Assembly (Fusing Fan).

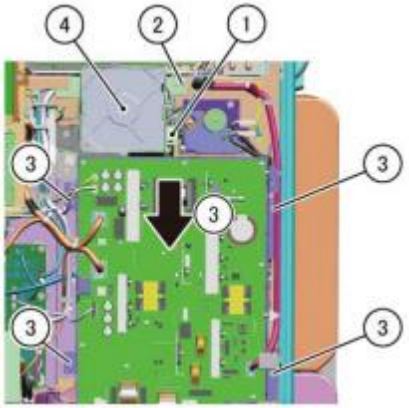


Figure 7 mnl910010

17. Remove the Rear Duct Fusing B (054E 5728X) that was pre-installed to the Fusing Fan Duct Assembly and install the DUCT ASSY-ODOR B (054K 5492X). (Figure 8)
    (1) Replace the Rear Duct Fusing B (054E 5728X) with the DUCT ASSY-ODOR B (054K 5492X).

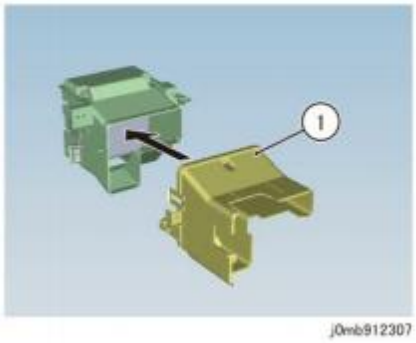
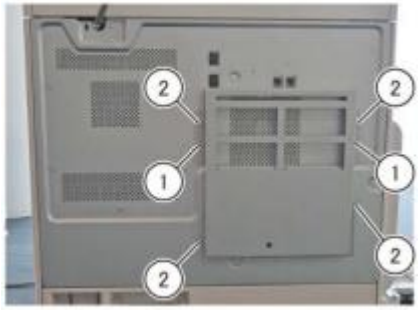


Figure 8 mb912307

18. Reinstall the removed Duct Assembly (Fusing Fan).
19. Reinstall the Rear Cover.
20. Install the Plate Assembly to the Rear Cover. (Figure 9)
    (1) Align the Plate Assembly to the boss of the Rear Upper Cover.

(2) Secure it by using the screw (x4).



j0mb912308

Figure 9 mb912308

21. Install the Filter Assembly. (Figure 10)

(1) Slant the Filter Assembly and install it from its top section, then push in the Push Pin at the bottom.



j0mb912309

Figure 10 mb912309

22. Reconnect the Power Cord and return the Device to its installation location.
23. Turn ON the Power and change the value of NVM [741-070 (Odor Filter Availability Switch)] from "0" to "1".

NOTE

During maintenance, replace only the Filter (053K 92640) built into the Filter Assembly.

The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
741-070	Availability of Odor Filter	0 : Odor Filter not available 1: Odor Filter available

9.2.23 Adobe PostScript3

Product Code:

Adobe PostScript 3 Kit (Heisei 2 Font): EL201246

Adobe PostScript 3 Kit: EL201266

(FBAP)Adobe PostScript 3 Label Kit: ED201136

Installation Procedure

1. Check the bundled items.
   (1) S/W Key Option License Agreement (Passcode)
   (2) Software License Agreement
   (3) Adobe Label : 1
2. Affix the Adobe Label on the Front Cover. (Figure 1)

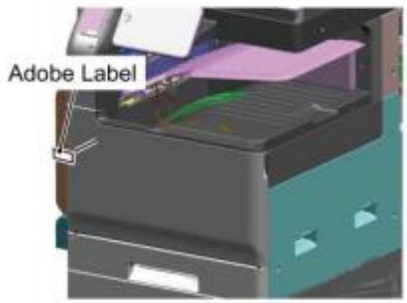


Figure 1 mnl910006

3. Turn ON the power.
4. Enter the System Administrator Mode.
5. Select [Device] → [Maintenance] → [Software Options].
6. Enter the Software Key and select [Restart]. (The Device will restart.)
   (Check if it is recognized by printing out the Configuration Report, PS Font List, etc.)
7. Record [Adobe PostScript 3 Kit (Heisei 2 Font: 213V)] in the Service Report.

9.2.24 Wing Table

Product Code:

- Wing Table: EC104201
- Wing Table (for Face Authentication System): EC104369

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Check the bundled items. (Figure 1)
   (1) Wing Table: 1
   (2) Wing Bracket (D) : 2
   (3) Wing Bracket (CD) : 1
   (4) Thumb Screw : 2
   (5) Screw (M3x4) : 5
   (6) Label : 2

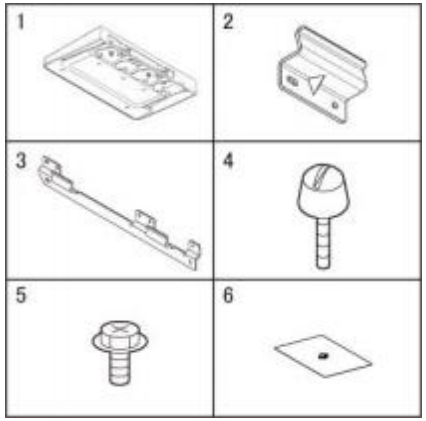


Figure 1 shb910021

2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.

(4) Unplug the power plug, and wait about 30 seconds before starting the operation.

3. Open the Platen Cover or DADF.
4. Remove the Blind Cover from the IIT Left Cover. (Figure 2) (Figure 3)
   (1) Remove the Blind Cover.

NOTE

Cut the Blind Cover with nippers, etc. so that there may be no protrusions on the cut surface.

If any burrs remain on the cut surface, remove them cleanly.



Figure 2 shb910022

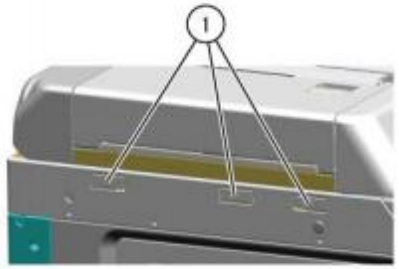


Figure 3 mnl910055

5. Install the Wing Bracket (D). (Figure 4)
   (1) Install the Wing Bracket (D).
   (2) Install the screw (x5).

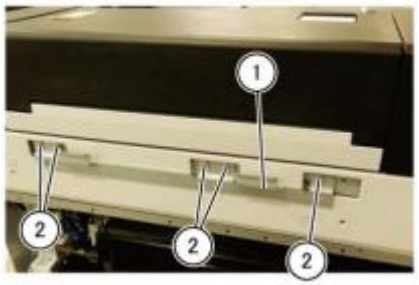


Figure 4 shb910025

6. Install the Wing Table. (Figure 5)
   (1) Install the Wing Table Assembly.
   (2) Tighten the Thumbscrew (x2).

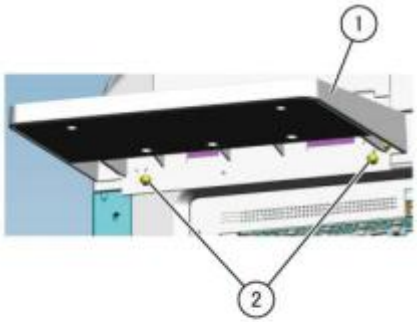


Figure 5 mbl910007

7. Reconnect the Power Cord and return the Device to its installation location.
8. Record "Wing Kit: 192V" in the Service Report.

9.2.25 Accessory Table

The Accessory Table A/B are tables for attaching accessories to the right side of the Device depending on the purpose.

The Accessory Table A is a big-sized table for placing 4Gnet-BOX and to be installed to the rear of the right side of the Device.

The Accessory Table B is a small-sized table for placing an external IC Card Reader and to be installed to the front of the right side of the Device.

NOTE

Only the Wing Table can be installed on the left side of the Main Unit, and the Accessory Table A/B cannot be installed.

9.2.25.1 Accessory Table A

Product Code

- EC104221

Installation Procedure

1. Check the bundled items.
   The Accessory Table A is bundled with the following items:

No.	Name	Qty
1	Option Tray L	1
2	Thumb Screw	3

2. Install the Accessory Table A. (Figure 1)
   (1) Temporarily tighten the Thumbscrew (x3) to the Screw Holes at 3 locations at the rear.
   (2) Install the Option Tray L.
   (3) Secure them by using the Thumbscrew (x3).

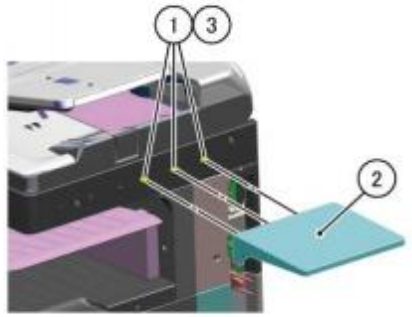


Figure 1 mnl910056

3. Record "Accessory Table A: 337V" in the Service Report.

9.2.25.2 Accessory Table B

Product Code

- EC104204

Installation Procedure

1. Check the bundled items.
   The Accessory Table B is bundled with the following items:

No.	Name	Qty
1	Option Tray S	1
2	Thumb Screw	3

2. Install the Accessory Table B. (Figure 1)
   (1) Loosely affix the Thumbscrew (x2) to the screw hole (x3 locations) at the front.
   (2) Move the Option Tray S to the front and insert the Thumbscrew into the Screw Holes at 3 locations on the rear.
   (3) Secure them by using the Thumbscrew (x3).

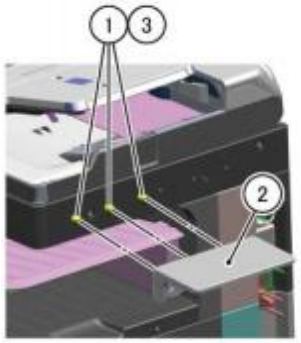


Figure 1 mnl910057

3. Record "Accessory Table B: 338V" in the Service Report.

9.2.26 IC Card Reader

9.2.26.1 IC Card Reader (Main Unit Embedded model)

Product Overview

IC Card Reader for Device (for left side of Device UI Panel)

NOTE

Before installing the IC Card Reader B, perform the IC Card Reader preliminary settings. (9.2.26.4)

Product Code:

IC Card Reader B (Main Unit Embedded Model) (EC104662)

IC Card Reader D (Device Embedded)(EC104644)

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Before Starting
   - To install this Kit, [9.2.11 USB Expansion Kit (EC104643)] has to be installed in advance.
2. Check the bundled items.

[IC Card Reader B (Device Embedded Model)]

(1) IC Card Reader Cover : 1
(2) IC Card Reader B : 1
(3) USB Micro Cable (WT 1.2M) : 1
(4) IC Card Folder Assembly : 1
(5) Label (IC Card Reader) : 1
(6) Clamp : 5
(7) Locking Clamp : 2
(8) Clamp (Black) : 3
(9) Label (FBKR) : 3
(10) Label (INDONESIA) : 1
(11) Inst ICCR-B : 1

[IC Card Reader D (Main Unit Embedded Model)]

(1) IC Card Reader Cover : 1
(2) USB Mini Cable (WT 1.2M) : 1
(3) IC Card Reader D : 1
(4) IC Card Folder Assembly : 1
(5) Label (IC Card Reader) : 1
(6) Clamp : 5
(7) Locking Clamp : 2
(8) Clamp (Black) : 3
(9) INST USERS MNL : 1

3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. Open DADF or the Platen Cover.
5. Open the Front Cover.
6. Remove the Pillar Cover. (Figure 1)
   (1) Remove the screw (x3).
   (2) Remove the Pillar Cover.

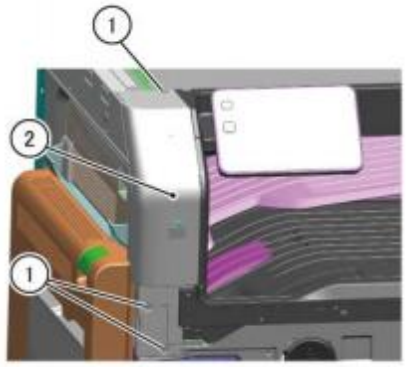


Figure 1 mnl910073

7. Remove the Rear Cover. (REP 19.2.1)

8. Remove the LH Rear Cover. (Figure 2)
   (1) Remove the screw (x2).
   (2) Remove the LH Rear Cover.

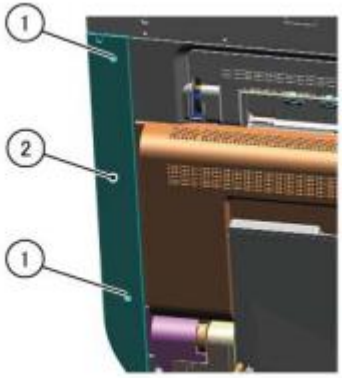


Figure 2 mnl910032

9. Open the LH Cover Unit.
10. Open the L/H High Chute of Exit 2.
11. Remove the LH Top Cover. (Figure 3)
   (1) Remove the screw (x2).
   (2) Remove the LH Top Cover.

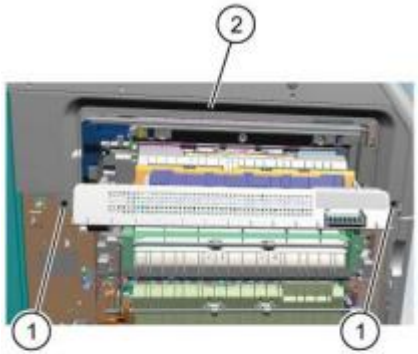


Figure 3 mbl920016

12. Remove the Rear Cover of IIT. (Figure 4)
   (1) Remove the screw (x2).
   (2) Remove the Rear Cover of IIT.

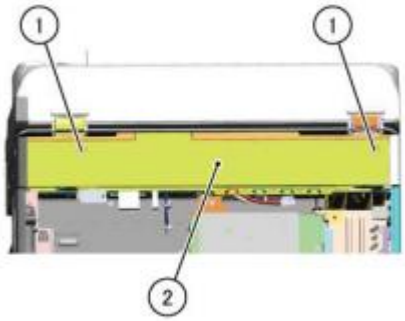


Figure 4 mnl910065

13. Route the USB Cable Assembly to the Rear and connect the USB connector. (Figure 5)
   (1) Pass the cable through the section framed in red and thread it towards the rear.
   (2) Secure the Cable using the clamp.

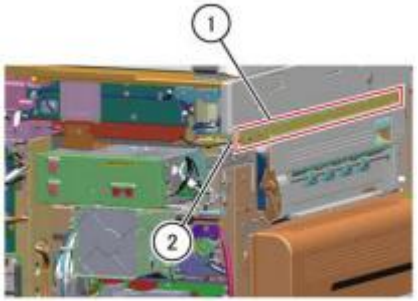


Figure 5 mnl910051

NOTE

Install the Cable so that it is placed on the top of the Clamp, not through the Clamp. If it is pass through the Clamp, it will be difficult to remove the Cable when replacing it. (Figure 6)

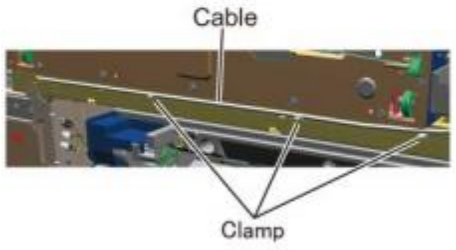


Figure 6 mbl910072

14. Install the IC Card Reader to the IC Card Reader Cover.
[IC Card Reader B (Device Embedded Model)] (Figure 7)



Figure 7 shb910175

[IC Card Reader D (Device Embedded Model)] (Figure 8)

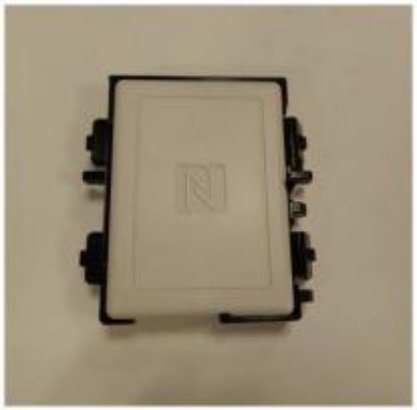


Figure 8 shb910176

15. Install the IC Card Reader Cover to the Pillar Cover. (Figure 9)
    (1) Install the Pillar Cover.
    (2) Connect the USB Cable.

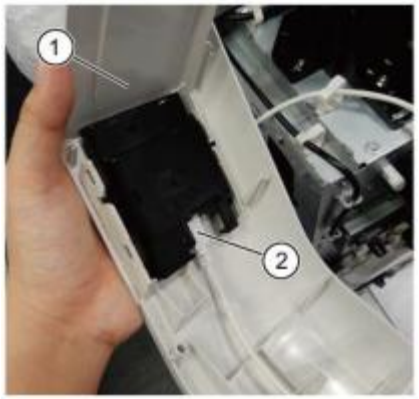


Figure 9 shb910177

NOTE
Secure the USB Cable to the clamp as required. (Figure 10)

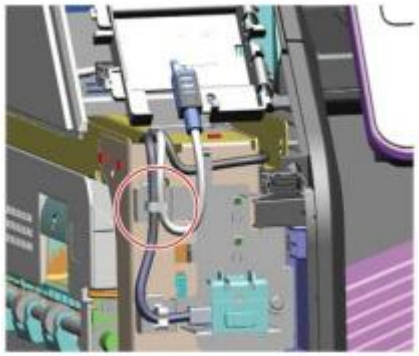


Figure 10 mnl910033

16. Reinstall the removed covers.
17. Affix the Label (IC Card Reader) to the Pillar Cover. (Figure 11)



Figure 11 mnl910034

NOTE
If necessary, install the IC Card Folder Assembly to the Pillar Cover. (Figure 12)



Figure 12 mnl910035

18. Reconnect the Power Cord and return the Device to its installation location.
19. Enter the UI Diag Mode and change the following NVM.
    - Set the value of NVM: 700-495 to "1". (XCP enabled/disabled information)
    - Set the value of NVM: 700-257 to "2". (This sets the USB IC Card Device usage to "use in Job Control/PKI".)
    - Set the value of NVM: 700-040 to "1". (Use of ICCR Embedded Feature Availability Data)
    - Set NVM: 700-885 to a value in Table 1 shown below according to the Card Reader type.

