

Transmittal Page

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**CopyCentre C118,  
WorkCentre M118,  
Service Documentation**

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Service Documentation**





# CopyCentre C118, WorkCentre M118, Service Documentation

701P23530  
December 2004



## **CAUTION**

Certain components in the CopyCentre C118, WorkCentre M118, are susceptible to damage from electrostatic discharge. Observe all ESD procedures to avoid component damage.

#### NOTICE

While Xerox has tried to make the documentation accurate, Xerox will have no liability arising out of any inaccuracies or omissions.

#### NOTICE

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#### WARNING

**This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions documentation, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to subpart J of part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to correct the interference.**

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## About this Manual

This Service Manual is part of the multinational documentation system for

Copy Centre C118, Work Centre M118 copier/printers. The Service Documentation is used in order to diagnose machine malfunctions, adjust components and has information which is used to maintain the product in superior operating condition. It is the controlling publication for a service call. Information on its use is found in the Introduction of the Service Documentation.

This manual contains information that applies to **NASG (XC) and ESG (XE)** copiers.

## Service Manual Revision

The Service Manual will be updated as the machine changes or as problem areas are identified.

## Organization

This Service Manual is divided into eight sections. The titles of the sections and a description of the information contained in each section are contained in the following paragraphs:

### Section 1: Service Call Procedures

This section contains procedures that determine what actions are to be taken during a service call on the machine and in what sequence they are to be completed. This is the entry level for all service calls.

### Section 2: Status Indicator RAPs

This section contains the diagnostic aids for troubleshooting the Fault Code and non-Fault Code related faults (with the exception of image quality problems).

### Section 3: Image Quality

This section contains the diagnostic aids for troubleshooting any image quality problems, as well as image quality specifications and image defect samples.

### Section 4: Repairs/Adjustments

This section contains all the Adjustments and Repair procedures.

#### Repairs

Repairs include procedures for removal and replacement of parts which have the following special conditions:

**When there is a personnel or machine safety issue.**

**When removal or replacement cannot be determined from the exploded view of the Parts List.**

**When there is a cleaning or a lubricating activity associated with the procedure.**

**When the part requires an adjustment after replacement.**

**When a special tool is required for removal or replacement.**

Use the repair procedures for the correct order of removal and replacement, for warnings, cautions, and notes.

#### Adjustments

Adjustments include procedures for adjusting the parts that must be within specification for the correct operation of the system.

Use the adjustment procedures for the correct sequence of operation for specifications, warnings, cautions and notes.

### Section 5: Parts Lists

This section contains the Copier/Printer Parts List.

### Section 6: General Procedures Information

This section contains General Procedures, Diagnostic Programs, and Copier/Printer Information.

## Section 7: Wiring Data

This section contains drawings, lists of plug/jack locations, and diagrams of the power distribution wire networks in the machine. This section also contains the Block Schematic Diagrams.

## Section 8: Accessories

This section contains installation information for option and accessory.

## How to Use this Documentation

The Service Call Procedures in Section 1 describe the sequence of activities used during the service call. The call **must** be entered using these procedures.

### Use of the Circuit Diagrams

All wirenets are shown on the Circuit Diagrams (CDs). Power distribution wirenets are shown in Section 7 (Wiring Data) of the Service Manual. The power distribution wirenets on the CDs will end at the terminal board for the power being distributed. Find the wirenet for that power and locate the terminal board on the wirenet. Use the wirenet to troubleshoot any power distribution wiring not shown on the CD.

### Use of the Block Schematic Diagrams

Block Schematic Diagrams (BSDs) are included in Section 7 (Wiring Data) of the Service Manual. The BSDs show the functional relationship of the electrical circuitry to any mechanical, or non-mechanical, inputs or outputs throughout the machine. Inputs and outputs such as motor drive, mechanical linkages, operator actions, and air flow are shown. The BSDs will provide an overall view of how the entire subsystem works.

It should be noted that the BSDs no longer contain an Input Power Block referring to Chain 1. It will be necessary to refer to the Wirenets in order to trace a wire back to its source.

## Symbology and Nomenclature

The following reference symbols are used throughout the documentation.

### Warnings, Cautions, and Notes

Warnings, Cautions, and Notes will be found throughout the Service Documentation. The words **WARNING** or **CAUTION** may be listed on an illustration when the specific component associated with the potential hazard is pointed out; however, the message of the **WARNING** or **CAUTION** is always located in the text. Their definitions are as follows:

#### WARNING

A Warning is used whenever an operating or maintenance procedure, a practice, condition, or statement, if not strictly observed, could result in personal injury.

#### CAUTION

A Caution is used whenever an operating or maintenance procedure, a practice, condition, or statement, if not strictly observed, could result in damage to the equipment.

**NOTE:** A Note is used whenever it is necessary to highlight an operating or maintenance procedure, practice, condition, or statement.

### Machine Safety Icons

The following safety icons are displayed on the machine:

#### WARNING

This machine contains an invisible laser. There is no visual indication that the laser beam is present. During servicing, the machine is a Class 3B product because of the invisible laser. the laser beam could cause eye damage if looked at directly. Service procedures must be followed exactly as written without change. The service representative must observe the established local laser safety precautions when servicing the machine. Do not place tools with a reflective surface in the area of the ROS opening. Do not look in the area of the ROS window if the power is On and the laser is energized.

The following symbol and statement appear on a label in the machine. The symbol by itself, or the symbol and the statement may also appear in the service documentation and in the training program. When this symbol appears, the service representative is warned that conditions exist that could result in exposure to the laser beam.

#### WARNING

Do not try to bypass any laser interlocks for any reason. Permanent eye damage could result if the laser is accidentally directed into your eye.



Figure 1 Laser Hazard Symbol

Laser Hazard Statement

DANGER INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.

#### CAUTION

The use of controls or adjustments other than those specified in the Laser Safety Training Program may result in an exposure to dangerous laser radiation.

For additional information, review the Laser Safety Training program.

An arrow points to the location to install, to gain access to, or to release an object.



Figure 2 Customer Access Label

This symbol indicates that a surface can be hot. Use caution when reaching in the machine to avoid touching the hot surfaces.



Figure 3 Heated Surface Label

Danger label indicates where electrical currents exist when the machine is closed and operating. Use caution when reaching in the machine.



Figure 4 Shock Hazard Label

These symbols indicate components that may be damaged by Electrostatic Discharge (ESD).



0700002A-RAP

Figure 5 ESD warning Label

## Electrostatic Discharge (ESD) Field Service Kit

The purpose of the ESD Protection Program is to preserve the inherent reliability and quality of electronic components that are handled by the Field Service Personnel. This program is being implemented now as a direct result of advances in microcircuitry technology, as well as a new acknowledgment of the magnitude of the ESD problem in the electronics industry today.

This program will reduce Field Service costs that are charged to PWB failures. Ninety percent of all PWB failures that are ESD related do not occur immediately. Using the ESD Field Service Kit will eliminate these delayed failures and intermittent problems caused by ESD. This will improve product reliability and reduce callbacks.

The ESD Field Service Kit should be used whenever Printed Wiring Boards or ESD sensitive components are being handled. This includes activities like replacing or reseating of circuit boards or connectors. The kit should also be used in order to prevent additional damage when circuit boards are returned for repair.

The instructions for using the ESD Field Service Kit can be found in ESD Field Service Kit Usage in the General Procedures section of the Service Documentation.

## Illustration Symbols

Figure 6 shows symbols and conventions that are commonly used in illustrations.

### REFERENCE SYMBOLOGY

Test data, notes, adjustments, and parts lists are supportive to the BSD and RAP information. This supportive data is referenced, using the symbols shown in the following paragraphs:

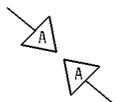
<p><b>TEST DATA</b></p> 	<p>This symbol appears on the BSD whenever a test data reference is necessary in order to verify the presence of a signal.</p>	<p><b>TEST POINTS</b></p> 	<p>This symbol is used to identify a test point/test hole available for measuring a signal.</p>	<p>[ X-XXX ]</p>	<p>This symbol placed above a signal name on a BSD indicates the input or output component control code for that signal.</p>
<p><b>NOTES</b></p> 	<p>This symbol is used to refer to notes. The notes normally appear on the same page.</p>	<p><b>BSD GRAPHICS</b></p> 	<p>This symbol indicates the continuation of a signal line in a vertical direction.</p>	<p>[ X-XXX ] [ X-XXX ]</p>	<p>This symbol placed above a signal name on a BSD indicates that two component control codes ( an output and an input ) are required to check that signal.</p>
<p><b>ADJUSTMENTS</b></p> 	<p>This symbol refers to adjustments on the Service Data Section.</p>		<p>This symbol indicates the continuation of a signal line in a horizontal direction.</p>	<p>[ X-XXX/X-XXX ]</p>	<p>This symbol placed above a signal name on a BSD indicates component control codes for two components, in this example, two Paper Trays. The left hand code is for Paper Tray 1, and the right hand code is for Paper Tray 2.</p>
<p><b>PARTS LISTS</b></p> <p>PL2-XX</p>	<p>This symbol refers to a parts list on the Service Data Section. PL indicates that this is a parts list reference and, in this example, the exploded view drawing is on Parts List 2-XX. Parts list reference appear on the BSDs next to all replaceable parts shown on the diagram.</p>		<p>This symbol indicates the direction of signal flow.</p>	<p>[ X-XXX ]</p>	<p>Fault Codes Indicator shown on BSD.</p>
			<p>This symbol indicates a feedback signal.</p>	<p>[ X-XXX ]</p>	<p>Fault Codes Indicator shown on BSD.</p>
			<p>This symbol is used to show a twisted pair of wires.</p>		<p>The Flag symbol indicates a reference point into a Circuit Diagram from a RAP. Instructions will be given to check for an open circuit, a short circuit, or an intermittent condition</p>

Figure 6 Illustration Symbols

## Signal Nomenclature

Refer to Figure 7 for an example of Signal Nomenclature used in Circuit Diagrams and BSDs.

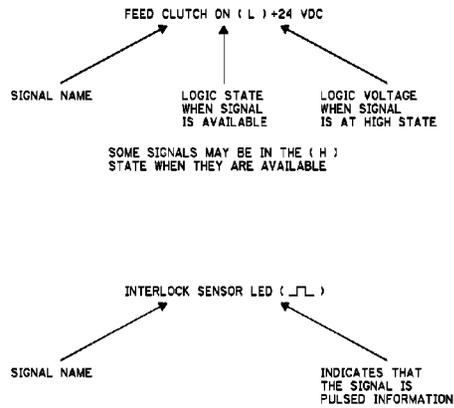


Figure 7 Signal Nomenclature

## Voltage Measurement and Specifications

Measurements of DC voltage must be made with reference to the specified DC Common, unless some other point is referenced in a diagnostic procedure. All measurements of AC voltage should be made with respect to the adjacent return or ACN wire.

Table 1 Voltage Measurement and Specifications

VOLTAGE	SPECIFICATION
INPUT POWER 220 V	198 VAC TO 242 VAC
INPUT POWER 100 V	90 VAC TO 135 VAC
INPUT POWER 120 V	90 VAC TO 135 VAC
+5 VDC	+4.75 VDC TO +5.25 VDC
+24 VDC	+23.37 VDC TO +27.06 VDC

## Logic Voltage Levels

Measurements of logic levels must be made with reference to the specified DC Common, unless some other point is referenced in a diagnostic procedure.

Table 2 Logic Levels

VOLTAGE	H/L SPECIFICATIONS
+5 VDC	H= +3.00 TO +5.25 VDC L= 0.0 TO 0.8 VDC
+24 VDC	H= +23.37 TO +27.06 VDC L= 0.0 TO 0.8 VDC

## DC Voltage Measurements in RAPs

The RAPs have been designed so that when it is required to use the DMM to measure a DC voltage, the first test point listed is the location for the red (+) meter lead and the second test point is the location for the black meter lead. For example, the following statement may be found in a RAP:

**There is +5 VDC from TP7 to TP68.**

In this example, the red meter lead would be placed on TP7 and the black meter lead on TP68.

Another example of a statement found in a RAP might be:

**There is -15 VDC from TP21 to TP33.**

In this example, the red meter lead would be placed on TP21 and the black meter lead would be placed on TP33.

If a second test point is not given, it is assumed that the black meter lead may be attached to the copier frame.

# Translated Warnings

## Introduction

### Symbology and Nomenclature

#### WARNING

A Warning is used whenever an operating or maintenance procedure, a practice, condition, or statement, if not strictly observed, could result in personal injury.

**DANGER:** Une note DANGER est utilisée à chaque fois qu'une procédure de maintenance ou qu'une manipulation présente un risque de blessure si elle n'a pas été strictement observée.

#### WARNING

This machine contains an invisible laser. There is no visual indication that the laser beam is present. During servicing, the machine is a Class 3B product because of the invisible laser. The laser beam could cause eye damage if looked at directly. Service procedures must be followed exactly as written without change. The service representative must observe the established local laser safety precautions when servicing the machine. Do not place tools with a reflective surface in the area of the ROS opening. Do not look in the area of the ROS window if the power is On and the laser is energized.

**DANGER:** L'équipement contient un faisceau laser invisible et aucune indication visible signale la présence du faisceau laser. De ce fait le produit est classé 3B pour tout ce qui concerne la maintenance. L'exposition directe des yeux au faisceau laser peut entraîner des lésions visuelles. Les procédures de maintenance doivent être réalisées sans aucun changement comme indiqué dans la documentation. Le représentant Xerox lors d'interventions sur l'équipement doit respecter les consignes de sécurité locales concernant les faisceaux laser. Ne pas placer d'objet réfléchissant dans la zone du ROS quand il est ouvert. Ne pas regarder dans la zone du ROS lorsque la machine est sous tension et que le laser est en fonctionnement.

The following symbol and statement appear on a label in the machine. The symbol by itself, or the symbol and the statement may also appear in the service documentation and in the training program. When this symbol appears, the service representative is warned that conditions exist that could result in exposure to the laser beam.

**DANGER:** Les symboles et instructions suivants sont indiqués sur des étiquettes dans la machine et sont identifiés dans la documentation technique et dans le manuel de formation. Quand ces symboles s'affichent le représentant Xerox est prévenu des risques encourus concernant une exposition au rayon laser.

#### WARNING

Do not try to bypass any laser interlocks for any reason. Permanent eye damage could result if the laser is accidentally directed into your eye.

**DANGER:** Ne pas essayer de shunter les contacts laser pour quelques raisons que ce soit. Si le faisceau laser est dirigé accidentellement vers les yeux il peut en résulter des lésions oculaires permanentes.

#### 4 Repairs and Adjustments

##### Drives

##### REP 1.1.1 Main Drive Assembly

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

Paper Transportation

##### REP 2.2.1 Retard Pad

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 2.4.1 Registration Unit

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 2.5.1 Left Chute Unit

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 2.5.2 BTR

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

ROS

##### REP 3.1.1 ROS Unit

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

Xerographics/Development

##### REP 4.1.1 XERO/Developer Cartridge

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical

power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 4.1.2 Toner Cartridge

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 4.2.1 Dispense Motor

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

Fuser

REP 5.1.1 Fuser Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

Exit

REP 6.1.1 Exit + OCT Assembly

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

MPT

REP 7.1.1 MPT Unit

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 7.2.1 MPT Retard Pad

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

Electrical Components

REP 9.1.1 MCU PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 9.2.1 ESS PWB

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

Covers

REP 10.1.1 Top Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 10.2.1 Rear Cover

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

IIT

REP 11.1.1 Control Panel

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 11.2.1 IIT Carriage Assembly

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 11.2.2 NBCR-Host/NBCR-Power Cable

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 11.4.1 Exposure Lamp

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 11.5.1 Front/Rear Carriage Cable

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 11.5.2 NSC/NBCR PWB

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 11.5.3 Image Inverter PWB

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 11.6.1 MFC and EXT PWB Box

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

nance ou réglage avec le cordon d'alimentation branche.

REP 11.6.2 EXT PWB

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

Tray Module -2T

REP 12.1.1 Tray 3 Feeder

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 12.1.2 Tray 4 Feeder

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 12.3.1 Feed/Retard/Nudger Roll

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 12.6.1 2TM PWB

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 12.7.1 Left Lower Cover

### **WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

Tray Module -ST

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 13.3.1 Feed/Retard/Nudger Roll

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

DADF/ADF

REP 15.1.1 DADF/ADF

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 15.1.2 DADF/ADF Platen Cushion

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 15.2.1 Document Tray Assembly

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 15.2.2 DADF/ADF Feeder Assembly

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 15.2.3 Front Cover

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 15.2.4 Rear Cover

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 15.3.1 DADF/ADF Control PWB

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 15.3.2 Left Counter Balance

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 15.3.3 Right Counter Balance

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 15.4.1 Top Cover

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

REP 15.8.1 Retard Roll

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branche.

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branché.

IIT

ADJ 11.1.1 Carriage Assembly Position Adjustment

**WARNING**

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

**DANGER:** Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer maintenance ou réglage avec le cordon d'alimentation branché.

**8 Accessories**

8.1 FAX KIT

**WARNING**

Switch off the machine and disconnect the power cord.

**DANGER:** Mettre la machine sur ARRET et débrancher le cordon d'alimentation.

8.2 Foreign Interface

**WARNING**

Switch off the machine and disconnect the power cord.

**DANGER:** Mettre la machine sur ARRET et débrancher le cordon d'alimentation.



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# 1 Service Call Procedures

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## Service Call Procedures

### Service Strategy

The service strategy for the Copy Centre C118, Work Centre M118 Copier/Printers are to perform any High Frequency Service Item (HFSI) actions before attempting to repair any problems. Some problems will be corrected by this strategy without the need to diagnose them. The Repair Analysis Procedures (RAPs) will be used for any remaining problems.

Problems that occur in the Basic Printer mode will be repaired before problems that occur when using the accessories.

Image Quality problems should be repaired after all other problems are repaired.

### Service Call Procedures

The **Service Call Procedures** are a guide for performing any service on this machine. The procedures are designed to be used with the Service Manual. Perform each step in order.

#### Initial Actions

The Initial Actions gather information about the condition of the machine and the problem that caused the service call.

#### Call Flow

Call Flow summarizes the sequence of the Service Call Procedures.

#### Detailed Maintenance Activities

This section provides the information needed to perform the High Frequency Service Item (HFSI) actions.

#### Cleaning Procedures

The cleaning procedures list what needs to be cleaned at each service call.

#### Final Actions

The Final Actions will test the copier/printer and return it to the customer. Administrative activities are also performed in the Final Actions.

## Initial Actions

### Purpose

The purpose of the Initial Action section of the Service Call Procedures is to determine the reason for the service call and to identify and organize the actions which must be performed.

### Procedure

1. Gather the information about the service call and the condition of the copier/printer.
  - a. Question the operator(s). Ask about the location of most recent paper jams. Ask about the image quality and the copier/printer performance in general, including any unusual sounds or other indications.
  - b. After informing the customer, disconnect the machine from the customer's network.
  - c. Check that the power cords are in good condition, correctly plugged in the power source, and free from any defects that would be a safety hazard. Repair or replace the power cords as required. Check that the circuit breakers are not tripped.
  - d. Inspect any rejected copies. Inquire as to, or otherwise determine, the paper quality and weight. Look for any damage to the copies, oil marks, image quality defects, or other indications of a problem.
  - e. Record the billing meter readings.
  - f. Enter the Diagnostics Mode.

**NOTE:** If a fault code is displayed while performing a diagnostics procedure, go to that fault code RAP and repair the fault. Return to Diagnostics and continue with the dC procedure that you were performing.
  - g. Determine what HFSI action is required based on the customer output volume. Refer to the Detailed Maintenance Activities section for the detailed HFSI information. Record any items that require action.
  - h. Print the CE Report and record the information in the Jam History (IIT), Jam History (IOT), Fatal Error History and Fax Error History. Classify this information into categories:
    - Information that is related to the problem that caused the service call.
    - Information that is related to secondary problems.
    - Information that does not require action, such as a single occurrence of a problem.
  - i. Check the Service Log for any recent activities that are related to the problem that caused the service call or any secondary problem.
2. Perform any required HFSI activities identified above. Refer to the Detailed Maintenance Activities section.
3. Exit diagnostics. Try to duplicate the problem by running the same jobs that the customer was running.
4. Go to Call Flow.

## Call Flow

This procedure should be performed at every service call.

### Initial Actions

Ask the operator about the problem. If the problem appears to be related to operator error, or an attempt to perform a job outside of the machine specifications, assist the customer in learning the correct procedure.

### Procedure

Ask the operator about the problem.

- If the problem is identified by a fault code (including Paper/Document Jams), refer to Chapter 2 for the procedure and then proceed with servicing.
- If the problem is noise or smell, select a mode (1 Sided/2 Sided etc.), find the cause of the problem and then proceed with servicing.

**The operator operated the machine correctly.**

**Y N**  
Explain to the operator how to operate the machine correctly.

**The UI display is normal.**

**Y N**  
Refer to BSD (CH2.X) and repair the failure in the UI display.

**The problem occurs only in Print mode.**

**Y N**  
**The problem occurs only in Copy mode.**

**Y N**  
**The problem occurs only in Fax mode.**

**Y N**  
If the cause of the problem is an accessory or the Foreign Interface, check that the machine settings are correct, refer to the appropriate service manual for the procedure and then proceed with servicing.

**The problem occurs only in certain modes such as Broadcast transmission.**

**Y N**  
Perform a transmission test with the call center or station. **The problem reoccurs.**

**Y N**  
**Ask the customer for permission to establish communications with the remote machine that is causing the problem. Perform a Send transmission test with the remote machine. Transmission was normal.**

**Y N**  
Enter [Trace Dump] in [CE Setting], print the protocol trace to identify whether it is the remote machine or the machine that is causing the problem.

- If the problem lies in the machine:  
Analyze the protocol trace, refer to Chapter 2 and then proceed with servicing.
- If the problem appears to lie in the remote machine:  
Ask the customer to check the status of the remote machine.

A B C D E

Service Call Procedures

Call Flow

A

B

C

D

E

There is a problem with Receive transmission test. Perform Receive transmission tests with other stations within the company. Check that there is no problem with the machine and then ask the customer to check the status of the remote machine.

Analyze the protocol trace, refer to Chapter 2 and then proceed with servicing.

Check the machine settings and if necessary, ask the customer for permission to test the machine in the mode in which the problem occurs.

Analyze the protocol trace when the problem reoccurs, refer to Chapter 2 and then proceed with servicing.

**There is an image quality problem.**

**Y N**  
If there is an alignment problem, obtain separate Platen/DADF output samples, refer to Chapter 4 Adjustments and then proceed with servicing.

Refer to Chapter 3 IQ1 IOT Image Quality Entry RAP and then proceed with servicing.

**There is a problem with the network.**

**Y N**  
**There is a problem with network connection.**

**Y N**  
**There is an image quality problem.**

**Y N**  
**The problem lies in a certain Client PC.**

**Y N**  
There is a problem with a certain application or programming language A. Obtain the latest information on restrictions and technical information. Proceed accordingly.

Check the settings of that particular Client PC and if necessary ask the user to reinstall the printer driver.

Refer to Chapter 3 IQ1 IOT Image Quality Entry RAP and then proceed with servicing.

If the problem persists, ask the user to reinstall the printer driver.

Check the machine settings and if necessary ask the user to reinstall the printer driver.

If the problem persists, replace the network cable. Check the machine settings and discuss the problem with the customer's network administrator.

## Detailed Maintenance Activities (HFSI)

### Procedure

1. Enter Diagnostics and select CE Setting.
2. Perform the Service Actions in Table 1 for any High Frequency Service Item (HFSI) counters that are over threshold or approaching the threshold. Using the customer's output volume numbers (high, medium, or low volume), evaluate which HFSI actions should be accomplished now to avoid an additional service call in the near future.
3. Refer to Cleaning Procedures for detailed cleaning instructions.

**Table 1 High Frequency Service Items**

Counter	Name	Threshold	Service Action
Chain-Func	Tray 1 Feed counter [NVRAM R/W] [29/34][29/24][29/14][29/4]	50K	Replace the Feed Roll, Retard Pad. Reset the counter.
Chain-Func	Tray 2 Feed counter [NVRAM R/W] [29/35][29/25][29/15][29/5]	300K	Replace the Feed Roll, Retard Roll, Nudger Roll. Reset the counter.
Chain-Func	Tray 3 Feed counter [NVRAM R/W] [29/36][29/26][29/16][29/6]	300K	Replace the Feed Roll, Retard Roll, Nudger Roll. Reset the counter.
Chain-Func	Tray 4 Feed counter [NVRAM R/W] [29/37][29/27][29/17][29/7]	300K	Replace the Feed Roll, Retard Roll, Nudger Roll. Reset the counter.
Chain-Func	MPT Feed counter [NVRAM R/W] [29/39][29/29][29/19][29/9]	50K	Replace the Feed Roll, Retard Pad. Reset the counter.
Chain-Func	Bias Transfer Roll [NVRAM R/W] [30/44][30/43][30/42][30/41]	300K	Replace the Bias Transfer Roll. Reset the counter.
Chain-Func	Fuser Assembly [NVRAM R/W] [21/39][21/29][21/19][21/9]	175K	Replace the Fuser Assembly. Reset the counter.
Counter	IIT Counter [IIT] [Feed]	100K	Replace the Pick up Roll, Feed Roll, Retard Roll.

## Cleaning Procedures

### Purpose

To provide cleaning procedures to be performed at every call.

### Procedure

#### CAUTION

*Do not use any solvents unless directed to do so by the Service Manual.*

#### General Cleaning

Use a dry lint free cloth or a lint free cloth moistened with water for all cleaning unless directed otherwise by the Service Manual. Wipe with a dry lint free cloth if a moistened cloth is used.

1. **IOT Feed Components (Rolls and Pads)**  
Follow the General Cleaning procedure above.
2. **Toner Dispense Units**  
Vacuum the Toner at the Toner Housing.
3. **Jam Sensors**  
Clean the sensors with a dry cotton swab.
4. **Scanner**
  - a. Switch off the power and allow the Exposure Lamp to cool off.
  - b. Using the optical Cleaning Cloth, clean the front and rear of the Document Glass, Document Cover, White Reference Strip, Reflector, and Mirror.
  - c. Clean the Exposure Lamp with a clean cloth and Film Remover.
  - d. Clean the Lens with Lens and Mirror Cleaner and lint free cloth.
5. **DADF/ADF**  
Check the paper path for debris or damage. Clean the rolls with a clean cloth and Film Remover as required.
6. Sheet Platen Glass and DADF Platen Glass.  
Follow the General Cleaning procedure above.

## Final Actions

### Purpose

To provide a guide for procedures to be performed at the end of every service call.

### Procedure

1. Ensure that the exterior of the copier/printer and the adjacent area are clean. Use a dry cloth or a cloth moistened with water to clean the copier/printer. Do not use solvents.
2. Check the supply of consumable. Ensure that an adequate supply of consumable is available according to local operating procedures.
3. Complete the Service Log.
4. Perform the following steps to make a copy of the Demonstration Original for the customer:
  - a. Load Tray 1 with 8.5 x 11 inch (A4) or 11 x 17 inch paper.
  - b. Place the Test Pattern on the glass with the short edge of the test pattern registered to the left edge of the glass. Select Tray 1 and make a single copy.
  - c. Print out the CE Report. Store this report with the service log in the Inner Cover.
  - d. Ask the customer to verify the Print and Scan functions.
  - e. Present the copies to the customer.
5. Reconnect the machine to the customer network. Verify the function.
6. Issue copy credits as needed.
7. Discuss the service call with the customer to ensure that the customer understands what has been done and is satisfied with the results of the service call.

## 2 Status Indicator RAPs

### C-Status Code

C1-3000	Registration Sensor On JAM RAP (Tray 1 Feed)	2-3
C2-2000	Tray 2 Feed Out Sensor On JAM RAP (Tray 2 Feed)	2-4
C2-3000	Registration Sensor On JAM RAP (Tray 2 Feed)	2-5
C3-1000	Tray 3 Feed Out Sensor On JAM RAP (Tray 3 Feed)	2-6
C3-2000	Tray 2 Feed Out Sensor On JAM RAP (Tray 3 Feed)	2-7
C3-3000	Registration Sensor On JAM RAP (Tray 3 Feed)	2-8
C4-0000	Tray 4 Feed Out Sensor On JAM RAP (Tray 4 Feed)	2-9
C4-1000	Tray 3 Feed Out Sensor On JAM RAP (Tray 4 Feed)	2-10
C4-2000	Tray 2 Feed Out Sensor On JAM RAP (Tray 4 Feed)	2-11
C4-3000	Registration Sensor On JAM RAP (Tray 4 Feed)	2-12
C6-1000	Registration Sensor On JAM RAP (DUP Feed/Stop Case)	2-13
C6-2000	Registration Sensor On JAM RAP (DUP Feed/Nonstop Case)	2-14
C8-2000	Tray 2 Feed Out Sensor Static JAM RAP	2-15
C8-3000	Tray 3 Feed Out Sensor Static JAM RAP	2-15
C8-4000	Tray 4 Feed Out Sensor Static JAM RAP	2-16
C8-6000	Duplex Sensor Static JAM RAP	2-16
C9-3000	Registration Sensor On JAM RAP (MPT Feed)	2-17

### E-Status Code

E1-1000	Registration Sensor Off JAM RAP	2-19
E1-2000	Fuser Exit Sensor On JAM RAP	2-20
E1-6000	Registration Sensor Static JAM RAP	2-21
E3-1000	Fuser Exit Sensor Off JAM RAP	2-21
E3-2000	Fuser Exit Sensor Off JAM RAP (Too Short)	2-22
E3-6000	Fuser Exit Sensor Static JAM RAP	2-23
E8-2000	Duplex Sensor On JAM RAP	2-23

### H-Status Code

H1-2000	Tray 2 Lift Up / No Tray Failure RAP	2-25
H1-3000	Tray 3 Lift Up / No Tray Failure RAP	2-26
H1-4000	Tray 4 Lift Up / No Tray Failure RAP	2-27
H2-7000	DUP Module Communication Failure RAP	2-28
H3-1000	OCT1 Failure RAP	2-28
H4-1000	Tray 1 Cassette Size Failure RAP	2-29
H4-2000	Tray 2 Cassette Size Failure RAP	2-30
H4-3000	Tray 3 Cassette Size Failure RAP	2-30
H4-4000	Tray 4 Cassette Size Failure RAP	2-31
H7-3000	2TM NVM Out-Of-Order RAP	2-31
H7-4000	2TM NVM R/W Error RAP	2-32
H7-7000	2TM Communication Failure RAP	2-32
H7-8000	TM Type Error RAP	2-33
H8-1000	Tray 1 Paper Size Switch Broken RAP	2-33
H8-2000	Tray 2 Paper Size Switch Broken RAP	2-34
H8-3000	Tray 3 Paper Size Switch Broken RAP	2-34
H8-4000	Tray 4 Paper Size Switch Broken RAP	2-35
H9-3000	STM NVM Out-Of-Order RAP	2-35
H9-4000	STM NVM R/W Error RAP	2-36

H9-7000	STM Communication Failure RAP	2-36
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### J-Status Code

J1-2000	Toner Cartridge Empty Failure RAP	2-37
J3-1000	XERO/Developer Cartridge Set Failure RAP	2-37
J4-1000	ATC Sensor Failure RAP	2-38
J6-1000	XERO/Developer Cartridge Life Over RAP	2-39
J7-1000	XERO/Developer Cartridge CRUM Communication Failure RAP	2-40
J7-2000	XERO/Developer Cartridge CRUM Data Write Failure RAP	2-40
J7-3000	XERO/Developer Cartridge CRUM ID Failure RAP	2-41
J8-1000	Toner Cartridge CRUM Communication Failure RAP	2-41
J8-2000	MCU Toner Cartridge CRUM Data Write Failure RAP	2-42
J8-3000	Toner Cartridge CRUM ID Failure RAP	2-42

### S-Status Code

S1-0000	Carriage Error RAP	2-43
S1-0001	DADF/ADF Top Cover Open During Platen Scan RAP	2-44
S1-0010	Jam During Feed RAP	2-44
S1-0011	Jam During Scan RAP	2-45
S1-0012	Long Document JAM RAP	2-46
S1-0013	Short Document JAM RAP	2-47
S1-0014	ADF Static JAM RAP	2-48
S1-0015	Platen Cover Open During ADF Scan RAP	2-49
S1-0016	ADF Top Cover Open During ADF Scan RAP	2-49
S1-0020	Jam During Feed RAP	2-50
S1-0021	Jam During Scan RAP	2-51
S1-0022	Long Document JAM RAP	2-52
S1-0023	Short Document JAM RAP	2-53
S1-0024	Jam During Invert Transport RAP	2-53
S1-0025	DADF Static JAM RAP	2-54
S1-0026	Platen Cover Open During DADF Scan RAP	2-55
S1-0027	ADF Top Cover Open During DADF Scan RAP	2-56

### U-Status Code

U0-1000	Main Motor Stop Error RAP	2-57
U0-2000	Image Ready Error RAP	2-57
U1-1000	Main Motor Failure RAP	2-58
U3-5000	ROS Motor Failure RAP	2-59
U4-1000	Fuser On Time Failure RAP	2-59
U4-2000	Over Heat Temp Failure RAP	2-60
U4-3000	Control Thermistor Failure RAP	2-61
U4-9000	Fuser Fan Failure RAP	2-61
U5-1000	Dispense Motor Failure RAP	2-62
U6-2000	RAM Read/Write Check Failure RAP	2-62
U6-3000	NVM Data Defect RAP	2-63
U6-4000	NVM Read/Write Cannot Be Executed RAP	2-63
U6-5000	CPU Power To Access NVM Is Not Enough RAP	2-64
U6-6000	CRUM ASIC Failure RAP	2-64

## Z-Status Code

Z1-0000 Billing Counter Failure RAP ..... 2-65

## Fax Error Code

00xxxx Polling Operation Error RAP ..... 2-67  
01xxxx Document Feed Failure RAP ..... 2-67  
02xxxx Dial Setting Failure RAP ..... 2-68  
03xxxx Password Mismatch During Send RAP ..... 2-68  
04xxxx Password Mismatch During Receive RAP ..... 2-69  
05xxxx Password Mismatch During Polling RAP ..... 2-69  
06xxxx Relay Broadcast Not Allowed RAP ..... 2-70  
07xxxx Mailbox Receive Not Allowed RAP ..... 2-70  
09xxxx Transmission Type Mismatch RAP ..... 2-71  
10xxxx F Code Send Error RAP ..... 2-71  
11xxxx F Code Receive Error RAP ..... 2-72  
33xxxx V.34 Protocol Error RAP ..... 2-72  
45xxxx Memory Overflow RAP ..... 2-73  
46xxxx Document JAM RAP ..... 2-73  
47xxxx Error During Receive RAP ..... 2-74  
70xxxx Busy Tone RAP ..... 2-74  
71xxxx No Response RAP ..... 2-75  
72xxxx Remote Machine Error RAP ..... 2-75  
74xxxx Transmission Error RAP ..... 2-76  
76xxxx Polarity Reversal Detected Other Than While Waiting To Receive Initial Identification  
Signal RAP ..... 2-76  
77xxxx No Response To Post Message RAP ..... 2-77  
78xxxx DCN Received While Waiting For Response To Post Message RAP ..... 2-77  
79xxxx PIP Received In Response To Post Message RAP ..... 2-78  
7Axxxx RTN Received In Response To Post Message RAP ..... 2-78  
7Cxxxx CRP Received RAP ..... 2-79  
7Dxxxx Command Error For Receive RAP ..... 2-79  
7Fxxxx No Response From Remote Machine After Mode Change (T1 Time out) RAP ..... 2-80  
8Fxxxx PIN Received In Response To Post Message RAP ..... 2-80  
91xxxx No Response RAP ..... 2-81  
92xxxx DCN Received While Waiting For Command Other Than DCN In PHASE-B RAP ..... 2-81  
95xxxx Time out 10 sec. After Detecting Low Speed Flag While Waiting For Image Signal Car-  
rier (HMCD ON) Detection RAP ..... 2-82  
96xxxx Carrier Was Broken Within 15 sec. When Receiving G3 Image Signal RAP .... 2-82  
97xxxx T2 Time out RAP ..... 2-83  
98xxxx DCN Received While Waiting For Command Other Than DCN In PHASE-D RAP ..... 2-83  
99xxxx PRI-Q Received RAP ..... 2-84  
9Axxxx Decoding Error RAP ..... 2-84  
9Cxxxx CRP Was Received Three Times While Waiting For Response To Initial Identification  
Signal RAP ..... 2-85  
9Dxxxx Command Error For Receive (Carrier Was Not Broken) RAP ..... 2-85  
9Fxxxx EOR-Q RAP ..... 2-86  
B0xxxx Power Supply Was Cut Off RAP ..... 2-86  
B2xxxx System Error RAP ..... 2-87  
B4xxxx Modem Error RAP ..... 2-87  
B5xxxx Modem Error During Send RAP ..... 2-88  
B6xxxx Modem Error During Receive RAP ..... 2-88  
B7xxxx Image Data Conversion System Error RAP ..... 2-89

E1xxxx Scan to E-mail Transmission Error RAP ..... 2-89  
E2xxxx Direct Fax Transmission Error RAP ..... 2-90  
EPxxxx EP Related RAP ..... 2-90

## ESS Failure List

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## Other Faults

OF1 Warning Toner Cartridge Was PRENEAR Empty RAP ..... 2-109  
OF2 Warning Drum Life Was Near To End RAP ..... 2-110  
OF3 Warning No Paper In The Select Paper Tray RAP ..... 2-110  
OF4 Warning Paper Size Mismatch In Length RAP ..... 2-111  
OF5 Warning Paper Size Mismatch In Width RAP ..... 2-112  
OF6 Cover Left Cover Assembly Open RAP ..... 2-113  
OF7 Cover IOT Front Cover Open RAP ..... 2-114  
OF8 Cover STM Left Cover Open RAP ..... 2-114  
OF9 Cover 2TM Left Cover Open RAP ..... 2-115  
OF10 Cover Duplex Cover Open RAP ..... 2-115  
OF11 Size Switch Assy RAP ..... 2-116  
OF12 Receive Fax Not Output RAP ..... 2-117  
OF13 Abort Code RAP ..... 2-118

## C1-3000 Registration Sensor On JAM RAP (Tray 1 Feed)

After the Tray 1 Feed Clutch turned On, the Registration Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 8.1/8.6.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-5 Registration Sensor]. Manually activate the actuator of the Registration Sensor (PL 2.4). **The display changes.**

Y N  
Check the connection of P/J104. **P/J104 is connected correctly.**

Y N  
Connect P/J104.

Check the wire between J104 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 1/Flag 2). **The wire between J104 and J403 is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-B15 (+) and the GND (-) (BSD 8.6 Flag 2). **The voltage is approx. +5VDC.**

Y N  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P403-B14 (+) and the GND (-) (BSD 8.6 Flag 1). Place paper in front of the Registration Sensor. **The voltage changes.**

Y N  
Replace the Registration Sensor (PL 2.4).

Replace the MCU PWB (PL 9.1).

Execute Input/Output Check[8-12 Tray 1 Feed Clutch ON]. **The Tray 1 Feed Clutch (PL 2.3) can be heard.**

Y N  
Check the connections of P/J217 and P/J415. **P/J217 and P/J415 are connected correctly.**

A

Y N  
Connect P/J217 and P/J415.

Measure the resistance of the Tray 1 Feed Clutch (PL 2.3) (BSD 8.1 Flag 2). (Between P217-1 and P217-4). **The resistance is approx. 1860hm.**

Y N  
Replace the Tray 1 Feed Clutch (PL 2.3).

Check the wire between J217 and J415 for an open circuit or a short circuit (BSD 8.1 Flag 2). **The wire between J217 and J415 is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

A

Initial Issue

CCC118, WCM118

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2-3

Status Indicator RAPs

C1-3000

## C2-2000 Tray 2 Feed Out Sensor On JAM RAP (Tray 2 Feed)

After the Tray 2 Feed/Lift Up Motor turned On, the Tray 2 Feed Out Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 7.6/8.2.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
| Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-6 Tray 2 Feed Out Sensor]. Place paper in front of the Tray 2 Feed Out Sensor (PL 13.5). **The display changes.**

Y N  
| Check the connections of P/J182 and P/J548C. **P/J182 and P/J548C are connected correctly.**

Y N  
| Connect P/J182 and P/J548C.

Check the wire between J182 and J548C for an open circuit or a short circuit (BSD 8.2 Flag 1/Flag 2). **The wire between J182 and J548C is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the STM PWB P548C-3 (+) and the GND (-) (BSD 8.2 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the STM PWB (PL 13.6).

Measure the voltage between the STM PWB P548C-5 (+) and the GND (-) (BSD 8.2 Flag 1). Place paper in front of the Tray 2 Feed Out Sensor (PL 13.5). **The voltage changes.**

Y N  
| Replace the Tray 2 Feed Out Sensor (PL 13.5).

Replace the STM PWB (PL 13.6).

Execute Input/Output Check[8-13 Tray 2 Feed/Lift Up Motor ON]. **The Tray 2 Feed/Lift Up Motor (PL 13.3) can be heard.**

Y N  
| Check the connections of P/J281 and P/J661C. **P/J281 and P/J661C are connected correctly.**

Y N  
| Connect P/J281 and P/J661C.

Check the wire between J281 and J661C for an open circuit or a short circuit (BSD 7.6 Flag 1). **The wire between J281 and J661C is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Replace the Tray 2 Feed/Lift Up Motor (PL 13.3) followed by the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

## C2-3000 Registration Sensor On JAM RAP (Tray 2 Feed)

After the Tray 2 Feed Out Sensor turned On, the Registration Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 8.2/8.6.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-5 Registration Sensor]. Manually activate the actuator of the Registration Sensor (PL 2.4). **The display changes.**

Y N  
Check the connection of P/J104. **P/J104 is connected correctly.**

Y N  
Connect P/J104.

Check the wire between J104 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 1/Flag 2). **The wire between J104 and J403 is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-B15 (+) and the GND (-) (BSD 8.6 Flag 2). **The voltage is approx. +5VDC.**

Y N  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P403-B14 (+) and the GND (-) (BSD 8.6 Flag 1). Place paper in front of the Registration Sensor. **The voltage changes.**

Y N  
Replace the Registration Sensor (PL 2.4).

Replace the MCU PWB (PL 9.1).

Execute Input/Output Check[8-24 STM Takeaway Roll Clutch ON]. **The STM Takeaway Roll Clutch (PL 13.6) can be heard.**

Y N  
Check the connections of P/J280 and P/J552C. **P/J280 and P/J552C are connected correctly.**

A

Y N  
Connect P/J280 and P/J552C.

Measure the resistance of the STM Takeaway Roll Clutch (PL 13.6) (BSD 8.2 Flag 2). (Between P280-1 and P280-2) **There is no open circuit.**

Y N  
Replace the STM Takeaway Roll Clutch (PL 13.6).

Check the wire between J280 and J552C for an open circuit or a short circuit (BSD 8.2 Flag 2). **The wire between J280 and J552C is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Replace the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

A

## C3-1000 Tray 3 Feed Out Sensor On JAM RAP (Tray 3 Feed)

After the Tray 3 Feed/Lift Up Motor turned On, the Tray 3 Feed Out Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 7.7/8.3.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
| Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-8 Tray 3 Feed Out Sensor]. Place paper in front of the Tray 3 Feed Out Sensor (PL 12.5). **The display changes.**

Y N  
| Check the connections of P/J821, P/J841 and P/J548. **P/J821, P/J841 and P/J548 are connected correctly.**

Y N  
| Connect P/J821, P/J841 and P/J548.

Check the wire between J821 and J548 for an open circuit or a short circuit (BSD 8.3 Flag 1/Flag 2). **The wire between J821 and J548 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the 2TM PWB P548-8 (+) and the GND (-) (BSD 8.3 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the 2TM PWB (PL 12.6).

Measure the voltage between the 2TM PWB P548-10 (+) and the GND (-) (BSD 8.3 Flag 1). Place paper in front of the Tray 3 Feed Out Sensor (PL 12.5). **The voltage changes.**

Y N  
| Replace the Tray 3 Feed Out Sensor (PL 12.5).

Replace the 2TM PWB (PL 12.6).

Execute Input/Output Check[8-14 Tray 3 Feed/Lift Up Motor ON]. **The Tray 3 Feed/Lift Up Motor (PL 12.3) can be heard.**

Y N  
| Check the connections of P/J220B, P/J661B and P549. **P/J220B, P/J661B and P549 are connected correctly.**

Y N  
| Connect P/J220B, P/J661B and P549.

Remove the Tray 3 Feed/Lift Up Motor (PL 12.3) and the Tray 4 Feed/Lift Up Motor (PL 12.3). Replace the Tray 3 Feed/Lift Up Motor with the Tray 4 Feed/Lift Up Motor. Execute Input/Output Check[8-14 Tray 3 Feed/Lift Up Motor ON]. **The Tray 4 Feed/Lift Up Motor (PL 12.3) can be heard.**

Y N  
| Return the Tray 4 Feed/Lift Up Motor to its original position. Check the wire between J220B and J549 for an open circuit or a short circuit (BSD 7.7 Flag 1). **The wire between J220B and J549 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Replace the 2TM PWB (PL 12.6).

Return the Tray 4 Feed/Lift Up Motor to its original position.

Replace the Tray 3 Feed/Lift Up Motor (PL 12.3).

Replace the 2TM PWB (PL 12.6).

## C3-2000 Tray 2 Feed Out Sensor On JAM RAP (Tray 3 Feed)

After the Tray 3 Feed Out Sensor turned On, the Tray 2 Feed Out Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 7.7/8.2.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
| Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-6 Tray 2 Feed Out Sensor]. Place paper in front of the Tray 2 Feed Out Sensor (PL 13.5). **The display changes.**

Y N  
| Check the connections of P/J182 and P/J548C. **P/J182 and P/J548C are connected correctly.**

Y N  
| Connect P/J182 and P/J548C.

Check the wire between J182 and J548C for an open circuit or a short circuit (BSD 8.2 Flag 1/Flag 2). **The wire between J182 and J548C is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the STM PWB P548C-3 (+) and the GND (-) (BSD 8.2 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the STM PWB (PL 13.6).

Measure the voltage between the STM PWB P548C-5 (+) and the GND (-) (BSD 8.2 Flag 1). Place paper in front of the Tray 2 Feed Out Sensor (PL 13.5). **The voltage changes.**

Y N  
| Replace the Tray 2 Feed Out Sensor (PL 13.5).

Replace the STM PWB (PL 13.6).

Execute Input/Output Check[8-14 Tray 3 Feed/Lift Up Motor ON]. **The Tray 3 Feed/Lift Up Motor (PL 12.3) can be heard.**

Y N  
| Check the connections of P/J220B, P/J661B and P549. **P/J220B, P/J661B and P549 are connected correctly.**

Y N  
| Connect P/J220B, P/J661B and P549.

Remove the Tray 3 Feed/Lift Up Motor (PL 12.3) and the Tray 4 Feed/Lift Up Motor (PL 12.3). Replace the Tray 3 Feed/Lift Up Motor with the Tray 4 Feed/Lift Up Motor. Execute Input/Output Check[8-14 Tray 3 Feed/Lift Up Motor ON]. **The Tray 4 Feed/Lift Up Motor (PL 12.3) can be heard.**

Y N  
| Return the Tray 4 Feed/Lift Up Motor to its original position. Check the wire between J220B and J549 for an open circuit or a short circuit (BSD 7.7 Flag 1). **The wire between J220B and J549 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Replace the 2TM PWB (PL 12.6).

Return the Tray 4 Feed/Lift Up Motor to its original position.

Replace the Tray 3 Feed/Lift Up Motor (PL 12.3).

Replace the 2TM PWB (PL 12.6).

## C3-3000 Registration Sensor On JAM RAP (Tray 3 Feed)

After the Tray 3 Feed Out Sensor turned On, the Registration Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 7.6/8.6.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-5 Registration Sensor]. Manually activate the actuator of the Registration Sensor (PL 2.4). **The display changes.**

Y N  
Check the connection of P/J104. **P/J104 is connected correctly.**

Y N  
Connect P/J104.

Check the wire between J104 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 1/Flag 2). **The wire between J104 and J403 is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-B15 (+) and the GND (-) (BSD 8.6 Flag 2). **The voltage is approx. +5VDC.**

Y N  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P403-B14 (+) and the GND (-) (BSD 8.6 Flag 1). Place paper in front of the Registration Sensor. **The voltage changes.**

Y N  
Replace the Registration Sensor (PL 2.4).

Replace the MCU PWB (PL 9.1).

Execute Input/Output Check[8-13 Tray 2 Feed/Lift Up Motor ON]. **The Tray 2 Feed/Lift Up Motor (PL 13.3) can be heard.**

Y N  
Check the connections of P/J281 and P/J661C. **P/J281 and P/J661C are connected correctly.**

A

Y N  
Connect P/J281 and P/J661C.

Check the wire between J281 and J661C for an open circuit or a short circuit (BSD 7.6 Flag 1). **The wire between J281 and J661C is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Replace the Tray 2 Feed/Lift Up Motor (PL 13.3) followed by the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

A

## C4-0000 Tray 4 Feed Out Sensor On JAM RAP (Tray 4 Feed)

After the Tray 4 Feed/Lift Up Motor turned On, the Tray 4 Feed Out Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 7.8/8.3.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
| Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-9 Tray 4 Feed Out Sensor]. Place paper in front of the Tray 4 Feed Out Sensor (PL 12.5). **The display changes.**

Y N  
| Check the connections of P/J825, P/J842 and P/J548. **The connectors are connected correctly.**

Y N  
| Connect the connectors.

Check the wire between J825 and J548 for an open circuit or a short circuit (BSD 8.3 Flag 3/Flag 4). **The wire between J825 and J548 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the 2TM PWB P548-1 (+) and the GND (-) (BSD 8.3 Flag 4). **The voltage is approx. +5VDC.**

Y N  
| Replace the 2TM PWB (PL 12.6).

Measure the voltage between the 2TM PWB P548-3 (+) and the GND (-) (BSD 8.3 Flag 3). Place paper in front of the Tray 4 Feed Out Sensor (PL 12.5). **The voltage changes.**

Y N  
| Replace the Tray 4 Feed Out Sensor (PL 12.5).

Replace the 2TM PWB (PL 12.6).

Execute Input/Output Check[8-15 Tray 4 Feed/Lift Up Motor ON]. **The Tray 4 Feed/Lift Up Motor (PL 12.3) can be heard.**

Y N  
| Check the connections of P/J220A, P/J661A and P549. **P/J220A, P/J661A and P549 are connected correctly.**

Y N  
| Connect P/J220A, P/J661A and P549.

Remove the Tray 4 Feed/Lift Up Motor (PL 12.3) and the Tray 3 Feed/Lift Up Motor (PL 12.3). Replace the Tray 4 Feed/Lift Up Motor with the Tray 3 Feed/Lift Up Motor. Execute Input/Output Check[8-15 Tray 4 Feed/Lift Up Motor ON]. **The Tray 3 Feed/Lift Up Motor (PL 12.3) can be heard.**

Y N  
| Return the Tray 3 Feed/Lift Up Motor to its original position. Check the wire between J220A and J549 for an open circuit or a short circuit (BSD 7.8 Flag 1). **The wire between J220A and J549 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Replace the 2TM PWB (PL 12.6).

Return the Tray 3 Feed/Lift Up Motor to its original position.

Replace the Tray 4 Feed/Lift Up Motor (PL 12.3).

Replace the 2TM PWB (PL 12.6).

## C4-1000 Tray 3 Feed Out Sensor On JAM RAP (Tray 4 Feed)

After the Tray 4 Feed Out Sensor turned On, the Tray 3 Feed Out Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 8.3/8.5.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
| Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-8 Tray 3 Feed Out Sensor]. Place paper in front of the Tray 3 Feed Out Sensor (PL 12.5). **The display changes.**

Y N  
| Check the connections of P/J821, P/J841 and P/J548. **P/J821, P/J841 and P/J548 are connected correctly.**

Y N  
| Connect P/J821, P/J841 and P/J548.

Check the wire between J821 and J548 for an open circuit or a short circuit (BSD 8.3 Flag 1/Flag 2). **The wire between J821 and J548 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the 2TM PWB P548-8 (+) and the GND (-) (BSD 8.3 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the 2TM PWB (PL 12.6).

Measure the voltage between the 2TM PWB P548-10 (+) and the GND (-) (BSD 8.3 Flag 1). Place paper in front of the Tray 3 Feed Out Sensor (PL 12.5). **The voltage changes.**

Y N  
| Replace the Tray 3 Feed Out Sensor (PL 12.5).

Replace the 2TM PWB (PL 12.6).

Execute Input/Output Check[8-2 2TMTakeaway Motor ON]. **The 2TM Takeaway Motor (PL 12.6) can be heard.**

Y N  
| Check the connections of P/J826 and P/J552. **P/J826 and P/J552 are connected correctly.**

Y N  
| Connect P/J826 and P/J552.

Check the wire between J826 and J552 for an open circuit or a short circuit (BSD 8.5 Flag 1/Flag 2). **The wire between J826 and J552 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Replace the 2TM PWB (PL 12.6).

Replace the 2TM PWB (PL 12.6).

## C4-2000 Tray 2 Feed Out Sensor On JAM RAP (Tray 4 Feed)

After the Tray 3 Feed Out Sensor turned On, the Tray 2 Feed Out Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 8.2/8.4.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
| Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-6 Tray 2 Feed Out Sensor]. Place paper in front of the Tray 2 Feed Out Sensor (PL 13.5). **The display changes.**

Y N  
| Check the connections of P/J182 and P/J548C. **P/J182 and P/J548C are connected correctly.**

Y N  
| Connect P/J182 and P/J548C.

Check the wire between J182 and J548C for an open circuit or a short circuit (BSD 8.2 Flag 1/Flag 2). **The wire between J182 and J548C is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the STM PWB P548C-3 (+) and the GND (-) (BSD 8.2 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the STM PWB (PL 13.6).

Measure the voltage between the STM PWB P548C-5 (+) and the GND (-) (BSD 8.2 Flag 1). Place paper in front of the Tray 2 Feed Out Sensor (PL 13.5). **The voltage changes.**

Y N  
| Replace the Tray 2 Feed Out Sensor (PL 13.5).

Replace the STM PWB (PL 13.6).

Execute Input/Output Check[8-46 STM Takeaway Motor ON]. **The STM Takeaway Motor (PL 13.6) can be heard.**

Y N  
| Check the connections of P/J282 and P/J552C. **P/J282 and P/J552C are connected correctly.**

Y N  
| Connect P/J282 and P/J552C.

Check the wire between J282 and J552C for an open circuit or a short circuit (BSD 8.4 Flag 1). **The wire between J282 and J552C is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

2TM PWB (PL 12.6)

Replace the 2TM PWB (PL 12.6).

## C4-3000 Registration Sensor On JAM RAP (Tray 4 Feed)

After the Tray 2 Feed Out Sensor turned On, the Registration Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 8.2/8.6.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-5 Registration Sensor]. Manually activate the actuator of the Registration Sensor (PL 2.4). **The display changes.**

Y N  
Check the connection of P/J104. **P/J104 is connected correctly.**

Y N  
Connect P/J104.

Check the wire between J104 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 1/Flag 2). **The wire between J104 and J403 is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-B15 (+) and the GND (-) (BSD 8.6 Flag 2). **The voltage is approx. +5VDC.**

Y N  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P403-B14 (+) and the GND (-) (BSD 8.6 Flag 1). Place paper in front of the Registration Sensor. **The voltage changes.**

Y N  
Replace the Registration Sensor (PL 2.4).

Replace the MCU PWB (PL 9.1).

Execute Input/Output Check[8-24 STM Takeaway Roll Clutch ON]. **The STM Takeaway Roll Clutch (PL 13.6) can be heard.**

Y N  
Check the connections of P/J280 and P/J552C. **P/J280 and P/J552C are connected correctly.**

A

Y N  
Connect P/J280 and P/J552C.

Measure the resistance of the STM Takeaway Roll Clutch (PL 13.6) (BSD 8.2 Flag 3). (Between P280-1 and P280-2) **There is no open circuit.**

Y N  
Replace the STM Takeaway Roll Clutch (PL 13.6).

Check the wire between J280 and J552C for an open circuit or a short circuit (BSD 8.2 Flag 3). **The wire between J280 and J552C is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Replace the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

A

## C6-1000 Registration Sensor On JAM RAP (DUP Feed/ Stop Case)

In the case where Duplex feeding stops, the Registration Sensor did not turn On within the specified time after the Duplex Motor turned On.

### Initial Actions

Refer to BSD 8.6/10.4.

Power OFF/ON

### Procedure

Check the installation of the DUP Module. **The DUP Module is installed correctly.**

Y N  
| Install the DUP Module correctly.

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
| Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-5 Registration Sensor]. Manually activate the actuator of the Registration Sensor (PL 2.4). **The display changes.**

Y N  
| Check the connection of P/J104. **P/J104 is connected correctly.**

Y N  
| Connect P/J104.

Check the wire between J104 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 1/Flag 2). **The wire between J104 and J403 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-B15 (+) and the GND (-) (BSD 8.6 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P403-B14 (+) and the GND (-) (BSD 8.6 Flag 1). Place paper in front of the Registration Sensor. **The voltage changes.**

Y N  
| Replace the Registration Sensor (PL 2.4).

Replace the MCU PWB (PL 9.1).

A  
Execute Input/Output Check[8-38 Duplex Motor ON]. The Duplex Motor (PL 8.1) can be heard.

Y N  
| Check the wire between J212 and J542 for an open circuit or a short circuit (BSD 10.4 Flag 3). **The wire between J212 and J542 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Replace the Duplex Motor (PL 8.1) followed by the Duplex PWB (PL 8.1).

Replace the Duplex PWB (PL 8.1).

## C6-2000 Registration Sensor On JAM RAP (DUP Feed/ Nonstop Case)

In the case where there is non-stop Duplex feed, the Registration Sensor did not turn On within the specified time after the Duplex Sensor turned On.

### Initial Actions

Refer to BSD 8.6/10.4.

Power OFF/ON

### Procedure

Check the installation of the DUP Module. **The DUP Module is installed correctly.**

Y N  
|  
Install the DUP Module correctly.

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
|  
Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
|  
Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-5 Registration Sensor]. Manually activate the actuator of the Registration Sensor (PL 2.4). **The display changes.**

Y N  
|  
Check the connection of P/J104. **P/J104 is connected correctly.**

Y N  
|  
Connect P/J104.

Check the wire between J104 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 1/Flag 2). **The wire between J104 and J403 is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-B15 (+) and the GND (-) (BSD 8.6 Flag 2). **The voltage is approx. +5VDC.**

Y N  
|  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P403-B14 (+) and the GND (-) (BSD 8.6 Flag 1). Place paper in front of the Registration Sensor. **The voltage changes.**

Y N  
|  
Replace the Registration Sensor (PL 2.4).

Replace the MCU PWB (PL 9.1).

A  
|  
Execute Input/Output Check[8-31 Duplex Sensor]. Place paper in front of the Duplex Sensor (PL 8.1). **The display changes.**

Y N  
|  
Check the wire between J123 and J541 for an open circuit or a short circuit (BSD 10.4 Flag 1). **The wire between J123 and J541 is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

Replace the Duplex Sensor (PL 8.1) followed by the Duplex PWB (PL 8.1).

Execute Input/Output Check[8-38 Duplex Motor ON]. **The Duplex Motor (PL 8.1) can be heard.**

Y N  
|  
Check the wire between J212 and J542 for an open circuit or a short circuit (BSD 10.4 Flag 1/Flag 2). **The wire between J212 and J542 is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

Replace the Duplex Motor (PL 8.1) followed by the Duplex PWB (PL 8.1).

Replace the Duplex PWB (PL 8.1).

## C8-2000 Tray 2 Feed Out Sensor Static JAM RAP

Paper remains on the Tray 2 Feed Out Sensor.

### Initial Actions

Refer to BSD 8.2.

Power OFF/ON

### Procedure

Execute Input/Output Check[8-6 Tray 2 Feed Out Sensor]. Place paper in front of the Tray 2 Feed Out Sensor (PL 13.5). **The display changes.**

Y N  
| Check the connections of P/J182 and P/J548C. **P/J182 and P/J548C are connected correctly.**

Y N  
| Connect P/J182 and P/J548C.

Check the wire between J182 and J548C for an open circuit or a short circuit (BSD 8.2 Flag 1/Flag 2). **The wire between J182 and J548C is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the STM PWB J548C-3 (+) and the GND (-) (BSD 8.2 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the STM PWB (PL 13.6).

Measure the voltage between the STM PWB J548C-5 (+) and the GND (-) (BSD 8.2 Flag 1). Place paper in front of the Tray 2 Feed Out Sensor (PL 13.5). **The voltage changes.**

Y N  
| Replace the Tray 2 Feed Out Sensor (PL 13.5).

Replace the STM PWB (PL 13.6).

Replace the MCU PWB (PL 9.1).

## C8-3000 Tray 3 Feed Out Sensor Static JAM RAP

Paper remains on the Tray 3 Feed Out Sensor.

### Initial Actions

Refer to BSD 8.3.

Power OFF/ON

### Procedure

Execute Input/Output Check[8-8 Tray 3 Feed Out Sensor]. Place paper in front of the Tray 3 Feed Out Sensor (PL 12.5). **The display changes.**

Y N  
| Check the connections of P/J821, P/J841 and P/J548. **P/J821, P/J841 and P/J548 are connected correctly.**

Y N  
| Connect P/J821, P/J841 and P/J548.

Check the wire between J821 and J548 for an open circuit or a short circuit (BSD 8.3 Flag 1/Flag 2). **The wire between J821 and J548 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the 2TM PWB P548-8 (+) and the GND (-) (BSD 8.3 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the 2TM PWB (PL 12.6).

Measure the voltage between the 2TM PWB P548-10 (+) and the GND (-) (BSD 8.3 Flag 1). Place paper in front of the Tray 3 Feed Out Sensor (PL 12.5). **The voltage changes.**

Y N  
| Replace the Tray 3 Feed Out Sensor (PL 12.5).

Replace the 2TM PWB (PL 12.6).

Replace the MCU PWB (PL 9.1).

## C8-4000 Tray 4 Feed Out Sensor Static JAM RAP

Paper remains on the Tray 4 Feed Out Sensor.

### Initial Actions

Refer to BSD 8.3.

Power OFF/ON

### Procedure

Execute Input/Output Check[8-9 Tray 4 Feed Out Sensor]. Place paper in front of the Tray 4 Feed Out Sensor (PL 12.5). **The display changes.**

Y N  
| Check the connections of P/J825, P/J842 and P/J548. **The connectors are connected correctly.**

Y N  
| Connect the connectors.

Check the wire between J825 and J548 for an open circuit or a short circuit (BSD 8.3 Flag 3/Flag 4). **The wire between J825 and J548 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the 2TM PWB P548-1 (+) and the GND (-) (BSD 8.3 Flag 4). **The voltage is approx. +5VDC.**

Y N  
| Replace the 2TM PWB (PL 12.6).

Measure the voltage between the 2TM PWB P548-3 (+) and the GND (-) (BSD 8.3 Flag 3). Place paper in front of the Tray 4 Feed Out Sensor (PL 12.5). **The voltage changes.**

Y N  
| Replace the Tray 4 Feed Out Sensor (PL 12.5).

Replace the 2TM PWB (PL 12.6).

Replace the MCU PWB (PL 9.1).

## C8-6000 Duplex Sensor Static JAM RAP

Paper remains on the Duplex Sensor.

### Initial Actions

Refer to BSD 10.4.

Power OFF/ON

### Procedure

Execute Input/Output Check[8-31 Duplex Sensor]. Place paper in front of the Duplex Sensor (PL 8.1). **The display changes.**

Y N  
| Check the wire between J123 and J541 for an open circuit or a short circuit (BSD 10.4 Flag 1/Flag 2). **The wire between J123 and J541 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Replace the Duplex Sensor (PL 8.1) followed by the Duplex PWB (PL 8.1).

Replace the Duplex PWB (PL 8.1) followed by the MCU PWB (PL 9.1).

## C9-3000 Registration Sensor On JAM RAP (MPT Feed)

After the MPT Feed Solenoid turned On, the Registration Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 4.1/8.1/8.6.

Power OFF/ON

### Procedure

Check the guide. **The guide is set correctly.**

Y N  
| Set the guide correctly.

Check the installation of the MPT. **The MPT is installed correctly.**

Y N  
| Install the MPT correctly.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
| Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-5 Registration Sensor]. Manually activate the actuator of the Registration Sensor (PL 2.4). **The display changes.**

Y N  
| Check the connection of P/J104. **P/J104 is connected correctly.**

Y N  
| Connect P/J104.

Check the wire between J104 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 1/Flag 2). **The wire between J104 and J403 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-B15 (+) and the GND (-) (BSD 8.6 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P403-B14 (+) and the GND (-) (BSD 8.6 Flag 1). Place paper in front of the Registration Sensor. **The voltage changes.**

Y N  
| Replace the Registration Sensor (PL 2.4).

Replace the MCU PWB (PL 9.1).

Execute Input/Output Check[8-1 Main Motor ON]. **The Main Motor can be heard.**

Y N  
| Check the connections of P/J408 and P/J214. **P/J408 and P/J214 are connected correctly.**

Y N  
| Connect P/J408 and P/J214.

Check the wire between J408 and J214 for an open circuit or a short circuit. **The wire between J408 and J214 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P408-8 (+) and the GND (-) (BSD 4.1 Flag 1), and between P408-9 (+) and the GND (-) (BSD 4.1 Flag 1). **The voltage is approx. +24VDC.**

Y N  
| Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P408-5 (+) and the GND (-) (BSD 4.1 Flag 1). **The voltage is approx. +5VDC.**

Y N  
| Replace the MCU PWB (PL 9.1).

Replace the Main Drive Assembly (PL 1.1) followed by the MCU PWB (PL 9.1).

Execute Input/Output Check[8-17 MPT Feed Solenoid ON]. **The MPT Feed Solenoid (PL 7.2) can be heard.**

Y N  
| Check the connections of P/J205 and P/J411. **P/J205 and P/J411 are connected correctly.**

Y N  
| Connect P/J205 and P/J411.

Measure the resistance of the MPT Feed Solenoid (PL 7.2) (BSD 8.1 Flag 1). (Between P205-1 and P205-2). **The resistance is approx. 90Ohm.**

Y N  
| Replace the MPT Feed Solenoid (PL 7.2).

Check the wire between P205 and J411 for an open circuit or a short circuit (BSD 8.1 Flag 1). **The wire between P205 and J411 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).



## E1-1000 Registration Sensor Off JAM RAP

After the Registration Clutch turned On, the Registration Sensor did not turn Off within the specified time.

### Initial Actions

Refer to BSD 8.6.

Power OFF/ON

### Procedure

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
|  
Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
|  
Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-5 Registration Sensor]. Manually activate the actuator of the Registration Sensor (PL 2.4). **The display changes.**

Y N  
|  
Check the connection of P/J104. **P/J104 is connected correctly.**

Y N  
|  
Connect P/J104.

Check the wire between J104 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 1/Flag 2). **The wire between J104 and J403 is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-B15 (+) and the GND (-) (BSD 8.6 Flag 2). **The voltage is approx. +5VDC.**

Y N  
|  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P403-B14 (+) and the GND (-) (BSD 8.6 Flag 1). Place paper in front of the Registration Sensor. **The voltage changes.**

Y N  
|  
Replace the Registration Sensor (PL 2.4).

Replace the MCU PWB (PL 9.1).

Execute Input/Output Check[8-10 Registration Clutch ON]. **The Registration Clutch (PL 2.4) can be heard.**

Y N  
|  
Check the connection of P/J215. **P/J215 is connected correctly.**

Y N  
|  
Connect P/J215.

A B  
|  
Measure the resistance of the Registration Clutch (PL 2.4) between P215-1 and P215-2 (BSD 8.6 Flag 3). **The resistance is approx. 240Ohm.**

Y N  
|  
Replace the Registration Clutch (PL 2.4).

Check the wire between J215 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 3). **The wire between J215 and J403 is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

## E1-2000 Fuser Exit Sensor On JAM RAP

After the Registration Clutch turned On, the Fuser Exit Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 4.1/9.4/10.2

Power OFF/ON

### Procedure

Check the installation of the Fuser. **The Fuser is installed correctly.**

**Y N**  
Install the Fuser correctly.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

**Y N**  
Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[10-23 Fuser Exit Sensor]. Manually activate the actuator of the Fuser Exit Sensor (PL 5.1). **The display changes.**

**Y N**  
Check the connections of P/J125 and P/J421. **P/J125 and P/J421 are connected correctly.**

**Y N**  
Connect P/J125 and P/J421.

Check the wire between J125 and J421 for an open circuit or a short circuit (BSD 10.2 Flag 2/Flag 3). **The wire between J125 and J421 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P421-1 (+) and the GND (-) (BSD 10.2 Flag 3). **The voltage is approx. +5VDC.**

**Y N**  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P421-3 (+) and the GND (-) (BSD 10.2 Flag 2). Place paper in front of the Fuser Exit Sensor. **The voltage changes.**

**Y N**  
Replace the Fuser Exit Sensor (PL 5.1).

Replace the MCU PWB (PL 9.1).

Execute Input/Output Check[8-1 Main Motor ON]. **The Main Motor (PL 1.1) starts rotating and the Fuser starts up.**

**Y N**  
Check the connections of P/J408 and P/J214. **P/J408 and P/J214 are connected correctly.**

A

**Y N**  
Connect P/J408 and P/J214.

Check the wire between J408 and J214 for an open circuit or a short circuit. **The wire between J408 and J214 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P408-8 (+) and the GND (-) (BSD 4.1 Flag 1), and between P408-9 (+) and the GND (-) (BSD 4.1 Flag 1). **The voltage is approx. +24VDC.**

**Y N**  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P408-5 (+) and the GND (-) (BSD 4.1 Flag 1). **The voltage is approx. +5VDC.**

**Y N**  
Replace the MCU PWB (PL 9.1).

Replace the Main Drive Assembly (PL 1.1) followed by the MCU PWB (PL 9.1).

Execute Input/Output Check[9-27 DTS ON]. Measure the voltage between the MCU PWB P403-A5 (+) and the GND (-) (BSD 9.4 Flag 1). **The voltage is approx. +5VDC.**

**Y N**  
Replace the MCU PWB (PL 9.1).

Check the wire between J403-A5 and J500-11 for an open circuit or a short circuit (BSD 9.4 Flag 1). **The wire between J403 and J500 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Replace the XERO/Developer Cartridge (PL 4.1) followed by the HVPS (PL 9.1) and the MCU PWB (PL 9.1).

## E1-6000 Registration Sensor Static JAM RAP

Paper remains on the Registration Sensor.

### Initial Actions

Refer to BSD 8.6.

Power OFF/ON

### Procedure

Execute Input/Output Check[8-5 Registration Sensor]. Manually activate the actuator of the Registration Sensor (PL 2.4). **The display changes.**

Y N  
| Check the connection of P/J104. **P/J104 is connected correctly.**  
Y N  
| Connect P/J104.  
|  
| Check the wire between J104 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 1/Flag 2). **The wire between J104 and J403 is conducting without an open circuit or a short circuit.**  
Y N  
| Repair the open circuit or short circuit.  
|  
| Measure the voltage between the MCU PWB P403-B15 (+) and the GND (-) (BSD 8.6 Flag 2). **The voltage is approx. +5VDC.**  
Y N  
| Replace the MCU PWB (PL 9.1).  
|  
| Measure the voltage between the MCU PWB P403-B14 (+) and the GND (-) (BSD 8.6 Flag 1). Place paper in front of the Registration Sensor. **The voltage changes.**  
Y N  
| Replace the Registration Sensor (PL 2.4).  
|  
| Replace the MCU PWB (PL 9.1).  
|  
| Replace the MCU PWB (PL 9.1).

## E3-1000 Fuser Exit Sensor Off JAM RAP

After the Fuser Exit Sensor turned On, the Fuser Exit Sensor did not turn Off within the specified time.

### Initial Actions

Refer to BSD 4.1/10.2.

Power OFF/ON

### Procedure

Check the installation of the Fuser. **The Fuser is installed correctly.**

Y N  
| Install the Fuser correctly.  
|  
| Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**  
Y N  
| Clear away the foreign substances and paper powder. Correct the distortion.  
|  
| Execute Input/Output Check[10-23 Fuser Exit Sensor]. Manually activate the actuator of the Fuser Exit Sensor (PL 5.1). **The display changes.**  
Y N  
| Check the connections of P/J125 and P/J421. **P/J125 and P/J421 are connected correctly.**  
Y N  
| Connect P/J125 and P/J421.  
|  
| Check the wire between J125 and J421 for an open circuit or a short circuit (BSD 10.2 Flag 2/Flag 3). **The wire between J125 and J421 is conducting without an open circuit or a short circuit.**  
Y N  
| Repair the open circuit or short circuit.  
|  
| Measure the voltage between the MCU PWB P421-1 (+) and the GND (-) (BSD 10.2 Flag 3). **The voltage is approx. +5VDC.**  
Y N  
| Replace the MCU PWB (PL 9.1).  
|  
| Measure the voltage between the MCU PWB P421-3 (+) and the GND (-) (BSD 10.2 Flag 2). Place paper in front of the Fuser Exit Sensor. **The voltage changes.**  
Y N  
| Replace the Fuser Exit Sensor (PL 5.1).  
|  
| Replace the MCU PWB (PL 9.1).  
|  
| Execute Input/Output Check[8-1 Main Motor ON]. **The Main Motor (PL 1.1) starts rotating and the Fuser starts up.**  
Y N  
| Check the connections of P/J408 and P/J214. **P/J408 and P/J214 are connected correctly.**

A

Y N

Connect P/J408 and P/J214.

Check the wire between J408 and J214 for an open circuit or a short circuit. **The wire between J408 and J214 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P408-8 (+) and the GND (-) (BSD 4.1 Flag 1), and between P408-9 (+) and the GND (-) (BSD 4.1 Flag 1). **The voltage is approx. +24VDC.**

Y N

Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P408-5 (+) and the GND (-) (BSD 4.1 Flag 1). **The voltage is approx. +5VDC.**

Y N

Replace the MCU PWB (PL 9.1).

Replace the Main Drive Assembly (PL 1.1) followed by the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

## E3-2000 Fuser Exit Sensor Off JAM RAP (Too Short)

After the Fuser Exit Sensor turned On, the Fuser Exit Sensor did not turn Off within the specified time.

### Initial Actions

Refer to BSD 10.2.

Power OFF/ON

### Procedure

Check the installation of the Fuser. **The Fuser is installed correctly.**

Y N

Install the Fuser correctly.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N

Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[10-23 Fuser Exit Sensor]. Manually activate the actuator of the Fuser Exit Sensor (PL 5.1). **The display changes.**

Y N

Check the connections of P/J125 and P/J421. **P/J125 and P/J421 are connected correctly.**

Y N

Connect P/J125 and P/J421.

Check the wire between J125 and J421 for an open circuit or a short circuit (BSD 10.2 Flag 2/Flag 3). **The wire between J125 and J421 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P421-1 (+) and the GND (-) (BSD 10.2 Flag 3). **The voltage is approx. +5VDC.**

Y N

Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P421-3 (+) and the GND (-) (BSD 10.2 Flag 2). Place paper in front of the Fuser Exit Sensor. **The voltage changes.**

Y N

Replace the Fuser Exit Sensor (PL 5.1).

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

## E3-6000 Fuser Exit Sensor Static JAM RAP

Paper remains on the Fuser Exit Sensor.

### Initial Actions

Refer to BSD 10.2.

Power OFF/ON

### Procedure

Execute Input/Output Check[10-23 Fuser Exit Sensor]. Manually activate the actuator of the Fuser Exit Sensor (PL 5.1). **The display changes.**

Y N  
Check the connections of P/J125 and P/J421. **P/J125 and P/J421 are connected correctly.**

Y N  
Connect P/J125 and P/J421.

Check the wire between J125 and J421 for an open circuit or a short circuit (BSD 10.2 Flag 2/Flag 3). **The wire between J125 and J421 is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P421-1 (+) and the GND (-) (BSD 10.2 Flag 3). **The voltage is approx. +5VDC.**

Y N  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P421-3 (+) and the GND (-) (BSD 10.2 Flag 2). Place paper in front of the Fuser Exit Sensor. **The voltage changes.**

Y N  
Replace the Fuser Exit Sensor (PL 5.1).

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

## E8-2000 Duplex Sensor On JAM RAP

After the Exit Motor turned On, the Duplex Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 10.3/10.4.

Power OFF/ON

### Procedure

Check the installation of the DUP Module. **The DUP Module is installed correctly.**

Y N  
Install the DUP Module correctly.

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
Clear away the foreign substances and paper powder. Correct the distortion.

Execute Input/Output Check[8-31 Duplex Sensor]. Place paper in front of the Duplex Sensor (PL 8.1). **The display changes.**

Y N  
Check the wire between J123 and J541 for an open circuit or a short circuit (BSD 10.4 Flag 1/Flag 2). **The wire between J123 and J541 is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Replace the Duplex Sensor (PL 8.1) followed by the Duplex PWB (PL 8.1).

Execute Input/Output Check[8-38 Duplex Motor ON]. **The Duplex Motor (PL 8.1) can be heard.**

Y N  
Check the wire between J212 and J542 for an open circuit or a short circuit (BSD 10.4 Flag 3). **The wire between J212 and J542 is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Replace the Duplex Motor (PL 8.1) followed by the Duplex PWB (PL 8.1).

Alternately execute Input/Output Check[10-8 Exit Motor FORWARD ON] and Input/Output Check[10-9 Exit Motor REVERSE ON]. **The Exit Motor (PL 6.3) can be heard.**

Y N  
Measure the resistance of the Exit Motor (PL 6.3) between J207-1/2 (COM) and each point of J207-2/3/5/6 (BSD 10.3 Flag 1). **The resistance is approx. 150hm.**

A

**A**

**Y**

**N**

Replace the Exit Motor (PL 6.3).

Replace the MCU PWB (PL 9.1).

Replace the Duplex PWB (PL 8.1) followed by the MCU PWB (PL 9.1).

# H1-2000 Tray 2 Lift Up / No Tray Failure RAP

- After the Tray 2 Feed/Lift Up Motor turned On, the Tray 2 Level Sensor did not turn On within the specified time.
- The Tray 2 Paper Size Switch detected no tray.

## Initial Actions

Refer to BSD 7.6.

Power OFF/ON

## Procedure

Remove the tray and reinstall. **The Tray 2 Feed/Lift Up Motor can be heard.**

Y N  
Execute Input/Output Check[8-13 Tray 2 Feed/Lift Up Motor ON]. **The Tray 2 Feed/Lift Up Motor (PL 13.3) can be heard.**

Y N  
Check the connections of P/J281 and P/J661C. **P/J281 and P/J661C are connected correctly.**

Y N  
Connect P/J281 and P/J661C.