Reader Type	Value of 700-885	Remarks
B	1	Global Corp . OMNIKEY 5127CK MINI
D	1	FFIS Co ., Ltd. ICCR

20. If you do not want the Device to beep at the insertion/removal of IC Card, change the following NVM value.
    - Change the value of NVM: 700-683 to "0" (Disabled).
    - The default value is "1" (Enabled).

The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
700-040	IC Card Reader Embedded Feature Availability Data	0: Do not use 1: Use
700-257	USB IC Card Device Usage Setting	0: Do not use 1: Use in PKI only 2: Use in Job Control/PKI
700-495	PGS2 1 1 6 SGP Enable/ Stop Information	0: Do not use 1: Use
700-683	IC Card Insertion/ Removal Sounds	0: OFF 1: ON
700-885	Embedded IC card reader type settings	0: Default 1: OMNIKEY 5127CK MINI from Global/ ICCR from FFIS

21. If this is to be used together with other accessories, enter the UI Diag Mode and change the following NVMs as required by the configuration.

NOTE

This product cannot be used together with accessories that are not listed in Table 2 below.

Chain Link No.	Value	Remarks
850-007	3	Combination of Embedded IC Card Reader and Dispenser 2 (Same values as when only Dispenser 2 is in use)
850-007	4	Combination of Embedded IC Card Reader and Coin Cashier (Same values as when only Coin Cashier is in use)

22. When using NFC (Near Field Communication), change the following NVM values.
Set the value of NVM: 771-544 to "1".
1: Enable the NFC.
0: Disable the NFC.

NOTE

However, take note as NFC is a UI standard configuration.

Both has no difference in functions and can be used together.

23. Check the operation of the IC Card Reader.

Reader Type	Tool Number	Remarks
B	-	Cannot read the CE CARD.
D	499T 06622	IC Card for CE (FeliCa)

(1) Tap the IC Card to the IC Card Reader.
(2) Check that the authentication lamp turns ON.
(3) Check that a copy can be output.

24. Perform read settings for the card as required.

NOTE

As default, read is allowed for the CE Card only.

[For B Type]:

To prepare the device, connect it to the PC and perform settings for the Card Reader. (9.2.26.4)

[For B Type], [For D Type]:

In Internet Services > Properties > Security > Plug-in/Custom Services Settings > List of Embedded Plug-ins, check [IC Card Reader B Web Setup Plugin] or [IC Card Reader D], and press the Settings button to open the Card Scan Settings screen.

25. Record "IC Card Reader B: 883V, IC Card Reader D: 885V" in the Service Report.

9.2.26.2 IC Card Reader (Wing Embedded Model)

Product Overview

IC Card Reader that is embedded in the Wing

NOTE

Before installing the IC Card Reader B, perform the IC Card Reader preliminary settings. (9.2.26.4)

Product Code:

IC Card Reader B (Wing Embedded Model) (EC104663)

IC Card Reader D (Wing Embedded model)(EC104645)

NOTE

To install this kit, 9.2.24 Wing Table (EC104201) or Wing Table (for Face Authentication System) (EC104369) must be installed first.

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Check the bundled items.
   [IC Card Reader B (Wing Embedded Model)]
   (1) IC Card Reader B: 1
   (2) IC Card Reader B Bottom Cover: 1
   (3) Label (IC Card Reader Wing): 1
   (4) USB Micro Cable (WT 1.6M): 1
   (5) Clamp: 5
   (6) Label (FBKR): 1
   (7) Label (INDONESIA): 1
   (8) INST ICCR-B: 1

   [IC Card Reader D (Wing Embedded Model)]
   (1) IC Card Reader D: 1
   (2) IC Card Reader D Bottom Cover: 1
   (3) Label (IC Card Reader Wing): 1
   (4) USB Mini Cable (WT 1.6M): 1
   (5) Clamp: 5
   (6) INST USERS MNL: 1
2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
3. Remove the Bottom Cover of the Wing Table. (Figure 1)
   (1) Remove the screw (x5).
   (2) Remove the Bottom Cover.

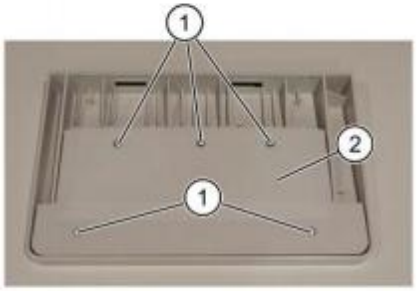


Figure 1 shb910150

4. [For IC Card Reader B]
   Connect the USB Micro Cable (WT 1.6M) to the IC Card Reader B. (Figure 2)

NOTE

[For IC Card Reader D] Go to Step 8.

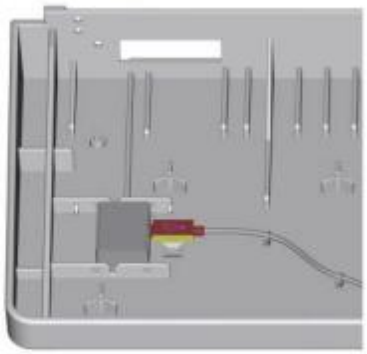


Figure 2 gre910256

5. Install the IC Card Reader B Bottom Cover to the Wing Table. (Figure 3) (Figure 4)
   (1) Secure the IC Card Reader B Bottom Cover.
   (2) Secure the USB Micro Cable using the clamp (x2).

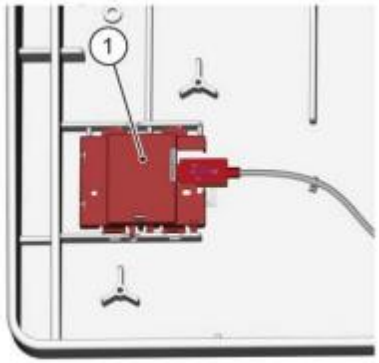


Figure 3 gre910257

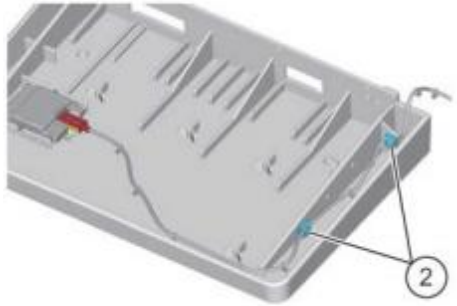


Figure 4 gre910258

6. Install the Bottom Cover of the Wing Table.
7. Install the Wing Table to the Main Unit.
8. [For IC Card Reader D] Connect the USB Mini Cable (WT 1.6M) to the IC Card Reader D. (Figure 5)



Figure 5 gre910260

9. Install the IC Card Reader D Bottom Cover to the Wing Table. (Figure 6)
   (1) Secure with the IC Card Reader D Bottom Cover.

(2) Secure the USB Mini Cable using the clamp (x2).

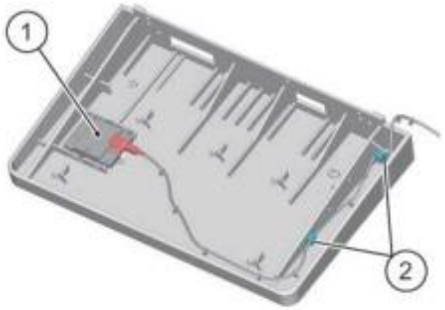


Figure 6 gre910261

10. Install the Bottom Cover of the Wing Table.
11. Install the Wing Table to the Main Unit.
12. [Connecting the USB connector of the Main Unit]
    Remove the following parts:
    - Remove the Rear Cover. (REP 19.2.1)
    - Remove the LH Rear Cover. (Figure 7)

    (1) Remove the screw (x2).

(2) Remove the LH Rear Cover.

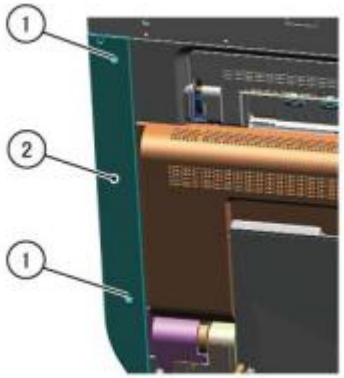


Figure 7 mnl910032

- Remove the RH Rear Cover. (Figure 8)

(1) Remove the screw.

(2) Remove the RH Rear Cover.

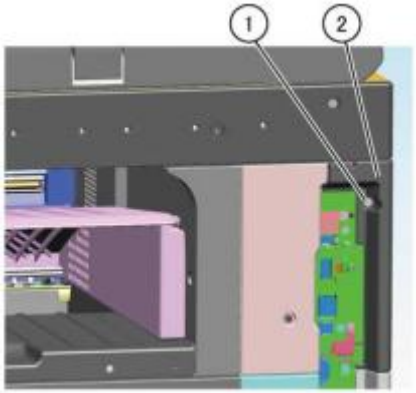


Figure 8 mbl920017

13. Remove the Blind Cover of the LH Rear Cover that was removed. (Figure 9)

NOTE
Cut the Blind Cover with nippers, etc. so that there may be no protrusions on the cut surface.
If any burrs remain on the cut surface, remove them cleanly.



Figure 9 mnl910038

14. Route the USB cable. (Figure 10)
    (1) Route the USB Cable inside the Device.
    (2) Pass the USB Cable through the guide.
    (3) Pass the USB Cable through the hole of the cover.

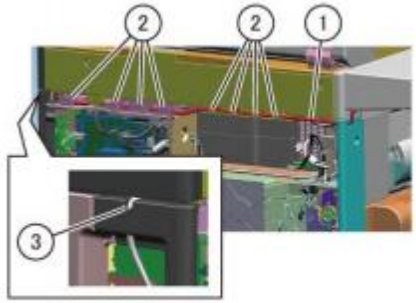


Figure 10 mnl920018

15. Connect the USB Cable of IC Card Reader to the Main Unit and proceed to Step 20. (Figure 11)
    (1) Connect the USB Cable to the Control Unit USB Port.

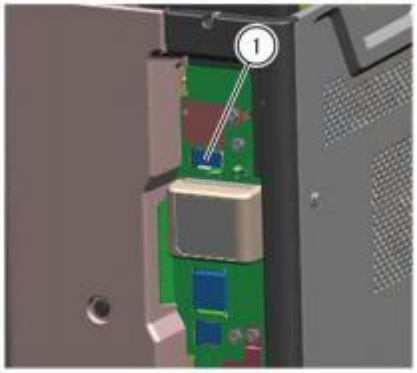


Figure 11 mnl910036

16. [When Connecting to USB Expansion Kit]
    Remove the following parts:
    - Remove the Rear Cover. (REP 19.2.1)
    - Remove the LH Rear Cover. (Figure 12)

    (1) Remove the screw (x2).
    (2) Remove the LH Rear Cover.

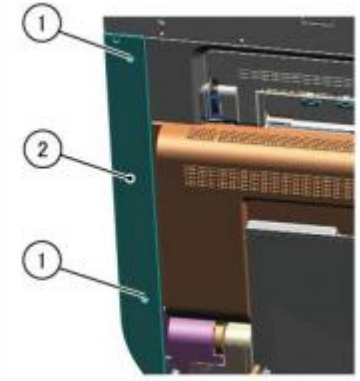


Figure 12 mnl910032

17. Remove the Blind Cover of the LH Rear Cover that was removed. (Figure 13)

NOTE

Cut the Blind Cover with nippers, etc. so that there may be no protrusions on the cut surface.

If any burrs remain on the cut surface, remove them cleanly.



Figure 13 mnl910038

18. Connect the USB Expansion Kit to the connector. (Figure 14)
    (1) Connect the connector.
    (2) Process the clamp with cable ties.

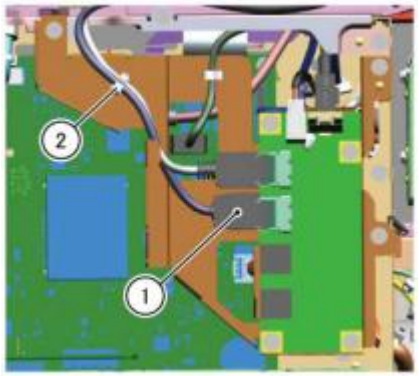


Figure 14 mnl910097

19. Route the USB cable. (Figure 15)
    (1) Route the USB Cable inside the Device.
    (2) Pass the USB Cable through the guide.

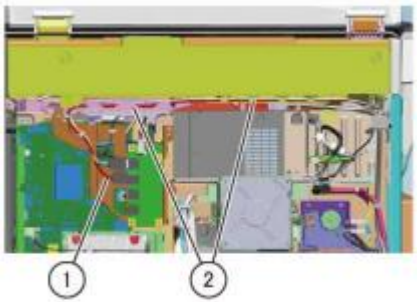


Figure 15 mbl920019

20. Organize the USB Cable. (Figure 16)
    (1) Install the affix-type clamp (x2).
    (2) Pull the USB Cable through the hole of the cover.
    (3) Organize the USB cable with the Clamp.

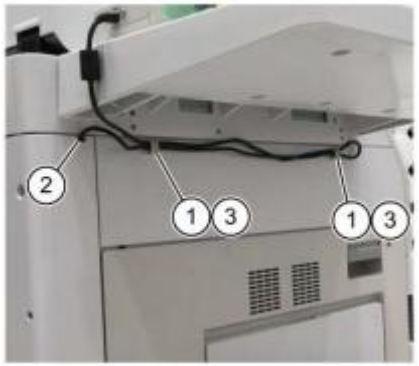


Figure 16 mbl920020

21. Reinstall the removed covers.
22. Align the Label (IC Card Reader Wing) to the position on the Wing Table as shown in the figure, and affix it. (Figure 17)
    (1) Place A5 size paper (fold A4 size paper in half) as shown in the following figure.
    (2) Place the Label (IC Card Reader Wing) next to the A5 paper.

(3) Peel off the seal halfway and affix the Label.

(4) Peel off the remaining seal and affix the Label.

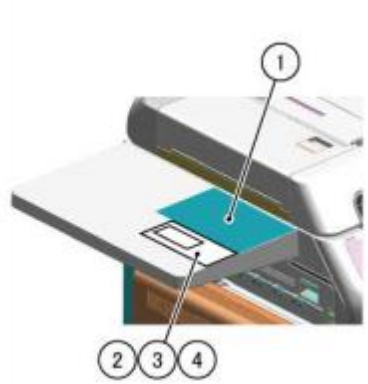


Figure 17 mh910058

23. Reconnect the Power Cord and return the Device to its installation location.
24. Enter the UI Diag Mode and change the following NVM.
    - Set the value of NVM: 700-495 to "1". (XCP enabled/disabled information)
    - Set the value of NVM: 700-257 to "2". (This sets the USB IC Card Device usage to "use in Job Control/PKI".)
    - Set the value of NVM: 700-040 to "1". (Use of ICCR Embedded Feature Availability Data)
    - Set NVM: 700-885 to a value in Table 1 shown below according to the Card Reader type.

Reader Type	Value of 700-885	Remarks
B	1	Global Corp. OMNIKEY 5127CK MINI
D	1	FFIS Co., Ltd. ICCR

25. If you do not want the Device to beep at the insertion/removal of IC Card, change the following NVM value.
    - Change the value of NVM: 700-683 to "0" (Disabled).
    - The default value is "1" (Enabled).

    The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
700-040	IC Card Reader Embedded Feature Availability Data	0: Do not use 1: Use
700-257	USB IC Card Device Usage Setting	0: Do not use 1: Use in PKI only 2: Use in Job Control/PKI
700-495	PGS2 1 1 6 SGP Enable/Stop Information	0: Do not use 1: Use
700-683	IC Card Insertion/Removal Sounds	0: OFF 1: ON
700-885	Embedded IC card reader type settings	0: Default 1: OMNIKEY 5127CK MINI from Global/ICCR from FFIS

26. If this is to be used together with other accessories, enter the UI Diag Mode and change the following NVMs as required by the configuration.

    NOTE

    This product cannot be used together with accessories that are not listed in Table 2 below.

Chain Link No.	Value	Remarks
850-007	3	Combination of Embedded IC Card Reader and Dispenser 2 (Same values as when only Dispenser 2 is in use)
850-007	4	Combination of Embedded IC Card Reader and Coin Cashier (Same values as when only Coin Cashier is in use)

27. When using NFC (Near Field Communication), change the following NVM values.
    Set the value of NVM: 771-544 to "1".
    1: Enable the NFC.
    0: Disable the NFC.
28. Check the operation of the IC Card Reader.

Reader Type	Tool Number	Remarks
B	-	Cannot read the CE CARD.
D	499T 06622	IC Card for CE (FeliCa)

(1) Tap the IC Card to the IC Card Reader.

(2) Check that the authentication lamp turns ON.

(3) Check that a copy can be output.

29. Perform read settings for the card as required.

NOTE

As default, read is allowed for the CE Card only.

[For B Type]:

To prepare the device, connect it to the PC and perform settings for the Card Reader. (9.2.26.4)

[For B Type], [For D Type]:

In Internet Services > Properties > Security > Plug-in/Custom Services Settings > List of Embedded Plug-ins, check [IC Card Reader B Web Setup Plugin] or [IC Card Reader D], and press the Settings button to open the Card Scan Settings screen.

30. Record [Wing Table Kit: 192V] and [IC Card Reader B: 883V] or [IC Card Reader D: 885V] in the Service Report.

9.2.26.3 IC Card Reader (External Model)

Product Overview

IC Card Reader that is installed outside the Device

NOTE

Before installing the IC Card Reader B, perform the IC Card Reader preliminary settings. (9.2.26.4)

Product Code:

IC Card Reader B (External Model) (EC104665)

IC Card Reader D (External Model)(EC104664)

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

Installation Procedure

1. Before Starting

   - This section describes how to install it to the Accessory Table B (EC104204) as an example.

   NOTE

   For routing when installing on the Wing Table, refer to "9.2.26.2 IC Card Reader (Wing Embedded Model)".

2. Check the bundled items.

   [IC Card Reader B (External Model)]

   (1) IC Card Reader Box Top Cover : 1
   (2) IC Card Reader Box Bottom Cover : 1
   (3) USB Micro Cable (WT 1.2M) : 1
   (4) IC Card Reader B : 1
   (5) IC Card Reader Box Inner Cover : 1
   (6) Hook Fastener Tape : 4
   (7) Loop Fastener Tape : 4
   (8) Label (IC Card Reader) : 1
   (9) Label (FBKR) : 1
   (10) Label (INDONESIA) : 1

(11) Clamp : 2
(12) Clamp (Black) : 2
(13) INST USERS MNL : 1

[IC Card Reader D (External model)]
(1) IC Card Reader Box Top Cover : 1
(2) IC Card Reader Box Bottom Cover : 1
(3) USB Mini Cable (WT 1.2M) : 1
(4) IC Card Reader D : 1
(5) IC Card Reader Box Inner Cover : 1
(6) Hook Fastener Tape : 4
(7) Loop Fastener Tape : 4
(8) Label (IC Card Reader) : 1
(9) Clamp : 2
(10) Clamp (Black) : 2
(11) INST USERS MNL : 1

3. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the power plug, and wait about 30 seconds before starting the operation.
4. [For IC Card Reader B (External Model)] Install the IC Card Reader Box Inner Cover to the IC Card Reader Box Top Cover. (Figure 1)

NOTE
[
(For IC Card Reader D (External Model) Go to Step 7.



Figure 1 bi912257

5. Install the IC Card Reader B. (Figure 2)
   (1) Install the IC Card Reader B.
   (2) Connect the USB Micro Cable (WT 1.2M) to the IC Card Reader B.
   (3) Install the retainer of the USB Micro Cable (WT 1.2M) to the groove of the IC Card Reader Box Top Cover.

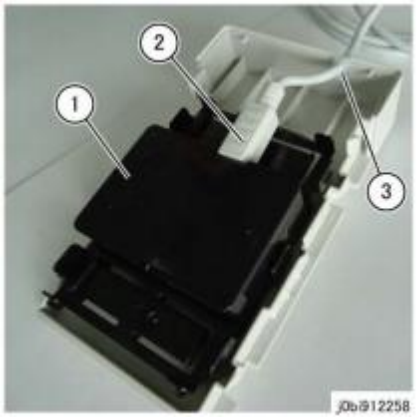


Figure 2 bi912258

6. Install the IC Card Reader Box Bottom Cover and proceed to Step 10. (Figure 3)



Figure 3 gre920249

7. [For IC Card Reader D (External Model)] Install the IC Card Reader Box Inner Cover to the IC Card Reader Box Top Cover. (Figure 4)



Figure 4 bi912266

8. [FB Only]
Install the IC Card Reader D. (Figure 5)

(1) Install the IC Card Reader D to the IC Card Reader Box Top Cover.

(2) Connect the USB Mini Cable (WT 1.2M) to the IC Card Reader D.



Figure 5 bi912267

9. Install the IC Card Reader Box Bottom Cover. (Figure 6)



Figure 6 gre920250

10. Attach the Hook Fastener Tape and the Loop Fastener Tape.

(1) Overlap the Hook Fastener Tape on the Loop Fastener Tape and affix them to the IC Card Reader Box Bottom Cover. (Figure 7)

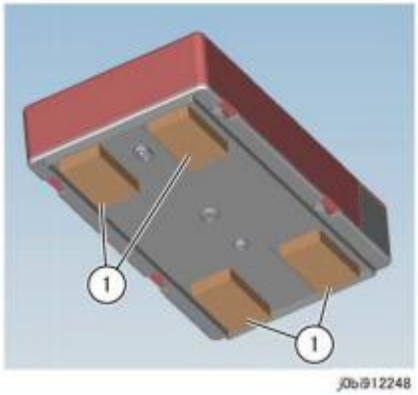


Figure 7 bi912248

11. Install the Accessory Table B. (Figure 8)

(1) Loosely affix the Thumbscrew (x2) to the screw hole (x2 locations) at the front.

NOTE
Do not use the 3rd Screw Hole from the front.

(2) Move the Option Tray S to the front and insert the Thumbscrew into the Screw Holes at 2 locations on the rear.

NOTE
Do not use the 1st Screw Hole from the front of Option Tray S.

(3) Install the Thumbscrew (x2).

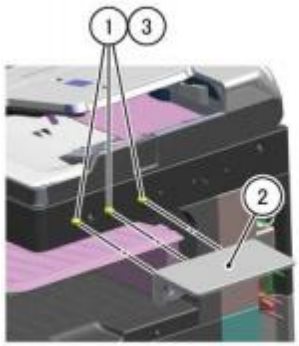


Figure 8 mnl910057

12. [Connecting the USB connector of the Main Unit]

(1) Connect the USB cable of the IC Card Reader to the USB Host port of the Control Unit, and go to Step 17. (Figure 9)

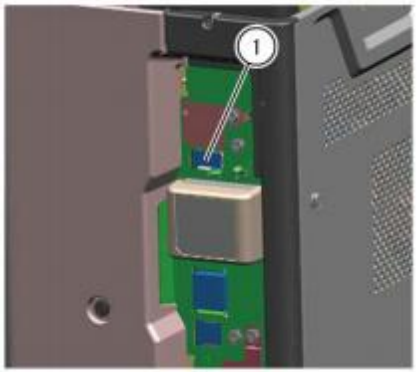


Figure 9 mnl910036

13. [When Connecting to USB Expansion Kit]
Remove the following parts:
- Remove the Rear Cover. (REP 19.2.1)
- Remove the RH Rear Cover. (Figure 10)

(1) Remove the screw.

(2) Remove the RH Rear Cover.

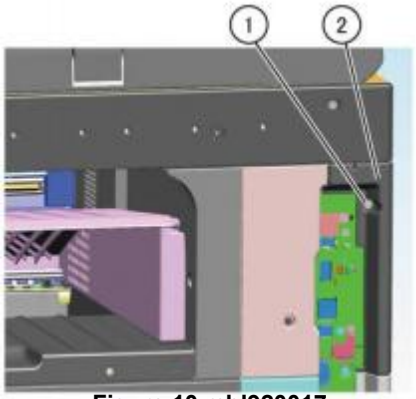


Figure 10 mbl920017

14. Connect the USB Expansion Kit to the connector. (Figure 11)

(1) Connect the connector.

(2) Process the clamp with cable ties.

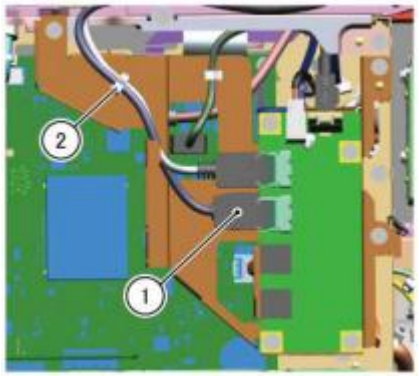


Figure 11 mnl910097

15. Route the USB cable. (Figure 12)
    (1) Route the USB Cable inside the Device.
    (2) Pass the USB Cable through the hole of the cover.

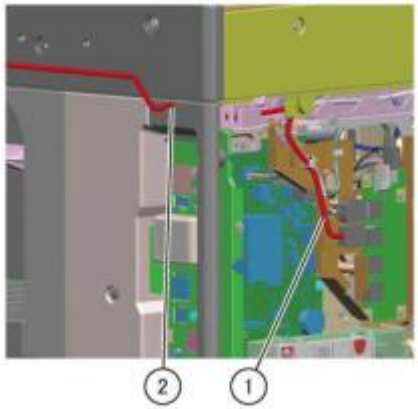


Figure 12 mbl920021

16. Reinstall the removed covers.
17. Route the USB Cable. Secure it by using the clamp as required.

18. Install the IC Card Reader to Accessory Table B. (Figure 13)

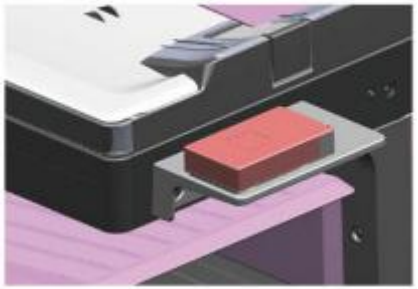


Figure 13 mnl910059

19. Affix the label (IC Card Reader) to the IC Card Reader Cover. (Figure 14)

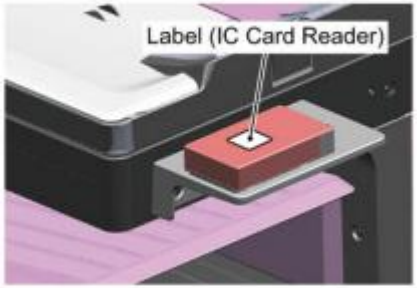


Figure 14 mnl910060

20. Reconnect the Power Cord and return the Device to its installation location.
21. Enter the UI Diag Mode and change the following NVM.
    - Set the value of NVM: 700-495 to "1". (XCP enabled/disabled information)
    - Set the value of NVM: 700-257 to "2". (This sets the USB IC Card Device usage to "use in Job Control/PKI".)
    - Set the value of NVM: 700-040 to "1". (Use of ICCR Embedded Feature Availability Data)

- Set NVM: 700-885 to a value in Table 1 shown below according to the Card Reader type.

Reader Type	Value of 700-885	Remarks
B	1	Global Corp . OMNIKEY 5 1 2 7 CK MINI
D	1	FFIS Co ., Ltd . ICCR

22. If you do not want the Device to beep at the insertion/removal of IC Card, change the following NVM value.
    - Change the value of NVM: 700-683 to "0" (Disabled).
    - The default value is "1" (Enabled).

    The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
700-040	IC Card Reader Embedded Feature Availability Data	0 : Do not use 1: Use
700-257	USB IC Card Device Usage Setting	0 : Do not use 1: Use in PKI only 2: Use in Job Control/PKI
700-495	PGS2 1 1 6 SGP Enable/ Stop Information	0 : Do not use 1: Use
700-683	IC Card Insertion/ Removal Sounds	0: OFF 1: ON
700-885	Embedded IC card reader type settings	0 : Default 1: OMNIKEY 5127CK MINI from Global/ ICCR from FFIS

23. If this is to be used together with other accessories, enter the UI Diag Mode and change the following NVMs as required by the configuration.

    NOTE
    This product cannot be used together with accessories that are not listed in Table 2 below.

Chain Link No.	Value	Remarks
850-007	3	Combination of Embedded IC Card Reader and Dispenser 2 (Same values as when only Dispenser 2 is in use)
850-007	4	Combination of Embedded IC Card Reader and Coin Cashier (Same values as when only Coin Cashier is in use)

24. When using NFC (Near Field Communication), change the following NVM values.
    Set the value of NVM: 771-544 to "1".
    1: Enable the NFC.
    0: Disable the NFC.

    NOTE
    However, take note as NFC is a UI standard configuration.
    Both has no difference in functions and can be used together.

25. Check the operation of the IC Card Reader.

Reader Type	Tool Number	Remarks
B	-	Cannot read the CE CARD.
D	499T 06622	IC Card for CE (FeliCa)

    (1) Tap the IC Card to the IC Card Reader.
    (2) Check that the authentication lamp turns ON.
    (3) Check that a copy can be output.

26. Perform read settings for the card as required.

    NOTE
    As default, read is allowed for the CE Card only.
    [For B Type]:
    To prepare the device, connect it to the PC and perform settings for the Card Reader. (9.2.26.4)
    [For B Type], [For D Type]:
    In Internet Services > Properties > Security > Plug-in/Custom Services Settings > List of Embedded Plug-ins, check [IC Card Reader B Web Setup Plugin] or [IC Card Reader D], and press the Settings button to open the Card Scan Settings screen.

27. Record "IC Card Reader B: 883V, IC Card Reader D: 885V" in the Service Report.

9.2.26.4 Presetting of IC Card Reader [B Type]

Purpose

Before installing the following IC card reader B (OMNIKEY 5127 CK-MINI card reader), connect it to a PC and change the settings with EEM (card reader setting tool for OMNIKEY 5x27) so that you may start using it.

- IC Card Reader B (Main Unit Embedded Model) (EC104662)
- IC Card Reader B (Wing Embedded Model) (EC104663)
- IC Card Reader B (External Model) (EC104665)

Installation of driver for OMNIKEY 5127 CK-MINI card reader

Procedure

1. Visit the Drivers and Downloads page of the HID Global Corporation website.
   http://www.hidglobal.com/drivers
2. Select the following from the above website. (Figure 1)
   (1) Select OMNIKEY from the Brand pull-down menu.
   (2) Select [5127CK CCID & Keyboard Wedge Reader Board] from the Product pull-down menu.
   (3) Select name of the operating system from the OS pull-down menu.



Figure 1 bi912290

3. Select EEM DRIVER from the displayed drivers, accept it on the license agreement screen, and then download it to any location. (Figure 2)

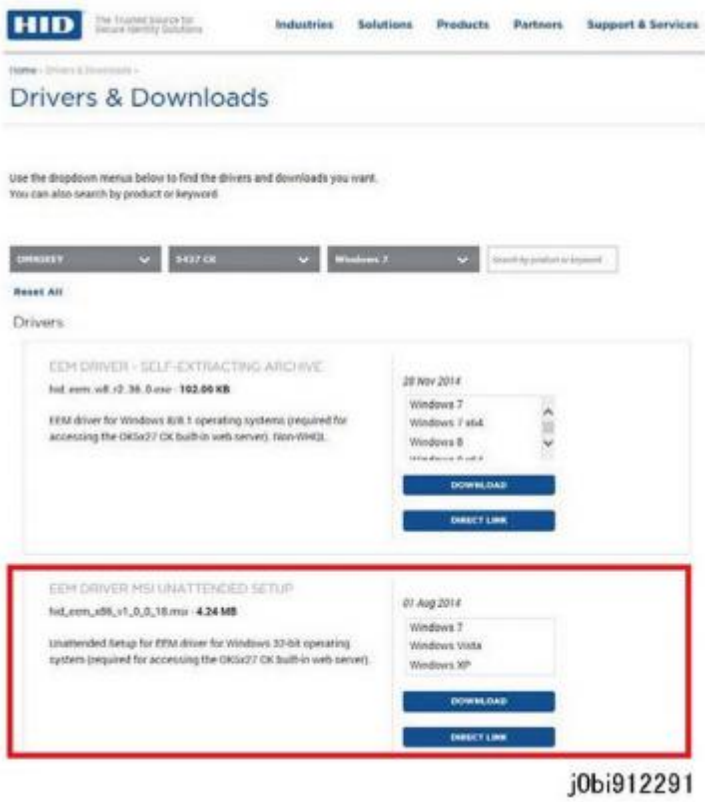


Figure 2 bi912291

4. Double-click on the downloaded file to automatically launch the installation dialog box and install it. (Figure 3) (Figure 4)

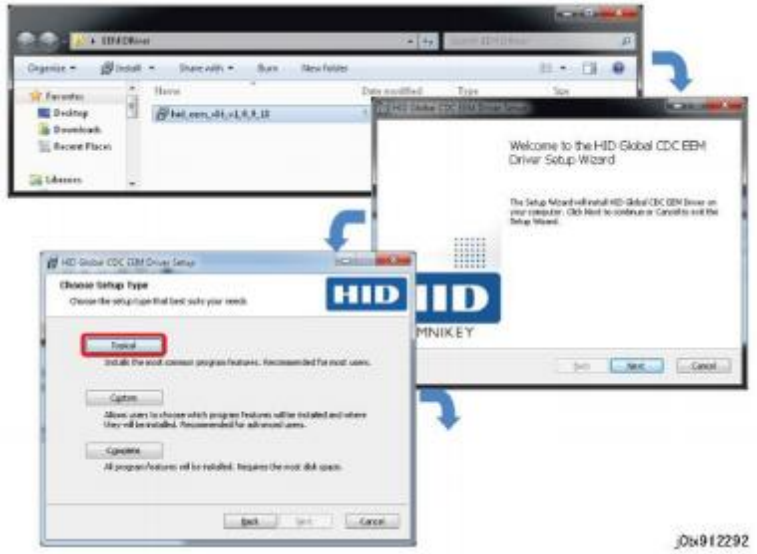


Figure 3 bi912292



Figure 4 bi912293

Changing the settings of IC Card Reader B (OMNIKEY 5127 CK-MINI card reader)

After completing the driver installation, connect the OMNIKEY 5127 CK-MINI card reader to your PC and change the settings with EEM (card reader setting tool for OMNIKEY 5x27).

Procedure

1. Connect the OMNIKEY 5127 CK-MINI card reader to the USB port of your PC, activate your web browser, and enter http://192. 168.63.99/ to display the screen below. (Figure 5)

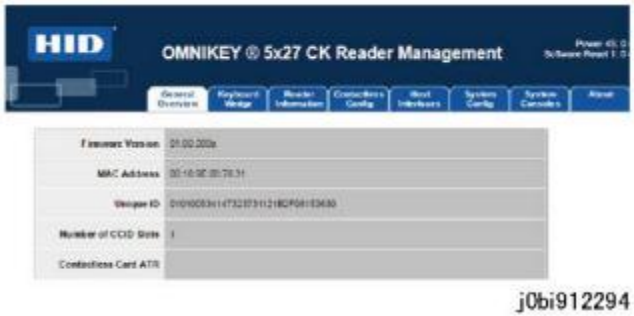


Figure 5 bi912294

2. Select and set the Keyboard Wedge tab. (Figure 6)
   (1) In the General Config tab, turn ON the Keyboard Wedge Enable checkbox to enable it, and confirm that the string has turned green.
   (2) Uncheck the box of Tech order after error to disable it.