Check the wire between J281 and J661C for an open circuit or a short circuit (BSD 7.6 Flag 1). **The wire between J281 and J661C is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Replace the Tray 2 Feed/Lift Up Motor (PL 13.3) followed by the MCU PWB (PL 9.1).

Go to the OF11 (SIZE SWITCH ASSY RAP).

Check the installation of the Tray 2 Level Sensor (PL 13.3) and the operation of the actuator. **The Tray 2 Level Sensor is installed correctly and the actuator works.**

Y N  
Reinstall the Tray 2 Level Sensor.

Execute Input/Output Check[7-14 Tray 2 Level Sensor]. Manually activate the Tray 2 Level Sensor (PL 13.3). **The display changes.**

Y N  
Check the connections of P/J180 and P/J548C. **P/J180 and P/J548C are connected correctly.**

Y N  
Connect P/J180 and P/J548C.

Check the wire between J180 and J548C for an open circuit or a short circuit (BSD 7.6 Flag 2/Flag 3). **The wire between J180 and J548C is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

A B

Initial Issue

CCC118, WCM118

12/2004  
2-25

Status Indicator RAPs

H1-2000

A B  
Measure the voltage between the STM PWB P548C-3 (+) and the GND (-) (BSD 7.6 Flag 3). **The voltage is approx. +5VDC.**

Y N  
Replace the STM PWB (PL 13.6).

Measure the voltage between the STM PWB P548C-5 (+) and the GND (-) (BSD 7.6 Flag 2). Activate the actuator of the Tray 2 Level Sensor (PL 13.3). **The voltage changes.**

Y N  
Replace the Tray 2 Level Sensor (PL 13.3).

Replace the STM PWB (PL 13.6).

Replace the STM PWB (PL 13.6).

# H1-3000 Tray 3 Lift Up / No Tray Failure RAP

- After the Tray 3 Feed/Lift Up Motor turned On, the Tray 3 Level Sensor did not turn On within the specified time.
- The Tray 3 Paper Size Switch detected no tray.

## Initial Actions

Refer to BSD 7.7.

Reload paper in the tray correctly.

Remove foreign substances in the tray.

Power OFF/ON

## Procedure

Remove the tray and reinstall. **The Tray 3 Feed/Lift Up Motor can be heard.**

**Y N**  
Execute Input/Output Check[8-14 Tray 3 Feed/Lift Up Motor ON]. **The Tray 3 Feed/Lift Up Motor (PL 12.3/PL 13.6) can be heard.**

**Y N**  
Check the connections of P/J220B, P/J661B and P549. **P/J220B, P/J661B and P549 are connected correctly.**

**Y N**  
Connect P/J220B, P/J661B and P549.

Remove the Tray 3 Feed/Lift Up Motor (PL 12.3) and the Tray 4 Feed/Lift Up Motor (PL 12.3). Replace the Tray 3 Feed/Lift Up Motor with the Tray 4 Feed/Lift Up Motor. Execute Input/Output Check[8-14 Tray 3 Feed/Lift Up Motor ON]. **The Tray 4 Feed/Lift Up Motor (PL 12.3) can be heard.**

**Y N**  
Return the Tray 3 Feed/Lift Up Motor to its original position. Check the wire between J220B and J549 for an open circuit or a short circuit (BSD 7.7 Flag 1). **The wire between J220B and J549 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Replace the 2TM PWB (PL 12.6).

Return the Tray 4 Feed/Lift Up Motor to its original position.

Replace the Tray 3 Feed/Lift Up Motor (PL 12.3).

Go to the OF11 (SIZE SWITCH ASSY RAP).

Check the installation of the Tray 3 Level Sensor (PL 12.3) and the operation of the actuator. **The Tray 3 Level Sensor is installed correctly and the actuator works.**

**Y N**  
Reinstall the Tray 3 Level Sensor.

**A**  
Execute Input/Output Check[7-15 Tray 3 Level Sensor]. Manually activate the Tray 3 Level Sensor (PL 12.3). **The display changes.**

**Y N**  
Check the connections of P/J101B, P/J661B and P549. **P/J101B, P/J661B and P549 are connected correctly.**

**Y N**  
Connect P/J101B, P/J661B and P549.

Check the wire between J101B and J549 for an open circuit or a short circuit (BSD 7.7 Flag 2/Flag 3). **The wire between J101B and J549 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the 2TM PWB P549-22 (+) and the GND (-) (BSD 7.7 Flag 3). **The voltage is approx. +5VDC.**

**Y N**  
Replace the 2TM PWB (PL 12.6).

Measure the voltage between the 2TM PWB P549-24 (+) and the GND (-) (BSD 7.7 Flag 2). Activate the actuator of the Tray 3 Level Sensor (PL 12.3). **The voltage changes.**

**Y N**  
Replace the Tray 3 Level Sensor (PL 12.3).

Replace the 2TM PWB (PL 12.6).

Replace the 2TM PWB (PL 12.6).

# H1-4000 Tray 4 Lift Up / No Tray Failure RAP

- After the Tray 4 Feed/Lift Up Motor turned On, the Tray 4 Level Sensor did not turn On within the specified time.
- The Tray 4 Paper Size Switch detected no tray.

## Initial Actions

Refer to BSD 7.8.

Reload paper in the tray correctly.

Remove foreign substances in the tray.

Power OFF/ON

## Procedure

Remove the tray and reinstall. **The Tray 4 Feed/Lift Up Motor can be heard.**

**Y N**  
Execute Input/Output Check[8-15 Tray 4 Feed/Lift Up Motor ON]. **The Tray 4 Feed/Lift Up Motor (PL 12.3) can be heard.**

**Y N**  
Check the connections of P/J220A, P/J661A and P549. **P/J220A, P/J661A and P549 are connected correctly.**

**Y N**  
Connect P/J220A, P/J661A and P549.

Remove the Tray 3 Feed/Lift Up Motor (PL 12.3) and the Tray 4 Feed/Lift Up Motor (PL 12.3). Replace the Tray 4 Feed/Lift Up Motor with the Tray 3 Feed/Lift Up Motor. Execute Input/Output Check[8-15 Tray 4 Feed/Lift Up Motor ON]. **The Tray 3 Feed/Lift Up Motor (PL 12.3) can be heard.**

**Y N**  
Return the Tray 3 Feed/Lift Up Motor to its original position. Check the wire between J220A and J549 for an open circuit or a short circuit (BSD 7.8 Flag 1). **The wire between J220A and J549 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Replace the 2TM PWB (PL 12.6).

Return the Tray 3 Feed/Lift Up Motor to its original position.

Replace the Tray 4 Feed/Lift Up Motor (PL 12.3).

Go to the OF11 (SIZE SWITCH ASSY RAP).

**Check the installation of the Tray 4 Level Sensor (PL 12.3) and the operation of the actuator. The Tray 4 Level Sensor is installed correctly and the actuator works.**

**Y N**  
Reinstall the Tray 4 Level Sensor.

**A**  
Execute Input/Output Check[7-16 Tray 4 Level Sensor]. Manually activate the Tray 4 Level Sensor (PL 12.3). **The display changes.**

**Y N**  
Check the connections of P/J101A, P/J661A and P549. **P/J101A, P/J661A and P549 are connected correctly.**

**Y N**  
Connect P/J101A, P/J661A and P549.

Check the wire between J101A and J549 for an open circuit or a short circuit (BSD 7.8 Flag 2/Flag 3). **The wire between J101A and J549 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the 2TM PWB P549-7 (+) and the GND (-) (BSD 7.8 Flag 3). **The voltage is approx. +5VDC.**

**Y N**  
Replace the 2TM PWB (PL 12.6).

Measure the voltage between the 2TM PWB P549-9 (+) and the GND (-) (BSD 7.8 Flag 2). Activate the actuator of the Tray 4 Level Sensor (PL 12.3). **The voltage changes.**

**Y N**  
Replace the Tray 4 Level Sensor (PL 12.3).

Replace the 2TM PWB (PL 12.6).

Replace the 2TM PWB (PL 12.6).

## H2-7000 DUP Module Communication Failure RAP

Communication error occurred between the MCU PWB and the DUP Module.

### Initial Actions

Refer to BSD 1.2/3.3.

Reload paper in the tray correctly.

Remove foreign substances in the tray.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB connector. **The connectors are connected correctly.**

Y N  
|  
Connect the connectors.

Check the connection of each DUP Module PWB connector. **The connectors are connected correctly.**

Y N  
|  
Connect the connectors.

Check the wire between J417 and J540 for an open circuit or a short circuit (BSD 3.3 Flag 3). **The wire between J417 and J540 is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P417-A1 (+) and the GND (-) (BSD 1.2 Flag 3). **The voltage is approx. +5VDC.**

Y N  
|  
Replace the MCU PWB (PL 9.1).

Replace the Duplex PWB (PL 8.1) followed by the MCU PWB (PL 9.1).

## H3-1000 OCT1 Failure RAP

After the Offset Motor turned On, the Offset Home Sensor did not turn On within the specified time.

### Initial Actions

Refer to BSD 10.5.

Power OFF/ON

### Procedure

Manually operate the offset mechanism. **The offset mechanism moves smoothly.**

Y N  
|  
Replace the parts that are interfering with operation.

Execute Input/Output Check[10-11 Offset Home Sensor]. Cover the Offset Home Sensor receiver with paper. **The display changes.**

Y N  
|  
Check the connections of P/J419 and P/J117. **P/J419 and P/J117 are connected correctly.**

Y N  
|  
Connect P/J419 and P/J117.

Check the wire between J419 and J117 for an open circuit or a short circuit (BSD 10.5 Flag 1/Flag 2). **The wire between J419 and J117 is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P419-1 (+) and the GND (-) (BSD 10.5 Flag 2). **The voltage is approx. +5VDC.**

Y N  
|  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P419-3 (+) and the GND (-) (BSD 10.5 Flag 1). Cover the Offset Home Sensor receiver with paper. **The voltage changes.**

Y N  
|  
Replace the Offset Home Sensor (PL 6.3).

Replace the MCU PWB (PL 9.1).

Execute Input/Output Check[10-5 Offset Motor ON]. **The Offset Motor (PL 6.3) starts up.**

Y N  
|  
Check the connection of P/J206. **P/J206 is connected correctly.**

Y N  
|  
Connect P/J206.

Measure the resistance of the Offset Motor (PL 6.3) between J206-1/2 (COM) and each point of J207-3/4/5/6 (BSD 10.5 Flag 3). **The resistance is approx. 100Ohm.**

Y N  
|  
Replace the Offset Motor (PL 6.3).

A B

**A** | **B**  
Measure the voltage between the MCU PWB (PL 9.1) P206-1 (+) and the GND (-), and between P206-2 (+) and the GND (-) (BSD 10.5 Flag 3). **The voltage is approx. +24VDC.**  
**Y** | **N**  
Replace the MCU PWB (PL 9.1).  
Replace the Offset Motor (PL 6.3) followed by the MCU PWB (PL 9.1).  
Replace the MCU PWB (PL 9.1).

## H4-1000 Tray 1 Cassette Size Failure RAP

Paper is loaded in Tray 1 but the tray is unable to detect the paper size.

### Initial Actions

Power OFF/ON

Check the operation of the guide.

### Procedure

Check the installation of the Tray 1 Paper Size Switch. **The Tray 1 Paper Size Switch is installed correctly.**

**Y** | **N**  
Install the Tray 1 Paper Size Switch correctly.

Go to the OF11 (SIZE SWITCH ASSY RAP).

## H4-2000 Tray 2 Cassette Size Failure RAP

Paper is loaded in Tray 2 but the tray is unable to detect the paper size.

### Initial Actions

Power OFF/ON

Check the operation of the guide.

### Procedure

Check the installation of the Tray 2 Paper Size Switch. **The Tray 2 Paper Size Switch is installed correctly.**

**Y N**  
| Install the Tray 2 Paper Size Switch correctly.

Go to the OF11 (SIZE SWITCH ASSY RAP).

## H4-3000 Tray 3 Cassette Size Failure RAP

Paper is loaded in Tray 3 but the tray is unable to detect the paper size.

### Initial Actions

Power OFF/ON

Check the operation of the guide.

### Procedure

Remove Trays 3 and 4. Replace Tray 3 with Tray 4. **H4-3 occurs.**

**Y N**  
| Replace the faulty part of the Tray 3 Actuator.

Check the installation of the Tray 3 Paper Size Switch. **The Tray 3 Paper Size Switch is installed correctly.**

**Y N**  
| Install the Tray 3 Paper Size Switch correctly.

Go to the OF11 (SIZE SWITCH ASSY RAP).

## H4-4000 Tray 4 Cassette Size Failure RAP

Paper is loaded in Tray 4 but the tray is unable to detect the paper size.

### Initial Actions

Power OFF/ON

Check the operation of the guide.

### Procedure

Remove Tray 3 and Tray 4. Replace Tray 4 with Tray 3. **H4-4 occurs.**

**Y N**  
| Replace the faulty part of the Tray 4 Actuator.

Check the installation of the Tray 4 Paper Size Switch. **The Tray 4 Paper Size Switch is installed correctly.**

**Y N**  
| Install the Tray 4 Paper Size Switch correctly.

Go to the OF11 (SIZE SWITCH ASSY RAP).

## H7-3000 2TM NVM Out-Of-Order RAP

NVM data error occurred in the 2TM PWB.

### Initial Actions

Refer to BSD 1.2/3.3.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB and 2TM PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **H7-3 reoccurs.**

**Y N**  
| End

Check the wire between J541 and J413C for an open circuit or a short circuit (BSD 3.3 Flag 1). **The wire between J541 and J413C is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the STM PWB P413C-A5 (+) and the GND (-) (BSD 1.2 Flag 1). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

Replace the 2TM PWB (PL 12.6) or the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

## H7-4000 2TM NVM R/W Error RAP

The 2TM PWB NVM failed during the Read/Write operation.

### Initial Actions

Refer to BSD 1.2/3.3.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB and 2TM PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **H7-4 reoccurs.**

**Y N**  
| End

Check the wire between J541 and J413C for an open circuit or a short circuit (BSD 3.3 Flag 1). **The wire between J541 and J413C is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the STM PWB P413C-A5 (+) and the GND (-) (BSD 1.2 Flag 1). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

Replace the 2TM PWB (PL 12.6) or the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

## H7-7000 2TM Communication Failure RAP

Communication error occurred between the MCU PWB and the 2TM PWB.

### Initial Actions

Refer to BSD 1.2/3.3.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB and 2TM PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **H7-7 reoccurs.**

**Y N**  
| End

Check the wire between J541 and J413C for an open circuit or a short circuit (BSD 3.3 Flag 1). **The wire between J541 and J413C is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the STM PWB P413C-A5 (+) and the GND (-) (BSD 1.2 Flag 1). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

Replace the 2TM PWB (PL 12.6) or the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

## H7-8000 TM Type Error RAP

An invalid Tray Module is connected.

### Initial Actions

Refer to BSD 1.2/3.3.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB and STM PWB connector. **The connectors are connected correctly.**

Y N  
| Connect the connectors.

Check the connection of the 2TM PWB and each 2TM PWB connector. **The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **H7-8 reoccurs.**

Y N  
| End

Check the wire between J541 and J413C for an open circuit or a short circuit (BSD 3.3 Flag 1). **The wire between J541 and J413C is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the STM PWB P413C-A5 (+) and the GND (-) (BSD 1.2 Flag 1). **The voltage is approx. +5VDC.**

Y N  
| Replace the MCU PWB (PL 9.1).

Replace the 2TM PWB (PL 12.6) or the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

## H8-1000 Tray 1 Paper Size Switch Broken RAP

The Tray 1 Paper Size Switch failed.

### Initial Actions

Power OFF/ON

Reload the tray.

### Procedure

Check the installation of the Tray 1 Paper Size Switch. **The Tray 1 Paper Size Switch is installed correctly.**

Y N  
| Install the Tray 1 Paper Size Switch correctly.

Go to the OF11 (SIZE SWITCH ASSY RAP).

## H8-2000 Tray 2 Paper Size Switch Broken RAP

The Tray 2 Paper Size Switch failed.

### Initial Actions

Power OFF/ON

Reload the tray.

### Procedure

Check the installation of the Tray 2 Paper Size Switch. **The Tray 2 Paper Size Switch is installed correctly.**

**Y N**  
| Install the Tray 2 Paper Size Switch correctly.

Go to the OF11 (SIZE SWITCH ASSY RAP).

## H8-3000 Tray 3 Paper Size Switch Broken RAP

The Tray 3 Paper Size Switch failed.

### Initial Actions

Power OFF/ON

Reload the tray.

### Procedure

Remove Trays 3 and 4. Replace Tray 3 with Tray 4. **H8-3 occurs.**

**Y N**  
| Replace the faulty part of the Tray 3 Actuator.

Check the installation of the Tray 3 Paper Size Switch. **The Tray 3 Paper Size Switch is installed correctly.**

**Y N**  
| Install the Tray 3 Paper Size Switch correctly.

Go to the OF11 (SIZE SWITCH ASSY RAP).

## H8-4000 Tray 4 Paper Size Switch Broken RAP

The Tray 4 Paper Size Switch failed.

### Initial Actions

Power OFF/ON

Reload the tray.

### Procedure

Remove Trays 3 and 4. Replace Tray 4 with Tray 3. **H8-4 occurs.**

**Y N**  
| Replace the faulty part of the Tray 4 Actuator.

Check the installation of the Tray 4 Paper Size Switch. **The Tray 4 Paper Size Switch is installed correctly.**

**Y N**  
| Install the Tray 4 Paper Size Switch correctly.

Go to the OF11 (SIZE SWITCH ASSY RAP).

## H9-3000 STM NVM Out-Of-Order RAP

NVM data error occurred in the STM PWB.

### Initial Actions

Refer to BSD 1.2/3.3.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB, 2TM PWB and STM PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **H9-3 reoccurs.**

**Y N**  
| End

Check the wire between J413 and J413C for an open circuit or a short circuit (BSD 3.3 Flag 2). **The wire between J413 and J413C is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P413C-A5 (+) and the GND (-) (BSD 1.2 Flag 2). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Replace the 2TM PWB (PL 12.6) or the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

## H9-4000 STM NVM R/W Error RAP

The STM PWB NVM failed during the Read/Write operation.

### Initial Actions

Refer to BSD 1.2/3.3.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB, 2TM PWB and STM PWB connector. **The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **H9-4 reoccurs.**

Y N  
| End

Check the wire between J413 and J413C for an open circuit or a short circuit (BSD 3.3 Flag 2). **The wire between J413 and J413C is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P413C-A5 (+) and the GND (-) (BSD 1.2 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the MCU PWB (PL 9.1).

Replace the 2TM PWB (PL 12.6) or the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

## H9-7000 STM Communication Failure RAP

Communication error occurred between the MCU PWB and the STM PWB.

### Initial Actions

Refer to BSD 1.2/3.3.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB, 2TM PWB and STM PWB connector. **The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **H9-7 reoccurs.**

Y N  
| End

Check the wire between J413 and J413C for an open circuit or a short circuit (BSD 3.3 Flag 2). **The wire between J413 and J413C is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P413C-A5 (+) and the GND (-) (BSD 1.2 Flag 2). **The voltage is approx. +5VDC.**

Y N  
| Replace the MCU PWB (PL 9.1).

Replace the 2TM PWB (PL 12.6) or the STM PWB (PL 13.6) followed by the MCU PWB (PL 9.1).

## J1-2000 Toner Cartridge Empty Failure RAP

The Toner Cartridge is empty.

### Initial Actions

Refer to BSD 9.1.

Reload the Toner Cartridge.

Power OFF/ON

### Procedure

Check the Toner Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
| Repair the failure and remove the foreign substances.

Check the installation of the Toner CRUM PWB. **The Toner CRUM PWB is installed correctly.**

**Y N**  
| Install the Toner CRUM PWB (PL 4.2) correctly.

Check the connection of the MCU PWB P/J414. **P/J414 is connected correctly.**

**Y N**  
| Connect P/J414.

Check the connection of the Toner CRUM PWB P/J217. **P/J217 is connected correctly.**

**Y N**  
| Connect P/J217.

Check the wire between P127 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 3/Flag 4). **The wire between P127 and J414 is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB J414-6 (+) and the GND (-) (BSD 9.1 Flag 4). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Replace the Toner Cartridge (PL 4.1) followed by the Toner CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

## J3-1000 XERO/Developer Cartridge Set Failure RAP

The XERO/Developer Cartridge is not installed.

### Initial Actions

Refer to BSD 9.1.

Reload the XERO/Developer Cartridge.

Power OFF/ON

### Procedure

Check the XERO/Developer Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
| Repair the failure and remove the foreign substances.

Execute Input/Output Check[9-2 XERO/Developer Cartridge DETECT]. Install the XERO/Developer Cartridge. **The display changes to L.**

**Y N**  
| Check the connections of P/J404, P/J403 and P/J400. **P/J404, P/J403 and P/J400 are connected correctly.**

**Y N**  
| Connect P/J404, P/J403 and P/J400.

Check the conductivity of the XERO Interlock Switch (PL 4.2) (between J404-1 and J404-3) (BSD 1.4 Flag 1/Flag 2). **The wire between J404-1 and J404-3 is connecting successfully when the XERO/Developer Cartridge is installed, and is insulated when the cartridge is removed.**

**Y N**  
| Replace the XERO Interlock Switch (PL 4.2).

Check the conductivity of the loop circuit in the XERO/Developer Cartridge (PL 4.1) (between J610-3 and J610-7) (BSD 9.3 Flag 3/Flag 4). **The wire between J610-3 and J610-7 is conducting without an open circuit or a short circuit.**

**Y N**  
| Check the XERO/Developer Cartridge (PL 4.1).

Measure the voltage between the MCU PWB P403-A17 (+) and the GND (-) (BSD 9.3 Flag 4). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P404-1 (+) and the GND (-) (BSD 1.4 Flag 1/Flag 2). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Check the wire between J400 and J522 for an open circuit or a short circuit (BSD 1.1 Flag 1). **The wire between J400 and J522 is conducting without an open circuit or a short circuit.**

A

Y N

Repair the open circuit or short circuit.

Measure the voltage between the Power Unit P522-2 (+) and the GND (-) (BSD 1.1 Flag 1). **The voltage is approx. +5VDC.**

Y N

Replace the Power Unit (PL 9.1).

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

## J4-1000 ATC Sensor Failure RAP

The ATC Sensor failed.

### Initial Actions

Refer to BSD 9.1.

Power OFF/ON

Check that the XERO/Developer Cartridge Seals have been removed.

Reload the XERO/Developer Cartridge.

### Procedure

Check the XERO/Developer Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

Y N

Repair the failure and remove the foreign substances.

Check the installation of the XERO CRUM PWB. **The XERO CRUM PWB is installed correctly.**

Y N

Install the XERO CRUM PWB (PL 4.2) correctly.

Check the connection of the MCU PWB P/J403 and the XERO/Developer Cartridge P/J610. **P/J403 and P/J610 are connected correctly.**

Y N

Connect P/J403 and P/J610.

Check the wire between J403 and P610 for an open circuit or a short circuit (BSD 9.3 Flag 3/ Flag 4). **The wire between J403 and P610 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-A17 (+) and the GND (-) (BSD 9.3 Flag 4). **The voltage is approx. +5VDC.**

Y N

Replace the MCU PWB (PL 9.1).

Check the connection of the XERO CRUM PWB P/J126. **P/J126 is connected correctly.**

Y N

Connect P/J126.

Check the wire between P126 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 1/ Flag 2). **The wire between P126 and J414 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

A

A

Measure the voltage between the MCU PWB J414-1 (+) and the GND (-) (BSD 9.1 Flag 2).

**The voltage is approx. +5VDC.**

Y N

Replace the MCU PWB (PL 9.1).

Replace the XERO/Developer Cartridge (PL 4.1) followed by the XERO CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

## J6-1000 XERO/Developer Cartridge Life Over RAP

It is time to replace the XERO/Developer Cartridge.

### Initial Actions

Refer to BSD 9.1.

Power OFF/ON

Reload the XERO/Developer Cartridge.

### Procedure

Check the XERO/Developer Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

Y N

Repair the failure and remove the foreign substances.

Check the installation of the XERO CRUM PWB. **The XERO CRUM PWB is installed correctly.**

Y N

Install the XERO CRUM PWB (PL 4.2) correctly.

P/J414 is connected correctly. **Check the connection of the MCU PWB P/J414.**

Y N

Connect P/J414.

Check the connection of the XERO CRUM PWB P/J126. **P/J126 is connected correctly.**

Y N

Connect P/J126.

Check the wire between P126 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 1/Flag 2). **The wire between P126 and J414 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB J414-1 (+) and the GND (-) (BSD 9.1 Flag 2).

**The voltage is approx. +5VDC.**

Y N

Replace the MCU PWB (PL 9.1).

Replace the XERO/Developer Cartridge (PL 4.1) followed by the XERO CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

## J7-1000 XERO/Developer Cartridge CRUM Communication Failure RAP

Communication error occurred between the XERO CRUM Tag in the XERO/Developer Cartridge and the CRUM ASIC PWB.

### Initial Actions

Refer to BSD 9.1.

Power OFF/ON

Reload the XERO/Developer Cartridge.

### Procedure

Check the XERO/Developer Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
| Repair the failure and remove the foreign substances.

Check the installation of the XERO CRUM PWB. **The XERO CRUM PWB is installed correctly.**

**Y N**  
| Install the XERO CRUM PWB (PL 4.2) correctly.

Check the connection of the MCU PWB P/J414. **P/J414 is connected correctly.**

**Y N**  
| Connect P/J414.

Check the connection of the XERO CRUM PWB P/J126. **P/J126 is connected correctly.**

**Y N**  
| Connect P/J126.

Check the wire between P126 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 1/ Flag 2). **The wire between P126 and J414 is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB J414-1 (+) and the GND (-) (BSD 9.1 Flag 2). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Replace the XERO/Developer Cartridge (PL 4.1) followed by the XERO CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

## J7-2000 XERO/Developer Cartridge CRUM Data Write Failure RAP

Data write error occurred in the XERO CRUM Tag in the XERO/Developer Cartridge.

### Initial Actions

Refer to BSD 9.1.

Power OFF/ON

Reload the XERO/Developer Cartridge.

### Procedure

Check the XERO/Developer Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
| Repair the failure and remove the foreign substances.

Check the installation of the XERO CRUM PWB. **The XERO CRUM PWB is installed correctly.**

**Y N**  
| Install the XERO CRUM PWB (PL 4.2) correctly.

Check the connection of the MCU PWB P/J414. **P/J414 is connected correctly.**

**Y N**  
| Connect P/J414.

Check the connection of the XERO CRUM PWB P/J126. **P/J126 is connected correctly.**

**Y N**  
| Connect P/J126.

Check the wire between P126 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 1/ Flag 2). **The wire between P126 and J414 is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB J414-1 (+) and the GND (-) (BSD 9.1 Flag 2). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Replace the XERO/Developer Cartridge (PL 4.1) followed by the XERO CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

## J7-3000 XERO/Developer Cartridge CRUM ID Failure RAP

An invalid XERO/Developer Cartridge was installed.

### Initial Actions

Refer to BSD 9.1.

Power OFF/ON

Reload the XERO/Developer Cartridge.

### Procedure

Check the XERO/Developer Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
| Repair the failure and remove the foreign substances.

Check the installation of the XERO CRUM PWB. **The XERO CRUM PWB is installed correctly.**

**Y N**  
| Install the XERO CRUM PWB (PL 4.2) correctly.

Check the connection of the MCU PWB P/J414. **P/J414 is connected correctly.**

**Y N**  
| Connect P/J414.

Check the connection of the XERO CRUM PWB P/J126. **P/J126 is connected correctly.**

**Y N**  
| Connect P/J126.

Check the wire between P126 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 1/Flag 2). **The wire between P126 and J414 is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB J414-1 (+) and the GND (-) (BSD 9.1 Flag 2). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Replace the XERO/Developer Cartridge (PL 4.1) followed by the XERO CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

## J8-1000 Toner Cartridge CRUM Communication Failure RAP

Communication error occurred between the XERO CRUM Tag in the Toner Cartridge and the CRUM ASIC PWB.

### Initial Actions

Refer to BSD 9.1.

Power OFF/ON

Reload the Toner Cartridge.

### Procedure

Check the Toner Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
| Repair the failure and remove the foreign substances.

Check the installation of the Toner CRUM PWB. **The Toner CRUM PWB is installed correctly.**

**Y N**  
| Install the Toner CRUM PWB (PL 4.2) correctly.

Check the connection of the MCU PWB P/J414. **P/J414 is connected correctly.**

**Y N**  
| Connect P/J414.

Check the connection of the Toner CRUM PWB P/J217. **P/J217 is connected correctly.**

**Y N**  
| Connect P/J217.

Check the wire between P127 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 3/Flag 4). **The wire between P127 and J414 is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB J414-6 (+) and the GND (-) (BSD 9.1 Flag 4). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Replace the Toner Cartridge (PL 4.1) followed by the Toner CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

## J8-2000 MCU Toner Cartridge CRUM Data Write Failure RAP

Data write error occurred in the XERO CRUM Tag in the Toner Cartridge.

### Initial Actions

Refer to BSD 9.1.

Power OFF/ON

Reload the Toner Cartridge.

### Procedure

Check the Toner Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
Repair the failure and remove the foreign substances.

Check the installation of the Toner CRUM PWB. **The Toner CRUM PWB is installed correctly.**

**Y N**  
Install the Toner CRUM PWB (PL 4.2) correctly.

Check the connection of the MCU PWB P/J414. **P/J414 is connected correctly.**

**Y N**  
Connect P/J414.

Check the connection of the Toner CRUM PWB P/J217. **P/J217 is connected correctly.**

**Y N**  
Connect P/J217.

Check the wire between P127 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 3/Flag 4). **The wire between P127 and J414 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB J414-6 (+) and the GND (-) (BSD 9.1 Flag 4). **The voltage is approx. +5VDC.**

**Y N**  
Replace the MCU PWB (PL 9.1).

Replace the Toner Cartridge (PL 4.1) followed by the Toner CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

## J8-3000 Toner Cartridge CRUM ID Failure RAP

An invalid Toner Cartridge was installed.

### Initial Actions

Refer to BSD 9.1.

Power OFF/ON

Reload the Toner Cartridge.

### Procedure

Check the Toner Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
Repair the failure and remove the foreign substances.

Check the installation of the Toner CRUM PWB. **The Toner CRUM PWB is installed correctly.**

**Y N**  
Install the Toner CRUM PWB (PL 4.2) correctly.

Check the connection of the MCU PWB P/J414. **P/J414 is connected correctly.**

**Y N**  
Connect P/J414.

Check the connection of the Toner CRUM PWB P/J217. **P/J217 is connected correctly.**

**Y N**  
Connect P/J217.

Check the wire between P127 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 3/Flag 4). **The wire between P127 and J414 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB J414-6 (+) and the GND (-) (BSD 9.1 Flag 4). **The voltage is approx. +5VDC.**

**Y N**  
Replace the MCU PWB (PL 9.1).

Replace the Toner Cartridge (PL 4.1) followed by the Toner CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

## S1-0000 Carriage Error RAP

- During the Read operation, the Carriage Sensor did not change within the specified time.
- When paper passed through the Carriage Sensor other than during the Read operation, the Carriage Sensor did not change within the specified time.

### Initial Actions

Refer to BSD 6.3.

Power OFF/ON

Check that the carriage locks are open (2 locations).

### Procedure

Enter Diag. mode and select [MFC] > [Carriage]. Alternately execute [Lock] and [Maintenance]. **The carriage moves.**

Y N  
| Check the connection of each NSC PWB, NBCR PWB and Carriage Motor connector.  
| **The connectors are connected correctly.**  
Y N  
| | Connect the connectors.  
|  
| Check the operating parts of the carriage for foreign substances and distortion. **No distortion or foreign substances are found in the operating parts of the carriage.**  
Y N  
| | Clear away the foreign substances. Correct the distortion.  
|  
| Replace the Carriage Motor (PL 11.4) followed by the NBCR PWB (PL 11.5) and the NSC PWB (PL 11.5).

Execute [STATUS 055 Carriage Sensor]. Place paper in front of the Carriage Sensor (PL 11.4) receiver. **The display changes.**

Y N  
| Check the connection of each NSC PWB, NBCR PWB and Carriage Sensor connector.  
| **The connectors are connected correctly.**  
Y N  
| | Connect the connectors.  
|  
| Replace the Carriage Sensor (PL 11.4) followed by the NBCR PWB (PL 11.5) and the NSC PWB (PL 11.5).

Check the installation of the Carriage Sensor (PL 11.4). **The Carriage Sensor is installed correctly.**

Y N  
| Install the Carriage Sensor (PL 11.4) correctly.

Check the condition of the Front Carriage Cable (PL 11.5) and the Rear Carriage Cable (PL 11.5). **The Front Carriage Cable and the Rear Carriage Cable move normally.**

Y N  
| Adjust the installation of the Front Carriage Cable (PL 11.5) and the Rear Carriage Cable (PL 11.5) (REP 11.5.1).

A

A

Replace the NBCR PWB (PL 11.5) followed by the NSC PWB (PL 11.5).

## S1-0001 DADF/ADF Top Cover Open During Platen Scan RAP

During Platen scan, the DADF/ADF Feeder Assembly (PL 15.2) opened.

### Initial Actions

Refer to BSD 1.5.

Power OFF/ON

Check that there are no foreign substances in the DADF/ADF Feeder Assembly lock mechanism.

### Procedure

Check the opening/closing of the DADF/ADF Feeder Assembly (PL 15.2) and the DADF/ADF. **The DADF/ADF Feeder Assembly can be closed smoothly and locked securely.**

Y N  
| Install the DADF/ADF Feeder Assembly (PL 15.2) correctly.

Execute [STATUS 054 DADF/ADF Top Cover Switch]. Manually activate the contact of the DADF/ADF Top Cover Switch (PL 15.9). **The display changes.**

Y N  
| Check the connection of each DADF/ADF Top Cover Switch and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
| Connect the connectors.

Replace the DADF/ADF Top Cover Switch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

Execute [STATUS 054 DADF/ADF Top Cover Switch]. Open and close the DADF/ADF Feeder Assembly (PL 15.2). **The display changes.**

Y N  
| Check the installation of the DADF/ADF Top Cover Switch (PL 15.9). **The DADF/ADF Top Cover Switch is installed correctly.**

Y N  
| Install the DADF/ADF Top Cover Switch (PL 15.9) correctly.

Check the actuator of the DADF/ADF Feeder Assembly (PL 15.2) that operates the DADF/ADF Top Cover Switch. Check the installation of the actuator. **The actuator is not distorted or damaged.**

Y N  
| Correct the distortion. Remove the damaged part.

Replace the DADF/ADF Top Cover Switch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

Replace the DADF/ADF Top Cover Switch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

## S1-0010 Jam During Feed RAP

During ADF scan, the Document Feed Sensor did not turn On (document detected) within the specified time.

### Initial Actions

Refer to BSD 5.2/5.4.

Power OFF/ON

Check that there are no foreign substances in the DADF/ADF Feeder Assembly lock mechanism.

### Procedure

Check the opening/closing of the DADF/ADF Feeder Assembly (PL 15.2) and the DADF/ADF. **The DADF/ADF Feeder Assembly can be closed smoothly and locked securely.**

Y N  
| Install the DADF/ADF Feeder Assembly (PL 15.2) correctly.

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
| Clear away the foreign substances and paper powder. Correct the distortion.

Load the document into the ADF and make a copy. **The document is fed into the machine.**

Y N  
| **Check for noise in Document Drive Motor operation. The Document Drive Motor can be heard.**

Y N  
| Check the connection of each Document Drive Motor and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
| Connect the connectors.

Replace the Document Drive Motor (PL 15.5) followed by the DADF/ADF PWB (PL 15.3).

Check the connection of each Document Feed Clutch and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
| Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.2 Flag 1). **The wire between the connectors is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

**A B**  
Measure the voltage between the DADF/ADF PWB DF CN6-1 (+) and the GND (-) (BSD 5.2 Flag 1). **The voltage is approx. +24VDC.**  
**Y N**  
Replace the DADF/ADF PWB (PL 15.3).  
Replace the Document Feed Clutch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

Execute [STATUS 051 Document Feed Sensor]. Place paper in front of the Document Feed Sensor (PL 15.9) receiver. **The display changes.**

**Y N**  
Check the connection of each Document Feed Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 2/Flag 3). **The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN10-2 (+) and the GND (-) (BSD 5.4 Flag 3). **The voltage is approx. +3.3VDC.**

**Y N**  
Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN10-3 (+) and the GND (-) (BSD 5.4 Flag 2). Place paper in front of the Document Feed Sensor receiver. **The voltage changes.**

**Y N**  
Replace the Document Feed Sensor (PL 15.9).

Replace the DADF/ADF PWB (PL 15.3).

Replace the DADF/ADF PWB (PL 15.3).

## S1-0011 Jam During Scan RAP

During ADF scan, the Document Lead Edge Sensor did not turn On (document detected) within the specified time.

### Initial Actions

Refer to BSD 5.2/5.4.

Power OFF/ON

Check that there are no foreign substances in the DADF/ADF Feeder Assembly lock mechanism.

### Procedure

Check the opening/closing of the DADF/ADF Feeder Assembly (PL 15.2) and the DADF/ADF. **The DADF/ADF Feeder Assembly can be closed smoothly and locked securely.**

**Y N**  
Install the DADF/ADF Feeder Assembly (PL 15.2) correctly.

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

**Y N**  
Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

**Y N**  
Clear away the foreign substances and paper powder. Correct the distortion.

Load the document into the ADF and make a copy. **The document is fed into the machine.**

**Y N**  
**Check for noise in Document Drive Motor operation. The Document Drive Motor can be heard.**

**Y N**  
Check the connection of each Document Drive Motor and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
Connect the connectors.

Replace the Document Drive Motor (PL 15.5) followed by the DADF/ADF PWB (PL 15.3).

Check the connection of each Document Registration Clutch and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 1). **The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

**A** | **B**  
Measure the voltage between the DADF/ADF PWB DF CN6-3 (+) and the GND (-) (BSD 5.4 Flag 1). **The voltage is approx. +24VDC.**  
**Y** | **N**  
| Replace the DADF/ADF PWB (PL 15.3).  
  
Replace the Document Registration Clutch (PL 15.5) followed by the DADF/ADF PWB (PL 15.3).

Execute [STATUS 052 Document Lead Edge Sensor]. Place paper in front of the Document Lead Edge Sensor (PL 15.7) receiver. **The display changes.**

**Y** | **N**  
| Check the connection of each Document Lead Edge Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y** | **N**  
| Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 4/Flag 5). **The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y** | **N**  
| Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN14-6 (+) and the GND (-) (BSD 5.2 Flag 3). **The voltage is approx. +3.3VDC.**

**Y** | **N**  
| Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN14-10 (+) and the GND (-) (BSD 5.4 Flag 4). Place paper in front of the Document Lead Edge Sensor receiver. **The voltage changes.**

**Y** | **N**  
| Replace the Document Lead Edge Sensor (PL 15.7).

Replace the DADF/ADF PWB (PL 15.3).

Replace the DADF/ADF PWB (PL 15.3).

## S1-0012 Long Document JAM RAP

During ADF scan, paper scanned by the Document Lead Edge Sensor was too long.

### Initial Actions

Refer to BSD 5.2/5.4.

Power OFF/ON

Check that there are no foreign substances in the DADF/ADF Feeder Assembly lock mechanism.