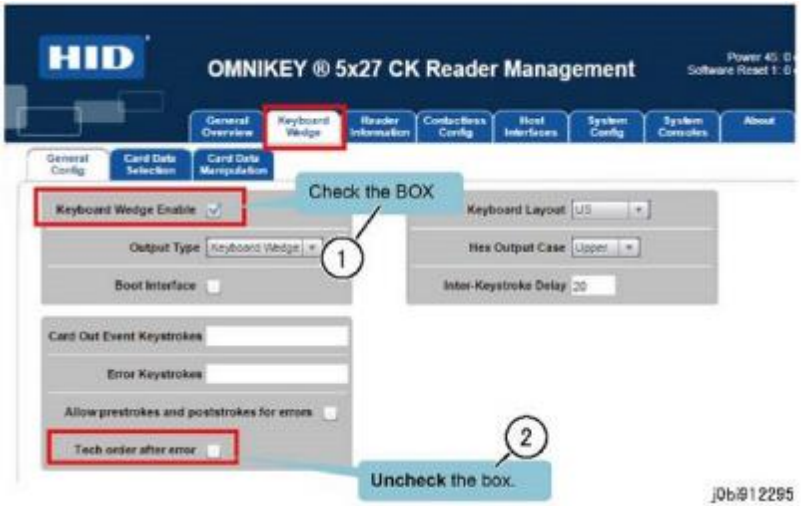


Figure 6 bi912295

3. Select the System Config tab and click Apply Changes to save your settings. (Figure 7)



Figure 7 bi912296

4. Select Reboot System to save the settings. (Figure 8)

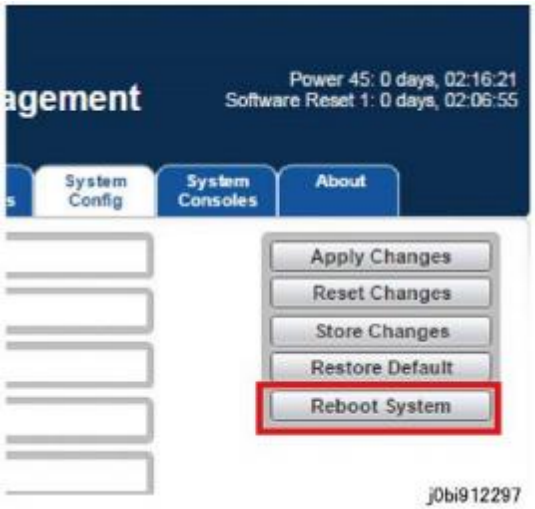


Figure 8 bi912297

5. If you want to stop Buzzer, follow the procedure below. (Figure 9)
   (1) Select "Clear Sequence".
   (2) Select "Clear Automatic".
   (3) Uncheck Buzzer.
   (4) Select "Save Sequence".
   (5) Select "Run Sequence".
   (6) Select "Set Automatic".
   (7) Select the System Config tab.

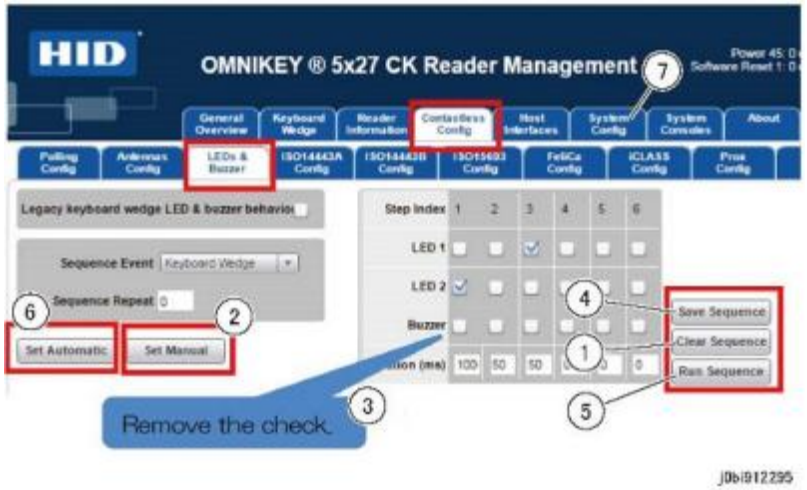


Figure 9 bi912298

   (8) Select "Apply Changes".
   (9) Select "Reboot".

6. If the MFD Operation Active takes a long time after swiping the card, the authentication time can be shortened by typing [ENTER] in the CSN or PACS [Poststrokes] field. (Figure 10)

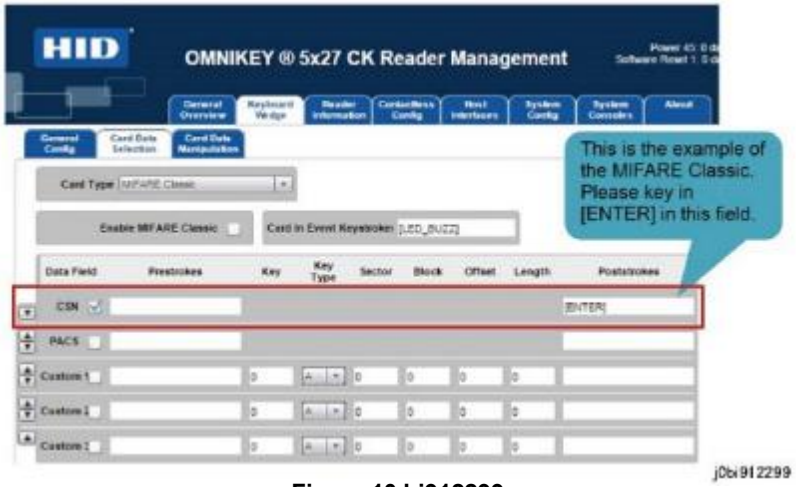


Figure 10 bi912299

Below is the information on another card. (Figure 11)

	Data Field			
	CSN	PACS	FASC-N	CAN
• FSK Prox • PSK Prox • ASK Prox	-	Input [ENTER] to Poststrokes	-	-
• Seos • HID iClass • MIFARE Classic • MIFARE Desfire EV1 • Generic ISO14443A • Generic ISO14443B • Generic ISO15693	Input [ENTER] to Poststrokes	No check	-	-
• MIFARE Ultralight • MIFARE Desfire • MIFARE Plus • FeliCa		-	-	-
• PIV		-	No check	
• CEPAS		-	-	No check

j0bi912300

Figure 11 bi912300

The setting of OMNIKEY 5127 CK-MINI card reader using EEM is completed.

The settings of IC Card Reader B (OMNIKEY 5127 CK-MINI card reader) can be changed by uploading the setting file.

1. Insert the configuration file in the [Upload Config] field and select [Upload Config]. (Figure 12)

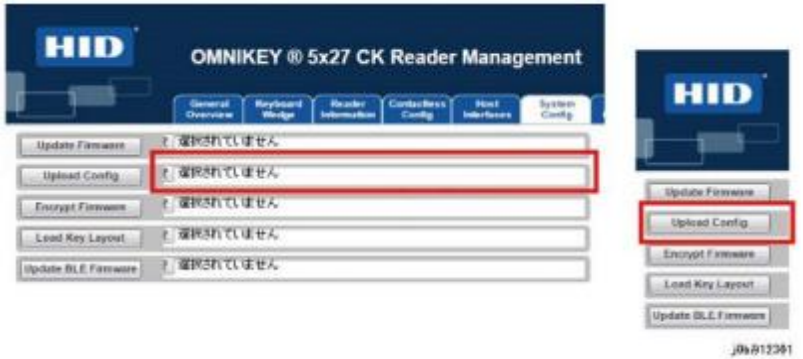


Figure 12 bi912301

The setting of OMNIKEY 5127 CK-MINI card reader using EEM is completed.

9.2.27 Face Authentication System Kit

Before Starting

- When installing this kit, [9.2.24 Wing Table (EC104369)] has to be installed.
- When using with an IC card reader, it is necessary to install an IC card reader in advance. (9.2.26.1 IC Card Reader (Main Unit Embedded Model), 9.2.26.2 IC Card Reader (Wing Embedded Model), 9.2.26.3 IC Card Reader (External Model))

Product Code

- Face Authentication System Type A Plug-in: EC104233
- Face Authentication System Type A Camera Set: EC104234
- Face Authentication System Type A Server Set: EC104235
- Face Authentication System Type A Face Authentication Engine Annual License: EC104236
- Face Authentication System Type A Face Authentication Management Software Annual License: EC104237

Installation Procedure

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. Check the bundled items.
   (1) Face Authentication System Type A Plug-in
   - Fasteners / clamps / seals
   - Installation procedure form
   - Installation jig label
   - Introduction (A4)
   - License Agreement (B4)
   - Label kit

   (2) Face Authentication System Type A Camera Set
   (3) Face Authentication System Type A Server Set
   (4) Face Authentication System Type A Face Authentication Engine Annual License
   (5) Face Authentication System Type A Face Authentication Management Software Annual License
2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
3. Take the camera stand out of the camera set and disassemble it into three parts. (Figure 1)



Figure 1 bta910027

4. Attach the camera installation part to the pedestal. (Figure 2)

NOTE
Discard unnecessary parts.



Figure 2 bta910028

5. Take out the camera body from the camera set and attach it to the camera installation part. (Figure 3)



Figure 3 bta910029

6. Attach the power cable to the back of the camera and check that the LED at the bottom of the camera lights up. (Figure 4)

NOTE
To turn OFF the power, disconnect the power cable as it is.



Figure 4 bta910030

7. Disconnect the power cable.
8. Attach the AC adapter to the back of the server. (Figure 5)



Figure 5 bta910031

9. Press the power button on the server and check that the power button lights up. (Figure 6)

NOTE
To turn OFF the power, press and hold the power button.

NOTE

The location of the server should be decided in consultation with the customer. Do not install the server in a location that is exposed to the sun or on top of a Wing Tray (may be too heavy).



Figure 6 bta910032

10. Remove the Bottom Cover of the Wing Table. (Figure 7)
    (1) Remove the screw (x5).
    (2) Remove the Bottom Cover.

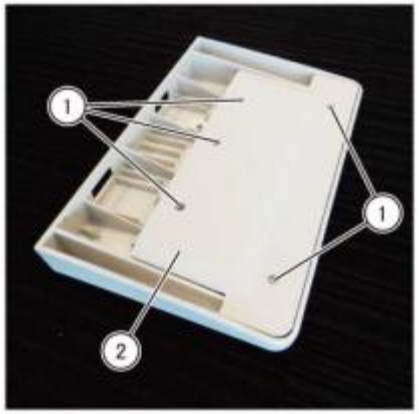


Figure 7 bta910033

11. Pull the power cable and LAN cable around for routing to the back of the Wing Table. (Figure 8)
    (1) Pull the power cable and LAN cable around for routing to the back of the Wing Table.
    (2) Secure it by using the clamp (x2).

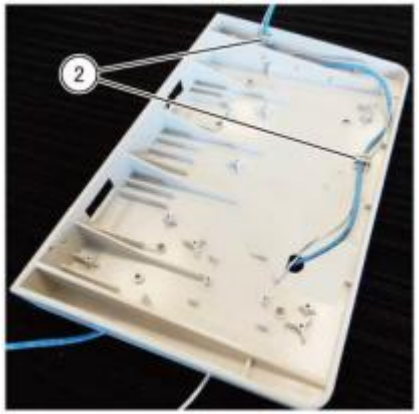


Figure 8 gre920228

12. Install the Bottom Cover of the Wing Table.
13. Install the Wing Table to the Main Unit. (9.2.24 Wing Table)
14. Install the power cable and LAN cable to the camera. (Figure 9)
    (1) Install the power cable.
    (2) Install the LAN Cable.



Figure 9 bta910036

15. Affix the logo masking seal. (Figure 10)

(1) Affix the logo masking seal.



Figure 10 bta910037

16. Affix the pedestal hole concealing sticker. (Figure 11)
    (1) Affix the pedestal hole concealing sticker.



Figure 11 bta910038

17. Fix the cables to the back of the main unit with Clamp (x2). (Figure 12)
    (1) Fix the cables to the main unit with Clamp (x2).

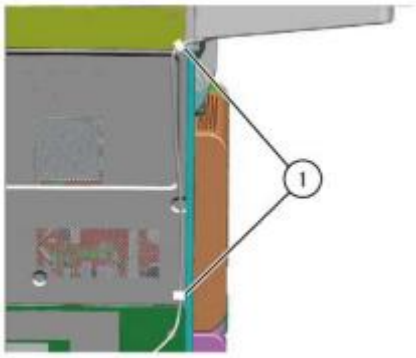


Figure 12 mbl910094

18. [When not using an IC Card Reader (Wing Embedded Model)]
    Affix the camera installation jig label. (Figure 13)
    (1) Align the camera installation jig label with the position shown in the figure and affix it to the Wing Table.
    (2) Peel off the base paper 1.
    (3) Peel off the base paper 2.

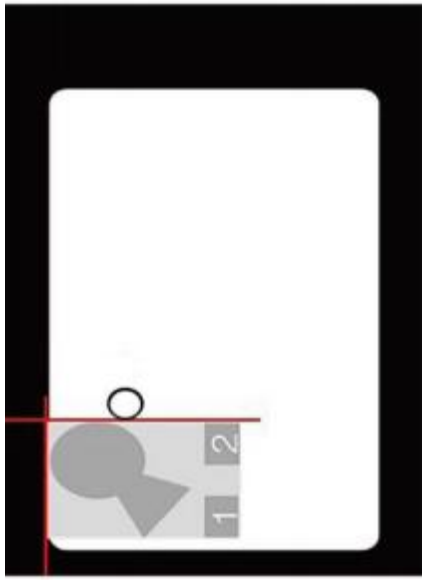


Figure 13 gre920229

19. [When using an IC Card Reader (Wing Embedded Model)]
Affix the camera installation jig label. (Figure 14)
    (1) Align the camera installation procedure paper with the position shown in the figure with the print side facing up.
    (2) Align the camera installation jig label with the position shown in the figure and affix it to the Wing Table.
    (3) Peel off the base paper 1.
    (4) Peel off the base paper 2.

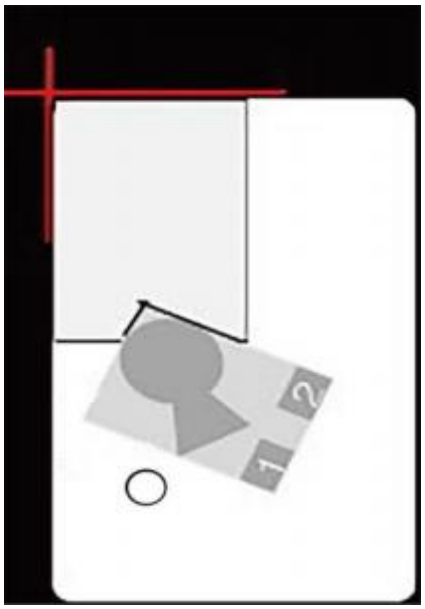


Figure 14 gre920230

20. Align the pedestal of the camera with the jig for installing the camera and attach it. (Figure 15)
    (1) Affix the fasteners to the notches (3 locations) on the camera installation jig label.
    (2) Peel off the zipper release paper.
    (3) Align the pedestal of the camera with the jig for installing the camera and attach it.

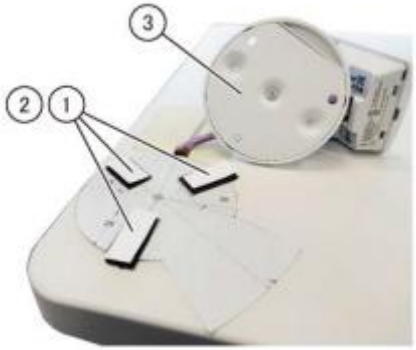


Figure 15 bta910042

21. Align the camera with the camera installation jig. (Figure 16)



Figure 16 sbm910013

22. Restore the connection of the power plug of the multifunction device and turn ON the power.
23. Install the Face Authentication plug-in on the multifunction device.
24. Print the Configuration Report and check that the External authentication plugin in the List of Embedded Plug-ins list is activated.
25. Enter UI Diag mode and change the following NVM values according to usage of the customer.

- Value of NVM: 703- 178 (authentication control method)

  0 → Face Authentication (Default): The multifunction device can be used if authentication using Face Authentication is successful.
  1 → OR Authentication: The multifunction device can be used if authentication using IC Card or Face Authentication is successful.
  2 → AND Authentication: The multifunction device can be used if authentication using both IC Card and Face Authentication is successful.

NOTE

If the Chain-Link does not exist, Face Authentication will be used.

- Value of NVM: 703- 179 (user ID omitted when logging in to the keyboard)

  0 → Do not omit (default)
  1 → Omit

26. [When using Face Authentication only and OR Authentication]
Enter the System Administrator ID [11111] from the keyboard and confirm that you can log in.

27. [When using AND authentication]
Prepare the System Administrator's IC card and user ID / password. After holding the IC card of the System Administrator over the device, enter the user ID / password of the System Administrator and confirm that you can log in.

NOTE

Enter the password if necessary.

(1) Ask the customer to decide the System Administrator.

(2) From the menu at the top of Internet Services, select [Authentication/Accounting/Permission Settings] > [User Account List] > [11111]. (Figure 17)

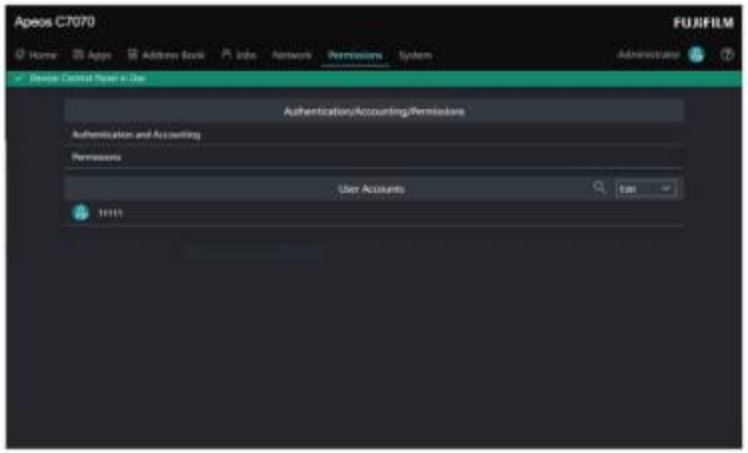


Figure 17 gre920223

(3) Press the user information setting button and set the administrator's IC card ID in the user ID field. (Figure 18) (Figure 19)

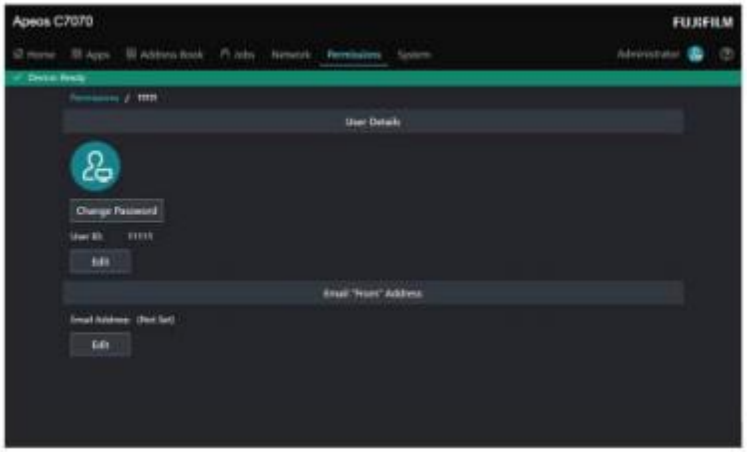


Figure 18 gre920224

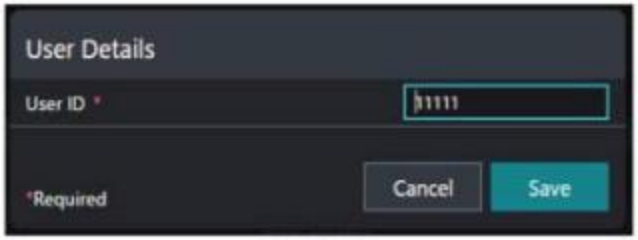


Figure 19 gre920225

(4) Restart the multifunction device.

(5) Hold the IC card of the System Administrator over the device, and then enter the user ID / password of the System Administrator from the keyboard button. (Figure 20) (Figure 21)

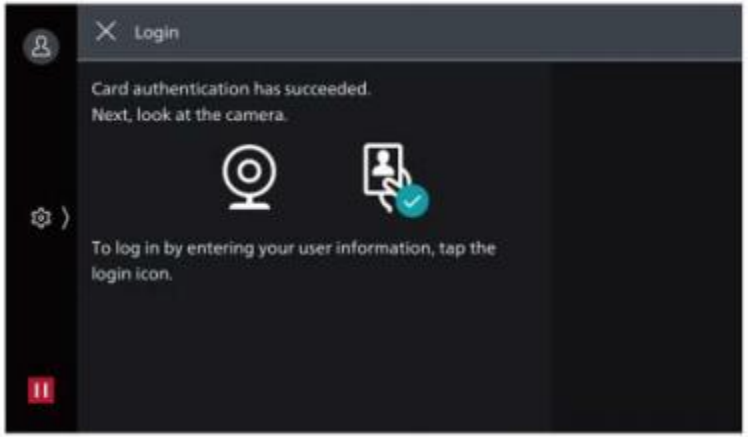


Figure 20 gre920226



Figure 21 gre920227

(6) Confirm that the System Administrator can log in.

28. Record "Face Authentication System Type A Camera Set: 887V, Face Authentication System Type A Server Set: 888V" in the Service Report.

9.2.28 4Gnet-BOX

Before Starting

- Refer to the 4Gnet-BOX Service Manual for the detailed procedures and settings.

Product Code

Product Name	Product Code
4 Gnet- BOX	Q9100016 / Q9100020

Procedures before servicing

Up to 2 USB devices can be connected to the Main Unit, excluding the Fax Kit. When connecting 3 USB devices including 4Gnet-BOX, install the following kit in advance. Refer to: [9.2.11] USB Expansion Kit

Product Name	Product Code
USB Expansion Kit	EC104643

Also, if necessary, prepare the table [9.2.24, 9.2.25] and other items according to the installation position and perform installation.

NOTE

To avoid communication interference or malfunction, do not install the 4Gnet-BOX near the Motor Drive PWB on the rear side of the Device. (Figure 1)

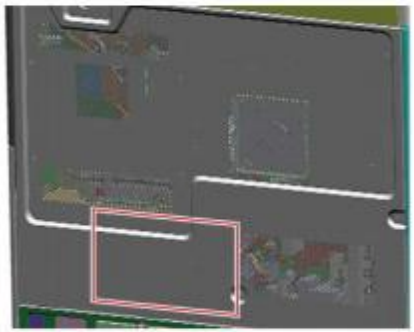


Figure 1 mnl910037

Installation Procedure

WARNING

As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

1. Check the bundled items. (Figure 2)

Table 1 [4Gnet-BOX Bundled Items]

No.	Name	Qty
1	4 Gnet- BOX Main Unit	1
2	USB Cable (mini- USB 1 . 5 m)	1
3	Fastener (Magic Tape) x 4	4
4	User Guide (A4 2 Sided, Single Fold)	1
5	SIM Card	2



Figure 2 ho201005

2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.

3. Install the SIM Card to the 4Gnet-BOX.
   (1) Remove the SIM cover screw and open the SIM cover. (Figure 3)



Figure 3 ho201002

   (2) Remove the SIM card. (Figure 4)



Figure 4 be201004

(3) With the SIM card terminal face up, insert the SIM card straight into the SIM connector from the edge with the corner cut diagonally. (Figure 5)



Figure 5 ho201001

(4) Close the SIM cover and tighten the screw.

4. Affix the bundled fastener to the 4 corners underneath the 4Gnet-BOX. (Figure 6)

NOTE

Make sure to not cover the screw hole (x2).



Figure 6 be201008

5. Secure the 4Gnet-BOX to its designated installation position using the fastener (x4).

NOTE

Peel off the liner of the fastener (x4), mount the 4Gnet-BOX to its designated installation position, then press it down lightly and ensure that the fastener is stuck firmly in place.

NOTE

Secure the installation space around the antenna with the 4Gnet-BOX antenna upright, and keep it away from anything that shields the antenna, including the Device. For the installation space of 4Gnet-BOX, refer to the 4Gnet-BOX Service Manual.

6. [Connecting the USB connector of the Main Unit]

(1) Connect the USB Cable to the Control Unit USB Port. (Figure 7)

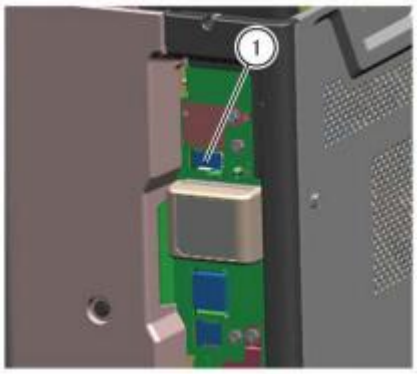


Figure 7 mnl910036

7. Connect the Mini A Plug side of USB Cable to the Mini USB connector on the 4Gnet-BOX. (Figure 8)



Figure 8 ho201003

8. Install the 4Gnet-BOX at any position and go to Step 13.

9. [When connecting to the USB Expansion Kit] (Refer to 9.2.11 for the installation of the USB Expansion Kit)

NOTE

When connecting to the USB Expansion Kit, install the Wing Table (9.2.24), and install the 4Gnet-BOX on top of the Wing Table.

Remove the following parts:

- Remove the Rear Cover. (REP 19.2.1)
- Remove the LH Rear Cover. (Figure 9)
  (1) Remove the screw (x2).
  (2) Remove the LH Rear Cover.

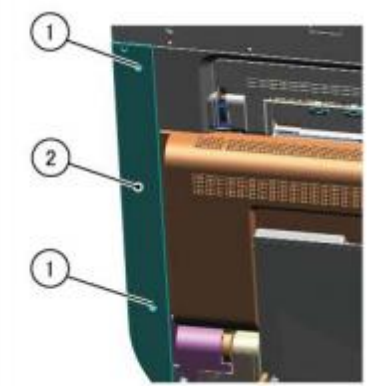


Figure 9 mnl910032

10. Remove the Blind Cover of the Cover that was removed. (Figure 10)

NOTE

Cut the Blind Cover with nippers, etc. so that there may be no protrusions on the cut surface.

If any burrs remain on the cut surface, remove them cleanly.



Figure 10 mnl910038

11. Connect the USB Expansion Kit to the connector. (Figure 11)
  (1) Connect the connector.
  (2) Process the clamp with cable ties.

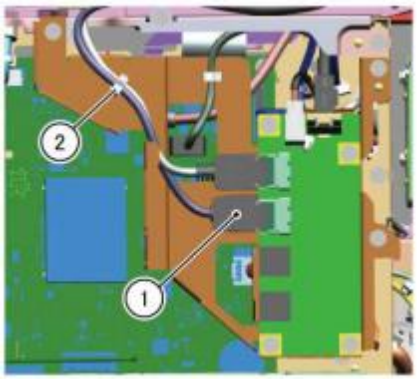


Figure 11 mnl910097

12. Route the USB cable. (Figure 12)
  (1) Route the USB Cable inside the Device.

(2) Pass the USB Cable through the guide.

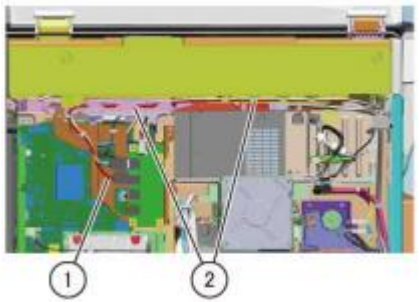


Figure 12 mbl920019

13. Install the 4Gnet-BOX on the Wing Table. (Figure 12)
    (1) Install the affix-type clamp (x2).
    (2) Pass the connector through the hole in the cover.
    (3) Process the clamp with cable ties.
    (4) Connect the 4Gnet-BOX to the connector, and install on the Wing Table.

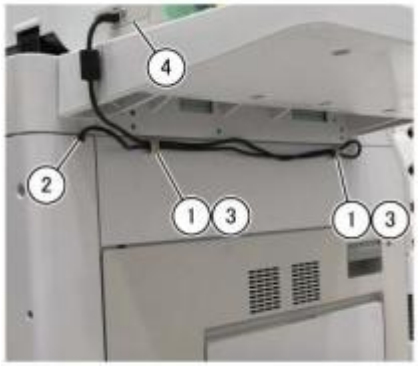


Figure 13 shb910198

14. Reinstall the removed covers.
15. Plug in the power plug and turn ON the power switch.
16. Set APN for 4GNet-Box with NVM Read/Write of UI-Diag.

NOTE
Note that it is different from the settings for 3Gnet-Box.

(1) Enter Chain-Link 701-680: Modem settings (APN string).
(2) The content for setting: 4gnetbox-lte.fujixerox.co.jp

The meanings of NVM functions values are as follows.

NVM	Feature
701-680	Default setting is blank This can be used to specify the 3G Modem settings (APN string).

17. Use the following procedure to register EP-BB installation (use of 4Gnet-BOX).

NOTE
There is no need to specify a proxy server as the 4Gnet-BOX connects to the EP Center by using 4G communication line.

The 4Gnet-BOX will invalidate all proxy server related settings and firmware update function related settings described under [EP-BB Registration] in [Chapter 6 General].

(1) Enter the UI Diag mode and select [Device] → [Maintenance] → [Maintenance / Diagnostics] → [EP Service] → [EP Registration / Cancel Registration].
(2) Select [BB Registration].
(3) Put a check mark at [Use 4G/3Gnet-BOX], enter the [Staff ID] (Company Identifier + 5 digits), and select [Start]. (Figure 14)

NOTE
If the checkbox for [Use 4G/3Gnet-BOX] is not displayed on the [EP Registration / Cancel Registration] screen, it means that the 4Gnet-BOX is not recognized by the Device. Stop the installation and registration procedure, check the connection of the USB Cable between the Device and the 4Gnet-BOX, and check the Status LED of the 4Gnet-BOX.

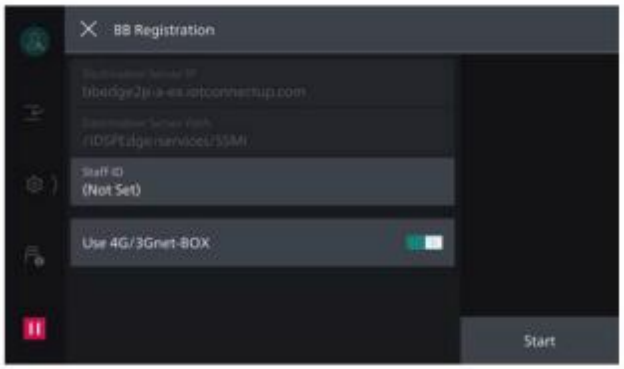


Figure 14 gre920232

(4) When the confirmation screen is displayed, check the contents and select [Start].

(5) [Registration is in progress.] message is displayed.

NOTE

If [Unable to start.] is displayed and BB registration does not start, check whether NVM (701-680: Modem settings (APN string)) is set correctly, and execute BB registration again. Also, if it is already registered, cancel it first and then register BB again.

(6) After approx. 1 minute and the [Successfully registered.] message is displayed, select [Confirm] to complete the EP-BB Registration.

NOTE

If the registration fails with the Fault Code displayed, refer to [Chapter 2 Troubleshooting] and take action. Also, if the [Registration is in progress.] message remains displayed without any progress for several minutes, turn OFF the power of the MFD, then restart it to check whether the NVM (701-680: Modem Settings (APN Character String)) is set correctly and try the [BB Registration] again. At that time, if "Unable to start." is displayed, execute [Cancel Registration] first and then execute [BB Registration] again.

(7) Exit UI Diag mode.

18. Create a report using [373V] (Q9100016) and [374V] (Q9100020) as the MOD for the Main Unit.

9.2.30 Localization Kit For Korea

Product Code

- EC104648

Installation Procedure

1. Check the bundled items.
   - DADF Label: 1
2. Affix the Label to the DADF Top Cover. (Figure 1)
   (1) Affix the Label at the following measurements.

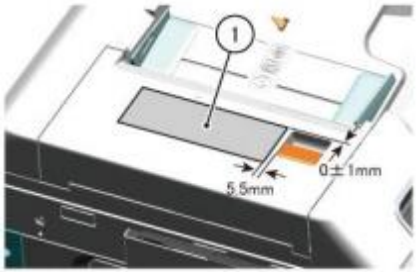


Figure 1 mbl910016

9.3 Installation of Software

9.3.1 Software key option product

Before Starting

- Though the software options are already bundled with the Device, they cannot be used because they were disabled at factory shipment.
- To use an optional feature, the customer will need to purchases the option, enter its Software Key into the machine, and then enable the feature.
- The Software Key installation procedure is common.
- As there are different methods to check whether an optional feature is enabled, refer to [Check Method after Installation] in the following table to check.

Installation Procedure

Always create a report with the MOD No. after an installation.

Installation Method

[Auto]

Refer to the following procedure for installation.

- [9.4.1] Looking Up the SCC/Software Key to be Entered (Internet Version)
- [9.4.2] Looking Up the SCC/Software Key to be Entered (Intranet Version)
- [9.4.3] SCC/Software Key Auto Deploy Initial Settings
- [9.4.4] Search SCC/Software Key from App
- [9.4.5] Deploy SCC Key Automatically from App
- [9.4.6] Deploy Option Software Key Automatically from App
- [9.4.7] When the Connection to SW Key Issuing System has Failed
- [9.4.8] Search SCC/Software Key from App (Connection Failed)
- [9.4.9] Deploy SCC Key Automatically from App (Connection Failed)
- [9.4. 10] Deploy Option Software Key Automatically from App (Connection Failed)

[Manual]

1. Enter the System Administrator Mode.
2. Select [Device] → [Maintenance] → [Software Options].
3. Enter the Software Key and select [Reboot]. (The Device will restart.)