### Procedure

Check the opening/closing of the DADF/ADF Feeder Assembly (PL 15.2) and the DADF/ADF. **The DADF/ADF Feeder Assembly can be closed smoothly and locked securely.**

**Y** | **N**  
| Install the DADF/ADF Feeder Assembly (PL 15.2) correctly.

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

**Y** | **N**  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

**Y** | **N**  
| Clear away the foreign substances and paper powder. Correct the distortion.

Execute [STATUS 052 Document Lead Edge Sensor]. Place paper in front of the Document Lead Edge Sensor (PL 15.7) receiver. **The display changes.**

**Y** | **N**  
| Check the connection of each Document Lead Edge Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y** | **N**  
| Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 4/Flag 5). **The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y** | **N**  
| Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN14-6 (+) and the GND (-) (BSD 5.2 Flag 3). **The voltage is approx. +3.3VDC.**

**Y** | **N**  
| Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN14-10 (+) and the GND (-) (BSD 5.4 Flag 4). Place paper in front of the Document Lead Edge Sensor receiver. **The voltage changes.**

**Y** | **N**  
| Replace the Document Lead Edge Sensor (PL 15.7).

**A B**  
Replace the DADF/ADF PWB (PL 15.3).

Check the connection of each Document Registration Clutch and DADF/ADF PWB connector.  
**The connectors are connected correctly.**

**Y N**  
Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 1).  
**The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN6-3 (+) and the GND (-) (BSD 5.4 Flag 1). **The voltage is approx. +24VDC.**

**Y N**  
Replace the DADF/ADF PWB (PL 15.3).

Replace the Document Registration Clutch (PL 15.5) followed by the DADF/ADF PWB (PL 15.3).

## S1-0013 Short Document JAM RAP

During ADF scan, paper scanned by the Document Lead Edge Sensor was too short.

### Initial Actions

Refer to BSD 5.2/5.4.

Power OFF/ON

Check that there are no foreign substances or dirt on the Document Lead Edge Sensor.

### Procedure

Execute [STATUS 052 Document Lead Edge Sensor]. Place paper in front of the Document Lead Edge Sensor (PL 15.7) receiver. **The display changes.**

**Y N**  
Check the connection of each Document Lead Edge Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 4/Flag 5). **The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN14-6 (+) and the GND (-) (BSD 5.2 Flag 3). **The voltage is approx. +3.3VDC.**

**Y N**  
Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN14-10 (+) and the GND (-) (BSD 5.4 Flag 4). Place paper in front of the Document Lead Edge Sensor. **The voltage changes.**

**Y N**  
Replace the Document Lead Edge Sensor (PL 15.7).

Replace the DADF/ADF PWB (PL 15.3).

Replace the Document Lead Edge Sensor (PL 15.7) followed by the DADF/ADF PWB (PL 15.3).

## S1-0014 ADF Static JAM RAP

The document remains on the Document Feed Sensor and the Document Lead Edge Sensor.

### Initial Actions

Refer to BSD 5.2/5.4.

Power OFF/ON

Check that there are no foreign substances or dirt on the Document Lead Edge Sensor.

Check that there are no foreign substances or dirt on the Document Feed Sensor.

### Procedure

Execute [STATUS 052 Document Lead Edge Sensor]. Place paper in front of the Document Lead Edge Sensor (PL 15.7) receiver. **The display changes.**

Y N

Check the connection of each Document Lead Edge Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N

Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 4/Flag 5). **The wire between the connectors is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN14-6 (+) and the GND (-) (BSD 5.2 Flag 3). **The voltage is approx. +3.3VDC.**

Y N

Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN14-10 (+) and the GND (-) (BSD 5.4 Flag 4). Place paper in front of the Document Lead Edge Sensor receiver. **The voltage changes.**

Y N

Replace the Document Lead Edge Sensor (PL 15.7).

Replace the DADF/ADF PWB (PL 15.3).

Execute [STATUS 051 Document Feed Sensor]. Place paper in front of the Document Feed Sensor (PL 15.9) receiver. **The display changes.**

Y N

Check the connection of each Document Feed Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N

Connect the connectors.

A

B

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 2/Flag 3). **The wire between the connectors is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN10-2 (+) and the GND (-) (BSD 5.4 Flag 3). **The voltage is approx. +3.3VDC.**

Y N

Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN10-3 (+) and the GND (-) (BSD 5.4 Flag 2). Place paper in front of the Document Feed Sensor receiver. **The voltage changes.**

Y N

Replace the Document Feed Sensor (PL 15.9).

Replace the DADF/ADF PWB (PL 15.3).

Replace the Document Lead Edge Sensor (PL 15.7) followed by the Document Feed Sensor (PL 15.9) and the DADF/ADF PWB (PL 15.3).

A B

Status Indicator RAPs

S1-0014

12/2004

2-48

Initial Issue

CCC118, WCM118

## S1-0015 Platen Cover Open During ADF Scan RAP

During ADF scan, the Platen Cover opened.

### Initial Actions

Refer to BSD 6.1.

Power OFF/ON

Check that there are no foreign substances in the Platen Cover open/close mechanism.

### Procedure

Check the Platen Cover open/close mechanism. **The Platen Cover can be closed smoothly.**

**Y N**  
Correct the installation of the Platen Cover open/close mechanism.

Execute [STATUS 056 Platen Open Switch]. Open and close the Platen Cover. **The display changes.**

**Y N**  
Check the connection of each Platen Open Switch and EXT PWB connector. **The connectors are connected correctly.**

**Y N**  
Connect the connectors.

Check the installation of the Platen Open Switch (PL 11.3). **The Platen Open Switch is installed correctly.**

**Y N**  
Install the Platen Open Switch (PL 11.3) correctly.

Check the wire between the connectors for an open circuit or a short circuit (BSD 6.1 Flag 1/Flag 2). **The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the EXT PWB EXT CN18-1 (+) and the GND (-) (BSD 6.1 Flag 1). **The voltage is approx. +5VDC.**

**Y N**  
Replace the EXT PWB (PL 11.6).

Replace the Platen Open Switch (PL 11.3) followed by the EXT PWB (PL 11.6).

Replace the Platen Open Switch (PL 11.3) followed by the EXT PWB (PL 11.6).

## S1-0016 ADF Top Cover Open During ADF Scan RAP

During ADF scan, the ADF Top Cover opened.

### Initial Actions

Refer to BSD 1.5.

Power OFF/ON

Check that there are no foreign substances in the DADF/ADF Feeder Assembly lock mechanism.

### Procedure

Check the opening/closing of the DADF/ADF Feeder Assembly (PL 15.2) and the DADF/ADF. **The DADF/ADF Feeder Assembly can be closed smoothly and locked securely.**

**Y N**  
Install the DADF/ADF Feeder Assembly (PL 15.2) correctly.

Execute [STATUS 054 DADF/ADF Top Cover Switch]. Manually activate the contact of the DADF/ADF Top Cover Switch (PL 15.9). **The display changes.**

**Y N**  
Check the connection of each DADF/ADF Top Cover Switch and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
Connect the connectors.

Replace the DADF/ADF Top Cover Switch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

Execute [STATUS 054 DADF/ADF Top Cover Switch]. Open and close the DADF/ADF Feeder Assembly (PL 15.2). **The display changes.**

**Y N**  
Check the installation of the DADF/ADF Top Cover Switch (PL 15.9). **The DADF/ADF Top Cover Switch is installed correctly.**

**Y N**  
Install the DADF/ADF Top Cover Switch (PL 15.9) correctly.

Check the actuator of the DADF/ADF Feeder Assembly (PL 15.2) that operates the DADF/ADF Top Cover Switch. Check the installation of the actuator. **The actuator is not distorted or damaged.**

**Y N**  
Correct the distortion. Remove the damaged part.

Replace the DADF/ADF Top Cover Switch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

Replace the DADF/ADF Top Cover Switch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

## S1-0020 Jam During Feed RAP

During DADF scan, the Document Feed Sensor did not turn On (document detected) within the specified time.

### Initial Actions

Refer to BSD 5.2/5.4.

Power OFF/ON

Check that there are no foreign substances in the DADF/ADF Feeder Assembly lock mechanism.

### Procedure

Check the opening/closing of the DADF/ADF Feeder Assembly (PL 15.2) and the DADF/ADF. **The DADF/ADF Feeder Assembly can be closed smoothly and locked securely.**

Y N  
|  
Install the DADF/ADF Feeder Assembly (PL 15.2) correctly.

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
|  
Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
|  
Clear away the foreign substances and paper powder. Correct the distortion.

Load the document into the ADF and make a copy. **The document is fed into the machine.**

Y N  
|  
**Check for noise in Document Drive Motor operation. The Document Drive Motor can be heard.**

Y N  
|  
Check the connection of each Document Drive Motor and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
|  
Connect the connectors.

Replace the Document Drive Motor (PL 15.5) followed by the DADF/ADF PWB (PL 15.3).

Check the connection of each Document Feed Clutch and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
|  
Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.2 Flag 1). **The wire between the connectors is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

A B  
|  
Measure the voltage between the DADF/ADF PWB DF CN6-1 (+) and the GND (-) (BSD 5.2 Flag 1). **The voltage is approx. +24VDC.**

Y N  
|  
Replace the DADF/ADF PWB (PL 15.3).

Replace the Document Feed Clutch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

Execute [STATUS 051 Document Feed Sensor]. Place paper in front of the Document Feed Sensor (PL 15.9) receiver. **The display changes.**

Y N  
|  
Check the connection of each Document Feed Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
|  
Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 2/Flag 3). **The wire between the connectors is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN10-2 (+) and the GND (-) (BSD 5.4 Flag 3). **The voltage is approx. +3.3VDC.**

Y N  
|  
Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN10-3 (+) and the GND (-) (BSD 5.4 Flag 2). Place paper in front of the Document Feed Sensor receiver. **The voltage changes.**

Y N  
|  
Replace the Document Feed Sensor (PL 15.9).

Replace the DADF/ADF PWB (PL 15.3).

Replace the DADF/ADF PWB (PL 15.3).

## S1-0021 Jam During Scan RAP

During DADF scan, the Document Lead Edge Sensor did not turn On (document detected) within the specified time.

### Initial Actions

Refer to BSD 5.2/5.4.

Power OFF/ON

Check that there are no foreign substances in the DADF/ADF Feeder Assembly lock mechanism.

### Procedure

Check the opening/closing of the DADF/ADF Feeder Assembly (PL 15.2) and the DADF/ADF. **The DADF/ADF Feeder Assembly can be closed smoothly and locked securely.**

**Y N**  
| Install the DADF/ADF Feeder Assembly (PL 15.2) correctly.

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

**Y N**  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

**Y N**  
| Clear away the foreign substances and paper powder. Correct the distortion.

Load the document into the ADF and make a copy. **The document is fed into the machine.**

**Y N**  
| **Check for noise in Document Drive Motor operation. The Document Drive Motor can be heard.**

**Y N**  
| Check the connection of each Document Drive Motor and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Replace the Document Drive Motor (PL 15.5) followed by the DADF/ADF PWB (PL 15.3).

Check the connection of each Document Registration Clutch and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 1). **The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

**A B**  
| Measure the voltage between the DADF/ADF PWB DF CN6-3 (+) and the GND (-) (BSD 5.4 Flag 1). **The voltage is approx. +24VDC.**

**Y N**  
| Replace the DADF/ADF PWB (PL 15.3).

Replace the Document Registration Clutch (PL 15.5) followed by the DADF/ADF PWB (PL 15.3).

Execute [STATUS 052 Document Lead Edge Sensor]. Place paper in front of the Document Lead Edge Sensor (PL 15.7) receiver. **The display changes.**

**Y N**  
| Check the connection of each Document Lead Edge Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 4/Flag 5). **The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN14-6 (+) and the GND (-) (BSD 5.2 Flag 3). **The voltage is approx. +3.3VDC.**

**Y N**  
| Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN14-10 (+) and the GND (-) (BSD 5.4 Flag 4). Place paper in front of the Document Lead Edge Sensor receiver. **The voltage changes.**

**Y N**  
| Replace the Document Lead Edge Sensor (PL 15.7).

Replace the DADF/ADF PWB (PL 15.3).

Replace the DADF/ADF PWB (PL 15.3).

**A B**

Initial Issue

CCC118, WCM118

12/2004

2-51

Status Indicator RAPs

**S1-0021**

# S1-0022 Long Document JAM RAP

During DADF scan, paper scanned by the Document Lead Edge Sensor was too long.

## Initial Actions

Refer to BSD 5.2/5.4.

Power OFF/ON

Check that there are no foreign substances in the DADF/ADF Feeder Assembly lock mechanism.

## Procedure

Check the opening/closing of the DADF/ADF Feeder Assembly (PL 15.2) and the DADF/ADF. **The DADF/ADF Feeder Assembly can be closed smoothly and locked securely.**

**Y N**  
| Install the DADF/ADF Feeder Assembly (PL 15.2) correctly.

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

**Y N**  
| Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

**Y N**  
| Clear away the foreign substances and paper powder. Correct the distortion.

Execute [STATUS 052 Document Lead Edge Sensor]. Place paper in front of the Document Lead Edge Sensor (PL 15.7) receiver. **The display changes.**

**Y N**  
| Check the connection of each Document Lead Edge Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 4/Flag 5). **The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN14-6 (+) and the GND (-) (BSD 5.2 Flag 3). **The voltage is approx. +3.3VDC.**

**Y N**  
| Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN14-10 (+) and the GND (-) (BSD 5.4 Flag 4). Place paper in front of the Document Lead Edge Sensor receiver. **The voltage changes.**

**Y N**  
| Replace the Document Lead Edge Sensor (PL 15.7).

**A B**  
| Replace the DADF/ADF PWB (PL 15.3).

Check the connection of each Document Registration Clutch and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 1). **The wire between the connectors is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN6-3 (+) and the GND (-) (BSD 5.4 Flag 1). **The voltage is approx. +24VDC.**

**Y N**  
| Replace the DADF/ADF PWB (PL 15.3).

Replace the Document Registration Clutch (PL 15.5) followed by the DADF/ADF PWB (PL 15.3).

## S1-0023 Short Document JAM RAP

During DADF scan, paper scanned by the Document Lead Edge Sensor was too short.

### Initial Actions

Refer to BSD 5.2/5.4.

Power OFF/ON

Check that there are no foreign substances or dirt on the Document Lead Edge Sensor.

### Procedure

Execute [STATUS 052 Document Lead Edge Sensor]. Place paper in front of the Document Lead Edge Sensor (PL 15.7) receiver. **The display changes.**

Y N  
|  
Check the connection of each Document Lead Edge Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
|  
Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 4/Flag 5). **The wire between the connectors is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN14-6 (+) and the GND (-) (BSD 5.2 Flag 3). **The voltage is approx. +3.3VDC.**

Y N  
|  
Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN14-10 (+) and the GND (-) (BSD 5.4 Flag 4). Place paper in front of the Document Lead Edge Sensor. **The voltage changes.**

Y N  
|  
Replace the Document Lead Edge Sensor (PL 15.7).

Replace the DADF/ADF PWB (PL 15.3).

Replace the Document Lead Edge Sensor (PL 15.7) followed by the DADF/ADF PWB (PL 15.3).

## S1-0024 Jam During Invert Transport RAP

During DADF Invert path processing, the Document Feed Sensor did not turn On (document detected) within the specified time.

### Initial Actions

Refer to BSD 5.2/5.4/5.5.

Power OFF/ON

Check that there are no foreign substances in the DADF/ADF Feeder Assembly lock mechanism.

Check that there are no foreign substances in the operating mechanism of the Exit Roll.

### Procedure

Check the opening/closing of the DADF/ADF Feeder Assembly (PL 15.2) and the DADF/ADF. **The DADF/ADF Feeder Assembly can be closed smoothly and locked securely.**

Y N  
|  
Install the DADF/ADF Feeder Assembly (PL 15.2) correctly.

Check the Transport Roll for wear and paper powder. **The Transport Roll is ok.**

Y N  
|  
Replace the Transport Roll.

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N  
|  
Clear away the foreign substances and paper powder. Correct the distortion.

Check the connection of each Exit Reverse Solenoid, Exit Reverse Clutch and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
|  
Connect the connectors.

Execute [STATUS 051 Document Feed Sensor]. Place paper in front of the Document Feed Sensor (PL 15.9) receiver. **The display changes.**

Y N  
|  
Check the connection of each Document Feed Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
|  
Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 2/Flag 3). **The wire between the connectors is conducting without an open circuit or a short circuit.**

Y N  
|  
Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN10-2 (+) and the GND (-) (BSD 5.4 Flag 3). **The voltage is approx. +3.3VDC.**

A

Y N  
Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN10-3 (+) and the GND (-) (BSD 5.4 Flag 2). Place paper in front of the Document Feed Sensor receiver. **The voltage changes.**

Y N  
Replace the Document Feed Sensor (PL 15.9).

Replace the DADF/ADF PWB (PL 15.3).

Replace the DADF/ADF PWB (PL 15.3).

## S1-0025 DADF Static JAM RAP

The document remains on the Document Feed Sensor, the Document Lead Edge Sensor and the Invert Sensor.

### Initial Actions

Refer to BSD 5.2/5.4/5.5.

Power OFF/ON

Check that there are no foreign substances or dirt on the Document Lead Edge Sensor.

Check that there are no foreign substances or dirt on the Document Feed Sensor.

Check that there are no foreign substances or dirt on the Invert Sensor.

### Procedure

Execute [STATUS 052 Document Lead Edge Sensor]. Place paper in front of the Document Lead Edge Sensor (PL 15.7) receiver. **The display changes.**

Y N  
Check the connection of each Document Lead Edge Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 4/Flag 5). **The wire between the connectors is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN14-6 (+) and the GND (-) (BSD 5.2 Flag 3). **The voltage is approx. +3.3VDC.**

Y N  
Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN14-10 (+) and the GND (-) (BSD 5.4 Flag 4). Place paper in front of the Document Lead Edge Sensor receiver. **The voltage changes.**

Y N  
Replace the Document Lead Edge Sensor (PL 15.7).

Replace the DADF/ADF PWB (PL 15.3).

Execute [STATUS 051 Document Feed Sensor]. Place paper in front of the Document Feed Sensor (PL 15.9) receiver. **The display changes.**

Y N  
Check the connection of each Document Feed Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**

Y N  
Connect the connectors.

A B

**A**

**B**  
 Check the wire between the connectors for an open circuit or a short circuit (BSD 5.4 Flag 2/Flag 3). **The wire between the connectors is conducting without an open circuit or a short circuit.**  
**Y N**  
 | Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN10-2 (+) and the GND (-) (BSD 5.4 Flag 3). **The voltage is approx. +3.3VDC.**  
**Y N**  
 | Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN10-3 (+) and the GND (-) (BSD 5.4 Flag 2). Place paper in front of the Document Feed Sensor receiver. **The voltage changes.**  
**Y N**  
 | Replace the Document Feed Sensor (PL 15.9).

Replace the DADF/ADF PWB (PL 15.3).

Execute [STATUS 053 Invert Sensor]. Place paper in front of the Invert Sensor (PL 15.7) receiver. **The display changes.**

**Y N**  
 | Check the connection of each Invert Sensor and DADF/ADF PWB connector. **The connectors are connected correctly.**  
**Y N**  
 | Connect the connectors.

Check the wire between the connectors for an open circuit or a short circuit (BSD 5.5 Flag 3/Flag 4). **The wire between the connectors is conducting without an open circuit or a short circuit.**  
**Y N**  
 | Repair the open circuit or short circuit.

Measure the voltage between the DADF/ADF PWB DF CN10-2 (+) and the GND (-) (BSD 5.4 Flag 3). **The voltage is approx. +3.3VDC.**  
**Y N**  
 | Replace the DADF/ADF PWB (PL 15.3).

Measure the voltage between the DADF/ADF PWB DF CN10-3 (+) and the GND (-) (BSD 5.5 Flag 3). Place paper in front of the Invert Sensor receiver. **The voltage changes.**  
**Y N**  
 | Replace the Invert Sensor (PL 15.7).

Replace the DADF/ADF PWB (PL 15.3).

Replace the Document Lead Edge Sensor (PL 15.7) followed by the Document Feed Sensor (PL 15.9), the Invert Sensor (PL 15.7) and the DADF/ADF PWB (PL 15.3).

## S1-0026 Platen Cover Open During DADF Scan RAP

During DADF scan, the Platen Cover opened.

### Initial Actions

Refer to BSD 6.1.

Power OFF/ON

Check that there are no foreign substances in the Platen Cover open/close mechanism.

### Procedure

Check the Platen Cover open/close mechanism. **The Platen Cover open/close mechanism can be closed smoothly.**

**Y N**  
 | Correct the installation of the Platen Cover open/close mechanism.

Execute [STATUS 056 Platen Open Switch]. Open and close the Platen Cover open/close mechanism. **The display changes.**

**Y N**  
 | Check the connection of each Platen Open Switch and EXT PWB connector. **The connectors are connected correctly.**  
**Y N**  
 | Connect the connectors.

Check the installation of the Platen Open Switch (PL 11.3). **The Platen Open Switch is installed correctly.**  
**Y N**  
 | Install the Platen Open Switch (PL 11.3) correctly.

Check the wire between the connectors for an open circuit or a short circuit (BSD 6.1 Flag 1/Flag 2). **The wire between the connectors is conducting without an open circuit or a short circuit.**  
**Y N**  
 | Repair the open circuit or short circuit.

Measure the voltage between the EXT PWB connector EXT CN18-1 (+) and the GND (-) (BSD 6.1 Flag 1). **The voltage is approx. +5VDC.**  
**Y N**  
 | Replace the DADF/ADF PWB (PL 15.3).

Replace the Platen Open Switch (PL 11.3) followed by the EXT PWB (PL 11.6).

Replace the Platen Open Switch (PL 11.3) followed by the EXT PWB (PL 11.6).

# S1-0027 ADF Top Cover Open During DADF Scan RAP

During DADF scan, the DADF Top Cover opened.

## Initial Actions

Refer to BSD 1.5.

Power OFF/ON

Check that there are no foreign substances in the DADF/ADF Feeder Assembly lock mechanism.

## Procedure

Check the opening/closing of the DADF/ADF Feeder Assembly (PL 15.2) and the DADF/ADF. **The DADF/ADF Feeder Assembly can be closed smoothly and locked securely.**

**Y N**  
| Install the DADF/ADF Feeder Assembly (PL 15.2) correctly.

Execute [STATUS 054 DADF/ADF Top Cover Switch]. Manually activate the contact of the DADF/ADF Top Cover Switch (PL 15.9). **The display changes.**

**Y N**  
| Check the connection of each DADF/ADF Top Cover Switch and DADF/ADF PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Replace the DADF/ADF Top Cover Switch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

Execute [STATUS 054 DADF/ADF Top Cover Switch]. Open and close the DADF/ADF Feeder Assembly (PL 15.2). **The display changes.**

**Y N**  
| Check the installation of the DADF/ADF Top Cover Switch (PL 15.9). **The DADF/ADF Top Cover Switch is installed correctly.**

**Y N**  
| Install the DADF/ADF Top Cover Switch (PL 15.9) correctly.

Check the actuator of the DADF/ADF Feeder Assembly (PL 15.2) that operates the DADF/ADF Top Cover Switch. Check the installation of the actuator. **The actuator is not distorted or damaged.**

**Y N**  
| Correct the distortion. Remove the damaged part.

Replace the DADF/ADF Top Cover Switch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

Replace the DADF/ADF Top Cover Switch (PL 15.9) followed by the DADF/ADF PWB (PL 15.3).

## U0-1000 Main Motor Stop Error RAP

Due to MCU PWB control failure, the Main Motor did not stop when no paper was being fed.

### Initial Actions

Refer to BSD 4.1.

Power OFF/ON

### Procedure

Check the ROM version by executing NVM[60-1 ROM Version]. **The ROM is the latest version.**

**Y N**  
| Replace the ROM with the latest version.

Replace the MCU PWB (PL 9.1).

## U0-2000 Image Ready Error RAP

The MCU PWB did not receive the ESS PWB image-ready signal within the specified time.

### Initial Actions

Refer to BSD 16.1.

Power OFF/ON

### Procedure

Check the ROM version by executing NVM[60-1 ROM Version]. **The ROM is the latest version.**

**Y N**  
| Replace the ROM with the latest version.

Check the connections of P/J401, P/J402, J701 and J702. **P/J401, P/J402, J701 and J702 are connected correctly.**

**Y N**  
| Connect P/J401, P/J402, J701 and J702.

Check the wire between J401 and J701, and between J402 and J702 for an open circuit or a short circuit. **The wires between J401 and J701, and between J402 and J702 are conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Replace the MCU PWB (PL 9.1) followed by the ESS PWB (PL 9.2).

## U1-1000 Main Motor Failure RAP

The Main Motor is not rotating at the specified speed.

### Initial Actions

Refer to BSD 4.1.

Power OFF/ON

### Procedure

Close the Left Cover and the Front Cover. Execute Input/Output Check[8-1 Main Motor ON].

**The Main Motor can be heard.**

Y N  
Check the connections of P/J408 and P/J214. **P/J408 and P/J214 are connected correctly.**

Y N  
Connect P/J408 and P/J214.

Check the wire between J408 and J214 for an open circuit or a short circuit. **The wire between J408 and J214 is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P408-8 (+) and the GND (-) (BSD 4.1 Flag 1), and between P408-9 (+) and the GND (-) (BSD 4.1 Flag 1). **The voltage is approx. +24VDC.**

Y N  
Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P408-5 (+) and the GND (-) (BSD 4.1 Flag 1). **The voltage is approx. +5VDC.**

Y N  
Replace the MCU PWB (PL 9.1).

Replace the Main Drive Assembly (PL 1.1) followed by the MCU PWB (PL 9.1).

Check the installation of the Main Drive Assembly (PL 1.1). **The Main Drive Assembly (PL 1.1) is installed correctly.**

Y N  
Install the Main Drive Assembly (PL 1.1) correctly.

Check the wire between J408-4 and J214-6 for an open circuit or a short circuit (BSD 4.1 Flag 2). **The wire between J408-9 and J214-6 is conducting without an open circuit or a short circuit.**

Y N  
Repair the open circuit or short circuit.

Manually rotate the Main Motor rotor. **It rotates smoothly.**

Y N  
Check for foreign substances that are interfering with operation or installation failure. **Foreign substances or installation failure are found.**

A

Y

N

Replace the Main Drive Assembly (PL 1.1).

Remove the foreign substances that are interfering with operation and correct the installation failure.

Replace the Main Drive Assembly (PL 1.1) followed by the MCU PWB (PL 9.1).

## U3-5000 ROS Motor Failure RAP

- After the ROS Motor started rotating, the ROS Motor rotation speed did not reach the specified value within the specified time.
- The light intensity of the LD did not reach the specified value.

### Initial Actions

Refer to BSD 6.4/6.5.

Power OFF/ON

### Procedure

Check the connections of P/J406, P/J140 and P/J130. **P/J406, P/J140 and P/J130 are connected correctly.**

Y N  
| Connect P/J406, P/J140 and P/J130.

Check the wire between J406 and J140 (BSD 6.4 Flag 1/Flag 2), and between J406 and J130 for an open circuit or a short circuit (BSD 6.5 Flag 1). **The wires between J406 and J140, and between J406 and J130 are conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Execute Input/Output Check[6-15 ROS MOTOR ON]. **The ROS Motor can be heard.**

Y N  
| Measure the voltage between the MCU PWB P406-7 (+) and the GND (-) (BSD 6.5 Flag 1). **The voltage is +24VDC.**

Y N  
| Measure the voltage between the MCU PWB P400-1 (+) and the GND (-) (BSD 1.1 Flag 1). **The voltage is +24VDC.**

Y N  
| Measure the voltage between the Power Unit P522-3 (+) and the GND (-) (BSD 1.1 Flag 1). **The voltage is +24VDC.**

Y N  
| Replace the Power Unit (PL 9.1).

Y N  
| Repair the open circuit between J522 and J400.

Y N  
| Replace the MCU PWB (PL 9.1).

Y N  
| Replace the ROS Assembly (PL 3.1) followed by the MCU PWB (PL 9.1).

Install the XERO/Developer Cartridge securely. Measure the voltage between the MCU PWB P406-1 (+) and the GND (-) (BSD 6.4 Flag 1). **The voltage is +5VDC.**

Y N  
| Replace the MCU PWB (PL 9.1).

Y N  
| Replace the ROS Assembly (PL 3.1) followed by the MCU PWB (PL 9.1).

## U4-1000 Fuser On Time Failure RAP

- After the Main Lamp turned On during warm up, the Control Thermistor did not detect READY temperature within the specified time.
- After the Main Lamp turned On during standby, the Control Thermistor did not detect a specific temperature within the specified time.
- After the Sub Lamp turned On during standby, the Control Thermistor did not detect a specific temperature within the specified time.
- The Control Thermistor did not detect the empty rotation finishing temperature within the specified time after empty rotation started.
- After the Main Lamp turned On during printing, the Control Thermistor did not detect a specific temperature within the specified time.
- After the Sub Lamp turned On during printing, the Control Thermistor did not detect a specific temperature within the specified time.

### Initial Actions

Refer to BSD 10.1.

Power OFF/ON

### Procedure

**NOTE:** When U4-1 occurs, [NVM 50-20 FSR Reset FuserOverTemp]=1. After repair, change it to [NVM 50-20 FSR Reset FuserOverTemp]=0.

Check for paper on the Fuser.

**The Fuser has no paper wrapped round it.**

Y N  
| Remove the paper.

Check the installation of the Fuser Assembly. **The Fuser Assembly is securely installed.**

Y N  
| Install the Fuser Assembly securely.

Remove the Fuser Assembly. Check the conductivity of the contact points of the Thermostat (BSD 10.1 Flag 1). **The contact points are connected.**

Y N  
| Replace the Fuser Assembly (PL 5.1).

Check the Heater Rod for an open circuit (BSD 10.1 Flag 1). **There is no open circuit in the wire between P600-6 and P600-2.**

Y N  
| Replace the Fuser Assembly (PL 5.1).

Check the resistance of the Thermistor (BSD 10.1 Flag 1). **There is no open circuit in the wire between P600-1 and P600-3 and the resistance is 3kOhm and above.**

Y N  
| Replace the Fuser Assembly (PL 5.1).

A

A

Check the wire between J416 and J600 for an open circuit or a short circuit (BSD 10.1 Flag 2). **The wire between J416 and J600 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Check the wire between J6 and J600 for an open circuit or a short circuit (BSD 10.1 Flag 1). **The wire between J6 and J600 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Check the wire between J523 and J400 for an open circuit or a short circuit (BSD 10.1 Flag 3). **The wire between J523 and J400 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Replace the Fuser Assembly (PL 5.1) followed by the Power Unit (PL 9.1) and the MCU PWB (PL 9.1).

## U4-2000 Over Heat Temp Failure RAP

- The Control Thermistor detected a temperature higher than the specified value.
- The Lamp Change Thermistor detected a temperature higher than the specified value.

### Initial Actions

Refer to BSD 10.1.

Power OFF/ON

### Procedure

**NOTE:** When U4-2 occurs, [NVM 50-19 FSR U4-2 Reset Mode]=1. After repair, change it to [NVM 50-19 FSR U4-2 Reset Mode]=0.

Check the resistance of the Thermistor (BSD 10.1 Flag 1). **There is no open circuit in the wire between P600-1 and P600-3 and the resistance is 3kOhm and above.**

Y N

Replace the Fuser Assembly (PL 5.1).

Check the wire between J416 and J600 for an open circuit or a short circuit (BSD 10.1 Flag 2). **The wire between J416 and J600 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Check the wire between J523 and J400 for an open circuit or a short circuit (BSD 10.1 Flag 3). **The wire between J523 and J400 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Replace the Fuser Assembly (PL 5.1) followed by the Power Unit (PL 9.1) and the MCU PWB (PL 9.1).

## U4-3000 Control Thermistor Failure RAP

The circuit to the Thermistor is open.

### Initial Actions

Refer to BSD 10.1.

Power OFF/ON

### Procedure

Check the installation of the Fuser Assembly. **The Fuser Assembly is securely installed.**

Y N

Install the Fuser Assembly securely.

Check the resistance of the Thermistor (BSD 10.1 Flag 1). **There is no open circuit in the wire between P600-1 and P600-3 and the resistance is 3kOhm and above.**

Y N

Replace the Fuser Assembly (PL 5.1).

Check the wire between J416 and J600 for an open circuit or a short circuit (BSD 10.1 Flag 2). **The wire between J416 and J600 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Check the wire between J523 and J400 for an open circuit or a short circuit (BSD 10.1 Flag 3). **The wire between J523 and J400 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Replace the Fuser Assembly (PL 5.1) followed by the MCU PWB (PL 9.1).

## U4-9000 Fuser Fan Failure RAP

The Fuser Fan failed.

### Initial Actions

Refer to BSD 10.2.

Power OFF/ON

Clear away foreign substances and dust accumulated at the exhaust.

### Procedure

Turn on the power. Visually check the rotation of the Fuser Fan (PL 4.2). **The Fuser Fan (PL 4.2) is rotating.**

Y N

Measure the voltage between the MCU PWB J218-3 (+) and the GND (-) (BSD 10.2 Flag 1). **The voltage is approx. +24VDC.**

Y N

Replace the MCU PWB (PL 9.1).

Replace the Fuser Fan (PL 4.2) followed by the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB J218-2 (+) and the GND (-) (BSD 10.2 Flag 1).

**The voltage is approx. 0VDC.**

Y N

Replace the Fuser Fan (PL 4.2) followed by the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

## U5-1000 Dispense Motor Failure RAP

The toner density in the XERO/Developer Cartridge has not risen since the Dispense Motor has been turned On.

### Initial Actions

Refer to BSD 9.3.

Power OFF/ON

Reload the Toner Cartridge.

### Procedure

Check the XERO/Developer Cartridge Seals. **The seals have been removed.**

**Y N**  
| Remove the XERO/Developer Cartridge Seals.

Execute Input/Output Check[15-63 Dispense Motor ON]. **The Dispense Motor can be heard.**

**Y N**  
| Measure the voltage between the MCU PWB J420-2 (+) and the GND (-) (BSD 9.3 Flag 1). **The voltage is approx. +24VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Execute Input/Output Check[15-63 Dispense Motor ON]. Measure the voltage between the MCU PWB J420-1 (+) and the GND (-) (BSD 9.3 Flag 2). **The voltage is approx. 0VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Check the wire between J420 and J216 for an open circuit or a short circuit (BSD 9.3 Flag 1/Flag 2). **The wire between J420 and J216 is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Replace the Dispense Motor (PL 4.2).

Check the Transport Pipe. **The Transport Pipe is not blocked.**

**Y N**  
| Clear the blockage.

Replace the XERO/Developer Cartridge (PL 4.1) followed by the MCU PWB (PL 9.1).

## U6-2000 RAM Read/Write Check Failure RAP

The MCU PWB RAM failed during the Read/Write operation.

### Initial Actions

Refer to BSD 3.1.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **U6-2 reoccurs.**

**Y N**  
| End

Replace the MCU PWB (PL 9.1).

## U6-3000 NVM Data Defect RAP

NVM data error occurred in the MCU PWB.

### Initial Actions

Refer to BSD 3.1.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **U6-3 reoccurs.**

**Y N**  
| End

Replace the MCU PWB (PL 9.1).

## U6-4000 NVM Read/Write Cannot Be Executed RAP

The MCU PWB NVM failed during the Read/Write operation.

### Initial Actions

Refer to BSD 3.1.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **U6-4 reoccurs.**

**Y N**  
| End

Replace the MCU PWB (PL 9.1).

## U6-5000 CPU Power To Access NVM Is Not Enough RAP

The MCU PWB NVM suffered an internal failure during the data write operation.

### Initial Actions

Refer to BSD 3.1.

Power OFF/ON

### Procedure

Check the ROM version by executing NVM[60-1 ROM Version]. **The ROM is the latest version.**

**Y N**  
| Replace the ROM with the latest version.

Replace the MCU PWB (PL 9.1).

## U6-6000 CRUM ASIC Failure RAP

The CRUM Control ASIC failed.

### Initial Actions

Refer to BSD 9.1.

Power OFF/ON

### Procedure

Check the connection of each MCU PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **U6-6 reoccurs.**

**Y N**  
| End

Replace the MCU PWB (PL 9.1).

## **Z1-0000 Billing Counter Failure RAP**

The readings of 3 types of billing counters were all different.

### **Initial Actions**

Refer to BSD 3.1.

Power OFF/ON

### **Procedure**

In the diag mode perform the procedure in "Chapter 6 Counter" .



## 00xxxx Polling Operation Error RAP

- The DIS signal was received but there was no document in the self-terminal.
- Polling Receive was specified.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Reload the document.

Check the remote machine.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 01xxxx Document Feed Failure RAP

- The document was pulled out during sending.
- There was an attempt to send a document shorter than the specified value.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Reload the document.

Check the document size.

Check the document paper type.

Check the remote machine.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 02xxxx Dial Setting Failure RAP

The system performed operations not suitable for the type of line such as calling \* and # using DP (dial pulse) setting.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the line type setting.

Check the one-touch dial setting.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 03xxxx Password Mismatch During Send RAP

When sending, the passwords in the remote machine and the machine did not match.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the password settings in the remote machine and the machine.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 04xxxx Password Mismatch During Receive RAP

When receiving, the passwords in the remote machine and the machine did not match.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the password settings in the remote machine and the machine.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 05xxxx Password Mismatch During Polling RAP

When polling, the passwords in the remote machine and the machine did not match.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the password settings in the remote machine and the machine.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 06xxxx Relay Broadcast Not Allowed RAP

A remote machine that does not support the Relay Broadcast function was instructed to process Relay Broadcast.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 07xxxx Mailbox Receive Not Allowed RAP

A remote machine that does not support the Mailbox Receive function was instructed to process Mailbox Receive.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 09xxxx Transmission Type Mismatch RAP

When specifying Polling Receive, the transmission types in the remote machine and the machine did not match.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

The remote machine repeats the operation.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 10xxxx F Code Send Error RAP

An error occurred when sending F Code.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

The remote machine repeats the operation.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 11xxxx F Code Receive Error RAP

An error occurred when receiving F Code.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

The remote machine repeats the operation.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 33xxxx V.34 Protocol Error RAP

A protocol error occurred during V.34 sequencing.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 45xxxx Memory Overflow RAP

Memory overflow or memory near full occurred.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Re send from the remote machine.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3) and the EXT PWB (PL 11.6).

## 46xxxx Document JAM RAP

- After the first page was sent, the next page was not fed.
- Sending was not completed even though only 1 m was sent.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Reload the document.

Check the document size.

Check the document paper type.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 47xxxx Error During Receive RAP

- There was no paper.
- The Side Cover opened during receiving.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Reload the paper.

Open/close the cover

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 70xxxx Busy Tone RAP

- 700002: Busy tone was detected while waiting to receive the initial identification signal.
- 700005: Calling was not possible due to a call conflict.
- 700008: A 2nd dial tone detection time-out or a modem error occurred.
- 7001xx: Busy tone detected/T1 timed out → 7001xx was not in the report (text display).

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 71xxxx No Response RAP

- 7101xx: Polarity reversal was detected while waiting for the initial identification signal.
- 7103xx: Internal I/F Wait timed out.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 72xxxx Remote Machine Error RAP

- 7201xx: The DCN signal was received while waiting to receive the DIS signal.
- 7203xx: The DCN signal was received while waiting to receive the CFR signal or while waiting for the DIS signal for changing modes.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 74xxxx Transmission Error RAP

- 74xxxx: The DIS or the DTC signal was received three times while waiting for a response to the TCF signal.
- The TSI or the DCS signal and the TCF signal were sent three times but there was no response.
- The FTT signal was received two times even though the TCF signal that was sent at the lowest data rate.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 76xxxx Polarity Reversal Detected Other Than While Waiting To Receive Initial Identification Signal RAP

7603xx: Polarity reversal was detected while waiting for the DIS signal for changing modes when polarity reversal is detected before receiving the TCF-CFR signal.

7604xx: Polarity reversal was detected during post command sequencing for the G3 mode image signal.

7605xx: Polarity reversal was detected during post command sequencing for the ECM mode image signal.

7607xx: Polarity reversal was detected while changing modes when polarity reversal was detected before sending the TCF-CFR signal (Polling Receive).

7608xx: Polarity reversal was detected during post command sequencing for the G3 mode image signal (Polling Receive).

7609xx: Polarity reversal was detected during post command sequencing for the ECM mode image signal (Polling Receive).

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

Use another line.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 77xxxx No Response To Post Message RAP

7704xx: There was no response to the G3 mode post message.

7705xx: When there was no response to the ECM mode post message, the RNR-RR sequencing T5 timed out.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

Use another line.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 78xxxx DCN Received While Waiting For Response To Post Message RAP

7804xx: The DCN signal was received while waiting for a response to the G3 mode post message.

7805xx: The DCN signal was received while waiting for a response to the ECM mode post message.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 79xxxx PIP Received In Response To Post Message RAP

7904xx: The PIP signal was received while waiting for a response to the G3 mode post message.

7905xx: The PIP signal was received while waiting for a response to the ECM mode post message.

790Bxx: The PIP signal was received while waiting for a response to the RR signal.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Check the Send level and then re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 7Axxxx RTN Received In Response To Post Message RAP

- Error Re send Retry Out.
- PPR frame error occurred.

7A04xx: The G3 mode RTN signal was received or Re send Retry Out.

7A05xx: ECM mode PPR frame error occurred or Re send Retry Out.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

Check the Send level.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 7Cxxxx CRP Received RAP

- 7C01xx: The CRP signal was received three times while waiting for the DCS signal for Polling Receive.
- 7C03xx: The CRP signal was received three times while waiting for a response to the TCF signal.
- 7C04xx: The CRP signal was received three times while waiting for a response to the G3 mode post message.
- 7C05xx: The CRP signal was received three times while waiting for a response to the ECM mode post message.
- The CRP signal was received three times in response to the TCF signal.
- The CRP signal was received three times in response to the post message.
- The CRP signal was received three times in response to the DTC signal for Polling Receive.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

Check the Send level.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 7Dxxxx Command Error For Receive RAP

7D01xx: A command error for Receive occurred while waiting for the initial identification signal.

7D03xx: A command error for Receive occurred while waiting to receive the CFR signal or while waiting for the DIS signal for changing modes.

7D04xx: A command error for Receive occurred while waiting for a response to the G3 mode post message.

7D05xx: A command error for Receive occurred while waiting for a response to the ECM mode post message.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 7Fxxxx No Response From Remote Machine After Mode Change (T1 Time out) RAP

7F01xx: T1 timed out while waiting for the DCS signal for Polling Receive.

7F03xx: T1 timed out while waiting to receive the DIS signal when changing modes.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 8Fxxxx PIN Received In Response To Post Message RAP

8F04xx: The PIN signal was received while waiting for a response to the G3 mode post message.

8F05xx: The PIN signal was received while waiting for a response to the ECM mode post message.

8F0Bxx: The PIN signal was received while waiting for a response to the RR signal.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 91xxxx No Response RAP

T1 timed out while waiting for the initial identification signal.

9102xx: T1 timed out while waiting for the DCS signal.

9107xx: T1 timed out while waiting for the DCS signal after changing modes.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 92xxxx DCN Received While Waiting For Command Other Than DCN In PHASE-B RAP

9201xx: The DCN signal was received while waiting for the DCS signal for Polling Receive.

9202xx: The DCN signal was received while waiting to receive the DCS signal.

9207xx: The DCN signal was received while waiting to receive the DCS signal again.

9208xx: The DCN signal was received while waiting for the G3 mode image signal.

9209xx: The DCN signal was received while waiting for the ECM mode image signal.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 95xxxx Time out 10 sec. After Detecting Low Speed Flag While Waiting For Image Signal Carrier (HMCD ON) Detection RAP

9508xx: Time out occurred while waiting for the G3 mode image signal.

9509xx: Time out occurred while waiting for the ECM mode image signal.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 96xxxx Carrier Was Broken Within 15 sec. When Receiving G3 Image Signal RAP

9608xx: When receiving the G3 mode image signal, the carrier was broken.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 97xxxx T2 Time out RAP

9708xx: Time out occurred while waiting for the G3 mode post message.

9709xx: Time out occurred while waiting for the ECM mode post message.

T2 timed out while waiting to receive the post message.

After receiving the last page, T2 timed out while waiting to receive the DCN signal.

No Response From Remote Machine After Mode Change (T2 Time out)

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.  
**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 98xxxx DCN Received While Waiting For Command Other Than DCN In PHASE-D RAP

9808xx: The DCN signal was received while waiting for the G3 mode post message.

9809xx: The DCN signal was received while waiting for the ECM mode post message.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.  
**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 99xxxx PRI-Q Received RAP

The PRI-Q signal was received as a post message (a wrong code was set but transmission was normal).

9908xx: The PRI-Q signal was received.

9909xx: The PPS-PRI-Q signal was received.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 9Axxxx Decoding Error RAP

When receiving the ECM image signal, the line could not decode within 35 sec.

9A09xx: When receiving the ECM image signal, the signal could not be decoded within 35 sec.

9AADEC: Decoding error or MMR decoding error occurred.

9ABxxx: Decoding error or JBIG system error occurred.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 9Cxxxx CRP Was Received Three Times While Waiting For Response To Initial Identification Signal RAP

9C02xx: The CRP signal was received three times while waiting for the DCS signal.

9C07xx: The CRP signal was received three times while waiting for the DCS signal after changing modes.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.  
**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 9Dxxxx Command Error For Receive (Carrier Was Not Broken) RAP

9D02xx: A command error for Receive occurred while waiting for the DCS signal.

9D07xx: A command error for Receive occurred while waiting to receive the DCS signal after changing modes or while waiting for the TCF signal.

9D08xx: A command error for Receive occurred while waiting for the post message or while waiting for the G3 mode image signal.

9D09xx: A command error for Receive occurred while waiting for the post message or while waiting for the ECM mode image signal.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.  
**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## 9Fxxxx EOR-Q RAP

During ECM procedure, the page being transmitted was abandoned due to an EOR-Q or EOR-PRI-Q signal from the sender. (As the procedure continues, the following pages may still be transmitted.)

9F09xx: The EOR-Q or the EOR-PRI-Q signal was received.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Use another line.

Set a low transmission speed and then re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## B0xxxx Power Supply Was Cut Off RAP

The power supply was cut off.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## B2xxxx System Error RAP

B202xx: T4 timed out during Internal I/F Wait.

B203xx: NG occurred during buffer initialization.

B204xx: NG occurred during G3 mode image data conversion.

B205xx: NG occurred during ECM mode image data conversion.

B207xx: When sending the DCN signal, conversion was completed.

B2Axxx: There was an error in the parameter for decoding.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## B4xxxx Modem Error RAP

B401xx: When sending the CNG or the DTC signal, a modem error occurred.

B402xx: When sending the CED or the DIS signal, a modem error occurred.

B403xx: When sending the DCS or the TCF signal, a modem error occurred.

B404xx: When sending the G3 mode image signal or post message, a modem error occurred.

B405xx: When sending the ECM mode image signal or post message, a modem error occurred.

B407xx: When sending the CFR signal or the DIS signal after changing modes, a modem error occurred.

B408xx: When sending the G3 mode post message response, a modem error occurred.

B409xx: When sending the ECM mode post message response, a modem error occurred.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Reload the document in the remote machine.

Use another line.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

Y N  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

Y N  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## B5xxxx Modem Error During Send RAP

B501xx: When sending, a modem error occurred in V.8 sequencing.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## B6xxxx Modem Error During Receive RAP

B602xx: When receiving, a modem error occurred in V.8 sequencing.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Use another line.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## B7xxxx Image Data Conversion System Error RAP

B70000~B74FFF: The Internal I/F for processing decoding was incorrect or the Internal I/F was incorrect.

B75000~B7Fxxx: The Internal I/F for processing decoding, the image parameter and processing were incorrect.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB, MFC PWB, EXT PWB and EXT PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the MFC PWB (PL 11.6), followed by the EXT PWB (PL 11.6), the FAX1 PWB (PL 9.3), the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## E1xxxx Scan to E-mail Transmission Error RAP

E11001: Page synchronization failed.

E11101: Data read failed.

E11201: During Scan to E-mail, a request to cancel the job was received from the PCU.

E11202: During Scan to E-mail, a request to abort the channel was received from the PCU.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the various settings.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## E2xxxx Direct Fax Transmission Error RAP

E20000: Unable to receive Send requests (re sends are received).

E20300: Unable to receive Send requests (re sends are received).

E21000: Unable to start document (failed to start receiving).

E21001: Page synchronization failed.

E21100: Unable to start document (page data read/write failed).

E21200: Unable to receive Send requests (parameter error: re sends are not received).

E21201: During Direct Fax, a request to cancel the job was received from the PCU.

E21202: During Direct Fax, a request to abort the channel was received from the PCU.

### Initial Actions

Refer to BSD 17.1.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each ADC PWB, FAX1 PWB, NTEL PWB and EXT PWB connector.

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the FAX1 PWB (PL 9.3) followed by the ADC PWB (PL 9.3), the NTEL PWB (PL 9.3), the MFC PWB (PL 11.6) and the EXT PWB (PL 11.6).

## EPxxxx EP Related RAP

EP0000: The EP-A requested abnormal display.

EP0001: Parameter error occurred

EP0002: Transmission is not possible

EP0003: EP-A line error occurred

EP0004: There was no response from the EP-A.

### Initial Actions

Refer to BSD 3.5.

Power OFF/ON

Check the status of the remote machine.

Re send.

### Procedure

Check the connection of each MFC PWB and EXT PWB connector. **The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Turn on the power again. **The same problem reoccurs.**

**Y N**  
| End

Replace the MFC PWB (PL 11.6) followed by the EXT PWB (PL 11.6).

# PRINTER ESS Failure List

Table 1 PRINTER ESS Failure List

Chain-Link	Description	Corrective Action
001-304	STM Cover open	Close the Cover (BSD1.5)
001-305	TM Cover open	Close the Cover (BSD1.5)
003-747	[Print Parameter Error]: Specified print parameter abnormal	Change the print parameter and reprint
003-946	Tray 1 Out of Place	Set the Tray (BSD7.1), If continue, change Tray 1 Paper Size Switch or Tray Assembly.
003-947	Tray 2 Out of Place	Set the Tray (BSD7.2), If continue, change Tray 2 Paper Size Switch or Tray Assembly.
003-948	Tray 3 Out of Place	Set the Tray (BSD7.3), If continue, change Tray 3 Paper Size Switch or Tray Assembly.
003-949	Tray 4 Out of Place	Set the Tray (BSD7.4), If continue, change Tray 4 Paper Size Switch or Tray Assembly.
003-950	Tray 1 Empty	Add paper (BSD7.5), If continue, check the Tray 1 No Paper Sensor.
003-951	Tray 2 Empty	Add paper (BSD7.6), If continue, check the Tray 2 No Paper Sensor.
003-952	Tray 3 Empty	Add paper (BSD7.7), If continue, check the Tray 3/4 No Paper Sensor.
003-953	Tray 4 Empty	Add paper (BSD7.8), If continue, check the Tray 3/4 No Paper Sensor.
003-954	Tray MPT Empty	Add paper (BSD7.9), If continue, check the MPT No Paper Sensor.
003-958	Size mismatch 1 MPT Size mismatch	Set the correct paper (BSD7.9).
003-959	(H1-4000) Size mismatch: Tray 1 Size mismatch	Set the correct paper (BSD7.1), If continue, check the Tray 1 Paper Size Switch.
003-960	(H4-2000) Size mismatch: Tray 2 Size mismatch	Set the correct paper (BSD7.2), If continue, check the Tray 2 Paper Size Switch.
003-961	(H4-3000) Size mismatch: Tray 3 Size mismatch	Set the correct paper (BSD7.3), If continue, check the Tray 3/4 Paper Size Switch.
003-962	(H4-4000) Size mismatch: Tray 4 Size mismatch	Set the correct paper (BSD7.4), If continue, check the Tray 3/4 Paper Size Switch.
003-965	ATS/APS No Paper: APS/ATS NG (No Paper)	Add paper, If continue, check the Sensor.
003-966	ATS/APS No Destination Error: ATS/APS NG (except No Paper)	Change the setting. Replace the Tray Assembly. If continue, check the Sensor.
003-985	Check MPT pause	Confirm paper size/orientation/type.
004-142	C4-2000: T/A ROLL3 SNR ON --> T/A ROLL2 SNR ON TIME FAIL	Jam between Tray3 Take Away Sensor and Tray2 Take Away Sensor (BSD8.2/8.4)
004-210	H7-3000: TM(NVM of TM is out of order)	Power OFF/ON (BSD1.2/3.3)
004-211	H7-4000: TM (Can not read from/write to the TM NVM)	Power OFF/ON (BSD1.2/3.3)
004-212	H3-1000: OCT Failure	Power OFF/ON (BSD10.5), Replace OCT1 Motor or SNR.
004-311	U1-1000: MC Clock FAIL	Power OFF/ON (BSD4.1)
004-312	H7-7000: TM (Communication error between MCU and TM was detected)	Power OFF/ON (BSD1.2/3.3)
004-321	STM NVM BCD ERROR	Power OFF/ON
004-322	STM NVM Device Error	Power OFF/ON
004-323	Communication Error to STM	Power OFF/ON
004-324	MFU-MCU Communication Error	
004-325	U1-1000: Main Motor rotation error	(BSD4.1)
004-340	U6-2000: RAM read/write check error	Power OFF/ON (BSD3.1)
004-361	U6-3000: NVM defect	Power OFF/ON (BSD3.1)
004-362	U6-4000: NMV read/write can not be executed	Power OFF/ON (BSD3.1). If continue, replace the NVM Chip.
004-364	U6-5000: CPU Power to access NVM is not enough	Power OFF/ON (BSD3.1)
004-366	MCU Asic circuit to control CRUM is defect	Power OFF/ON (BSD9.1)
006-333	LASER BEAM SOS long	
006-334	LASER BEAM SOS short	
006-335	ROS MOT rotation error	

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
007-113	C1-3000: FEED --> REGI SNR ON TIME FAIL	Tray1 Miss Feed Jam (BSD8.1/8.6)
007-122	C2-2000: FEED --> T/A ROLL2 SNR ON TIME FAIL	Tray2 Take Away Sensor On Check Jam (BSD7.6/8.2)
007-123	C2-3000: T/A ROLL2 SNR ON --> REGI SNR ON TIME FAIL	Spring pressure of Take Away Roll is weak (BSD8.2/8.6).
007-131	C3-1000: FEED --> T/A ROLL3 SNR ON TIME FAIL	Tray3 Miss Feed Jam (BSD7.7/8.3)
007-132	C3-2000: T/A ROLL3 SNR ON --> T/A ROLL2 SNR ON TIME FAIL	Jam between Tray3 Take Away Sensor and Tray2 Take Away Sensor (BSD7.7/8.2).
007-133	C3-3000: T/A ROLL2 SNR ON --> REGI SNR ON TIME FAIL	Jam between Tray3 Take Away Sensor and Registration Sensor (BSD7.6/8.6).
007-141	C4-1000: FEED --> T/A ROLL3 SNR ON TIME FAIL	(BSD8.3/8.5)
007-143	C4-3000: T/A ROLL2 SNR ON --> REGI SNR ON TIME FAIL	Jam between Tray2 Take Away Sensor and Registration Sensor (BSD8.2/8.6)
007-193	C9-3000: T/A ROLL2 SNR ON --> REGI SNR ON TIME FAIL	Jam between Tray2 Take Away Sensor and Registration Sensor (BSD4.1/8.1/8.6)
007-281	[Tray Fail]: Tray1 Lift Up Fail	Power OFF/ON, The primary cause of lift up fail is Motor fail. Replace the Motor.
007-282	[Tray Fail]: Tray2 Lift Up Fail	Power OFF/ON (BSD7.6), The primary cause of lift up fail is Motor fail. Replace the Motor.
007-283	[Tray Fail]: Tray3 Lift Up Fail	Power OFF/ON (BSD7.7), The primary cause of lift up fail is Motor fail. Replace the Motor.
007-284	[Tray Fail]: Tray4 Lift Up Fail	Power OFF/ON (BSD7.8), The primary cause of lift up fail is Motor fail. Replace the Motor.
007-969	Full Stack Fail	Remove the jammed paper.
008-111	E1-1000: FEED from REGI --> REGI. SNR OFF TIME FAIL	Registration Sensor Off Check Jam (BSD8.6)
008-112	E1-2000: FEED from REGI --> FUSER EXIT SNR ON TIME FAIL	Jam between Registration. Sensor and Fuser Exit Switch (BSD4.1/9.4/10.2)
008-113	FEED from REGI-->FACE UP EXIT SNR ON TIME FAIL	Face UP Exit Switch On Check Jam (BSD8.9)
008-114	Exit SNR1 off (too short) JAM	
008-130	Registration SNR on JAM	Jam Clear
008-131	E3-1000: FUSER EXIT SNR ON --> OFF TIME FAIL	(BSD10.2)
008-161	C6-1000: DUP MOTOR ON --> REGI SNR ON TIME FAIL	Jam between DUP Module and Registration. Sensor (BSD8.6/10.4)
008-182	C8-2000: Remain at T/A Roll 2 Sensor	Check the machine (BSD8.2).
008-183	C8-3000: Remain at T/A Roll 3 Sensor	Check the machine (BSD8.3)
008-189	Remain at T/A Roll 4 Sensor	Check the machine
008-191	DUP EXIT SNR ON-->OFF TIME FAIL	DUP Exit Switch On Check Jam (BSD8.11)
008-192	E8-2000: EXIT MOTOR REVERSE ON --> DUP SNR ON TIME FAIL	DUP Wait Sensor On Check Jam (BSD10.3/10.4)
008-211	Detected a connection of different type	Power OFF/ON (BSD1.2/3.3)
008-271	DCSYS-DM I/F Error: Duplex Unit was separated after power on	
008-272	Duplex Module Communication Fail - Framing/Overrun/Parity error	
008-273	DCSYS-DM I/F Error: (BCC Error)	
008-274	DCSYS-DM I/F Error: (No Communication)	
008-310	Controller Failed to send image-ready to MCU within 40sec	(BSD16.1)
008-314	DCSYS-DM I/F Error: Duplex Unit was separated after power on	If continue, replace Duplex unit.
008-329	Main Motor can't stop, while no feeding for 120sec	(BSD4.1)
008-901	E1-6000: STANDBY JAM (Jammed paper on REGI. SNR)	Check the machine (BSD8.6)
008-903	E3-6000: STANDBY JAM (Jammed paper on FUSER EXIT)	Check the machine (BSD10.2)
008-904	STANDBY JAM (Jammed paper on DUP EXIT SNR)	Check the machine (BSD8.11)
008-905	C8-6000: STANDBY JAM (Jammed paper on DUP WAIT SNR)	Check the machine (BSD10.4)
009-312	Toner Dispense Motor rotation error	Power OFF/ON (BSD9.3), Replace Dispense Motor and Power OFF/ON.
009-413	Toner Near Empty	Replace the Toner Cartridge.
009-428	Drum Change Soon	Replace the Xero/Deve Cartridge.

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
009-909	Toner Cartridge type unmatched	Replace the Toner Cartridge (BSD9.1).
009-910	ATC SNR Error	(BSD9.3)Replace the ATC SNR.
009-915	J3-1000: Xero/Deve Cartridge set Error	Take action as displayed. (BSD9.1)
009-916	J8-1000: Toner Cartridge ID MISS MATCH Power On	Take action as displayed. (BSD9.1)
009-917	J8-3000: Data R/W Error	Take action as displayed. (BSD9.1)
009-923	J1-2000: Toner Empty	Replace the Toner Cartridge.
009-924	MCU can not communicate CRUM in toner cartridge Toner Communication Error	Replace the Toner cartridge (BSD9.1)
009-925	Toner Cartridge NVM Memory R/W Error	Replace the Toner cartridge (BSD9.1)
009-926	Drum End of Life (K)	Replace the appropriate parts.
010-311	U4-1000: FUSER ON TIME FAIL (FUSER ON --> FUSER Ready)	Power OFF/ON (BSD10.1)
010-312	U4-2000: Over Heat Temp Fail	Power OFF/ON (BSD10.1)
010-314	Control thermistor can not be monitored	Power OFF/ON (BSD10.1)
016-503	SMTP Server Address Resolution Fail for Redirector	
016-450	SMB Host name duplication	Change the host name.
016-452	IP Address duplication	Change IP address.
016-453	IP Address acquisition from DHCP Server was failed	Set the IP address (no acquisition from the DHCP server).
016-454	Dynamic DNS - Dynamic update was failed	Not need.
016-500	SMTP Server Address Resolution Fail for Mail IO	Specify the proper SMTP Server name or use the IP address to specify it.
016-501	POP Server Address Resolution Fail for Mail IO	Specify the proper POP Server name or use the IP address to specify it.
016-502	POP Authentication Fail for Mail IO	Specify proper authentication info in POP Server.
016-701	PLW decomposer memory low.	As PLW Memory is fixed,, lower the resolution if possible.
016-702	Failed to compress even one page	Increase the memory capacity, lower the resolution, or set print guarantee mode  (print guarantee mode for PLW only).For PCL, set the "PCL heap memory to band buffer ratio" to 1 : 2 or more.
016-709	PLW Command Error: Error detected at PLW decomposer.	Cancel job exhibiting Syntax Error, Undefined Command, Parameter Error, Internal Decomposer Error, etc. and retry.
016-716	[TIFF File Invalid]: TIFF spool file beyond disc capacity	
016-719	Short of PCL decomposer memory	Increase the PC memory capacity.
016-720	PCL Command Error: Error detected at PCL decomposer.	Cancel job exhibiting Syntax Error, Undefined Command, Parameter Error, Internal Decomposer Error, etc. and retry.
016-721	Other Error	<ul style="list-style-type: none"> <li>•Prioritized paper types are all unavailable.</li> <li>•Non-command/-form error related to ART</li> <li>•ESCP command error</li> <li>•Illegal control code from Input Stream. Ask the customer to retry the same job. Check what the error is and ask the support group for support.</li> </ul>
016-726	[Auto Judge Error]: Auto SW judgment failure	Select the fixed Decomposer from the operator panel or by a command.
016-728	[TIFF File Invalid]: Containing Tag not installed by the image file library.	Check data for print as follows: delete any unsupported Tag from the data and reprint it.

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
016-729	[TIFF File Invalid]: Colors or pixels specified beyond the upper limit of effective range.	Check data for print: e.g. correct the available range.
016-730	[ART Command Error]: Detected the non-supported Command on ART.	Delete any unsupported command from data and reprint the data.
016-731	[TIFF File Invalid]: TIFF data interrupted or not complete	Resend data.
016-732	[Form Overlay Error]: In emulation, data not to be printed with spec form unregistered	Resend the form data.
016-744	Non-supported function is included in received PDF.	Print from Acrobat Reader through the driver.
016-749	[PJL Syntax Error]: JCL/PJL command syntax error	Correct the command.
016-751	PDF Error	[FX PDF]: Print from Acrobat Reader by using the driver.  The latest Controller Software may allow the data to be normally printed.
016-752	PDF Short of Memory	[FX PDF]: Change print mode from "Fine Resolution" to "Standard" or from Standard" to "High Speed."  If this does not resolve the problem, add a memory. If an additional memory of a max capacity does not resolve the problem, use the driver from Acrobat Reader to print.
016-753	PDF Password Mismatched	Set the correct password on UI Panel or Contents Bridge.
016-754	PDF LZW Not Installed	Install the Contents Bridge Extension Kit, or print from Acrobat Reader by using the driver.
016-755	PDF Print Prohibited	Clear the print prohibition against the PDF file and using Acrobat, print it.
016-757	Auditron - Invalid User	Set the correct Account, try again.
016-758	Auditron - Disabled Function	(1) Reset to another function allowed for that account and retry.  (2) Ask the Account Administrator to add the right.
016-759	Auditron - Reached Limit	Ask Account Administrator to set the quantity.
016-760	[PS Decompose Error]: Decompose processing error	Resend the job. (If the problem reoccurs, it is necessary to check the execution environment/data.)
016-761	[Image Output]: FIFO EMPTY Error	Print in speed priority mode. If the error persists, print in print guarantee mode.
016-762	[Decomposer nonexistent]: Unsupported function (print language or utility) requested. (The Decomposer specified through PJL/Auto SW is not installed.)	Select the fixed Decomposer from the operator panel or by a command.
016-764	SMTP server connection error	Take out the mail from Server HD. Reset the SMTP Service.
016-765	SMTP server HD full	
016-766	SMTP server file system problem	Contact the SMTP Server Administrator. Review the setup limit to server capacity.
016-767	Invalid E-mail destination address	Check the mail address. Resend the job.
016-768	Invalid source address (Log in Error)	Check the machine mail address is acceptable address in the domain.
016-769	SMTP server not supporting DSN	Enable the ESMTP function of the nearest SMTP server, or set Arrival Check to OFF and send the mail. Send the mail without making DNS settings.
016-771	Scan data repository address not soluble (DNS address responds)	Check the connection to DNS, or check if the Scan Data Repository Domain name is already registered at DNS.
016-772	Scan data repository address not soluble (DNS Library Error not set up)	Set the DNS address. Set the scan data repository address with IP address.
016-773	Local IP address error (DHCP Lease expires)	Check the DHCP environment or set the machine with fixed IP Address.

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
016-781	[Network Scan Connection Error]: Unable to connect server for file transfer by Scan to Server	Abort the job.  (1) Set the subnet mask and gateway of the main unit correctly.  (2) Check by ping that M/C can be seen from the destination server.  (3) Check ftp connection from a Win95 or UNIX machine to the destination server.
016-790	Scan To E-mail Data Spooling RAM Disk Full	[Mail Send]: Reduce resolution or size to send; divide data into some jobs, each of which has a small quantity of pages; send in Black & White binary.
016-798	No Trust Marking Option	Install the Option as necessary.
016-799	Print Instruction Fail detected in PLW	Check the printing data.
021-730	EP Accessory - Canceled Service	Ensure that a sufficient amount of money/prepaid-card rate is supplied.
021-940	EP Accessory - Disabled Service	Insert Xerox Card, Copy Card or coin(s) into the Accessory.
081-311	Fatal Error in Fax controller: FAXC_ESysInFatalErr / Fatal Error	Power OFF/ON
081-702	Invalid Fax communication parameter: FAXC_EInvalidParam / Argument Error	Check the FAX Driver setting.
081-703	MF-SYS memory full: FAXC_EmemFull / Memory Error	Separate the document and delete the stored document that not necessary.
081-704	Suspended by user: FAXC_EReqStoppedByFU / State Error	
081-705	Processing rejected due to MF-SYS error: FAXC_EReqAbortedByFU / Request Error	Check the machine with selected function.
081-706	MF API call error of unknown cause: FAXC_ESysInErr / Internal Error	Power OFF/ON
081-707	Error of unknown cause in MF API: FAXC_EUnknownErr / Internal Error	Power OFF/ON
081-709	Communication error of unknown cause: FAXC_ECommunErrToRT / Remote Error	Check the communication line and resend.
081-720	Error in communication with MF-SYS: FAXC_ECommunErrToFU / Fatal Error	Power OFF/ON
081-721	Image data transfer aborted by task in P-ESSFAXC_EAbortByPRT / MF-API errors	Abort by user.
081-722	MF-API internal processing error in image transfer (Mainly error in Pfimg-Convert())FAXC_EOther / Others	Power OFF/ON
103-203	Product No Fail (Corrupted, Controller PWB was changed)	Power OFF/ON, If continue, perform the following.  Replace ESS PWB(PL 9.2) or MCU PWB(PL 13.1) (Do not replace these PWBs at the same time.)  If continue, call escalation.
103-204	Serial No Fail (Corrupted, Controller PWB was changed)	Power OFF/ON, If continue, perform the following.  Replace ESS PWB (PL 9.2) or MCU PWB (PL 13.1) (Do not replace these PWBs at the same time.)  If continue, call escalation.
103-331	ESS ROM DIMM #1 is missed.	Power OFF/ON,  (1) Reconnect and Replace Printer-Kit or ROM DIMM.

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
103-332	ESS On Board ROM Error	Power OFF/ON, Replace ESS PWB. Reconnect Standard ROM installed on ESS.  If the problem continues, replace Standard ROM installed on ESS.
103-334	Standard Font ROM Error	Power OFF/ON, Replace Font ROM. If continue, perform the following.  Reconnect and Replace Printer-Kit.
103-335	FONT ROM NOT FOUND	Power OFF/ON, If continue, perform the following.  Reconnect and Replace Printer-Kit.
103-337	ESS standard RAM Error	Power OFF/ON, Replace ESS PWB (PL 9.2).If continue, perform the following.  (1) Reconnect and Replace RAM DIMM. (2) Replace ESS PWB (PL 9.2).
103-338	Same Font ROM installed	Power OFF/ON,  (1) Reconnect and Replace Printer-Kit or ROM DIMM.
103-339	Faulty ROM DIMM installing of other model	Power OFF/ON,  (1) Check ROM DIMM and install a correct one. (2) Reconnect and Replace ESS PWB (PL 9.2).
103-373	IOT Manager Soft Error	Power OFF/ON
103-374	IOT Device Driver Soft Error	Power OFF/ON
116-200	Main PWBA IC fail	Power OFF/ON, If continue, perform the following.  (1) Re-install ESS Software. (2) Check the PWBs of P-Kit/RAM connection. (3) Replace ESS PWB (PL 9.2).
116-206	Timer fail	Power OFF/ON, Replace ESS PWB.
116-209	ESS Font ROM DIMM #1 Check fail	Power OFF/ON,  (1) Reconnect ESS Font ROM DIMM #1. (2) Replace ESS Font ROM DIMM #1.
116-310	ESS Font ROM DIMM #2 Check fail	Power OFF/ON, If continue, perform the following.  Reconnect ESS Printer-Kit/Fax PWB/ROM DIMM.  If continue, Replace Printer-Kit or ROM-DIMM.

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-314	Ethernet address fail	Power OFF/ON, If continue, perform the following.  Check the SEEPROM on ESS.  Replace ESS PWB (PL 9.2).
116-315	ESS RAM DIMM #1 W/R Check fail	Power OFF/ON,  (1) Reconnect ESS RAM DIMM #1.  (2) Replace the ESS RAM DIMM #1  (3) Replace ESS PWB
116-316	ESS RAM DIMM #2 W/R Check fail	Power OFF/ON,  Reconnect ESS RAM DIMM #2.  If continue, replace the ESS RAM DIMM #2.
116-317	ESS ROM DIMM #1 Check fail	Power OFF/ON,  (1) Reconnect Standard ROM DIMM.  (2) Replace Standard ROM DIMM.  (3) Replace the ESS PWB.
116-320	STREAMZ Fatal Error	Power OFF/ON,  If the problem continues, perform the following.  (1) Reinstall the troubleshooting ESS software.  (2) Reconnect and Replace RAM DIMM  (3) Replace ESS PWB (PL 9.2).
116-321	SysCon Error	Power OFF/ON,  (1) Reinstall the ESS software.  (2) Replace ESS PWB (PL 9.2). If the problem continues, perform the following.  a. Check Page Memory is installed.  b. Reinstall the troubleshooting ESS software.  c. Reconnect and Replace RAM DIMM  d. Replace ESS PWB (PL 9.2).

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-323	ESS NVRAM W/R Check FAIL	Power OFF/ON, If continue, perform the following.  (1) Reconnect and Replace RAM DIMM  (2) Replace ESS PWB (PL 9.2).
116-324	System Error	Power OFF/ON, If continue, perform the following.  (1) Reconnect and Replace RAM DIMM  (2) Replace ESS PWB (PL 9.2).
116-326	ESS ROM DIMM #1 Flash fail	Power OFF/ON,  If continue, perform the following.  (A) Printer-Kit with ROM-DIMM.  (1) Reconnect ROM DIMM #1.  (2) Replace Printer-Kit or ROM-DIMM.  (B) Printer-Kit without ROM-DIMM.  (1) Replace ESS PWB (PL 9.2).
116-327	ESS ROM DIMM #2 Flash fail	Power OFF/ON,  If the problem continues, perform the following.  (A) Printer-Kit is equipped with ROM-DIMM:  (1) Replace ESS PWB (PL 9.2).  (B) Printer-Kit is not equipped with ROM-DIMM:  (1) Reconnect ROM DIMM #1  (2) Replace Printer-Kit or ROM-DIMM.
116-328	L2 Cache fail	Power OFF/ON, If continue, perform the following.  (1) Replace ESS PWB (PL 9.2).
116-329	[Serial I/F related Fatal Error]: Serial I/F related system call Error	Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:  (1) Verify after updating ESS Firmware to the latest version.  (2) Replace ESS PWB (PL 9.2).  (3) Collect the data

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-332	Invalid Log control information  NVM error; detected at a different location. If it can be detected by SW, this is necessary.	Power OFF/ON (At user installation), If continue, perform the following.  Replace ESS PWB (PL 9.2).
116-333	[LocalTalk related Fatal Error]: LocalTalk related system call Error	Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:  (1) Verify after updating ESS Firmware to the latest version.  (2) Replace ESS PWB (PL 9.2).  (3) Collect the data
116-340	[Insufficient Memory]: Short of page memory, input buffer, or work area. Task activation failure due to Malloc error or other.	Power OFF/ON,  If continue, perform the following.  (1) Add Memory  (2) Extract the PostScript option.
116-348	[Redirector Fail]: Fatal Error detected by Redirector	(1) Power OFF/ON  (2) Reconnect and Replace Printer-Kit.  (3) Reconnect and Replace RAM DIMM.  (4) Replace ESS PWB (PL 9.2)
116-349	Pfile function call error by SIF	(1) Power OFF/ON  (2) Reconnect and Replace Printer-Kit.  (3) Reconnect and Replace RAM DIMM.  (4) Replace ESS PWB (PL 9.2)
116-350	AppleTalk general Fatal Error	Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:  (1) Verify after updating ESS Firmware to the latest version.  (2) Reconnect and Replace RAM DIMM  (3) Replace ESS PWB (PL 9.2).  (4) Collect the data

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-351	EtherTalk related Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ol style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data</li> </ol>
116-352	NetWare related Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ol style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect or replace RAM DIMM.</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data</li> </ol>
116-353	ipd related Fatal Error	<p>Power OFF/ON, If continue, perform the following.</p> <ol style="list-style-type: none"> <li>(1) Reinstall the troubleshooting ESS software.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> </ol>
116-355	SNMP Agent related Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ol style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data</li> </ol>
116-356	EWS related Fatal Error	<p>Power OFF/ON, If continue, perform the following.</p> <ol style="list-style-type: none"> <li>(1) Reinstall the ESS software.</li> <li>(2) Recheck the boards such as P-Kit/HDD-Kit/RAM are installed.</li> <li>(3) Replace ESS PWB (PL 9.2).</li> </ol>

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-357	PS Fatal System Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ol style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data                             <ol style="list-style-type: none"> <li>a. Replace ESS PWB.</li> <li>b. Collect data.</li> </ol> </li> </ol>
116-358	Salutation related Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ol style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data                             <ol style="list-style-type: none"> <li>a. Reinstall the ESS software.</li> <li>b. Replace ESS PWB.</li> </ol> </li> </ol>
116-359	PLW Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ol style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data</li> </ol>

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-360	SMB related Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <p>(1) Verify after updating ESS Firmware to the latest version.</p> <p>(2) Reconnect and Replace RAM DIMM</p> <p>(3) Replace ESS PWB (PL 9.2).</p> <p>(4) Collect the data</p> <p>a. Reinstall the ESS software.</p> <p>b. Replace ESS PWB.</p>
116-362	SSDP Software Fail	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <p>(1) Verify after updating ESS Firmware to the latest version.</p> <p>(2) Reconnect and Replace RAM DIMM</p> <p>(3) Replace ESS PWB (PL 9.2).</p> <p>(4) Collect the data</p>
116-363	BMLinks/Print Service Software Fail	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <p>(1) Verify after updating ESS Firmware to the latest version.</p> <p>(2) Reconnect and Replace RAM DIMM</p> <p>(3) Replace ESS PWB (PL 9.2).</p> <p>(4) Collect the data</p>
116-365	SPL Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <p>(1) Verify after updating ESS Firmware to the latest version.</p> <p>(2) Reconnect and Replace RAM DIMM</p> <p>(3) Replace ESS PWB (PL 9.2).</p> <p>(4) Collect the data</p> <p>a. Reinstall the ESS software.</p> <p>b. Replace ESS PWB.</p>

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-366	Print Utility operation error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ul style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data</li> </ul>
116-367	Parallel-related general Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ul style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data                             <ul style="list-style-type: none"> <li>a. Reinstall the ESS software.</li> <li>b. Replace ESS PWB.</li> </ul> </li> </ul>
116-368	DumpPrint Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ul style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data                             <ul style="list-style-type: none"> <li>a. Reinstall the ESS software.</li> <li>b. Replace ESS PWB.</li> </ul> </li> </ul>

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-370	XJCL Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <p>(1) Verify after updating ESS Firmware to the latest version.</p> <p>(2) Reconnect and Replace RAM DIMM</p> <p>(3) Replace ESS PWB (PL 9.2).</p> <p>(4) Collect the data</p> <p>a. Reinstall the ESS software.</p> <p>b. Replace ESS PWB.</p>
116-371	PCL Decomposer Software Fail (AP specification)	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <p>(1) Verify after updating ESS Firmware to the latest version.</p> <p>(2) Reconnect and Replace RAM DIMM</p> <p>(3) Replace ESS PWB (PL 9.2).</p> <p>(4) Collect the data</p>
116-372	P-Formatter Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <p>(1) Verify after updating ESS Firmware to the latest version.</p> <p>(2) Reconnect and Replace RAM DIMM</p> <p>(3) Replace ESS PWB (PL 9.2).</p> <p>(4) Collect the data</p>
116-373	Dynamic DNS related Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <p>(1) Verify after updating ESS Firmware to the latest version.</p> <p>(2) Reconnect and Replace RAM DIMM</p> <p>(3) Replace ESS PWB (PL 9.2).</p> <p>(4) Collect the data</p>

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-374	AutoSW Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ol style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data                             <ol style="list-style-type: none"> <li>a. Reinstall the ESS software.</li> <li>b. Replace ESS PWB.</li> </ol> </li> </ol>
116-376	Port 9100 Software Fail	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ol style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Reconnect and Replace RAM DIMM</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data</li> </ol>
116-377	Video DMA Fail	<p>Power OFF/ON, If continue, perform the following.</p> <ol style="list-style-type: none"> <li>(1) Reinstall or replace Printer-Kit.</li> <li>(2) Reconnect and Replace RAM DIMM.</li> <li>(3) Replace ESS PWB (PL 9.2).</li> <li>(4) Collect the data</li> </ol>
116-378	MCR (Mail Contents Requester) Fatal Error	<p>Power OFF/ON, and wait and see if the problem will be repeated. If the CE log shows the same Fail has frequently occurred, perform the following:</p> <ol style="list-style-type: none"> <li>(1) Verify after updating ESS Firmware to the latest version.</li> <li>(2) Replace ESS PWB (PL 9.2).</li> <li>(3) Collect the data</li> </ol>

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-379	MCC (Mail Contents Creator) Fatal Error	Power OFF/ON, If continue, perform the following.  (1) Verify after updating ESS Firmware to the latest version.  (2) Reconnect and Replace RAM DIMM.  (3) Replace ESS PWB (PL 9.2).  (4) Collect the data.
116-385	IDC Software Fail	Power OFF/ON, If continue, perform the following.  (1) Verify after updating ESS Firmware to the latest version.  (2) Reconnect and Replace RAM DIMM.  (3) Replace ESS PWB (PL 9.2).  (4) Collect the data
116-389	Additional RAM not installed though necessary	Power OFF/ON, If continue, perform the following.  (1) Verify after updating ESS Firmware to the latest version.  (2) Reconnect and Replace RAM DIMM.  (3) Replace ESS PWB (PL 9.2).  (4) Collect the data
116-390	Version mismatch between standard ROM and NVM	Initialize NVM according to the LCD display.  (When not initializing NVMs, use the matched version of Standard ROM.)
116-395	USB related Fatal Error	Power OFF/ON, If continue, perform the following.  (1) Verify after updating ESS Firmware to the latest version.  (2) Reconnect and Replace RAM DIMM.  (3) Replace ESS PWB (PL 9.2).  (4) Collect the data  a. Reinstall the ESS software.  b. Replace ESS PWB.