Table 1 List of Software Key Option Products Provided for this Product

Software Product Name	Feature/Characteristics	Conditions/Notes	Check Method after Installation	MOD No.
Printer Kit	Enables the document print feature.		Perform sample print.	210V

Table 1 List of Software Key Option Products Provided for this Product

Software Product Name	Feature/Characteristics	Conditions/Notes	Check Method after Installation	MOD No.
Adobe PostScript 3 Kit (Heisei 2 Font)	Enables usage of [Adobe PostScript].	Requirement: Printer Kit FBAP should be used in combination with Label Kit (ED201136).	Print the Configuration Report and check that "PostScript" is shown at the bottom of the report or under [Print Service Settings] > [General] > [Page Description Language (PDL)].	213V
Multi- Language Font Kit	Supports Unicode (UTF8) output from infrastructure output systems such as SAP.	Requirement: Printer Kit	Print the Configuration Report and verify that this Kit is functioning.	215V
Serverless Print- On-Demand Kit	Installing the Server-less On-Demand Print Kit to an MFD enables it to output Jobs that are allocated to it at another MFD when it is busy.	• Requirement: Printer Kit, SSD	Refer to the manual issued by Support Group. http://download.tsc.ksp.fujixerox.co.jp/	229V
Scanner Kit	Enables the document scan feature		Verify that [Scan to Folder] is displayed on the [Home] screen.	195V
PDF Searchable Image Kit	This enables the search feature by performing OCR process during the scan and adding the text information into the generated PDF.	Requirement: Scanner Kit	Check the scan operation .	223V
IP Fax (SIP) Kit IP Fax [SIP] Kit	Enables communication between fellow IP Fax Devices through a network. Possesses the NGN IP Fax feature.	For details, refer to [9.3.2 IP Fax (SIP) Kit].	Refer to [9.3.2 IP Fax (SIP) Kit].	256V

Table 1 List of Software Key Option Products Provided for this Product

Software Product Name	Feature/Characteristics	Conditions/Notes	Check Method after Installation	MOD No.
Watermark Extension Kit (Copy Management Expansion Kit)	This adds to the Annotation function the capability to use the Sakura Paper Copy, Force Sakura Print, and Background Numbering. It is also for preventing the reproduction of confidential documents by enabling the printing of date, time, and number on all pages.	Requirement: SSD	Print the Configuration Report and check that the items shown in 1st sheet > under [System Settings] > [Watermark] now follows those of <After Change>. ▪ <Before Change> - Watermark • Font Size • Font Color • Density ▪ <After Change> - Watermark • Watermark Effect / Font Size • Background Pattern / Font Color • Density • Text / Background Contrast - Force Watermark • Copy / Client Print Print Stored File Refer to 9.3.3 [Checking/Adjustment Procedure Upon Introduction of Watermark Extension Kit] and perform adjustment as required to achieve the optimal print status.	265V

Table 1 List of Software Key Option Products Provided for this Product

Software Product Name	Feature/Characteristics	Conditions/Notes	Check Method after Installation	MOD No.
Image Log Kit	This adds a Job Log - such as the Job Owner, the Usage Time, the Quantity, etc. for the purpose of billing/ management to the document images of the Job that was performed. Requires the Image Extension Kit.	• Requirement: SSD • There are two types of the Image Log Software Key, one for the Standard & Emulation and the other one for PostScript 3. Always enter the Image Log Software Key for PostScript 3 on the Devices installed with the PostScript 3 Kit. • When installing the PostScript 3 Kit to Devices installed with Image Log (Standard), always set the Image Log Software Key for PostScript 3, then install the PostScript 3 Kit. If the PostScript 3 Kit is installed without setting the key, the log data on the SSD will be cleared.	Enter the System Administrator Mode and verify that [Image Log] is displayed on the Common Settings screen.	268V
Image Log Kit (Adobe PostScript)	This adds a Job Log - such as the Job Owner, the Usage Time, the Quantity, etc. for the purpose of billing/ management to the document images of the Job that was performed. Requires the Image Extension Kit.	• Requirement: SSD • Only for Devices with Adobe PostScript 3. • There are two types of the Image Log Software Key, one for the Standard & Emulation and the other one for PostScript 3. Always enter the Image Log Software Key for PostScript 3 on the Devices installed with the PostScript 3 Kit. • When installing the PostScript 3 Kit to Devices installed with Image Log (Standard), always set the Image Log Software Key for PostScript 3, then install the PostScript 3 Kit. If the PostScript 3 Kit is installed without setting the key, the log data on the SSD will be cleared.	Enter the System Administrator Mode and verify that [Image Log] is displayed on the Common Settings screen.	268V
TC/SC Additional Fonts Kit	Font for TC/SC 4 Fonts . Provided for Greater China Office.	Requirement: Printer Kit	Print the Configuration Report and verify that this Kit is functioning.	---

Table 1 List of Software Key Option Products Provided for this Product

Software Product Name	Feature/Characteristics	Conditions/Notes	Check Method after Installation	MOD No.
Simple Scan Kit for Each Industry		Requirement: SSD, Scanner Kit Instruction Manual is bundled		820V
Remote Authentication Kit Remote Authentication Kit	Use of the multifunction device can be managed using the User ID managed on the External Authentication Server.	Requirement: Scanner Kit, SSD/Data Overwrite Kit (HDD)	Enter the CE mode, and make sure you can select remote authentication. Go to Device → Authentication/ Accounting → Authentication/ Security Settings → Authentication → Authentication Type → Remote Authentication	206V
Web Applications Kit External Access kit	Enables direct access to web applications and external services through a dedicated browser that is displayed on the Control Panel.	Requirement: Scanner Kit, SSD/Data Overwrite Kit (HDD)	Check that the external access icon is displayed on the UI.	224V
USB Memory Kit	Provides the Device with a feature that enables it to store Media Print and scanned documents into a USB memory stick.	The USB Cable Kit and Scanner Kit are required. For details, refer to 9.2.12 [USB Memory Kit].	Check if the [Scan to USB] is displayed on the [Home] screen.	241V

9.3.2 IP Fax (SIP) Kit

Before Starting

Installing the IP Fax (SIP) Kit enables the following:

1. Communication between fellow IP Fax machines (*1) through a network.
2. Communication between IP Fax and G3 Fax while connected through a public line
3. IP Fax communication using SIP Server (*2)
4. NGN IP Fax Feature

*1: Communication capability verified by Ricoh and Canon Models with ITU-T T.38 support.
For details, please refer to the sales and marketing support site [ACROSS].
*2: There might be cases where this is unusable due to the IP Network environment and the type of SIP Server and VoIP Gateways.

Product Code

FB:EL201251

FBAP:EL201272

Installation Procedure

WARNING
As active jobs may be lost and there is a risk of electrical shock to the operator, turn OFF the power by following the procedure described below.

! CAUTION
Always wear a wrist band (anti-static tool) to protect electrical parts from static damage.

NOTE
Do not touch the plated terminal on the electrical parts directly with your bare hands.

1. Check the Bundled Items
   (1) S/W Key Option License Agreement (Passcode)
   (2) IP Fax (SIP) Kit User Guide
   (3) CD-ROM (Direct Fax Driver, Fax Address Book Tool, ART EX Printer Driver)
2. If the power is ON, turn OFF the power, make sure that the screen display turns OFF, and unplug the power plug.
   (1) By pressing the [Job Status] icon (Job Status Screen), check that there are no jobs in progress/waiting in the queue.
   (2) Press the <Power> button, and select [Power Off Device] on the UI screen.
   (3) Make sure that the screen display turns off and the <Power> button stops blinking.
   (4) Unplug the Power Plug and wait for about 30 seconds before starting the operation.
3. Install the required options by referring to the procedures.
4. Plug in the power plug and turn ON the power switch.
5. Enter the System Administrator mode, enter the Software Key and restart.
6. On the [Home] screen, select [Fax / Internet Fax] or [Fax].
7. Select [Keypad].
8. Select [IP Fax (SIP)].
   (1) Select [Destination Type: Fax].
   (2) Select [IP Fax (SIP)].
   [When the installation only has IP Fax (SIP) feature]
   (1) Confirm that nothing is displayed in the above [Destination Type: Fax] section.
   (2) Select [Close].
9. Check that [Destination Type: IP Fax (SIP)] is displayed.
   (1) Check that [Destination Type: IP Fax (SIP)] is displayed.
   (2) Select [Close].
   [When the installation only has IP Fax (SIP) feature]
   Check that [SIP XXX] is displayed.
10. Set the preferences so that IP Fax (SIP) can be used.
    For details on how to set the preferences, refer to the [3 Preparing the Operating Environment] in [IP Fax (SIP) Kit User Guide].

Table 1 Information Required to Make Settings

System Configuration/ Setting Contents	Enabling Ports and TCP/IP Settings	SIP Main Unit Address Settings	Fax Environment Settings	SIP Server Settings	VoIP Gateway Registration	Domain Send/ Receive Filter Settings
Devices with IP Fax (SIP) only	0	0	0	-	-	P
Installed with SIP Server only	0	0	0	0	-	P
Installed with VoIP Gateway only	0	0	0	-	0	P
Installed with both SIP Server and VoIP Gateway	0	0	0	0	-	P

0: Setting is required. P: Perform setting as required. -: Setting is not required.

(1) Enable the Port and set the TCP/IP.
Enable the IP Fax (SIP) Port and set the TCP/IP on the Device.

(2) Set the SIP Main Unit Address.

Set the SIP Device Address on the Device.

(3) Set the Fax Environment.

(4) Set the SIP Server.
Set the IP Address, Login User Name, Password, etc. of the SIP Server that the communication is going to go through.
Set this when performing IP Fax (SIP) communication through SIP Server.

(5) Register the VoIP Gateway.
Register the VoIP Gateway that the communication is going to go though. Up to 50 VoIP Gateways can be registered.
Set this when performing communication between IP Fax (SIP) machines and G3 Fax machines that are connected through the public telephone line.

(6) Set the Domain Send/Receive Filter.
Set this when restricting IP Fax (SIP) sending/receiving by using domains.

11. Record "IP Fax (SIP) Kit: 256V" in the Service Report.

9.3.3 Watermark Extension Kit

Before Starting

After installing the Watermark Extension Kit, adjust to the optimal state as required.

Product Code

FB:EL201252

FBAP:EL201273

Checking Adjustment Procedure

1. Enter the Software Key to enable the Watermark Extension Feature in the Main Unit, then enter the CE mode.
2. The [Watermark] screen will appear on the [Device] → [System Settings] screen. Select [Print Sample List] on the Watermark screen.
3. Perform [Print Sample List] for each color of [Font Color] (Black, Magenta, Cyan) and each density of [Density] (Darken, Normal, Lighten).
4. When the sample printed with different (9 steps) background densities is output, check whether there is any pattern where the text [123] has melded with the background.
5. If the background is too dark or too light, which causes the text to not meld with the background or the patterns that meld are pattern 1, pattern 2, pattern 8, and pattern 9, which are away from the center of the 9 steps, perform adjustment for the NVMs in the following table.
   These density parameters in the NVMs affect the background density - increasing the value darkens it and decreasing the value lightens it.

	Darker	Normal	Lighter
Black	800-026 Default value: 3	800-023 Default value: 1	800-020 Default value: 1
Cyan	800-027 Default value: 3	800-024 Default value: 1	800-021 Default value: 1
Magenta	800-028 Default value: 3	800-025 Default value: 21	800-022 Default value: 1

6. Use the following guideline to perform adjustment for melding the text and background of pattern 5.
   (Each 1 step in density difference is equivalent to 4 at the NVM.)
   Adjustment Guideline
   - No pattern is melded: NVM +/-20
   - There are melded patterns but they are at the outer ends of the 9 steps: NVM +/- 10
7. After completing the above adjustment, explain this Watermark Feature to the customer.

8. Record "Watermark Extension Kit: 265V" in the Service Report.

9.4 SCC/SW Key Settings

9.4.1 Looking Up the SCC/ SW Key to be Entered (Internet Version)

1. Search for the SCC key and Option Software key from the URL below and check the information there.
   https: / / swkey- fb. fujifilm. com/ swkeyNetwork/ SWHttpServletB
2. Select [Next]. (Figure 1)

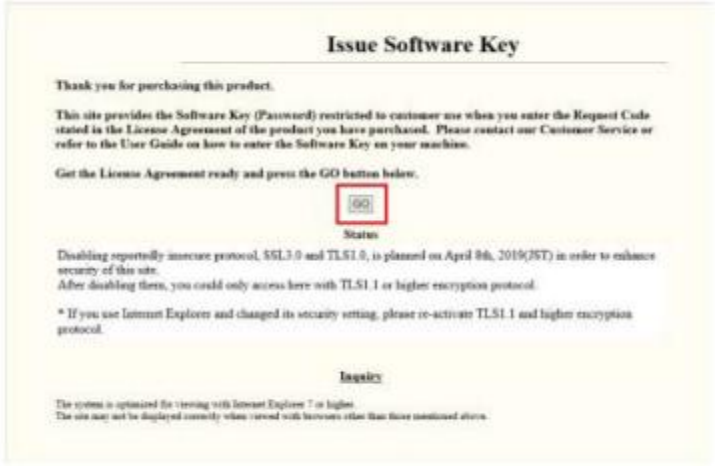


Figure 1 gre920001

3. Enter [User ID] and [Password]. (Figure 2)

NOTE

Since the User ID is the Integrated Authentication ID and the Password is unique to the Software Key Issuing System, if the password has not been obtained, get the Software Key Issuing System password from [Password reset] in 9.4.2.

One initial account will be issued to each of the Japan prefectural branch offices and distributors who have a contract for installation and maintenance.

Please assign an administrator, enter his/her email address, name, company name, phone number and purpose, and send to the email address below.

E-Mail : dge-fb-swkey-support@fujifilm.com



Figure 2 gre9240002

4. Access the Software Key Issuing System with COMPASS/Windows, COMPASS/Android, your Windows device or Android device. (Figure 3)
   (1) Check the SCC Key and Option Software Key (only if you have purchased the option) with Methods a or b below.



Figure 3 gre9240003

(a) <Search SCC Key/ Option Software Key> (Figure 4)
(1) Enter the [Machine Serial No.] found on the sticker at the back of the multifunction device.

(2) Enter the [Main Product Code] found on the sticker at the back of the multifunction device.

NOTE
Enter the initial letters in uppercase.

(3) Select [Next].

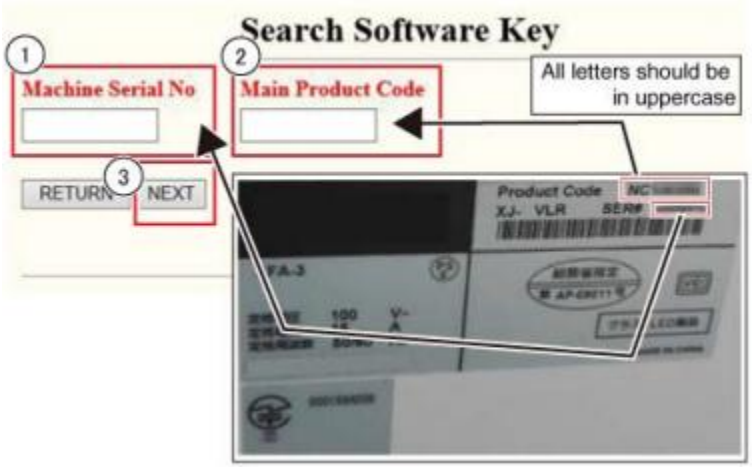


Figure 4 gre920004

(b) <Issue SCC Key/Option Software Key>
Enter the Request Code written on the SW Key Sheet. (Figure 5)

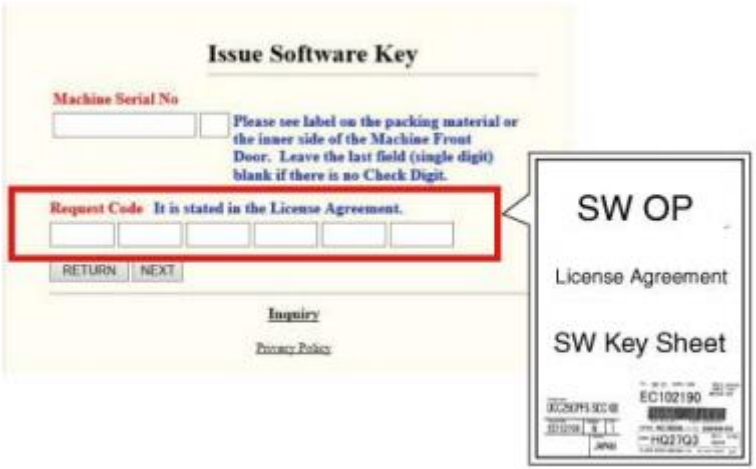


Figure 5 gre920005

5. Enter the issued SCC Key and the Option Software Key on the multifunction device UI Panel. (Figure 6)

NOTE
After setting the SCC key, the MFD is automatically restarted.



Figure 6 btn910096

9.4.2 Looking Up the SCC / SW key to be Entered (Intranet version)

Before Starting

If you want to check the [SCC Key] and [Software Key] before installation, they will be searchable after 2 working days from e-HUB Input.

1. Access the Software Key Issuing System via URL below. (Figure 1)
   http://swkey.ydc.fujixerox.co.jp:8881/swkeyNetwork/SWHttpServlet
   (1) Enter [User ID].
   (2) Enter [Password].
   (3) Select [Login].

   NOTE

   Enter the Integrated Authentication ID for [User ID] and the SW Key Issuing System unique password for [Password].

   If you have not obtained the password, get it from [Password reset] below.