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-396	Mail IO related Fatal Error	Power OFF/ON, If continue, perform the following.  (1) Verify after updating ESS Firmware to the latest version.  (2) Reconnect and Replace RAM DIMM.  (3) Replace ESS PWB (PL 9.2).  (4) Collect the data  a. Reinstall the ESS software.  b. Replace ESS PWB.
116-398	IPP related Fatal Error	Power OFF/ON, If continue, perform the following.  (1) Verify after updating ESS Firmware to the latest version.  (2) Reconnect and Replace RAM DIMM.  (3) Replace ESS PWB (PL 9.2).  (4) Collect the data  a. Reinstall the ESS software.  b. Replace ESS PWB.
116-399	JME related critical error	Power OFF/ON, If continue, perform the following.  (1) Verify after updating ESS Firmware to the latest version.  (2) Reconnect and Replace RAM DIMM.  (3) Replace ESS PWB (PL 9.2).  (4) Collect the detail continue, perform the following.  a. Reinstall the ESS software.  b. Replace ESS PWB.
116-701	Forced duplex printing	Add memory.
116-702	Print in substitute font	
116-703	[PS Interpret Error]: Language interpretation processing error	Correct job data.
116-710	HP-GL spool file over flow	Increase HP-GL Spool Size.
116-711	[PLW Form Overlay Error]: PLW form & paper not to be overlaid due to mismatch in drawing size/orientation	Select paper of the same size/orientation as those of the registered form.

**Table 1 PRINTER ESS Failure List**

Chain-Link	Description	Corrective Action
116-712	[PLW Form Insufficient Space]: PLW Form/Logo Data not to be registered due to lack of RAM Disk/Hard Disk space	In Utility on Ope Panel, check registered forms/logos and remove unnecessary ones.  Or if RAM Disk is used, increase allotment space.
116-714	HP-GL Command Error detected.	Data for print includes a piece of data that causes an error.  Correct/remove this piece of data.
116-715	[PLW Form Registry Error]: PLW Form data not to be registered due to entry quantity limit	In Utility on Ope Panel, check registered forms and remove unnecessary ones.  Or remove unnecessary forms using print command.
116-718	[PLW Form Overlay Error]: The specified form not registered.	Use a registered form or register the necessary form.
116-720	PCL Memory Low, Page Simplified.	Disable unnecessary ports. Adjust various buffer memory sizes.  Add extension memory.
116-737	[ART User Definition Lack of Area]: The user-defined ART data (custom character, pattern, etc.) not to be registered for lack of RAM space.	Delete part of registered user-defined data, or increase allotment space for RAM.
116-738	[Form Overlay Error]: Form & paper not to be overlaid due to mismatch in drawing size/orientation	Select the paper of the same size/orientation as those of a registered form.
116-739	[Form/Logo Insufficient Space]: Form/logo not to be registered for lack of RAM Disk/Hard Disk space.	In utility on Ope Panel, check registered forms/logos and remove unnecessary ones.  Or if RAM Disk is used, increase allotment space.
116-740	[Numeric Operation Error]: Numeric operations beyond limit in interpreter.	Data for print includes a value exceeding the limit of the printer. Remove this piece of data.  (1) Update the print driver.  (2) Collect print data.
116-741	[Form Registry Error]: Unable to register form data because of quantity limit.	Check the registered forms by the operator panel utility and delete unnecessary ones, or delete unnecessary forms by the print command.
116-742	[Form Registry Error]: Unable to register form data because of quantity limit	In Utility on Ope Panel, check registered forms/logos and remove unnecessary ones.  Or remove unnecessary logos using print command.
116-743	[Form/Logo size overflow]: Received data (form/logo) exceeded the registered buffer size.	On Ope Panel, increase the size of the area to register forms in.
116-745	[ART Command Error]: Decomposer checks for syntax errors and values exceeding various limits.	Correct command.  Change the ART command that caused an error.
116-746	[Form Overlay Error]: The specified form not registered.	Use a registered form or register the necessary form.
116-747	[Blanc page detected]: Valid Coordinate Area minus Paper Margin results in negative value.	
116-748	[Blanc page detected]: Drawing data is not existed in the page data.	
116-750	Banner Sheet Cancelled	Return Banner Sheet Tray to normal (see "Detection Requirements.") or change Banner Sheet Tray.
116-780	Attached document of "e-mail to XXX" Error	
116-799	Decode Error in MF-SYS	

## OF1 Warning Toner Cartridge Was PRENEAR Empty RAP

Toner in the Toner Cartridge is running low. However, it can be still used.

### Initial Actions

Refer to BSD 9.1/9.3.

Power OFF/ON

Reload the XERO/Developer Cartridge.

### Procedure

Check the XERO/Developer Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
Repair the failure and remove the foreign substances.

Check the connection of P/J403. **P/J403 is connected correctly.**

**Y N**  
Connect P/J403.

Check the wire between J403 and P610 for an open circuit or a short circuit (BSD 9.3 Flag 3/Flag 4). **The wire between J403 and P610 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-A18 (+) and the GND (-) (BSD 9.3 Flag 4). **The voltage is approx. +5VDC.**

**Y N**  
Replace the MCU PWB (PL 9.1).

Check the Toner Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
Repair the failure and remove the foreign substances.

Check the installation of the Toner CRUM PWB. **The Toner CRUM PWB is installed correctly.**

**Y N**  
Install the Toner CRUM PWB (PL 4.2) correctly.

Check the connection of the MCU PWB P/J414. **P/J414 is connected correctly.**

**Y N**  
Connect P/J414.

Check the connection of the Toner CRUM PWB P/J217. **P/J217 is connected correctly.**

**Y N**  
Connect P/J217.

**A**

Check the wire between P127 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 3/Flag 4). **The wire between P127 and J414 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB J414-6 (+) and the GND (-) (BSD 9.1 Flag 4). **The voltage is approx. +5VDC.**

**Y N**  
Replace the MCU PWB (PL 9.1).

Replace the XERO/Developer Cartridge (PL 4.1) followed by the Toner Cartridge (PL 4.1), the Toner CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

**A**

## OF2 Warning Drum Life Was Near To End RAP

The XERO/Developer Cartridge needs to be replaced soon.

### Initial Actions

Refer to BSD 9.1.

Power OFF/ON

Reload the XERO/Developer Cartridge.

### Procedure

Check the XERO/Developer Cartridge for failure or foreign substances. **There are no foreign substances and nothing has failed.**

**Y N**  
| Repair the failure and remove the foreign substances.

Check the installation of the XERO CRUM PWB. **The XERO CRUM PWB is installed correctly.**

**Y N**  
| Install the XERO CRUM PWB (PL 4.2) correctly.

Check the connection of the MCU PWB P/J414. **P/J414 is connected correctly.**

**Y N**  
| Connect P/J414.

Check the connection of the XERO CRUM PWB P/J126. **P/J126 is connected correctly.**

**Y N**  
| Connect P/J126.

Check the wire between P126 and J414 for an open circuit or a short circuit (BSD 9.1 Flag 1/Flag 2). **The wire between P126 and J414 is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB J414-1 (+) and the GND (-) (BSD 9.1 Flag 2). **The voltage is approx. +5VDC.**

**Y N**  
| Replace the MCU PWB (PL 9.1).

Replace the XERO/Developer Cartridge (PL 4.1) followed by the XERO CRUM PWB (PL 4.2) and the MCU PWB (PL 9.1).

## OF3 Warning No Paper In The Select Paper Tray RAP

No paper is loaded in the tray.

### Initial Actions

Refer to BSD 7.5/7.6/7.7/7.8.

Power OFF/ON

Reload the relevant tray.

### Procedure

Check the actuator of the relevant No Paper Sensor (PL 2.1/PL 13.3/PL 12.3). **The actuator is not distorted or damaged.**

**Y N**  
| Replace the actuator.

Execute the following Diags: Activate the actuator of the relevant No Paper Sensor (PL 2.3/PL 12.3/PL 13.3).

Tray 1: Input/Output Check[7-7 Tray 1 No Paper Sensor]  
Tray 2: Input/Output Check[7-8 Tray 2 No Paper Sensor]  
Tray 3: Input/Output Check[7-9 Tray 3 No Paper Sensor]  
Tray 4: Input/Output Check[7-10 Tray 4 No Paper Sensor]

**The display changes.**

**Y N**  
| Check the connections of the following connectors:

Tray 1: P/J101, P/J403  
Tray 2: P/J181, P/J548C  
Tray 3: P/J102B, P/J661B, P549  
Tray 4: P/J102A, P/J661A, P549

**The connectors are connected correctly.**

**Y N**  
| Connect the connectors.

Check the following harnesses for an open circuit or a short circuit.

Tray 1: Between J101 and J403 (BSD 7.5 Flag 1/Flag 2)  
Tray 2: Between J181 and J548C (BSD 7.6 Flag 4/Flag 5)  
Tray 3: Between J102B and J549 (BSD 7.7 Flag 4/Flag 5)  
Tray 4: Between J102A and J549 (BSD 7.8 Flag 4/Flag 5)

**The relevant harnesses are conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Measure the voltage between the following points (+) and the GND (-).

Tray 1: MCU PWB P403-B6 (BSD 7.5 Flag 2)

A

Tray 2: STM PWB P548C-10 (BSD 7.6 Flag 5)

Tray 3: 2TM PWB P549-25 (BSD 7.7 Flag 5)

Tray 4: 2TM PWB P549-10 (BSD 7.8 Flag 5)

**The voltage is approx. +5VDC.**

Y N

Replace the relevant PWB (MCU PWB (PL 9.1), STM PWB (PL 13.6) or 2TM PWB (PL 12.6)).

Measure the voltage between the following points (+) and the GND (-).

Tray 1: MCU PWB P403-B8 (BSD 7.5 Flag 1)

Tray 2: STM PWB P549C-12 (BSD 7.6 Flag 4)

Tray 3: 2TM PWB P549-27 (BSD 7.7 Flag 4)

Tray 4: 2TM PWB P549-12 (BSD 7.8 Flag 4)

Activate the actuator of the relevant No Paper Sensor (PL 2.1/PL 13.3/PL 12.3). **The voltage changes.**

Y N

Replace the relevant No Paper Sensor (PL 2.1/PL 13.3/PL 12.3).

Replace the relevant PWB (MCU PWB (PL 9.1), STM PWB (PL 13.6) or 2TM PWB (PL 12.6)).

For Tray 1, replace the MCU PWB (PL 9.1).

For Tray 2, replace the STM PWB (PL 13.6).

For Tray 3 or Tray 4, replace the 2TM PWB (PL 12.6).

## OF4 Warning Paper Size Mismatch In Length RAP

The lengths detected by the Registration Sensor and the Size Switch of the feed tray did not match.

### Initial Actions

Refer to BSD 8.6.

Power OFF/ON

Reload the tray.

### Procedure

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N

Clear away the foreign substances and paper powder. Correct the distortion.

Feed paper from another tray. **The problem occurs when paper is fed from another tray.**

Y N

Check the guide. **The guide is set correctly.**

Y N

Set the guide correctly.

Check the operation of the Guide Actuator. **The Guide Actuator works.**

Y N

Set the guide correctly.

Check the installation of the Paper Size Switch of the relevant tray. **The Paper Size Switch of the relevant tray is installed correctly.**

Y N

Install the Paper Size Switch of the relevant tray (PL 2.1/PL 13.1/PL 12.1) correctly.

Go to the OF11 (SIZE SWITCH ASSY RAP).

Execute Input/Output Check[8-5 Registration Sensor]. Manually activate the actuator of the Registration Sensor (PL 2.4). **The display changes.**

Y N

Check the connection of P/J104. **P/J104 is connected correctly.**

Y N

Connect P/J104.

Check the wire between J104 and J403 for an open circuit or a short circuit (BSD 8.6 Flag 1/Flag 2). **The wire between J104 and J403 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between the MCU PWB P403-B15 (+) and the GND (-) (BSD 8.6 Flag 2). **The voltage is approx. +5VDC.**

A

A

Y N

Replace the MCU PWB (PL 9.1).

Measure the voltage between the MCU PWB P403-B14 (+) and the GND (-) (BSD 8.6 Flag 1). Place paper in front of the Registration Sensor. **The voltage changes.**

Y N

Replace the Registration Sensor (PL 2.4).

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

## OF5 Warning Paper Size Mismatch In Width RAP

Paper width is incorrect.

### Initial Actions

Power OFF/ON

Reload the tray.

### Procedure

Check for foreign substances, distortion and paper powder in the paper transport path. **No foreign substances, distortion or paper powder are found in the paper transport path.**

Y N

Clear away the foreign substances and paper powder. Correct the distortion.

Feed paper from another tray. **The problem occurs when paper is fed from another tray.**

Y N

Check the guide. **The guide is set correctly.**

Y N

Set the guide correctly.

Check the operation of the Guide Actuator. **The Guide Actuator works.**

Y N

Set the guide correctly.

Check the installation of the relevant Paper Size Switch. **The Paper Size Switch is installed correctly.**

Y N

Install the relevant Paper Size Switch (PL 2.1/PL 13.1/PL 12.1) correctly.

Go to the OF11 (SIZE SWITCH ASSY RAP).

Replace the MCU PWB (PL 9.1).

# OF6 Cover Left Cover Assembly Open RAP

The Left Cover Assembly is open.

## Initial Actions

Refer to BSD 1.1/1.4.

Power OFF/ON

Reload the tray.

## Procedure

Check the opening/closing of the Left Cover Assembly. **The Left Cover Assembly can be opened/closed.**

**Y N**  
Correct the installation the Left Cover Assembly.

Check the installation of the Left Cover Interlock Switch. **The Left Cover Interlock Switch is installed correctly.**

**Y N**  
Install the Left Cover Interlock Switch correctly.

Execute Input/Output Check[1-1 Left Cover Interlock Switch]. Open and close the Left Cover Assembly. **The display changes.**

**Y N**  
Check the connections of P/J120 and P/J405. **P/J120 and P/J405 are connected correctly.**

**Y N**  
Connect P/J120 and P/J405.

Check the wire between J405 and J120 for an open circuit or a short circuit (BSD 1.4 Flag 3/Flag 4). **The wire between J405 and J120 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Check the conductivity of the Left Cover Interlock Switch (PL 2.5) (between J405-1 and J405-2) (BSD 1.4 Flag 3/Flag 4). **The wire between J405-1 and J405-2 is connecting successfully when the Left Cover Assembly is closed, and is insulated when the cover is open.**

**Y N**  
Replace the Left Cover Interlock Switch (PL 2.5).

Measure the voltage between the MCU PWB P405-2 (+) and the GND (-) (BSD 1.4 Flag 3). **The voltage is approx. +24VDC.**

**Y N**  
Measure the voltage between the MCU PWB P400-1 (+) and the GND (-) (BSD 1.1 Flag 1). **The voltage is approx. +24VDC.**

**Y N**  
Check the connections of P/J522 and P/J400. **P/J522 and P/J400 are connected correctly.**

A B C

**Y N**  
Connect P/J522 and P/J400.

Check the wire between J522 and J400 for an open circuit or a short circuit (BSD 1.1 Flag 1). **The wire between J522 and J400 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Check the connections of P/J523 and PJ720. **P/J523 and PJ720 are connected correctly.**

**Y N**  
Connect P/J523 and PJ720.

Check the wire between J523 and J720 for an open circuit or a short circuit (BSD 1.1 Flag 2). **The wire between J523 and J720 is conducting without an open circuit or a short circuit.**

**Y N**  
Repair the open circuit or short circuit.

Measure the voltage between the ESS PWB P720-3 (+) and the GND (-) (BSD 1.1 Flag 2). **The voltage is approx. +5VDC.**

**Y N**  
Replace the ESS PWB (PL 9.2).

Replace the Power Unit (PL 9.1).

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

A B C

Initial Issue

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Status Indicator RAPs

OF6

## OF7 Cover IOT Front Cover Open RAP

The Front Cover is open.

### Initial Actions

Refer to BSD 1.4.

Power OFF/ON

Reload the tray.

### Procedure

Check the opening/closing of the Front Cover. **The Front Cover can be opened/closed.**

Y N  
| Correct the installation of the Front Cover.

Check the installation of the Front Cover Interlock Switch. **The Front Cover Interlock Switch is installed correctly.**

Y N  
| Install the Front Cover Interlock Switch correctly (PL 9.1).

Execute Input/Output Check[1-12 Front Cover Interlock Switch]. Open and close the Front Cover. **The display changes.**

Y N  
| Check the connections of P/J121 and P/J405. **P/J121 and P/J405 are connected correctly.**

Y N  
| Connect P/J121 and P/J405.

Check the wire between J405 and J121 for an open circuit or a short circuit (BSD 1.4 Flag 5/Flag 6). **The wire between J405 and J121 is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Check the conductivity of the Front Cover Interlock Switch (PL 9.1) (between J405-3 and J405-4) (BSD 1.4 Flag 5/Flag 6). **The wire between J405-3 and J405-4 is connecting successfully when the Front Cover is closed, and is insulated when the cover is open.**

Y N  
| Replace the Front Cover Interlock Switch (PL 9.1).

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

## OF8 Cover STM Left Cover Open RAP

The STM Left Cover is open.

### Initial Actions

Refer to BSD 1.1/1.5.

Power OFF/ON

Opening/closing of the cover

### Procedure

Check the opening/closing of the STM Cover. **The STM Cover can be opened/closed.**

Y N  
| Correct the installation of the STM Cover.

Check the installation of the STM Left Cover Switch. **The STM Left Cover Switch is installed correctly.**

Y N  
| Install the STM Left Cover Switch (PL 13.4) correctly.

Execute Input/Output Check[1-11 STM Left Cover Switch]. Open and close the STM Cover. **The display changes.**

Y N  
| Check the connections of P/J183 and P/J548C. **P/J183 and P/J548C are connected correctly.**

Y N  
| Connect P/J183 and P/J548C.

Check the wire between J183 and J548C for an open circuit or a short circuit (BSD 1.5 Flag 1/Flag 2). **The wire between J183 and J548C is conducting without an open circuit or a short circuit.**

Y N  
| Repair the open circuit or short circuit.

Check the conductivity of the STM Left Cover Switch (PL 13.4) (between J548C-1 and J548C-2) (BSD 1.5 Flag 1/Flag 2). **The wire between J548C-1 and J548C-2 is connecting successfully when the STM Cover is closed, and is insulated when the cover is open.**

Y N  
| Replace the STM Left Cover Switch (PL 13.4).

Replace the STM PWB (PL 13.6).

Replace the STM PWB (PL 13.6).

## OF9 Cover 2TM Left Cover Open RAP

The 2TM Left Cover is open.

### Initial Actions

Refer to BSD 1.5.

Power OFF/ON

Opening/closing of the 2TM Left Cover

### Procedure

Check the opening/closing of the 2TM Left Cover. **The 2TM Left Cover can be opened/closed.**

**Y N**  
| Correct the installation of the 2TM Left Cover (PL 12.4).

Check the installation of the 2TM Left Cover Switch. **The 2TM Left Cover Switch is installed correctly.**

**Y N**  
| Install the 2TM Left Cover Switch (PL 12.4) correctly.

Execute Input/Output Check[1-10 2TM Left Cover Switch]. Open and close the 2TM Left Cover. **The display changes.**

**Y N**  
| Check the connections of P/J554, FS812 and FS813. **P/J554, FS812 and FS813 are connected correctly.**

**Y N**  
| Connect P/J554, FS812 and FS813.

Check the wire between J554-2 and FS812, and between J554-1 and FS813 for an open circuit or a short circuit (BSD 1.5 Flag 3/Flag 4). **The wires between J554-2 and FS812, and between J554-1 and FS813 are conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Check the conductivity of the 2TM Left Cover Switch (PL 12.4) between FS813 and FS812 (BSD 1.5 Flag 3/Flag 4). **The wire between FS813 and FS812 is connecting successfully when the 2TM Cover is closed, and is insulated when the cover is open.**

**Y N**  
| Replace the 2TM Left Cover Switch (PL 12.4).

Replace the 2TM PWB (PL 12.6).

Replace the 2TM PWB (PL 12.6).

## OF10 Cover Duplex Cover Open RAP

The Duplex Cover is open.

### Initial Actions

Refer to BSD 1.5.

Power OFF/ON

Opening/closing of the Duplex Cover

### Procedure

Check the opening/closing of the Duplex Cover. **The Duplex Cover can be opened/closed.**

**Y N**  
| Correct the installation of the Duplex Cover.

Check the installation of the Duplex Open Switch (PL 8.1). **The Duplex Open Switch (PL 8.1) is installed correctly.**

**Y N**  
| Install the Duplex Open Switch (PL 8.1) correctly.

Execute Input/Output Check[8-33 Duplex Open Switch]. Open and close the Duplex Cover. **The display changes.**

**Y N**  
| Check the connections of P/J124 and P/J541. **P/J124 and P/J541 are connected correctly.**

**Y N**  
| Connect P/J124 and P/J541.

Check the wire between J124 and J541 for an open circuit or a short circuit (BSD 1.5 Flag 5/Flag 6). **The wire between J124 and J541 is conducting without an open circuit or a short circuit.**

**Y N**  
| Repair the open circuit or short circuit.

Check the conductivity of the Duplex Open Switch (PL 8.1) (between J541-4 and J541-5) (BSD 1.5 Flag 5/Flag 6). **The wire between J541-4 and J541-5 is connecting successfully when the Duplex Cover is closed, and is insulated when the cover is open.**

**Y N**  
| Replace the Duplex Open Switch (PL 8.1).

Replace the MCU PWB (PL 9.1).

Replace the MCU PWB (PL 9.1).

# OF11 Size Switch Assy RAP

## Procedure

Manually activate the switches of the relevant Paper Size Switch. **The relevant switches move smoothly.**

Y N

Replace the relevant Paper Size Switch (PL 2.1/PL 13.1/PL 12.1).

Execute the following Diags: Activate SW5 of the relevant Paper Size Switch.

Tray 1: Input/Output Check[7-26 Tray 1 Paper Size Switch SW5]

Tray 2: Input/Output Check[7-27 Tray 2 Paper Size Switch SW5]

Tray 3: Input/Output Check[7-28 Tray 3 Paper Size Switch SW5]

Tray 4: Input/Output Check[7-5 Tray 4 Paper Size Switch SW5]

### The display changes.

Y N

Check the connections of the following connectors:

Tray 1: P/J109, P/J412

Tray 2: P/J184, P/J548C

Tray 3: P/J820, P/J548

Tray 4: P/J824, P/J548

**The connectors are connected correctly.**

Y N

Connect the connectors.

Check the following harnesses for an open circuit or a short circuit.

Tray 1: Between J109 and J412 (BSD 7.1 Flag 1/Flag 2)

Tray 2: Between J184 and J548C (BSD 7.2 Flag 1/Flag 2)

Tray 3: Between J820 and J548 (BSD 7.3 Flag 1/Flag 2)

Tray 4: Between J824 and J548 (BSD 7.4 Flag 1/Flag 2)

**The relevant harnesses are conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between the following points (+) and the GND (-).

Tray 1: MCU PWB P412-4 (BSD 7.1 Flag 4)

Tray 2: STM PWB P548C-9 (BSD 7.2 Flag 4)

Tray 3: 2TM PWB P548-14 (BSD 7.3 Flag 4)

Tray 4: 2TM PWB P548-7 (BSD 7.4 Flag 4)

**The voltage is the specified value (MCU PWB: approx. +5VDC, 2TM PWB: approx. +3.3VDC).**

Y N

Replace the relevant PWB (MCU PWB (PL 9.1), STM PWB (PL 13.6) or 2TM PWB (PL 12.6)).

A B

Measure the voltage between the following points (+) and the GND (-).

Tray 1: MCU PWB P412-1 (BSD 7.1 Flag 3)

Tray 2: STM PWB P548C-6 (BSD 7.2 Flag 3)

Tray 3: 2TM PWB P548-11 (BSD 7.3 Flag 3)

Tray 4: 2TM PWB P548-4 (BSD 7.4 Flag 3)

Activate SW5 of the relevant Paper Size Switch. **The voltage changes.**

Y N

Replace the relevant PWB (MCU PWB (PL 9.1), STM PWB (PL 13.6) or 2TM PWB (PL 12.6)).

Replace the relevant Paper Size Switch.

Execute the following Diags: Activate SW1 to SW4 of the relevant Paper Size Switch in sequence.

Tray 1: A/D Check[7-1 Tray 1 Paper Size Switch SW1~4]

Tray 2: A/D Check[7-2 Tray 2 Paper Size Switch SW1~4]

Tray 3: A/D Check[7-3 Tray 3 Paper Size Switch SW1~4]

Tray 4: A/D Check[7-4 Tray 4 Paper Size Switch SW1~4]

### The display changes.

Y N

Check the connections of the following connectors:

Tray 1: P/J109, P/J412

Tray 2: P/J184, P/J548C

Tray 3: P/J820, P/J548

Tray 4: P/J824, P/J548

**The connectors are connected correctly.**

Y N

Connect the connectors.

Check the following harnesses for an open circuit or a short circuit.

Tray 1: Between J109 and J412 (BSD 7.1 Flag 1/Flag 2)

Tray 2: Between J184 and J548C (BSD 7.2 Flag 1/Flag 2)

Tray 3: Between J820 and J548 (BSD 7.3 Flag 1/Flag 2)

Tray 4: Between J824 and J548 (BSD 7.4 Flag 1/Flag 2)

**The relevant harnesses are conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Measure the voltage between the following points (+) and the GND (-).

Tray 1: MCU PWB P412-4 (BSD 7.1 Flag 4)

Tray 2: STM PWB P548C-9 (BSD 7.2 Flag 4)

Tray 3: 2TM PWB P548-14 (BSD 7.3 Flag 4)

Tray 4: 2TM PWB P548-7 (BSD 7.4 Flag 4)

A B

Status Indicator RAPs

OF11

C

12/2004

2-116

Initial Issue

CCC118, WCM118

C

The voltage is the specified value (MCU PWB: approx. +5VDC, 2TM PWB: approx. +3.3VDC).

Y N

Replace the relevant PWB (MCU PWB (PL 9.1), STM PWB (PL 13.6) or 2TM PWB (PL 12.6)).

Measure the voltage between the following points (+) and the GND (-).

Tray 1: MCU PWB P412-3 (BSD 7.1 Flag 1)

Tray 2: STM PWB P548C-3 (BSD 7.2 Flag 1)

Tray 3: 2TM PWB P548-13 (BSD 7.3 Flag 1)

Tray 4: 2TM PWB P548-6 (BSD 7.4 Flag 1)

Activate SW1 to SW4 of the relevant Paper Size Switch in sequence. **The voltage changes.**

Y N

Replace the relevant PWB (MCU PWB (PL 9.1), STM PWB (PL 13.6) or 2TM PWB (PL 12.6)).

Replace the relevant Paper Size Switch (PL 2.1/PL 13.1/PL 12.1).

For Tray 1, replace the MCU PWB (PL 9.1).

For Tray 2, replace the STM PWB (PL 13.6).

For Tray 3 or Tray 4, replace the 2TM PWB (PL 12.6).

## OF12 Receive Fax Not Output RAP

- The fax outputs a report saying Power Off. No document received is found.
  - The receive activity report states Pages: 0 and Status: B0FFFF.
- During fax receiving, the power has been off or software hang has caused the power to be reset. Therefore, no pages received until then, if any, are output.

### Procedure

- Find what caused the power off during data receiving and resolve it.
- If the sender is known, ask him/her to resend the data.
- Ask the user to request his/her existing senders to enter information on their local terminals if they do not mind, so that the report allows identifying a specific sender.

## OF13 Abort Code RAP

The UI displays Abort Code in the following form.

\*\*\*\*\*

ABT area: Abort Code.

TSK area: Task ID

The 3rd line "\*\*\*\*.\*\*\*\*\*": BUILD No.

\*\*\*\*\*

- [053010C8: At start up MCU power off]  
At start up, the PRDY signal stays high for 0.25 sec or more.  
The UI displays:

```
-----  
ABT: 053010C8  
TSK: 0000765C  
****.*****  
-----
```

- [053010C9: during transmission MCU power off]  
The PRDY signal stays high for 0.25 sec or more.  
The UI displays:

```
-----  
ABT: 053010C9  
TSK: 0000765C  
****.*****  
-----
```

### Procedure

Find what caused the power off and resolve it.

# 3 Image Quality

## Image Quality RAPs

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## IQ1 IOT Image Quality Entry RAP

### Initial Actions

Determine whether the image quality problem occurs in Copy Mode or Printer Mode. If the problem occurs in Copy Mode, go to [IQ2 IIT Image Quality Entry RAP].

### Procedure

Determine the image quality problem and go to the relevant RAP.

Table 1

Image Quality Problem	Symptoms	RAP
Low Image Density	Overall low density of images.	IQ3 RAP
Wrinkled Image	The printed paper is wrinkled, folded or torn.	IQ4 RAP
Residual Image (Ghosting)	Ghost images appear on the paper. Parts of the previous page or current page appear as ghost images on the paper.	IQ5 RAP
Background	Toner smudges appear on the whole or part of the page. The smudges appear as extremely bright gray stains.	IQ6 RAP
Deletion	Part of the image is missing.	IQ7 RAP
Skew/Misregistration	Printed images are not parallel to the edges of the paper.	IQ8 RAP
Process Direction Bands, Streaks and Smears	Vertical black lines or white streaks running in the direction of the paper orientation.	IQ9 RAP
Unfused Copy/Toner Offset	Printed images are not properly fused onto the paper. The images come off easily when rubbed.	IQ10 RAP
Repeating Bands, Streaks, Spots and Smears	Horizontal black lines or white streaks running in the direction of the paper orientation.	IQ11 RAP
Mottle	Uneven printed image density.	IQ12 RAP
Spots	Toner spots are spread irregularly over the whole page.	IQ13 RAP
Black Prints	Paper is printed completely black.	IQ14 RAP
Blank Image RAP	Paper is printed completely white.	IQ15 RAP

## IQ2 IIT Image Quality Entry RAP

### Initial Actions

Clean the DADF Platen Glass (PL 11.2) or the Sheet Platen Glass (PL 11.2).

Clean the mirrors and lens with lint-free cloth.

### Procedure

Determine the image quality problem and go to the relevant RAP.

Table 1

Problem	Symptoms	RAP
Low Image Density	Overall low density of images.	IQ3 RAP
Background	Toner smudges appear on the whole or part of the page. The smudges appear as extremely bright gray stains.	IQ6 RAP
Process Direction Bands, Streaks and Smears	Vertical black lines or white streaks running in the direction of the paper orientation.	IQ9 RAP
Repeating Bands, Streaks, Spots and Smears	Horizontal black lines or white streaks running in the direction of the paper orientation.	IQ11 RAP
Spots	Toner spots are spread irregularly over the whole page.	IQ13 RAP
Black Prints	Paper is printed completely black.	IQ14 RAP

### IQ3 Low Image Density RAP

Overall low density of images.

#### Procedure

Check for dirt on the Platen Glass. **The Platen Glass is clean.**

Y N

Clean the Platen Glass. If there is a stubborn stain, replace the DADF Platen Glass (PL 11.2) or the Sheet Platen Glass (PL 11.2).

Check the drum ground contact point for dirt 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 XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N

End

Install a new XERO/Developer Cartridge (PL 4.1). Turn the power Off/On and print. **The problem reoccurs.**

Y N

End

Set to print a black copy. During the print cycle, turn off the power after the feeding sound is heard (i.e. terminate processing midway through copying). **Check the surface of the drum. There is a considerable amount of toner left on the surface of the drum.**

Y N

Replace the MCU PWB (PL 9.1) followed by the ESS PWB (PL 9.2).

Replace the BTR (PL 2.5) followed by the HVPS (PL 9.1) and the MCU PWB (PL 9.1).

### IQ4 Wrinkled Image RAP

The printed paper is wrinkled, 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

Remove the Fuser Unit (PL 5.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N

End

Check for foreign substances and distortion in the paper transport path. **No distortion or foreign substances are found in the paper transport path.**

Y N

Clear away the foreign substances. Correct the distortion.

Replace the Fuser Unit (PL 5.1).

## IQ5 Residual Image (Ghosting) RAP

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

### Procedure

Remove the XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Install a new XERO/Developer Cartridge (PL 4.1). Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Remove the Fuser Unit (PL 5.1). Check for dirt on the surface of the Heat Roll. **The surface of the Heat Roll is clean.**

Y N  
| Clean the Heat Roll. If there is difficulty in removing the dirt, replace the Fuser Unit (PL 5.1).

Replace the MCU PWB (PL 9.1) followed by the ESS PWB (PL 9.2).

## IQ6 Background RAP

Toner smudges appear on the whole or part of the page. The smudges appear as extremely bright gray stains.

### Procedure

Check for dirt on the Platen Glass. **The Platen Glass is clean.**

Y N  
| Clean the Platen Glass. If there is a stubborn stain, replace the DADF Platen Glass (PL 11.2) or the Sheet Platen Glass (PL 11.2).

Remove the XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Install a new XERO/Developer Cartridge (PL 4.1). Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Check the surface of the BTR for dirt 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 2.5).

Remove the HVPS and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Replace the MCU PWB (PL 9.1) followed by the HVPS (PL 9.1) and the ESS PWB (PL 9.2).

## IQ7 Deletion RAP

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 XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

**Y N**  
| End

Install a new XERO/Developer Cartridge (PL 4.1). Turn the power Off/On and print. **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 2.5).

Replace the MCU PWB (PL 9.1) followed by the ESS PWB (PL 9.2).

## IQ8 Skew/Misregistration RAP

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 XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

**Y N**  
| End

Check the installation of the Paper Cassette. **The Paper Cassette is installed correctly.**

**Y N**  
| Install the Paper Cassette correctly.

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 PWB (PL 9.1) followed by the ESS PWB (PL 9.2).

## IQ9 Process Direction Bands, Streaks and Smears RAP

Vertical black lines or white streaks running in the direction of the paper orientation.

### Procedure

Check the IIT Carriage Mirrors for scratches and dirt. **There are no scratches or dirt on the mirrors.**

Y N  
Clean the mirrors. If there are scratches, replace mirrors (1), (2) or (3) accordingly (PL 11.4).

Remove the XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N  
End

Install a new XERO/Developer Cartridge (PL 4.1). Turn the power Off/On and print. **The problem reoccurs.**

Y N  
End

Check the surface of the BTR for dirt 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 2.5).

Check for dirt in the paper transport path. **The paper transport path is clean.**

Y N  
Clean the paper transport path.

Check the IIT Carriage Mirror. **The mirror is clean and there is no distortion.**

Y N  
Clean the mirror. If there is distortion, replace the mirror.

Remove the Fuser Unit (PL 5.1). Check for dirt on the surface of the Heat Roll. **The surface of the Heat Roll is clean.**

Y N  
Clean the Heat Roll. If there is difficulty in removing the dirt, replace the Fuser Unit (PL 5.1).

Check the surface of the BTR for dirt 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 2.5).

Check the IIT Carriage Mirror. **The mirror is clean and there is no distortion.**

Y N  
Clean the mirror. If there is distortion, replace the mirror.

Check the ROS Window for scratches and dirt. **The ROS Window is clean and there are no scratches.**

Y N  
Clean the ROS Window. If there is a scratch, replace the ROS Window.

Replace the ROS Unit (PL 3.1) followed by the MCU PWB (PL 9.1) and the ESS PWB (PL 9.2).

## IQ10 Unfused Copy/Toner Offset RAP

Printed images are not properly fused onto the paper. The images come off easily when rubbed.

### 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 the power supply voltage. **The voltage is within the specified range.**

Y N  
| Connect a power supply with voltage within the specified range.

Remove the Fuser Unit (PL 5.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Check the fusing temperature using the Diagnostics. **A normal fusing temperature is set.**

Y N  
| Set a normal fusing temperature.

Replace the Fuser Unit (PL 5.1).

## IQ11 Repeating Bands, Streaks, Spots and Smears RAP

Horizontal black lines or white streaks running in the direction of the paper orientation.

### Procedure

Check the operating parts of the IIT Carriage for foreign substances and distortion. **No distortion or foreign substances are found in the operating parts of the carriage.**

Y N  
| Clear away the foreign substances. If the Front/Rear Carriage Cable (PL 11.5) is damaged, replace accordingly.

Remove the XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Install a new XERO/Developer Cartridge (PL 4.1). Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Check the surface of the BTR for dirt 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 2.5).

Check the pitch of the black lines or white streaks. **The pitch of the black lines is approx. 78mm (Heat Roll circumference).**

Y N  
| Clean the Heat Roll. If there is difficulty in removing the dirt, replace the Fuser Unit (PL 5.1).

Replace the ROS Unit (PL 3.1) followed by the MCU PWB (PL 9.1) and the ESS PWB (PL 9.2).

## IQ12 Mottle RAP

### 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 XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Install a new XERO/Developer Cartridge (PL 4.1). Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Check the surface of the BTR for dirt 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 2.5).

Remove the HVPS and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Replace the MCU PWB (PL 9.1) followed by the ESS PWB (PL 9.2).

## IQ13 Spots RAP

Toner spots and white streaks are spread irregularly over the whole page.

### Procedure

Check for dirt on the Platen Glass. **The Platen Glass is clean.**

Y N  
| Clean the Platen Glass. If there is a stubborn stain, replace the DADF Platen Glass (PL 11.2) or the Sheet Platen Glass (PL 11.2).

Remove the XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Install a new XERO/Developer Cartridge (PL 4.1). Turn the power Off/On and print. **The problem reoccurs.**

Y N  
| End

Check the surface of the BTR for dirt 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 2.5).

Check for dirt in the paper transport path. **The paper transport path is clean.**

Y N  
| Clean the paper transport path.

Remove the Fuser Unit (PL 5.1). Check for dirt on the surface of the Heat Roll. **The surface of the Heat Roll is clean.**

Y N  
| Clean the Heat Roll. If there is difficulty in removing the dirt, replace the Fuser Unit (PL 5.1).

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 PWB (PL 9.1) followed by the ESS PWB (PL 9.2).

## IQ14 Black Prints RAP

Paper is printed completely black.

### Procedure

Check the operating parts of the IIT Carriage for foreign substances and distortion. **No distortion or foreign substances are found in the operating parts of the carriage.**

Y N

Clear away the foreign substances. If the IIT Carriage Assembly (PL 11.2), Front/Rear Carriage Cable (PL 11.5) is damaged, replace accordingly.

Remove the XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N

End

Install a new XERO/Developer Cartridge (PL 4.1). Turn the power Off/On and print. **The problem reoccurs.**

Y N

End

Remove the HVPS and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N

End

Check the connections of P/J500, and P/J406. **The connectors are connected correctly.**

Y N

Connect the connectors.

Check the wire between J500-4 and J403-A12 for an open circuit or a short circuit. **The wire between J500-4 and J403A-12 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Check the wire between J160 and J409 for an open circuit or a short circuit. **The wire between J160 and J409 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Replace the HVPS (PL 9.1) followed by the ROS Unit (PL 3.1), the MCU PWB (PL 9.1) and the ESS PWB (PL 9.2).

## IQ15 Blank Image RAP

Paper is printed completely white.

### Procedure

Check the installation of the ROS Unit. **The ROS Unit is installed correctly.**

Y N

Install the ROS Unit (PL 3.1) correctly.

Check the drum ground contact point for dirt 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 XERO/Developer Cartridge (PL 4.1) and reinstall. Turn the power Off/On and print. **The problem reoccurs.**

Y N

End

Install a new XERO/Developer Cartridge (PL 4.1). Turn the power Off/On and print. **The problem reoccurs.**

Y N

End

Set to print a black copy. During the print cycle, turn off the power after the feeding sound is heard (i.e. terminate processing midway through copying). Check the surface of the drum. **There is a considerable amount of toner left on the surface of the drum.**

Y N

Check the connections of P/J140, P/J406, P/J703 and J410. **The connectors are connected correctly.**

Y N

Connect the connectors.

Check the installation of the ROS Unit. **The ROS Unit is installed securely.**

Y N

Install the ROS Unit (PL 3.1) securely.

Measure the voltage between the MCU PWB P406-2 (+) and the GND (-). **The voltage of P406-2 is +5VDC.**

Y N

Replace the MCU PWB (PL 9.1).

Check the wire between J140 and J406 for an open circuit or a short circuit. **The wire between J140 and J406 is conducting without an open circuit or a short circuit.**

Y N

Repair the open circuit or short circuit.

Replace the ROS Unit (PL 3.1) followed by the MCU PWB (PL 9.1).

Replace the BTR (PL 2.5) followed by the HVPS (PL 9.1) and the MCU PWB (PL 9.1).

# Copy Quality Specifications

## Test Patterns

### Procedure

#### Test Patterns

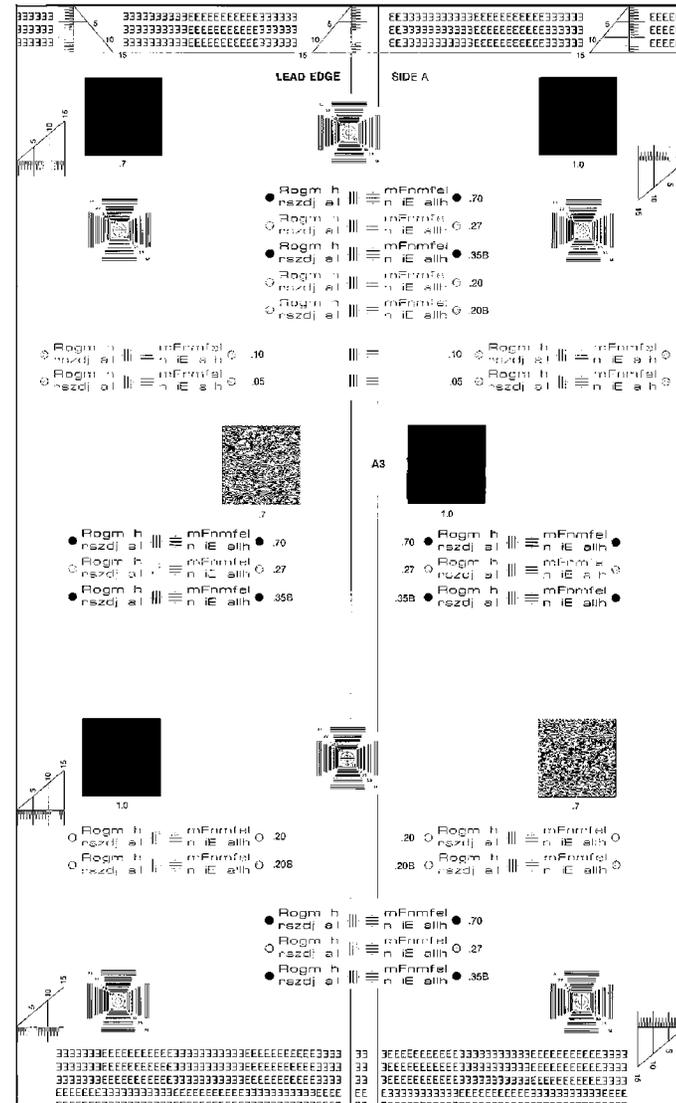
- The following test patterns are used with those products.  
 Standard Test Pattern: USCO/XCL, 82P524; XL, 82P521.  
 Output Reference Guide: USCO/XL, SIR 542.00.  
 Visual Scale: USCO/XL, 82P448

### Standard Test Pattern, 82P524/82P521

#### Procedure

This test pattern is the standard multinational test pattern used for the evaluation of copy quality for those products.

Side A (Figure 1) is used to evaluate solid area density, uniformity, exposure level, registration, skew, and lead edge deletion.



j0ch3201

Figure 1 Standard Test Pattern (Side A)(j0ch3201)

Side B (Figure 2) is used to evaluate skips and smears, resolution, and magnification.

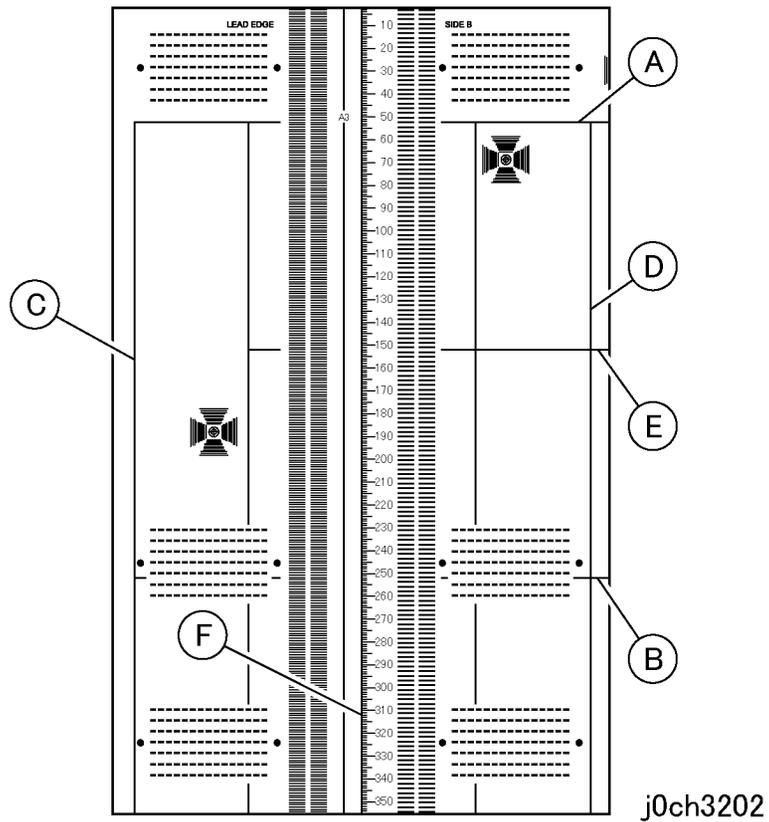


Figure 2 Standard Test Pattern (Side B)(j0ch3202)

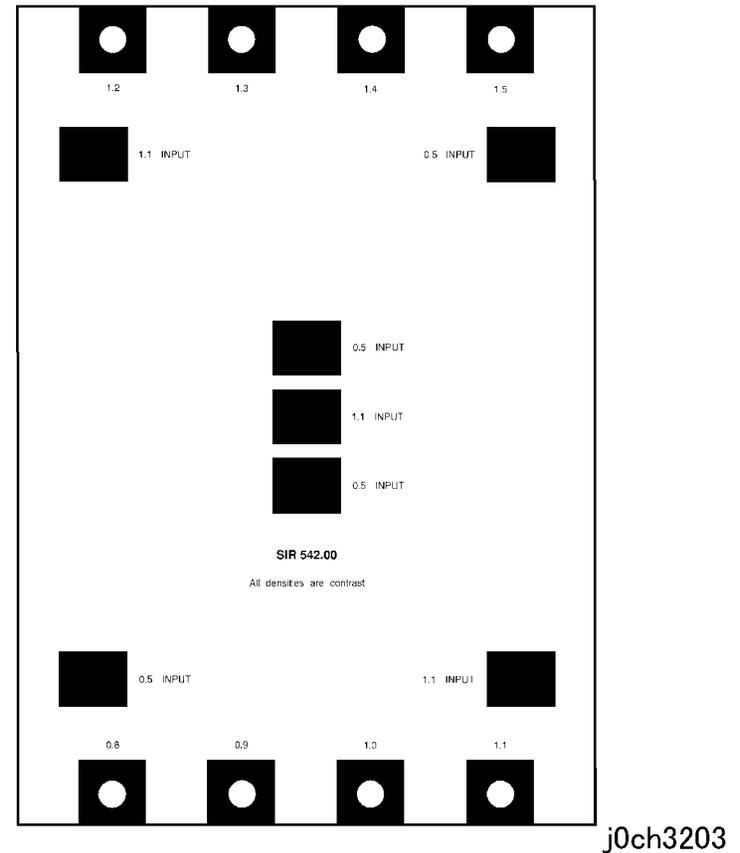


Figure 3 Output Reference Guide, SIR542.00 (j0ch3203)

## Output Reference Guide, SIR542.00

### Procedure

This test document serves as a reference guide for measuring the solid area density of the Side A copies of the test pattern, 82P524 and 82P521 (Figure 3).

# IQS1 Solid Area Density Specification

## Procedure

Using Side A of the Standard Test Pattern (Figure 1), evaluate the solid area density per the following table.

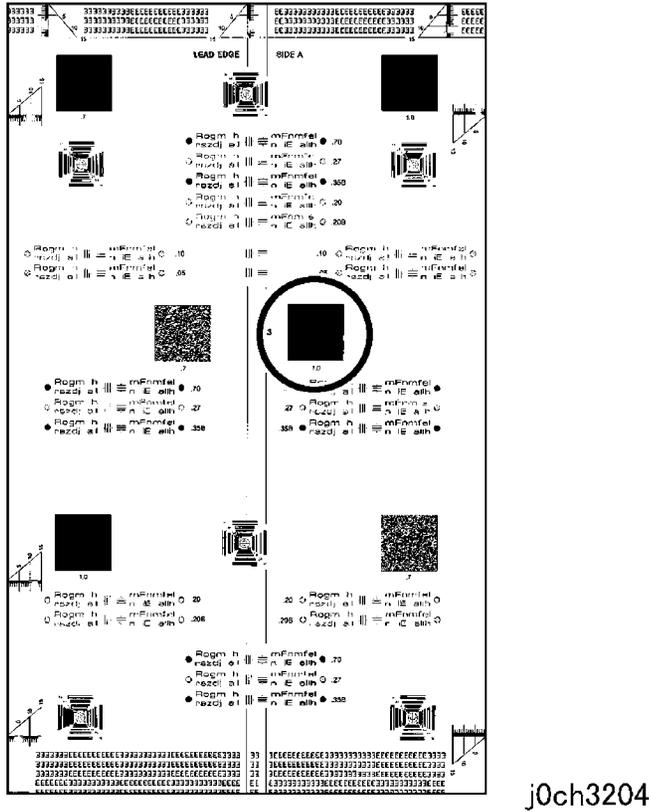


Figure 1 Standard Test Pattern (Side A)(j0ch3204)

Table 1 Solid Area Density Specification

Copies	Copy Quality Mode	Specification	Input Density	Output Density
1	Normal	The 1.0 solid area density nearest the center of the copy should be the 1.0 solid area density block on the Output Reference Guide.	1.0	1.0

# IQS2 Uniformity Specification

## Procedure

Make a copy of Side A of the Standard Test Pattern.

The density of all the 1.0 blocks are same. (Figure 1).

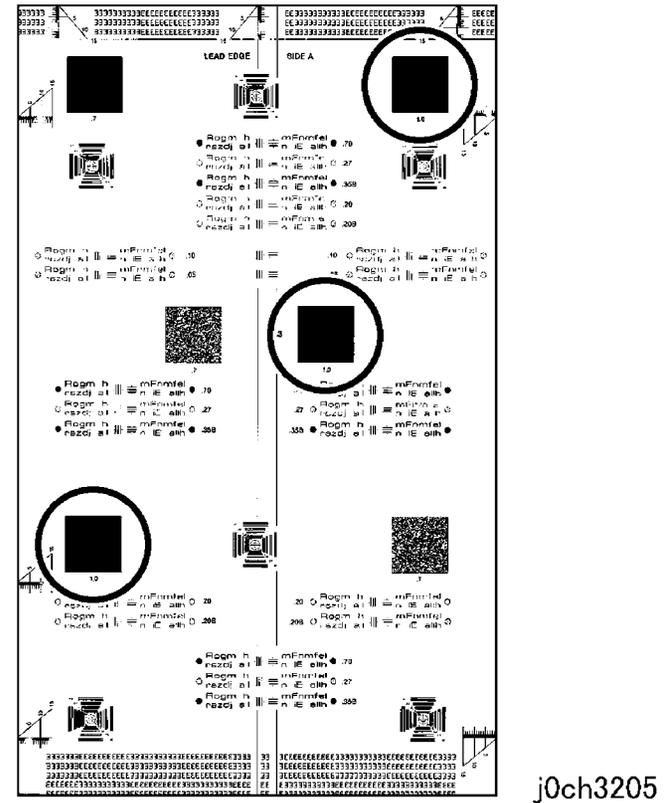


Figure 1 Standard Test Pattern 1.0 Blocks(j0ch3205)

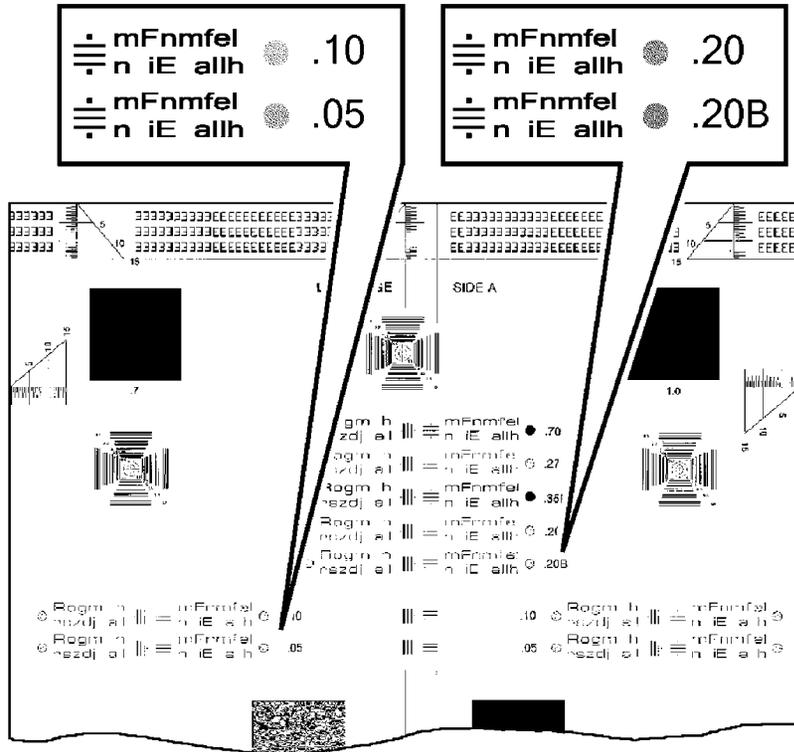
# IQS3 Exposure Level Specification

## Procedure

Use Side A of the Standard Test Pattern.

In the Standard Copy mode, and with the copy darkness control set at the middle of the scale, the 0.20G(Or0.20B) line pair must be copied completely.

In the Standard Copy mode, and with the copy darkness control set two level lighter from at the middle of the scale, the 0.10 line pair should not copy at all (Figure 1).



j0ch3206

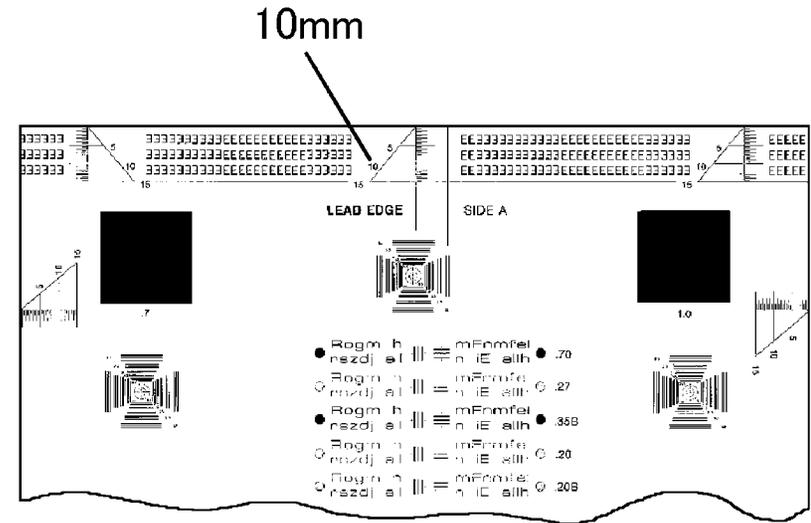
Figure 1 Exposure Level(j0ch3206)

# IQS4 Lead Edge Registration Specification

## Procedure

Use Side A of the Standard Test Pattern.

The center 10 mm reference line on the copy must be 10 mm (plus or minus the ranges listed in the following charts) from the lead edge of a 100% copy (Figure 1).



j0ch3207

Figure 1 Lead Edge Registration(j0ch3207)

Table 1 Specification of Lead Edge Registration

Configuration	Range
Platen(Simplex)	+/-1.6mm
Platen(Duplex)	+/-2.0mm
Platen(MPT)	+/-2.2mm

**Table 1 Specification of Lead Edge Registration**

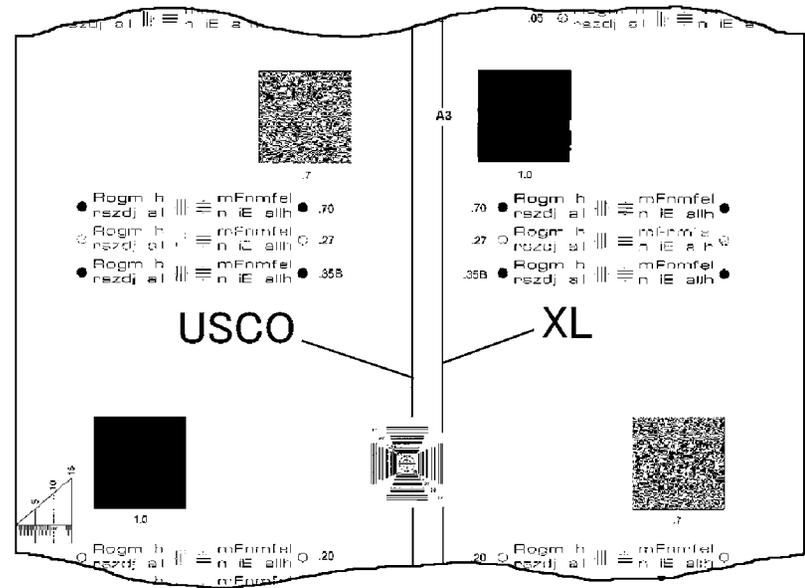
Configuration	Range
DADF(Simplex)	+/-2.2mm
DADF(Duplex)	+/-3.0mm

## IQS5 Side Edge Registration Specification

### Procedure

Use Side A of the Standard Test Pattern.

For a copy that is folded in half, the crease in the copy should be within the following ranges from the center line of a 100% copy (Figure 1).



j0ch3208

**Figure 1 Side Edge Registration(j0ch3208)**

**Table 1 Specification of Side Edge Registration**

Configuration	Range
Platen(Simplex)	+/-2.1mm
Platen(Duplex)	+/-2.5mm
Platen(MPT)	+/-3.0mm

**Table 1 Specification of Side Edge Registration**

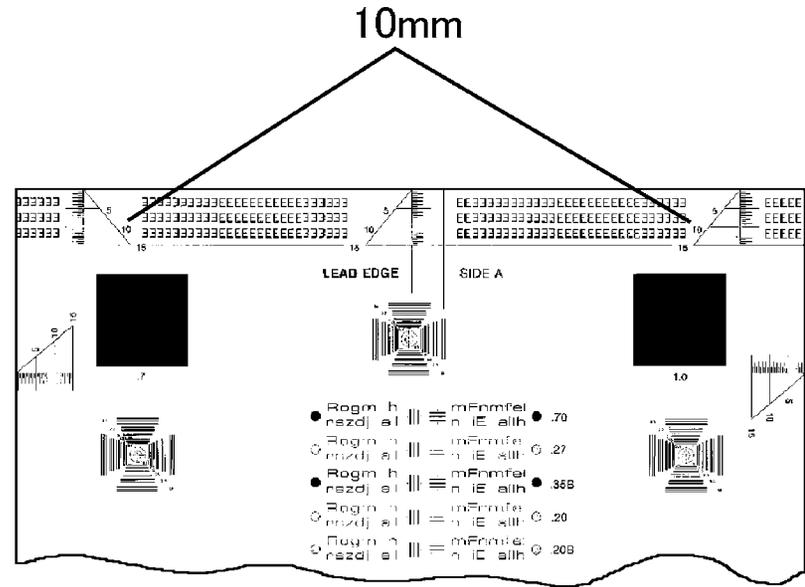
Configuration	Range
DADF(Simplex)	+/-2.9mm
DADF(Duplex)	+/-3.2mm

## IQS6 Skew Specification

### Procedure

Use Side A of the Standard Test Pattern.

Skew must be within the following ranges (with respect to each other) at the two 10 mm reference lines shown (Figure 1).



j0ch3209

**Figure 1 1 Skew(j0ch3209)**

**Table 1 Specification of Skew**

Configuration	Range
Platen(Simplex)	+/-1.42
Platen(Duplex)	+/-1.87
Platen(MPT)	+/-1.78

Table 1 Specification of Skew

Configuration	Range
DADF(Simplex)	+/-2.04
DADF(Duplex)	+/-2.40

## IQS7 Lead Edge Deletion Specification

### Procedure

Use Side A of the Standard Test Pattern.

The image deleted intentionally along the lead edge must be 2.0 mm from the lead edge of the copy (Figure 1).(maximum is 4mm)

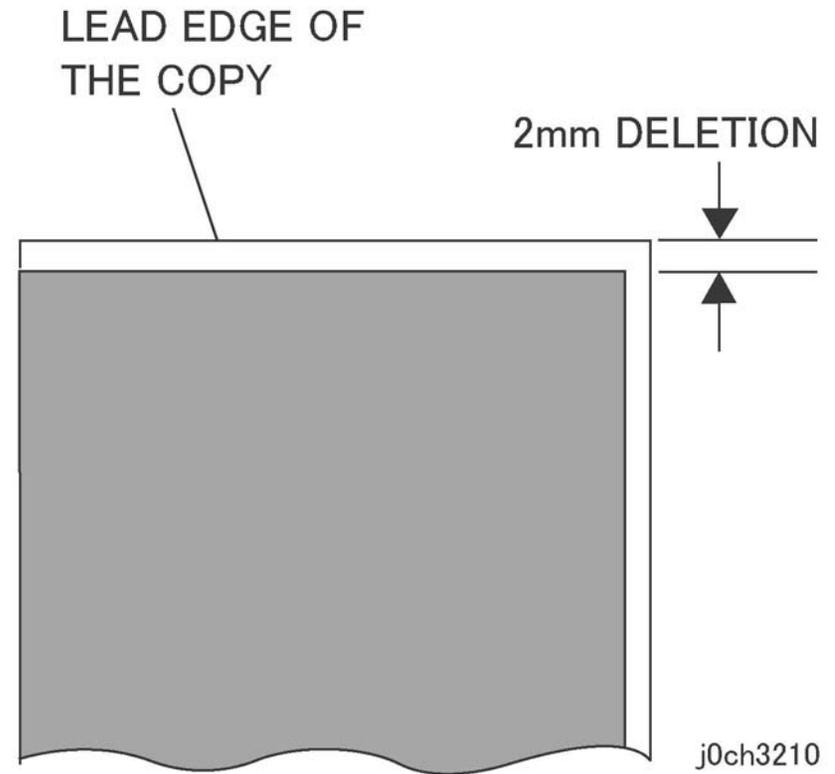


Figure 1 Lead Edge Deletion(j0ch3210)

## IQS8 Trail Edge Deletion Specification

### Procedure

Use Side A of the Standard Test Pattern.

The image deleted intentionally along the trail edge must be 2mm from the trail edge of the copy (Figure 1). (maximum is 4mm)

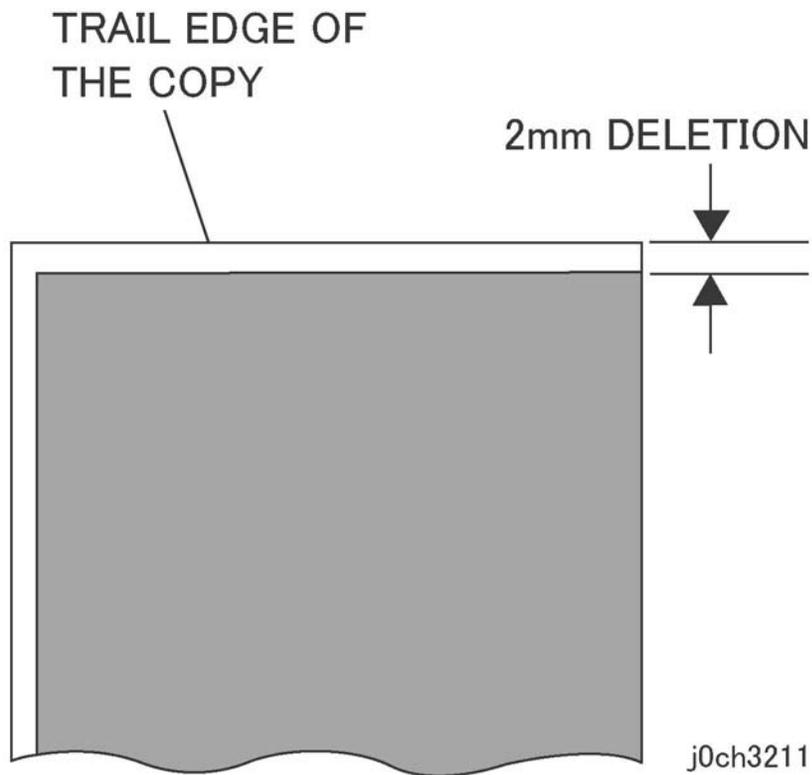


Figure 1 Trail Edge Deletion(j0ch3211)

## IQS9 Side Edge Deletion Specification

### Procedure

Use Side A of the Standard Test Pattern.

The image deleted intentionally along both of side edge must be 2mm from the side edge of the copy (Figure 1). (maximum is 4mm)

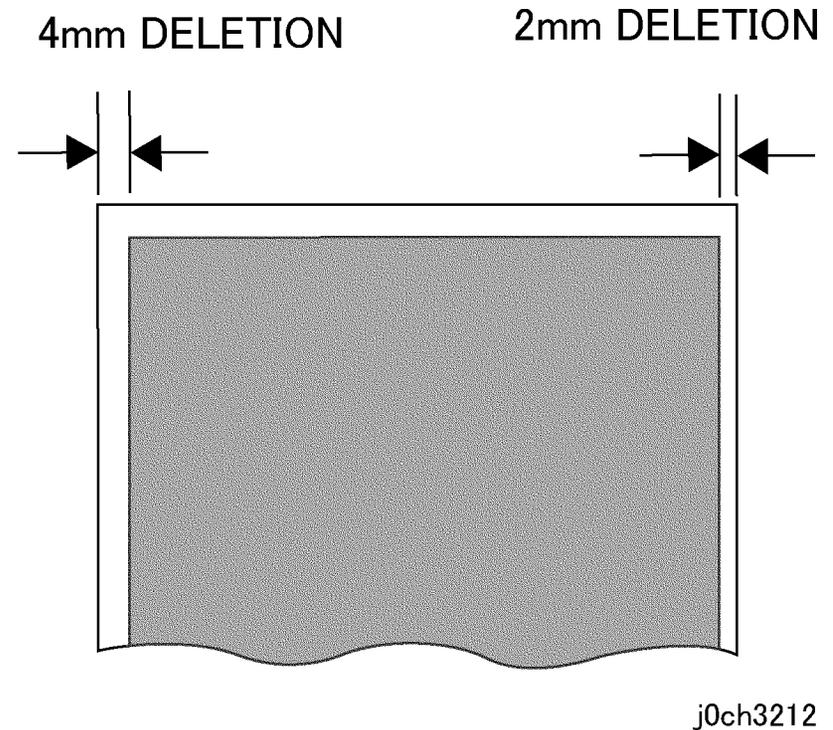


Figure 1 Side Edge Deletion(j0ch3212)

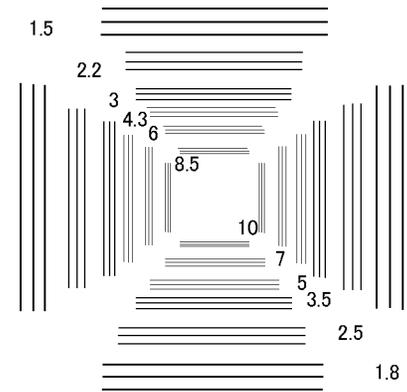
# IQS10 Resolution Specification

## Procedure

Use Side B of the Standard Test Pattern.

The complete resolution of designated LP/mm lines for specific magnification percentages is listed in Table below.

It is also required that the designated LP/mm lines be resolved in the top-to-bottom direction and the side-to-side direction over the entire copy (Figure 1).



j0ch3213

Figure 1 Resolution(j0ch3213)

Table 1 Resolution Specifications

Magnification(%)	Resolution LP/mm
70	2.5
100	4.3
141	3.5
200	3.5

# IQS11 Skips And Smears Specification

## Procedure

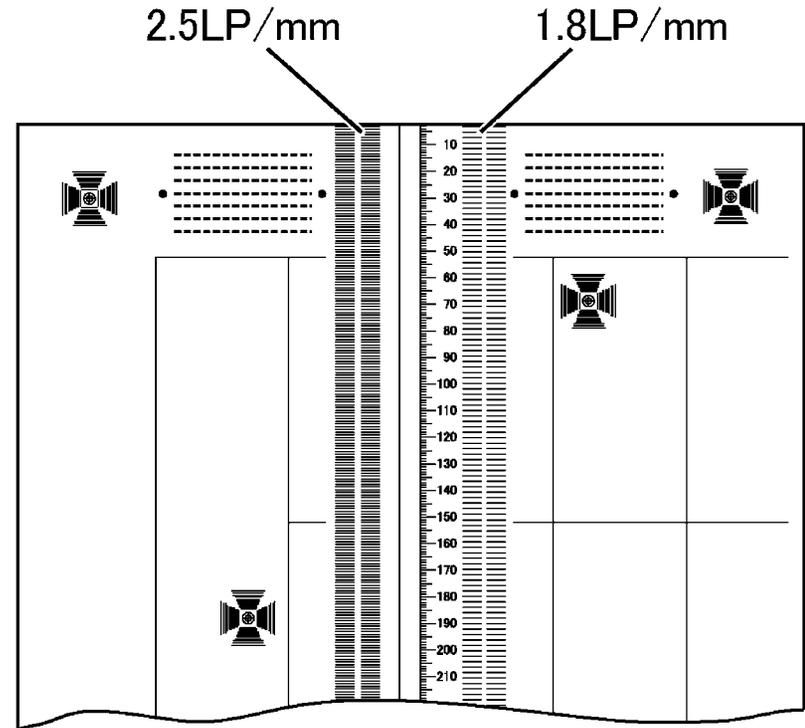
Use Side B of the Standard Test Pattern.

[Reduction]

Except for the first 2 mm from the lead edge of the copy, 1.8 ladder chart must be completely resolved.

[100% /Enlargement]

Except for the first 2 mm from the lead edge of the copy, 2.5 ladder chart must be completely resolved (Figure 1).



j0ch3214

Figure 1 Skips and Smears(j0ch3214)

Table 1 Skips and Smears Specifications

Magnification(%)	Ladder LP/mm
70	1.8
100	2.5
141	2.5
200	2.5

# IQS12 Magnification Specification

## Procedure

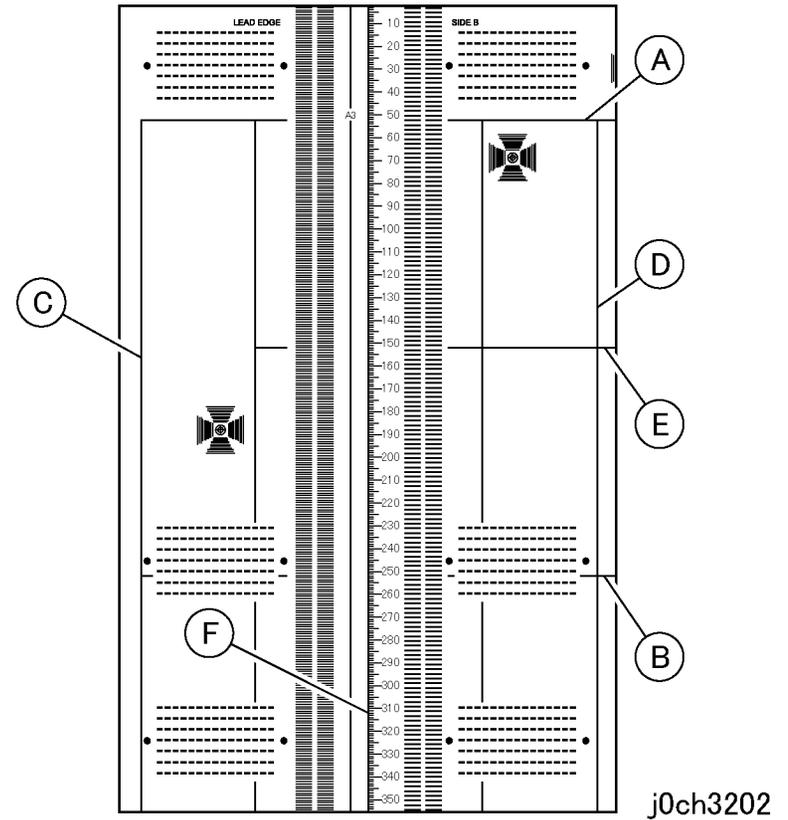
Use Side B of the Standard Test Pattern.

The tolerance for each magnification setting in the lead edge to trail edge direction and the front to rear direction are listed in Table below.

**Table 1 Magnification Specifications**

Magnification(%)	Measurement
65	130+/-2mm
101	202+/-2mm
154	154+/-2mm

Refer to Figure 1 for the areas to be measured. For 65% and 101%, use areas A and B for the magnification in the lead edge to trail edge direction; and areas C and D for magnification in the front to rear direction. For 154% use areas A and E for magnification in the lead edge to trail edge direction; and areas C and F for magnification in the front to rear direction.(Figure 1)



**Figure 1 Areas of Side B to be Measured(j0ch3202)**

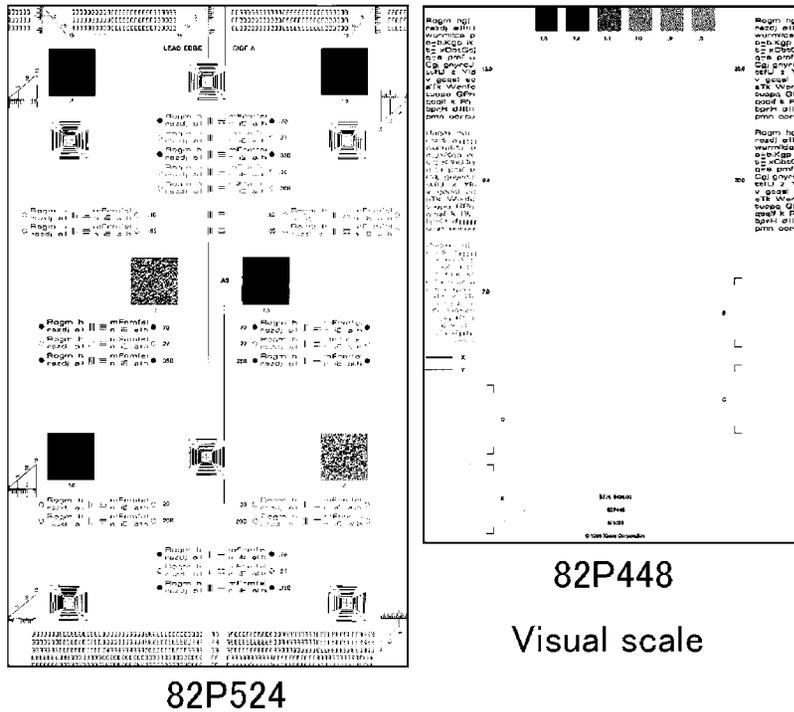
# IQS13 Background Specification

## Procedure

Use Side A of the Standard Test Pattern.

Compare images of the test pattern,(Figure 1) made from the document glass, with the visual scale,82P448.

The background of the images must not be darker than the reference area "C" (Figure 1).



j0ch3215

Figure 1 Test Pattern(j0ch3215)

## Image Defect Samples

IOT

The following figures contain examples of defects and their possible causes.

- IDS 1 Auger Mark
- IDS 2 Strobing (28mm or 14mm Pitch Density)
- IDS 3 White Streaks (Process Direction)
- IDS 4 Black Bands
- IDS 5 Toner Contamination
- IDS 6 Toner Splattering
- IDS 7 White Spots (Irregular)
- IDS 8 Transparency Offset (80mm Pitch Ghosts)
- IDS 9 Regular Blanks In Process Direction (Spots, Streaks, Bands etc.)
- IDS 10 Regular Toner Contamination In Process Direction (Spots, Streaks, Bands etc.)
- IDS 11 Regular Toner Contamination In Process Direction (Side 2)
- IDS 12 Transparency Blocking

IIT

The following figures contain examples of defects and their possible causes.