Figure 1 gre920006

2. Check the password using [Method 1], [Method 2], or [Method 3].

[Method 1] (Figure 2)

1. Select [Search Software Key (Machine Serial No.)].
2. Select [Device Serial No.].
3. Select [GO].

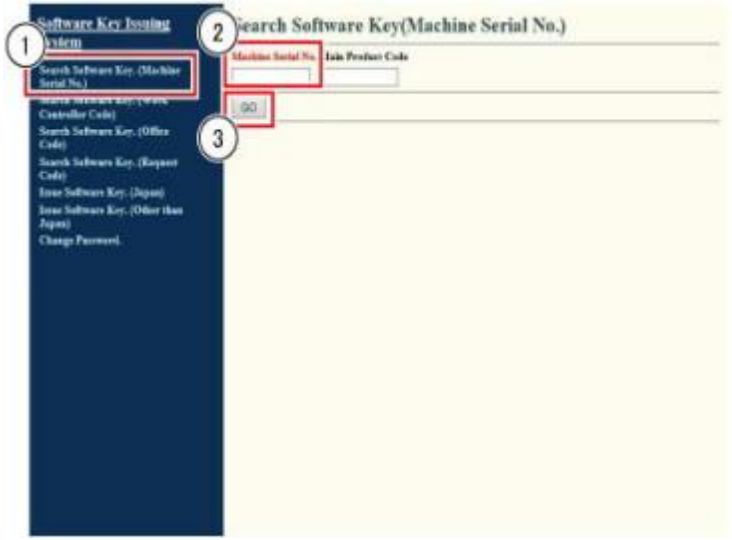


Figure 2 btn910102

4. Check the [Software Key (12 or 16 digits)].

[Method 2] (Figure 3)

1. Select [Search Software Key (Work Controller Code)].
2. Enter [Work Controller Code].

3. Select [GO].

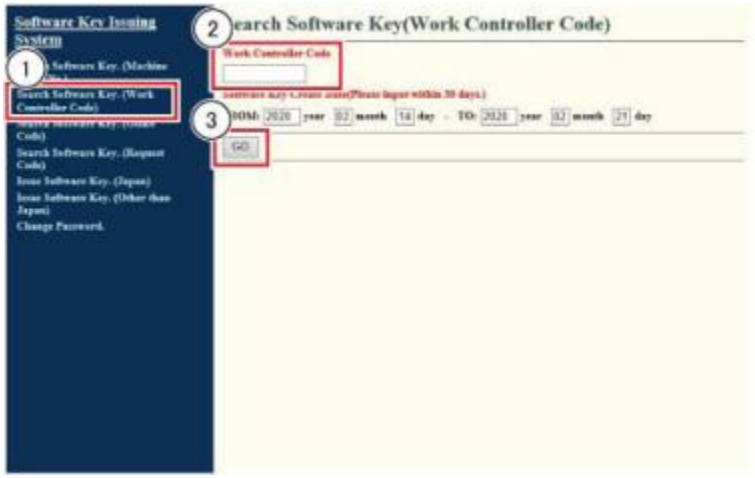


Figure 3 mbt911070

4. Check the [Software Key (12 or 16 digits)].

[Method 3] (Figure 4)

1. Select [Search Software Key (Office Code)].
2. Enter [Office Code].
3. Select [GO].

4. Check the [Software Key (12 or 16 digits)].

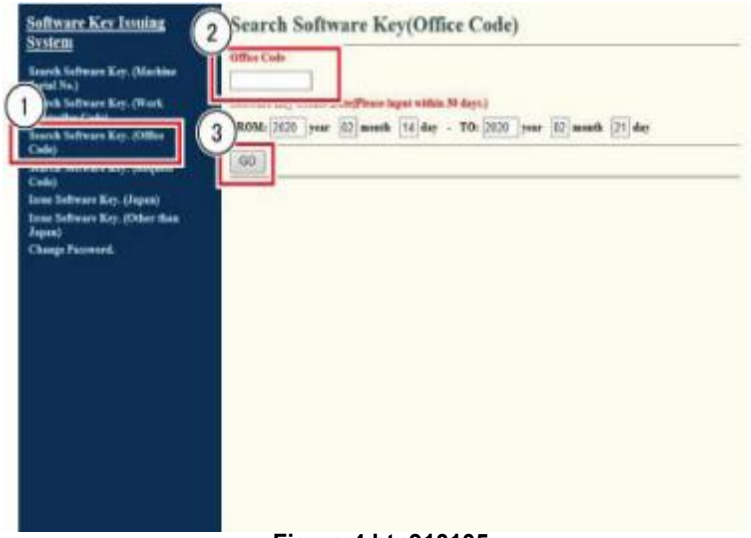


Figure 4 btn910105

9.4.3 SCC/SW Key Auto Deploy Initial Settings

9.4.3.1 SCC/SW Key Auto Deploy Initial Settings (Windows)

This procedure is not required in FBAP.

Follow the steps below to configure initial settings for Software Key auto deployment.

1. Confirm the license agreement.
   (1) Start COMPASS/Windows or the app (Software Key Settings Tool) installed on your Windows device. (Figure 1)



Figure 1 btn910021

NOTE

Log in at https://swkey-fb.fujifilm.com/swkeyNetwork/SWHttpServletB and download the applications and install them.

Install the following 2 apps.

- LibUsbDoNet_app
- Software Key Settings Tool

   (2) Select the [Confirm] checkbox, then select [OK] to confirm the license agreement. (Figure 2)

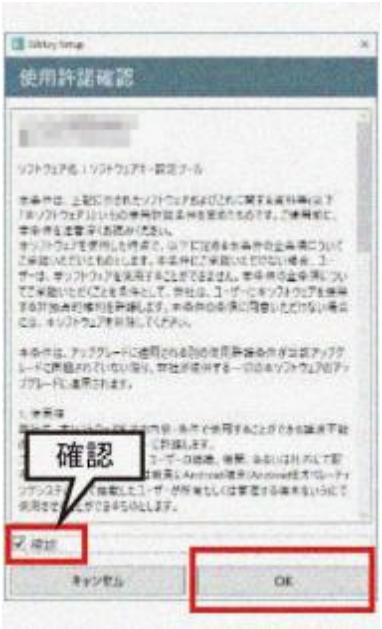


Figure 2 mbt911075

2. Select the login settings. (Figure 3)
   (1) Select the [Settings] icon.

(2) Select [Login Settings (SW Key Issuing System)].



Figure 3 mbt911076

3. Enter User ID and Password for SW Key Issuing System. (Figure 4, 5)

(1) Select the login method.



Figure 4 mbt911077

(2) Enter [User ID] and [Password].

NOTE

9.4.2 User ID and password for Software Key issuing system

If [Enter Password Only] is selected as login method, only [User ID] needs to be set.

(3) Select [OK].



Figure 5 mbt911078

9.4.3.2 SCC/SW Key Auto Deploy Initial Settings (Android)

Follow the steps below to configure initial settings for Software Key auto deployment.

1. Confirm the license agreement.
   (1) Start COMPASS/Android or the app installed on your Android device. (Figure 1) (Figure 2)



Figure 1 btn910021

NOTE

COMPASS/ Android

Tap the SDM agent (auto delivered) and open the SDM launcher.

Tap [SW Key Setup] and install the SW Key Setup app.



Figure 2 mbt911073

NOTE

Android terminal

Log in at https://swkey-fb.fujifilm.com/swkeyNetwork/SWHttpServletB and download the applications and install them.

(2) Select the [Confirm] checkbox, then select [OK] to confirm the license agreement. (Figure3)



Figure 3 mbt911094

2. Set the passcode for opening the app. (Figure 4) (Figure 5)
   (1) Select the [Settings] icon.
   (2) Select [Passcode Settings].



Figure 4 btn910023

   (3) Enable [Use Passcode].
   (4) Enter any 4 numbers.

(5) Select [OK].



Figure 5 btn910024

NOTE

Numbers in sequence (ascending or descending) or repeated numbers cannot be used.

[Examples of invalid passcodes]

- 6, 7, 8, 9
- 4, 3, 2, 1
- 1, 1, 1, 1

3. Select the login settings. (Figure 6)

(1) Select the [Settings] icon.

(2) Select [Login Settings (SW Key Issuing System)].

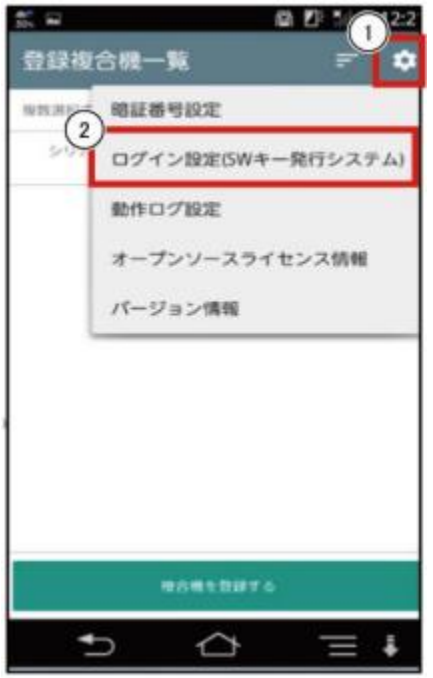


Figure 6 btn910025

4. Enter User ID and Password for SW Key Issuing System. (Figure7)

(1) Select [Auto Login].

(2) Enter [User ID].

(3) Enter [Password].

(4) Select [OK].



Figure 7 btn910026

9.4.4 Search SCC/SW Key from App

9.4.4.1 Search SCC/SW Key from App (Windows)

This procedure is not required.

Follow the steps below for Software Key auto deployment.

NOTE

Configure default settings according to "9.4.3. 1 SCC/SW Key Auto Deploy Default Settings (Windows) " before proceeding.

1. Start COMPASS/Windows or your Windows device.
2. Connect COMPASS/Windows or your Windows device to the multifunction device. (Figure 1)

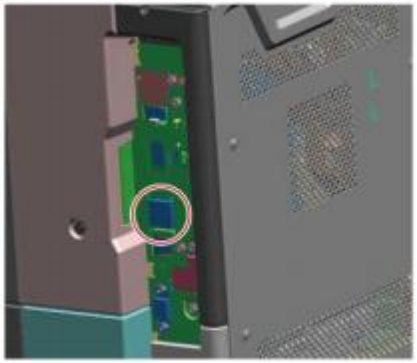


Figure 1 mnl910039

3. Open [Filter Wizard] from the Start menu. Open the Software Key Settings Tool app and select [OK]. (Figure 2)



Figure 2 mbt911079

4. Select [Install a device filter], then select [Next]. (Figure 3)
   (1) Select [Install a device filter].
   (2) Select [Next].

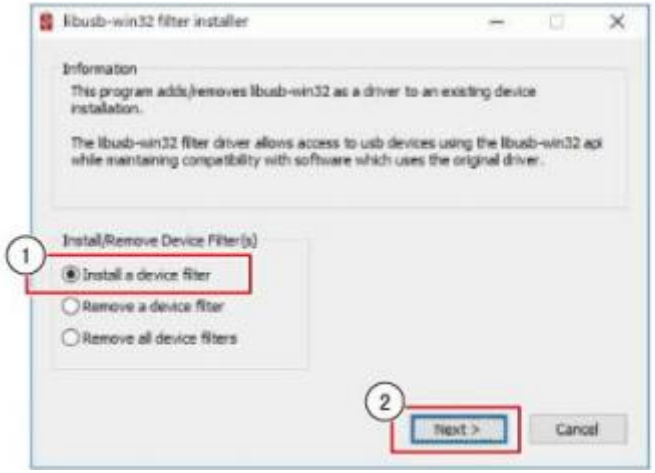


Figure 3 mbt911080

5. Install from list of connected USB devices. (Figure 4)
   (1) Select the device with [USB Print Support] in its Description.
   (2) Select [Install].

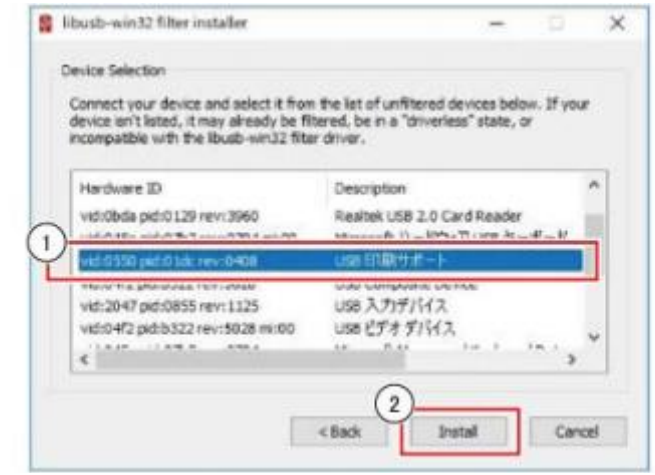


Figure 4 mbt911081

NOTE

If you open this screen while USB-connected to multiple multifunction devices, you will not be able to identify the target MFD. Install one by one.

6. Select [OK] when installation is complete. (Figure 5)



Figure 5 mbt911082

7. Open the Software Key Settings Tool app. (Figure 6)



Figure 6 btn910021

8. Select [Register device] on the Registered Devices screen. (Figure 7)



Figure 7 mbt911083

9. Search for registered device information. (Figure 8)
   (1) Check the [Machine Serial No.] and [SW Model Code].

(2) Select [Search].



Figure 8 mbt911084

10. When "Search for SCC/SW Key successful" appears, select [OK]. (Figure 9)

NOTE

9.4.3.1 If login method was set to something other than [Auto login] in Step 3 in, the following login screen appears.



Figure 9 mbt911085

11. Search results are shown. (Figure 10)



Figure 10 mbt911090

9.4.4.2 Search SCC/SW Key from App (Android)

This procedure is not required.

Follow the steps below for Software Key auto deployment.

NOTE

Configure default settings according to "9.4.3.2 SCC/SW Key Auto Deploy Default Settings (Android) " before proceeding.

1. Start COMPASS/Android or your Android device.
2. Connect COMPASS/Android or your Android device to the multifunction device. (Figure 1)

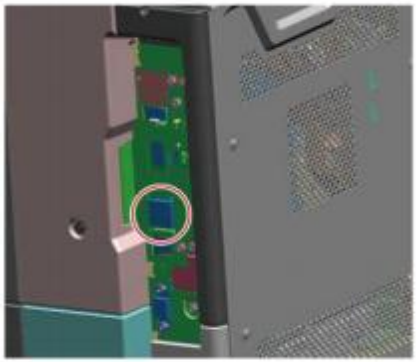


Figure 1 mnl910039

3. Open the Software Key Settings Tool app and select [OK]. (Figure 2)



Figure 2 btn910110

4. Select [OK]. (Figure 3)



Figure 3 btn910111

5. Check the [Machine Serial No.] and [SW Model Code], then select [Search]. (Figure 4)



Figure 4 btn910112

6. When "Search for SCC/SW Key successful" appears, select [OK]. (Figure 5)



Figure 5 btn910159

9.4.5 Deploy SCC Key Automatically from App

9.4.5.1 Deploy SCC Key Automatically from App (Windows)

This procedure is not required .

Follow the steps below for SCC Key auto deployment.

NOTE

Follow the procedure in "9.4.4. 1 Search SCC/SW Key from App (Windows) " first.

1. Check that the [Software Options] screen is shown on the MFD panel.

   NOTE

   You will not need to enter anything on the MFD panel.

2. Connect COMPASS/Windows or your Windows device to the multifunction device, and send the [SCC Key]. (Figure 1)
   (1) Select [SCC Key].
   (2) Select [Send].



Figure 1 mbt911086

3. Check that the key is correct, then select [OK]. (Figure 2)

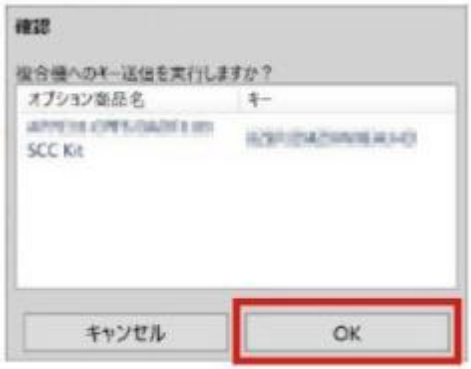


Figure 2 mbt911087

NOTE

After the SCC Key is successfully sent, the multifunction device will restart automatically.

9.4.5.2 Deploy SCC Key Automatically from App (Android)

This procedure is not required.

Follow the steps below for SCC Key auto deployment.

NOTE

Follow the procedure in "9.4.4.2 Search SCC/SW Key from App (Android) " first.

1. Check that the [Software Options] screen is shown on the MFD panel.

   NOTE

   You will not need to enter anything on the MFD panel.

2. Connect COMPASS, Windows or Android to the multifunction device, and send the [SCC Key]. (Figure 1)
   (1) Select [SCC Key].
   (2) Select [Send].



Figure 1 btn910034

3. Select [OK]. (Figure 2)



Figure 2 btn910035

4. Verify that there is a check mark in the Sent column. (Figure 3)



Figure 3 btn910036

NOTE

After the SCC Key is successfully sent, the multifunction device will restart automatically.

9.4.6 Deploy Option SW Key Automatically from App

9.4.6.1 Deploy Option SW Key Automatically from App (Windows)

This procedure is not required.

Follow the steps below for Option Software Key auto deployment.

NOTE

For customers that have not purchased the Option Software Key, this step is not required.

NOTE

Follow the procedure in [9.4.5.1 Deploy SCC Key Automatically from App (Windows)] first.

1. Select [Next] on the MFD panel. (Figure 1)
   (1) In the install wizard on the MFD panel, enter required items such as date/time settings.
   (2) Do not enter anything in the Software Options screen. Select [Next].

   NOTE

   The install wizard will end and the multifunction device will restart.



Figure 1 orc920011

2. When the device's Home screen appears, check that COMPASS/Windows or your Windows device is connected, then send the [SW Key]. (Figure 2) (Figure 3)

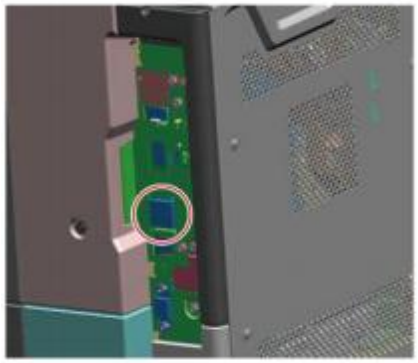


Figure 2 mnl910039

(1) Select [SW Key].
(2) Select [Send].



Figure 3 mbt911088

3. Check the details and select [OK]. (Figure 4)



Figure 4 mbt911089

NOTE
When Software Key is configured, the multifunction device will restart automatically.

9.4.6.2 Deploy Option SW Key Automatically from App (Android)

This procedure is not required.

Follow the steps below for Option Software Key auto deployment.

NOTE

For customers that have not purchased the Option Software Key, this step is not required.

NOTE

Follow the procedure in "9.4.5.2 Deploy SCC Key Automatically from App (Android) " first.

1. Select [Next] on the MFD panel. (Figure 1)
   (1) In the install wizard on the MFD panel, enter required items such as date/time settings.
   (2) Do not enter anything in the Software Options screen. Select [Next].

   NOTE

   The install wizard will end and the multifunction device will restart.



Figure 1 orc920011

2. When the device's Home screen appears, check that COMPASS/Android or your Android device is connected, then send the [SW Key]. (Figure 2) (Figure 3)

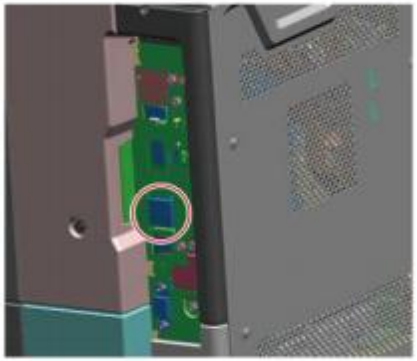


Figure 2 mnl910039

(1) Select [SW Key].
(2) Select [Send].



Figure 3 btn910038

3. Check the details and select [OK]. (Figure 4)



Figure 4 btn910039

4. Verify that there is a check mark in the Sent column. (Figure 5)



Figure 5 btn910040

NOTE

When Software Key is configured, the multifunction device will restart automatically.

9.4.7 When the Connection to SW Key Issuing System has Failed

9.4.7.1 When the Connection to SW Key Issuing System has Failed (Windows)

This procedure is not required.

When connecting to the SW Key Issuing System and the message: [Failed to connect to the SW Key Issuing System. Please enable the terminal network function.] is displayed, it means that the connection to the system has failed and this procedure can be used to check it.

[Work summary]

1. Save the multifunction device's [Machine Serial No.] and [SW Model Code] to COMPASS/Windows or your Windows device.

   NOTE

   Saving is possible even without network communication.

2. Move to a location where communication is possible, and search for SCC/Software Key using the saved information.

   [Reference]

   9.4.8.1 Search SCC/SW Key from App (Connection Failed)

3. Auto deploy SCC/Software Key to the multifunction device.

   NOTE

   Deployment is possible even without network communication.

   [Reference]

   - 9.4.9.1 Deploy SCC Key Automatically from App (Connection Failed)
   - 9.4.10.1 Deploy Option SW Key Automatically from App (Connection Failed)

[How to save]

1. Start COMPASS/Windows or your Windows device.
2. Connect COMPASS/Windows or your Windows device to the multifunction device. (Figure 1)

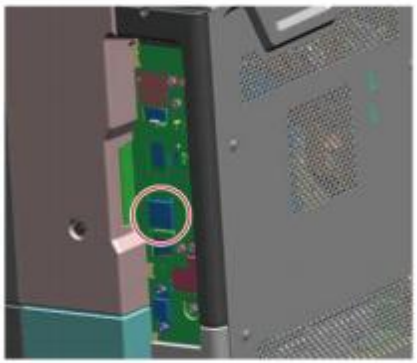


Figure 1 mnl910039

3. Open the Software Key Settings Tool app. (Figure 2)



Figure 2 btn910021

4. Select [Register device] on the Registered Devices screen. (Figure 3)

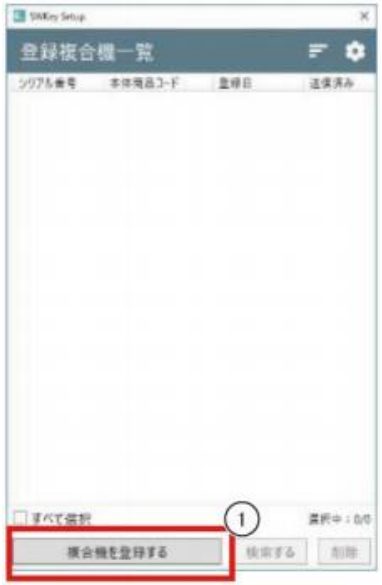


Figure 3 mbt911083

5. Search for registered device information. (Figure 4)
   (1) Check the [Machine Serial No.] and [SW Model Code].
   (2) Select [Save].

NOTE
Up to 100 devices' information can be saved to the app.



Figure 4 mbt911091

9.4.7.2 When the Connection to SW Key Issuing System has Failed (Android)

This procedure is not required.

When connecting to the SW Key Issuing System and the message: [Failed to connect to the SW Key Issuing System. Please enable the terminal network function.] is displayed, it means that the connection to the system has failed and this procedure can be used to check it. (Figure 1)



Figure 1 btn910161

[Work summary]

1. Save the multifunction device's [Machine Serial No.] and [SW Model Code] to COMPASS/Android or your Android device.

   NOTE

   Saving is possible even without network communication.

2. Move to a location where communication is possible, and search for SCC/Software Key using the saved information.
   [Reference]
   9.4.8.2 Search SCC/Software Key from App (Connection Failed)
3. Auto deploy SCC/Software Key to the multifunction device.

NOTE

Deployment is possible even without network communication.

[Reference]

- 9.4.9.2 Deploy SCC Key Automatically from App (Connection Failed)
- 9.4.10.2 Deploy Option Software Key Automatically from App (Connection Failed)

[How to save]

1. Start COMPASS/Android or your Android device.
2. Connect COMPASS/Android or your Android device to the multifunction device. (Figure 2)

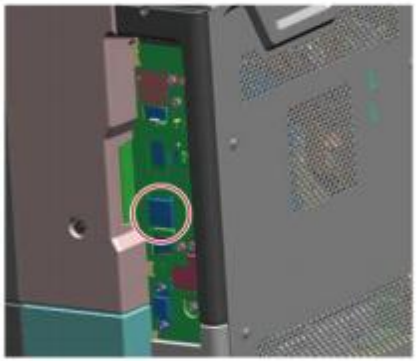


Figure 2 mnl910039

3. Open the Software Key Settings Tool app and select [OK]. (Figure 3)



Figure 3 btn910110

4. Select [OK]. (Figure 4)



Figure 4 btn910111

5. Check the [Machine Serial No.] and [SW Model Code], then select [Save]. (Figure 5)

NOTE

Up to 100 devices' information can be saved to the app.



Figure 5 btn910166

9.4.8 Search SCC/SW Key from App (Connection Failed)

9.4.8.1 Search SCC/SW Key from App (Connection Failed) (Windows)

This procedure is not required.

Follow the steps below to search for SCC/Software Key.

NOTE

Follow the procedure in "9.4.7. 1 When the Connection to SW Key Issuing System has Failed (Windows) " first.

1. Start COMPASS/Windows or your Windows device.
2. Open the Software Key Settings Tool app. (Figure 1)



Figure 1 btn910021

3. Search the SCC Key and Software Key again. (Figure 2)
   (1) Select [Select All].

(2) Select [Search].



Figure 2 mbt911092

4. When "Search for SCC/SW Key successful" appears, select [OK]. (Figure 3)



Figure 3 mbt911093

NOTE

Even though this screen shows multiple devices, the procedure is the same for a single multifunction device.

9.4.8.2 Search SCC/SW Key from App (Connection Failed) (Android)

This procedure is not required .

Follow the steps below to search for SCC/Software Key.

NOTE

Follow the procedure in "9.4.7.2 When the Connection to SW Key Issuing System has Failed (Android) " first.

1. Start COMPASS/Android or your Android device.
2. [Search again screen (for 1 unit)] (Figure 1)
   (1) Select [Select All].
   (2) Select [Search].





Figure 1 btn910165

[Search again screen (for multiple units)] (Figure 2)

(1) Select [Select All].

(2) Select [Search].





Figure 2 btn910118

The following screens appear while search is in progress. (Figure 3) (Figure 4)

NOTE

The progress bar only appears when searching for multiple devices.

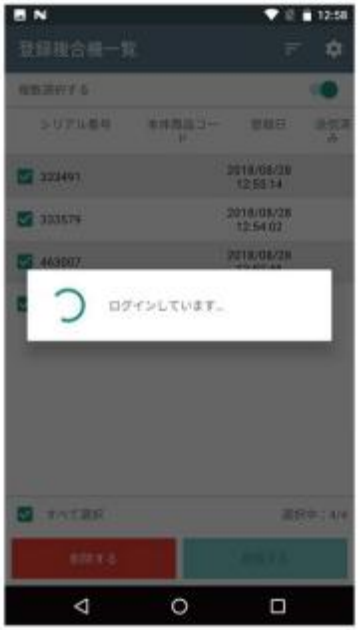


Figure 3 btn910162



Figure 4 btn910163

3. When "Search for SCC/SW Key successful" appears, select [OK].

[For 1 unit] (Figure 5)



Figure 5 btn910159

[For multiple units] (Figure 6)



Figure 6 btn910164

9.4.9 Deploy SCC Key Automatically from App (Connection Failed)

9.4.9.1 Deploy SCC Key Automatically from App (Connection Failed) (Windows)

This procedure is not required.

Follow the steps below for SCC Key auto deployment.

NOTE

Follow the procedures in "9.4.7. 1 When the Connection to SW Key Issuing System has Failed" and "9.4.8. 1 Search SCC/Software Key from App" first.

1. Check that the [Software Options] screen is shown on the MFD panel.

   NOTE

   You will not need to enter anything on the MFD panel.

2. Check the search results on the Registered Devices screen, and select the serial number of the multifunction device for deployment.
3. Connect COMPASS/Windows or your Windows device to the multifunction device, and send the [SCC Key]. (Figure 1)
   (1) Select [SCC Key].
   (2) Select [Send].



Figure 1 mbt911086

4. Check that the key is correct, then select [OK]. (Figure 2)



Figure 2 mbt911087

NOTE

After the SCC Key is successfully sent, the multifunction device will restart automatically.

9.4.9.2 Deploy SCC Key Automatically from App (Connection Failed) (Android)

This procedure is not required.

Follow the steps below for SCC Key auto deployment.

NOTE

Follow the procedures in "9.4.7.2 When the Connection to SW Key Issuing System has Failed" and "9.4.8.2 Search SCC/Software Key from App" first.

1. Check that the [Software Options] screen is shown on the MFD panel.

   NOTE

   You will not need to enter anything on the MFD panel.

2. Check the search results on the Registered Devices screen, and select the serial number of the multifunction device for deployment.

   [When there is only one multifunction device to search] (Figure 1)



Figure 1 btn910160

[When multiple multifunction devices are to be searched] (Figure 2)



Figure 2 btn910158

3. Connect COMPASS/Android or your Android device to the multifunction device, and send the [SCC Key]. (Figure 3)

   (1) Select [SCC Key].

(2) Select [Send].



Figure 3 btn910034

4. Select [OK]. (Figure 4)



Figure 4 btn910035

5. Verify that there is a check mark in the Sent column. (Figure 5)



Figure 5 btn910036

9.4.10 Deploy Option SW Key Automatically from App (Connection Failed)

9.4.10.1 Deploy Option SW Key Automatically from App (Connection Failed) (Windows)

This procedure is not required .

Follow the steps below for Option Software Key auto deployment.

NOTE

For customers that have not purchased the Option Software Key, this step is not required.

NOTE

Follow the procedures in "9.4.7. 1 When the Connection to SW Key Issuing System has Failed" and "9.4.8. 1 Search SCC/Software Key from App" first.

1. Select [Next] on the MFD panel. (Figure 1)
   (1) In the install wizard on the MFD panel, enter required items such as date/time settings.
   (2) Do not enter anything in the Software Options screen. Select [Next].

   NOTE

   The install wizard will end and the multifunction device will restart.

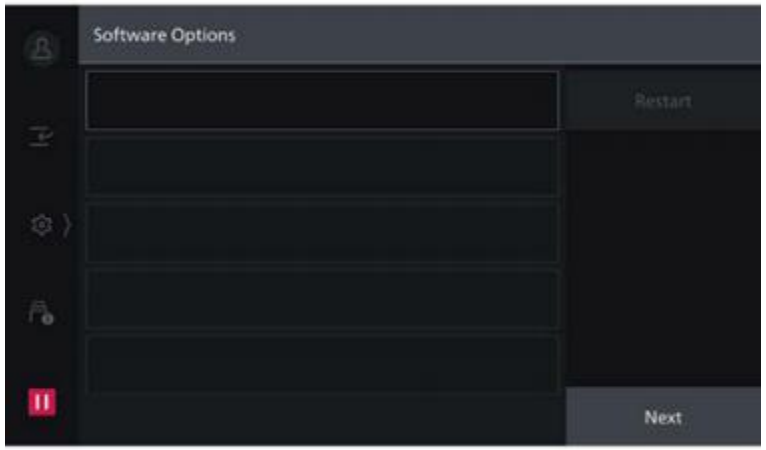


Figure 1 orc920011

2. When the device's Home screen appears, check that COMPASS/Windows or your Windows device is connected, then send the [SW Key]. (Figure 2) (Figure 3)

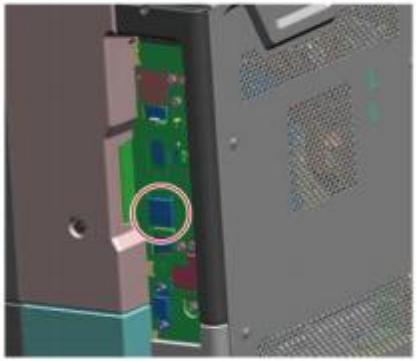


Figure 2 mnl910039

(1) Select [SW Key].
(2) Select [Send].



Figure 3 mbt911088

3. Check the details and select [OK]. (Figure 4)



Figure 4 mbt911089

NOTE
When Software Key is configured, the multifunction device will restart automatically.

9.4.10.2 Deploy Option SW Key Automatically from App (Connection Failed) (Android)

This procedure is not required.

Follow the steps below for Option Software Key auto deployment.

NOTE
For customers that have not purchased the Option Software Key, this step is not required.

NOTE
Follow the procedures in "9.4.7.2 When the Connection to SW Key Issuing System has Failed" and "9.4.8.2 Search SCC Key and Software Key from App" first.

1. Select [Next] on the MFD panel. (Figure 1)
   (1) In the install wizard on the MFD panel, enter required items such as date/time settings.
   (2) Do not enter anything in the Software Options screen. Select [Next].

   NOTE
   The install wizard will end and the multifunction device will restart.

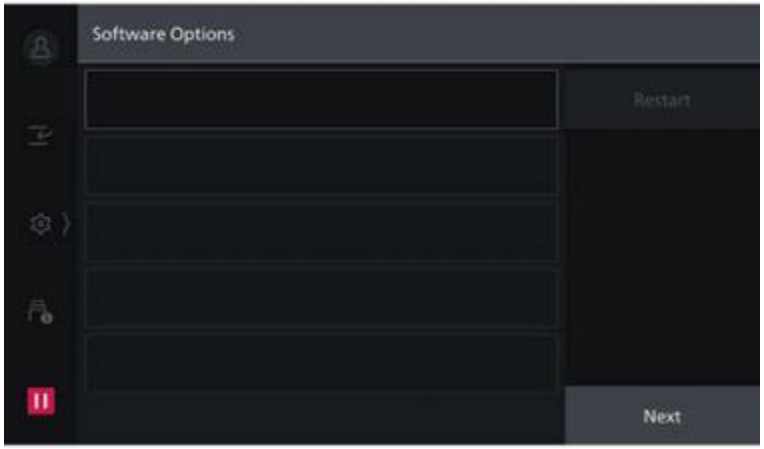


Figure 1 orc920011

2. When the device's Home screen appears, check that COMPASS/Android or your Android device is connected, then send the [SW Key]. (Figure 2) (Figure 3)

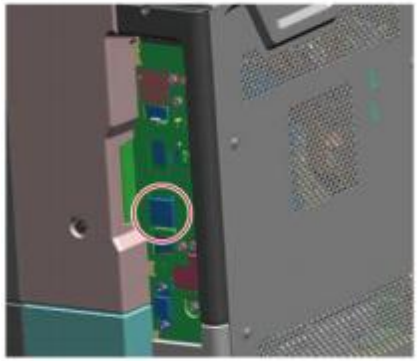


Figure 2 mnl910039

(1) Select [SW Key].

(2) Select [Send].



Figure 3 btn910038

3. Check the details and select [OK]. (Figure 4)



Figure 4 btn910039

4. Verify that there is a check mark in the Sent column. (Figure 5)



Figure 5 btn910040

NOTE

When Software Key is configured, the multifunction device will restart automatically.

9.5 Removal

NOTE

This Removal procedure is only applicable when moving the Device. (Canceling of registration is normally subject to FFL.)

[EP-BB Registered Device]

Cancels the registration of an EP-BB registered Device.

Procedure

1. Removal Sequence
   (1) The CE has to connect the PSW to the EPnet-BOX and then select [Cancel Registration].
   (2) The EPnet-BOX will then send the Cancel Registration Data to the EP Center (current EP system) though the EP Center (BBiDC).
   (3) The EP Center will then use the Cancel Registration Data to delete the data of the involved Device and then notify the EPnet-BOX when the cancellation has completed.
   (4) Once the EPnet-BOX has received notification that the cancellation has completed, it will delete the internal data.
2. Change the NVM value.
   (1) Change the value of NVM: 850-001 to "0" and turn OFF the Device.
   (2) Disconnect the cable connecting the EPnet-BOX to the Device and turn ON the power.
   (3) Turn OFF the Device again.

   The meanings of NVM functions/setting values are as follows.

NVM	Feature	Meaning of Setting Value
850-001	Accessory Connectivity	0 : Available 1: None

[Device with 4Gnet-BOX]

Cancels the registration of an EP-BB registered Device.

Procedure

[Cancel EP-BB Registration]

1. Cancel the EP-BB registration from the Device.
   (1) Enter the UI Diag CE Diagnostics screen
   and select [Device] > [Maintenance] > [Maintenance / Diagnostics] > [EP Service] > [EP Registration / Cancel Registration].
   (2) Select [Cancel Registration] and select [Start].
   (3) When the confirmation screen is displayed, check the contents and select [Start].
   (4) The [Canceling the registration.] message is displayed.
   (5) When the [Registration has been successfully canceled.] message is displayed, select [Confirm] to complete the EP-BB Cancel Registration.
   (6) Exit from the UI Diag.
2. Initialize the 4Gnet-BOX
   (1) Open the front-side cover of the 4Gnet-BOX, and press and hold the RST switch (Reset switch) for approximately 5 seconds.

[Shifting/ Removal Procedure]

1. Turn OFF the power, and unplug the power cord.
2. If any Output Options have been installed, remove them from the Main Unit.
3. If a Wing Table has been installed, remove it from the Main Unit.
4. If any Fax-related Options have been installed, remove them from the Main Unit.
5. Rotate the Foot to lift it.
6. Unlock the Caster (x2).
7. Tape up the Device where necessary.