- IDS 13 Moire Due To Interference With Copy Original
- IDS 14 Light Background Due To Auto Exposure In Copies Of Originals With Frames
- IDS 15 Fluctuation In Auto Exposure Values For Copies Of Originals Of Medium Density
- IDS 16 Gradation Jump In Text & Photo Mode For 100 lpi Photo Originals
- IDS 17 CVT (Constant Velocity Transport) Scan Streaks
- IDS 18 Defects Related To Scan Print
- IDS 19 Moire In Text Mode (Fine) B/W Scan/Fax For 133 lpi Originals
- IDS 20 Black Discoloration Around White Texts In Medium Density Background

## IDS 1 Auger Mark

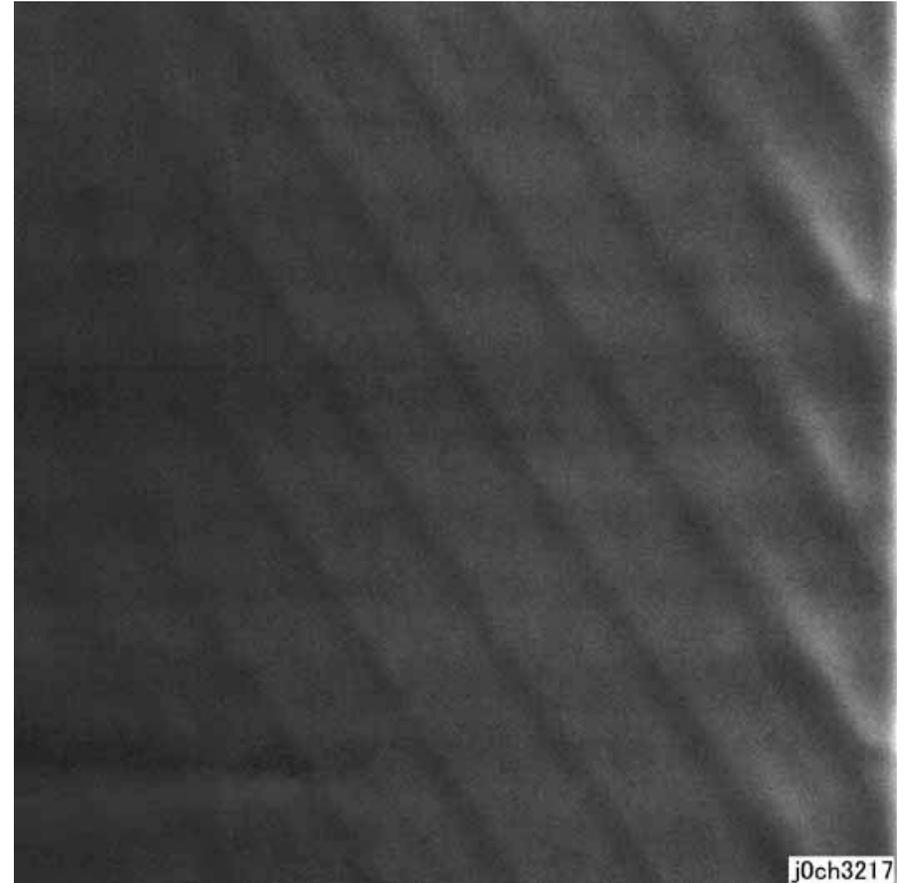


Figure 1 Auger Mark Defect Sample (j0ch3217)

### Cause

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

### Corrective Action

1. Replace the XERO/Developer Cartridge.

**NOTE:** This may occur immediately after a new CRU is installed. -> Correct by feeding a few sheets of paper.

## IDS 2 Strobing (28mm or 14mm Pitch Density)

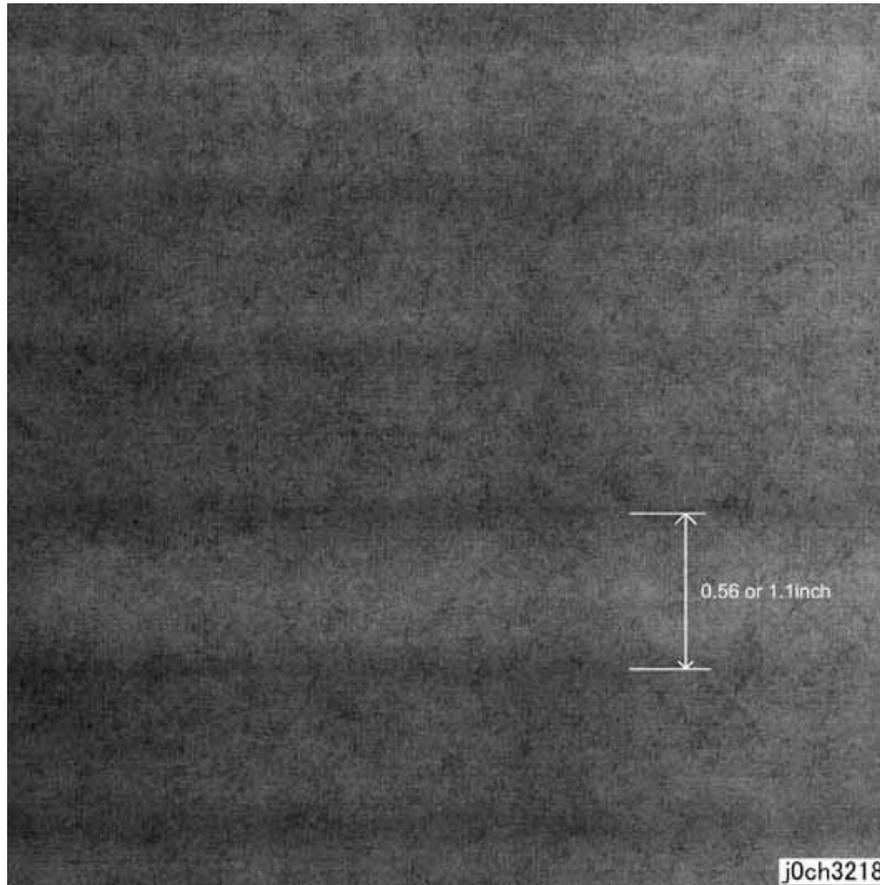


Figure 1 Strobing (28mm or 14mm Pitch Density) Defect Sample (j0ch3218)

### Cause

1. Developer Magnetic Roll bias.

### Corrective Action

1. Replace the XERO/Developer Cartridge.

## IDS 3 White Streaks (Process Direction)

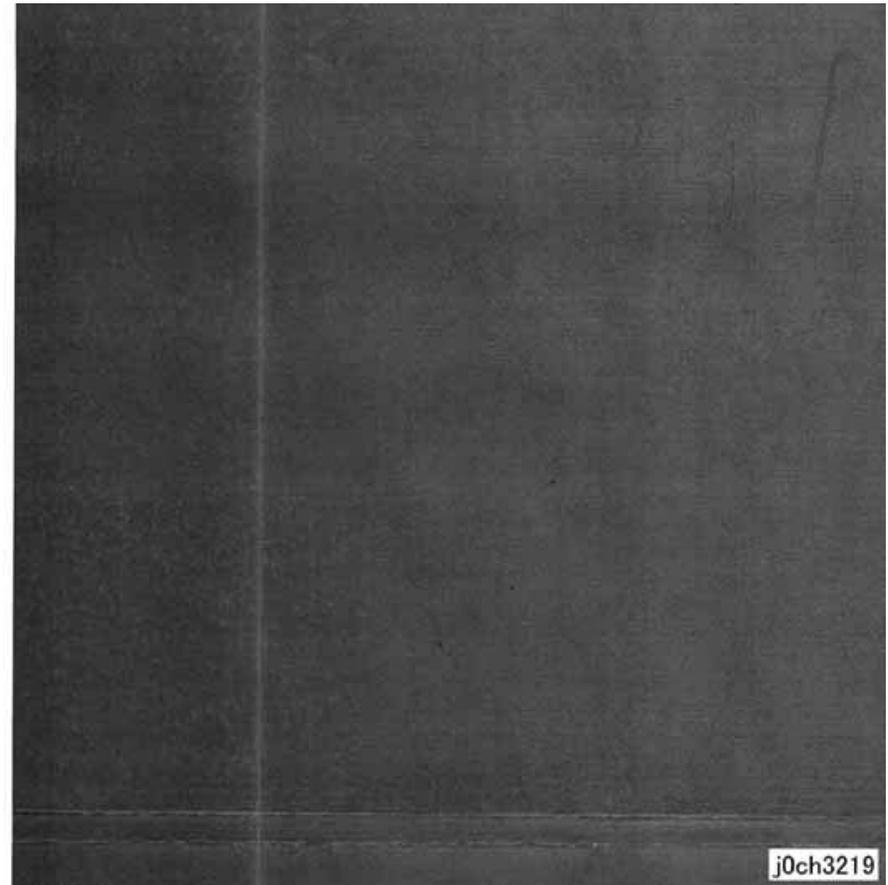


Figure 1 White Streaks (Process Direction) Defect Sample (j0ch3219)

### Cause

1. Foreign substances are blocking the ROS Laser.
2. Developer material clogging on the Developer Magnetic Roll due to foreign substances.

### Corrective Action

1. Clean the light path between the ROS and the XERO/Developer Cartridge and the seal glass.
2. Replace the XERO/Developer Cartridge.

## IDS 4 Black Bands

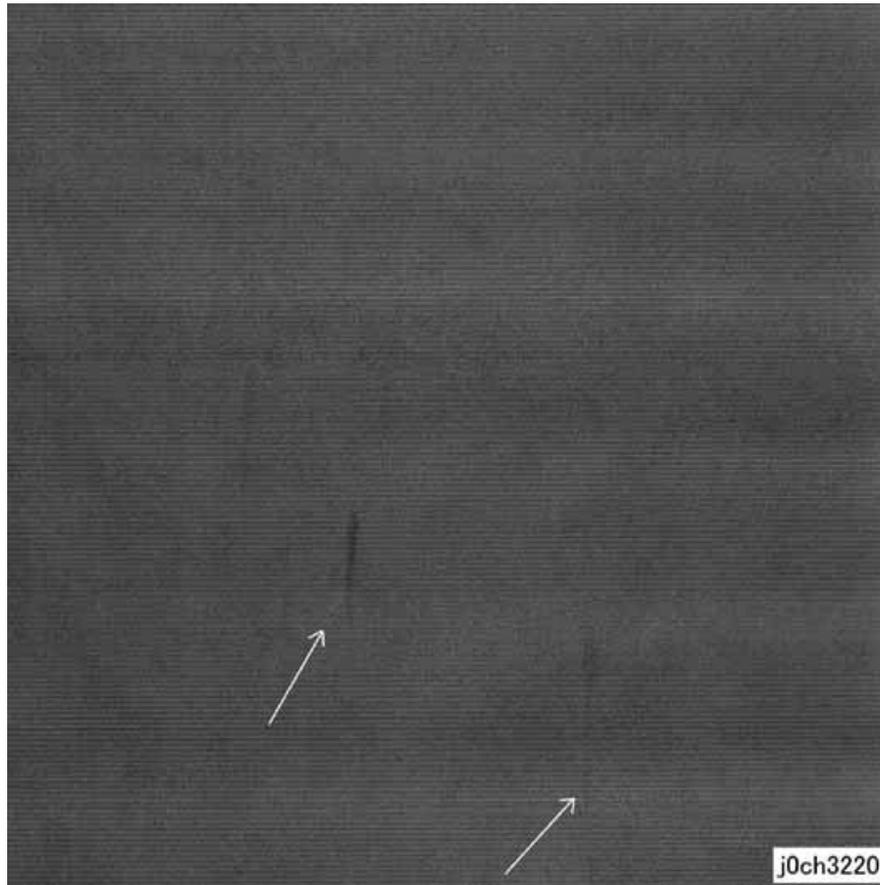


Figure 1 Black Bands Defect Sample (j0ch3220)

### Cause

1. The developer material is not well mixed.

### Corrective Action

1. Mix the developer material by processing blank paper.

## IDS 5 Toner Contamination

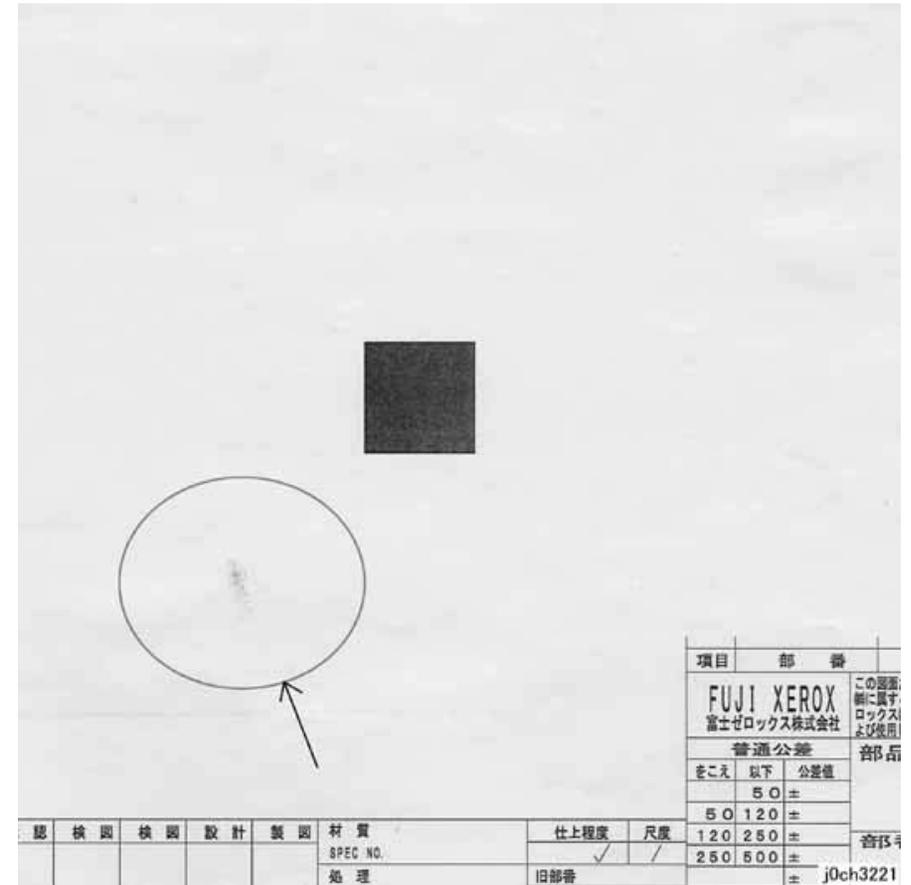


Figure 1 Toner Contamination Defect Sample (j0ch3221)

### Cause

1. Cloud toner dropped from the XERO/Developer Cartridge.

### Corrective Action

1. Mix the developer material by processing blank paper.
2. Replace the XERO/Developer Cartridge.

## IDS 6 Toner Splattering



Figure 1 Toner Splattering Defect Sample (j0ch3222)

### Cause

1. Paper size mismatch occurred (tray settings and paper size are different).
2. The resistance of the paper increased under dry conditions.

### Corrective Action

1. Check the tray settings.
2. Use paper from a freshly opened packet.

## IDS 7 White Spots (Irregular)

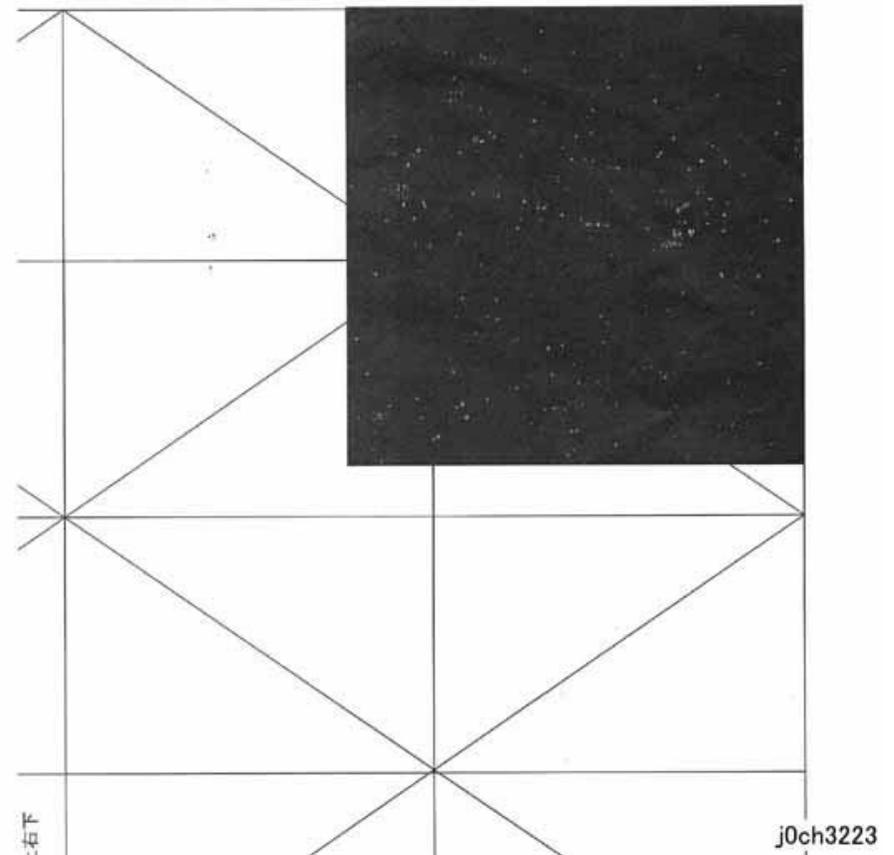


Figure 1 White Spots (Irregular) Defect Sample (j0ch3223)

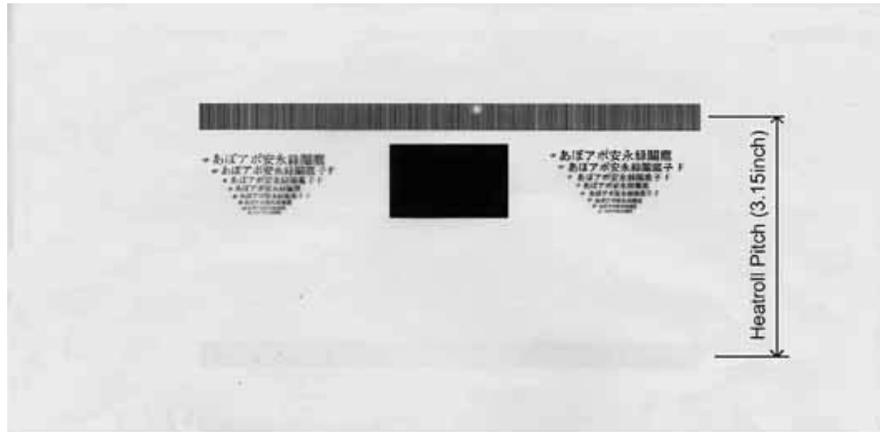
### Cause

1. The resistance of the paper increased under dry conditions.

### Corrective Action

1. Use paper from a freshly opened packet.

## IDS 8 Transparency Offset (80mm Pitch Ghosts)



j0ch3224

Figure 1 Transparency Offset (80mm Pitch Ghosts) Defect Sample (j0ch3224)

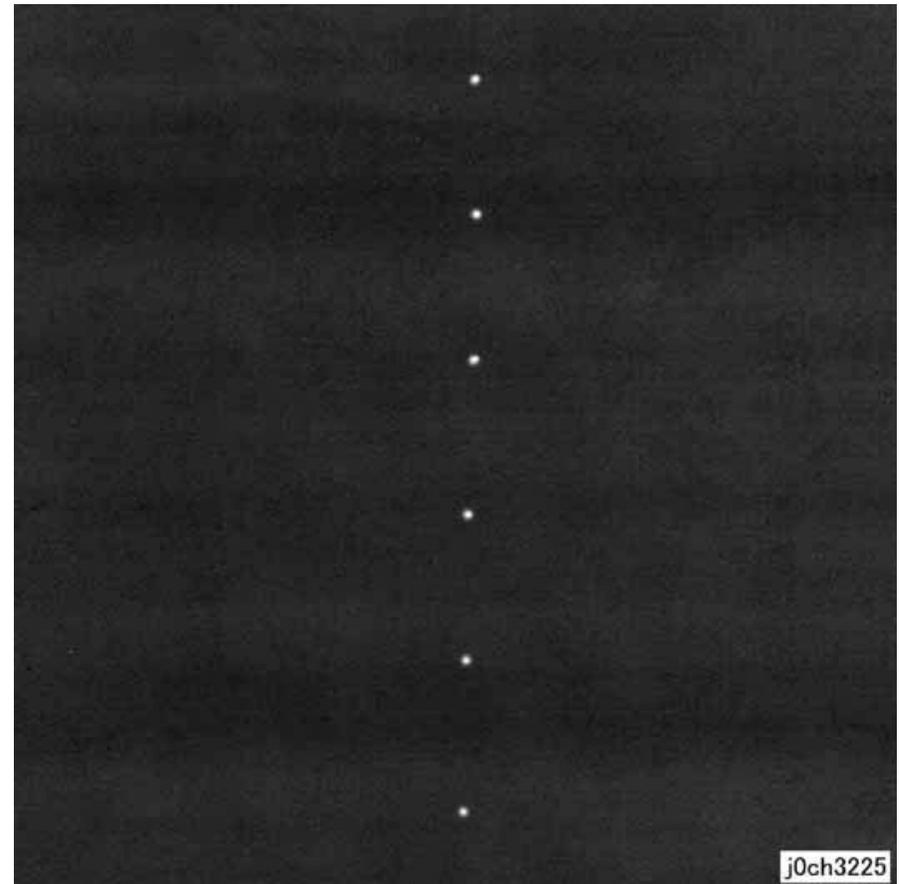
### Cause

1. Transparencies were processed in Plain Paper mode.

### Corrective Action

1. Select Transparency mode.

## IDS 9 Regular Blanks In Process Direction (Spots, Streaks, Bands etc.)



j0ch3225

Figure 1 Regular Blanks In Process Direction (Spots, Streaks, Bands etc.) Defect Sample (j0ch3225)

### Cause

1. 94mm pitch -> Drum: Scratches or foreign substances
2. 57mm pitch -> Developer Roll: Developer material fixed on the Developer Roll
3. 44mm pitch -> Charger: Scratches or foreign substances
4. 80mm pitch -> Fuser H/R: Scratches or foreign substances

### Corrective Action

1. 1, 4 : Clean or replace the XERO/Developer Cartridge or the Fuser Unit.
2. 2, 3 : Replace the XERO/Developer Cartridge.

## IDS 10 Regular Toner Contamination In Process Direction (Spots, Streaks, Bands etc.)

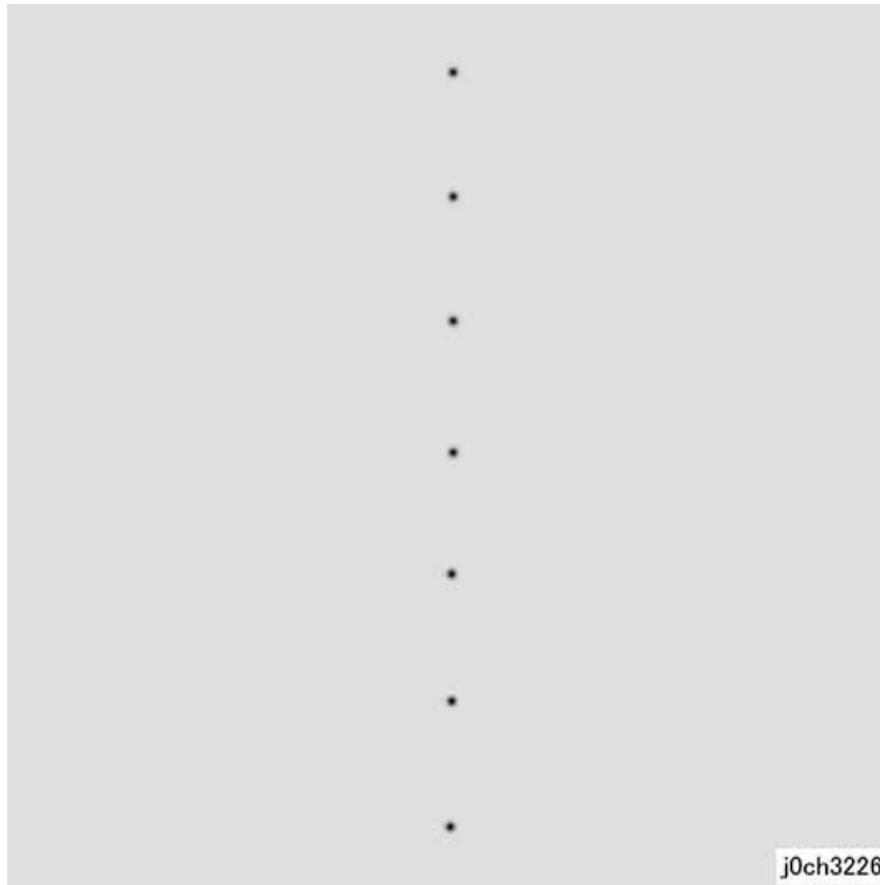


Figure 1 Regular Toner Contamination In Process Direction (Spots, Streaks, Bands etc.)  
Defect Sample (j0ch3226)

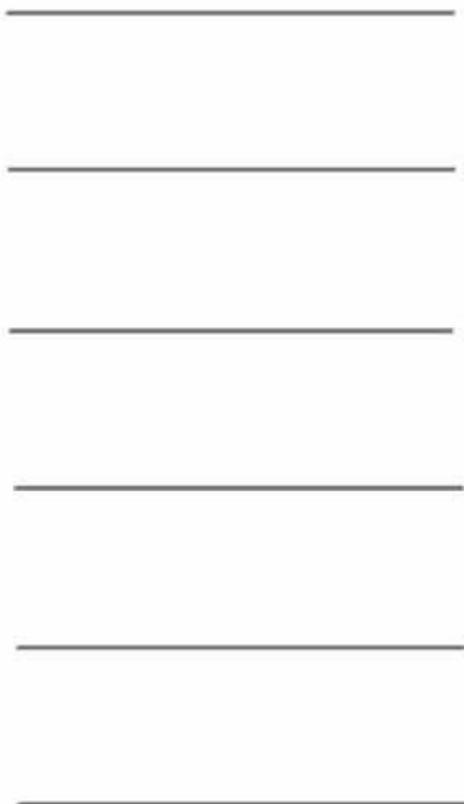
### Cause

1. 94mm pitch -> Drum: Scratches or foreign substances
2. 57mm pitch -> Magnetic Roll: Developer material fixed on the Magnetic Roll
3. 44mm pitch -> BCR: Scratches or foreign substances
4. 80mm pitch -> Heat Roll: Scratches or foreign substances
5. 19mm pitch -> Fuser Roll-Exit: Dirt
6. 44mm pitch -> Registration: Dirt

### Corrective Action

1. 1, 4, 5, 6 : Clean or replace the XERO/Developer Cartridge or the Fuser Unit.
2. 2, 3 : Replace the XERO/Developer Cartridge.

## IDS 11 Regular Toner Contamination In Process Direction (Side 2)



j0ch3227

Figure 1 Regular Toner Contamination In Process Direction (Side 2) Defect Sample (j0ch3227)

### Cause

1. 94mm pitch -> Fuser Pressure Roll: Scratches or foreign substances
2. 59mm pitch -> BTR Roll: Dirt, scratches or paper size mismatch
3. 44mm pitch -> Pinch Roll: Dirt

### Corrective Action

1. 1, 2, 3 : Clean or replace the relevant parts.
2. 2 : Change the tray settings.

## IDS 12 Transparency Blocking

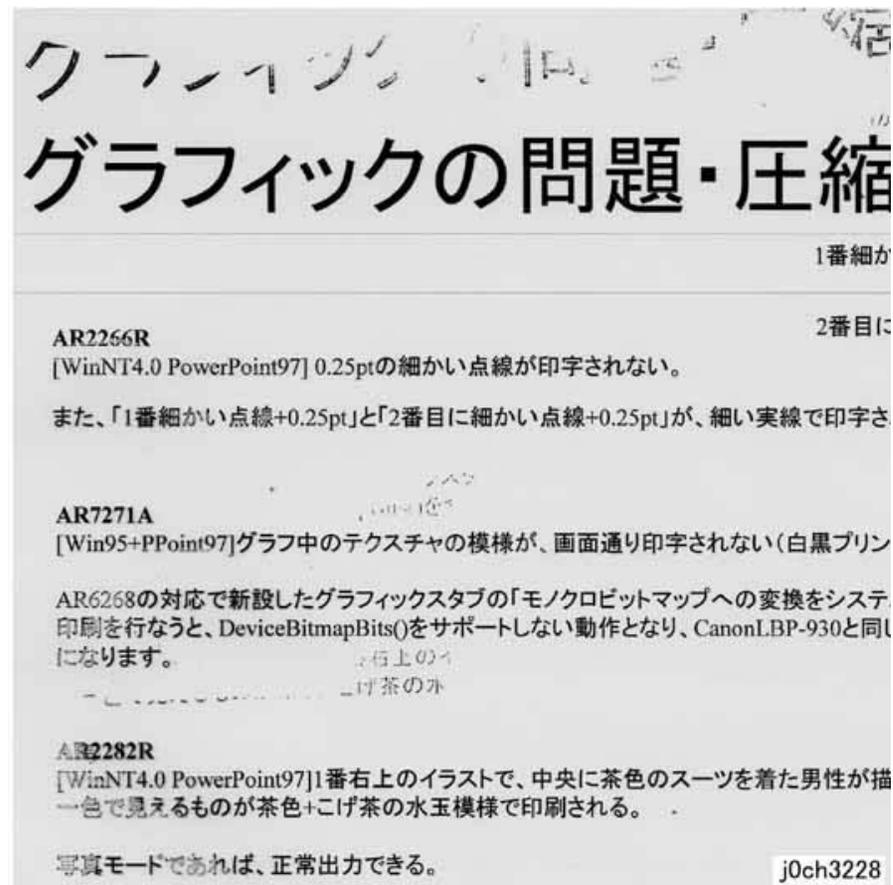


Figure 1 Transparency Blocking Sample Image (j0ch3228)

### Cause

1. Transparencies were continuously printed in Plain Paper mode.

### Corrective Action

1. Select Transparency mode.

## IDS 13 Moire Due To Interference With Copy Original

### Cause

When copying, interference with the original may cause moire. Combinations of certain angles of screen ruling near 150lpi and Reduce/Enlarge ratio may cause moire. Precautions should be taken during enlargement.

### Corrective Action

- Reduce sharpness.  
Secondary defect: Text is blurred.
- Make copies at a different Reduce/Enlarge ratio.
- Change the orientation of the original.

## IDS 14 Light Background Due To Auto Exposure In Copies Of Originals With Frames

When Auto Exposure is turned [On] for originals with dark frames along the Lead Registration Edge, the suppression value is set so large such that areas of medium density appear extremely light.



Figure 1 Light Background Due To Auto Exposure In Copies Of Originals With Frames  
Defect Sample (j0st3229)

### Cause

Auto Exposure performs background detection of images at a distance of up to 10mm from the Lead Registration Edge. As there were dark frames along the Lead Registration Edge, Auto Exposure could not detect the original background density. Therefore, Auto Exposure was performed based on the density of the frames.

### **Corrective Action**

- Disable Auto Exposure.

### **IDS 15 Fluctuation In Auto Exposure Values For Copies Of Originals Of Medium Density**

When Auto Exposure is turned [On] for originals with background of medium density (0.5G), the effectiveness of Auto Exposure fluctuates for each job.

#### **Cause**

As medium density (0.5G) is near the upper limit value for background detection, the Auto Exposure value fluctuates according to the result of background detection that varies according to the variations in the density of the original and how the original is placed.

#### **Corrective Action**

- Disable Auto Exposure.

## IDS 16 Gradation Jump In Text & Photo Mode For 100 lpi Photo Originals

In Text mode, making copies of images of 100 lpi (halftone dot) gradation may result in a tone jump.



Figure 1 Gradation Jump In Text & Photo Mode For 100 lpi Photo Originals Defect Sample (j0st3230)

### Cause

As Text & Photo mode gives priority to 175 lpi halftone dots and text quality, Sharpen Edge is performed for lower lpi.

### Corrective Action

- Make copies in Photo mode.

Secondary defect: Text is blurred.

- Change the setting from [More Text] to [Text], and then to [Photo] and [More Photo].  
Secondary defect: Image quality of photographs deteriorate in [More Text] and [Text] settings. Text becomes blurred in [More Photo] and [Photo] settings.

## **IDS 17 CVT (Constant Velocity Transport) Scan Streaks**

Streaks may occur in the CVT, even if they do not occur in the Platen.

### **Cause**

Even though CVT streak detection is performed for both color and B/W scans, there may be cases where foreign substances on the CVT Glass could not be detected and removed.

### **Corrective Action**

- Clean the CVT Glass.

## **IDS 18 Defects Related To Scan Print**

Moire may occur when scanned images are printed.

### **Cause**

Interference with the printer screen and printer driver resolution conversion processing by the original causes moire.

### **Corrective Action**

- Reduce sharpness.  
Secondary defect: Text is blurred.

## **IDS 19 Moire In Text Mode (Fine) B/W Scan/Fax For 133 lpi Originals**

During Fax Scan and B/W Scan mode, moire occurs in Text mode halftone dot images. Or, moire is especially obvious in Text mode (Fine) 133 lpi halftone dot images.

### **Cause**

In Text mode, text is given priority, causing halftone dot moires.

### **Corrective Action**

- Change from [Text] mode to [Text & Photo] mode or [Photo] mode.  
However, as the amount of data increases in [Mixed Super Halftone] mode, the machine takes a longer time for transmission.

## **IDS 20 Black Discoloration Around White Texts In Medium Density Background**

Black discoloration occurs around white texts with a certain background density, causing difficulties in reading the text.

### **Cause**

Discoloration occurs during resolution conversion in Fax Send.

Due to separation error in text graphic separation, parts determined as text are darkened and are output as graphics that look like dark smears.

Occurrences and severity of the occurrences vary according to the combinations of Send/Receive type, Send route and Receive settings.

### **Corrective Action**

- Perform sending and document storage according to the capabilities of the receiver.  
It is possible to suppress resolution conversion during Send/Receive by preventing a mismatch in Send image quality (resolution).
- Change the setting for resolution conversion processing to [More Photo].  
Secondary defect: As this reduces the sensitivity for separation between text and photographs, edges appear less smooth.

# IIT Image Quality Troubleshooting

The following tables contain the information of IIT IQ trouble.

**Table 1**

	Item	Cause	Corrective Action
C-1	light copy	dirty White Reference	Clean White Reference (PL 11.2).
C-1	light copy	IIT Carriage Assembly Auto Gain Control failure	Replace NSC PWB (PL 11.5, REP 11.5.2).
C-2	blank copy (blank paper)	poor contact between connectors on PWBs	Check the connection of the connectors. <ul style="list-style-type: none"> <li>• Video(EXT-MCU) ( P/J703- P/J410)</li> <li>• FFC(NBCR-EXT) ( NBCR CN1- NBCR CN4)</li> <li>• CCD-NSC ( CCD CN1- NSC CN1)</li> </ul>
C-2	blank copy (blank paper)	contact with the harness	Check the harness for damage/being caught.
C-2	blank copy (blank paper)	IIT Carriage Assembly Image Processing Area failure	<ul style="list-style-type: none"> <li>• Replace NSC PWB (PL 11.5, REP 11.5.2).</li> <li>• Replace NBCR PWB (PL 11.5, REP 11.5.2).</li> </ul>
C-2	blank copy (blank paper)	CCD failure	Replace IIT Carriage Assembly (PL 11.2 , REP 11.2.1).
C-2	blank copy (blank paper)	MFC/EXT PWB failure	<ul style="list-style-type: none"> <li>• Replace MFC PWB (PL 11.6, REP 11.6.1).</li> <li>• Replace EXT PWB (PL 11.1, REP 11.1.2).</li> </ul>
C-3	copy deletion	dirty White Reference	Clean White Reference (PL 11.2).
C-3	copy deletion	dirty mirrors	Clean the mirrors.
C-3	copy deletion	CCD failure	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-4	copy deletion	NSC PWB failure	Replace NSC PWB (PL 11.5, REP 11.5.2).
C-5	copy deletion	dirty White Reference	Clean White Reference(PL 11.2).
C-5	copy deletion	dirty mirrors	Clean the mirrors.
C-5	copy deletion	CCD failure	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-5	copy deletion	dirty DADF Platen Glass	Clean the DADF Platen Glass.
C-5	copy deletion	dirty lenses	<ul style="list-style-type: none"> <li>• Clean the lenses.</li> <li>• Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).</li> </ul>
C-5	copy deletion	Document not placed flat	Check the document.
C-5	copy deletion	wrinkled document	Check the document.
C-6	spot deletion	marks on Platen Glass (white-out)	Clean the Platen Glass.
C-7	black lines on the copy	dirty DADF Platen Glass	Clean the DADF Platen Glass.
C-7	black lines on the copy	dirty White Reference	Clean White Reference (PL 11.2).
C-7	black lines on the copy	dirty lenses	Clean the lenses.
C-7	black lines on the copy	dirty mirrors	Clean the mirrors.
C-7	black lines on the copy	dirty CCD	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-7	black lines on the copy	CCD failure	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-8	black lines on the copy	NSC, MFC, EXT PWB failure	<ul style="list-style-type: none"> <li>• Replace NSC PWB (PL 11.5, REP 11.5.2).</li> <li>• Replace MFC PWB (PL 11.6, REP 11.6.1).</li> <li>• Replace EXT PWB (PL 11.6, REP 11.6.1).</li> </ul>
C-9	black spots on the copy	marks on Platen Glass	Clean the Platen Glass.
C-9	black spots on the copy	dirty Platen Cushion (outside the document)	Clean the Platen Cushion.
C-10	band of high background on the copy	poor shading	<ul style="list-style-type: none"> <li>• Replace NSC PWB (PL 11.5, REP 11.5.2).</li> <li>• Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).</li> </ul>

Table 1

	Item	Cause	Corrective Action
C-10	band of high background on the copy	dirty mirrors	Clean the mirrors.
C-10	band of high background on the copy	dirty Platen Glass	Clean the Platen Glass.
C-10	band of high background on the copy	dirty DADF Platen Glass	Clean the DADF Platen Glass.
C-10	band of high background on the copy	dirty White Reference	Clean the White Reference (PL 11.2).
C-11	band of high background on the copy	dirty Platen Glass	Clean the Platen Glass.
C-11	band of high background on the copy	MFC/EXT PWB failure	<ul style="list-style-type: none"> <li>Replace MFC PWB (PL 11.6, REP 11.6.1).</li> <li>Replace EXT PWB (PL 11.6, REP 11.6.1).</li> </ul>
C-12	high background on the copy	poor shading	<ul style="list-style-type: none"> <li>Replace NSC PWB (PL 11.5, REP 11.5.2).</li> <li>Replace IIT Carriage Assembly(PL 11.2, REP 11.2.1)</li> </ul>
C-12	high background on the copy	dirty mirrors	Clean the mirrors.
C-12	high background on the copy	dirty Platen Glass	Clean the Platen Glass.
C-12	high background on the copy	dirty DADF Platen Glass	Clean the DADF Platen Glass.
C-12	high background on the copy	dirty White Reference	Clean White Reference (PL 11.2).
C-12	high background on the copy	Exposure Lamp	Replace Exposure Lamp (PL 11.4, REP 11.4.1).
C-12	high background on the copy	NSC, MFC, EXT PWB failure	<ul style="list-style-type: none"> <li>Replace NSC PWB (PL 11.5, REP 11.5.2).</li> <li>Replace MFC PWB (PL 11.6, REP 11.6.1).</li> <li>Replace EXT PWB (PL 11.6, REP 11.6.1).</li> </ul>
C-12	high background on the copy	CCD failure	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-13	solid black copy	Exposure Lamp not ON	<ul style="list-style-type: none"> <li>Replace Exposure Lamp (PL 11.4, REP 11.4.1).</li> <li>Replace INV PWB(PL 11.5, REP 11.5.3).</li> </ul>
C-13	solid black copy	poor contact between connectors on PWBs	<p>Check the connection of the connectors.</p> <ul style="list-style-type: none"> <li>NCCD-NSC</li> <li>NBCR-EXT</li> </ul>
C-13	solid black copy	contact with the harness	Check the harness for damage/pinch.
C-13	solid black copy	NSC, NBCR, MFC, EXT PWB failure	<ul style="list-style-type: none"> <li>Replace NSC PWB (PL 11.5, REP 11.5.2).</li> <li>Replace NBCR PWB</li> <li>Replace MFC PWB (PL 11.6, REP 11.6.1).</li> <li>Replace EXT PWB (PL 11.6, REP 11.6.1).</li> </ul>
C-13	solid black copy	CCD failure	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-14	skip	a foreign object caught in gears	Remove the foreign object.
C-14	skip	worn gear	Replace the Gear (PL 11.5).
C-14	skip	worn sliders	Replace Side Slider & Top Slider (PL 11.5).
C-14	skip	loose screws for the parts of IIT Carriage Assembly	Tighten the screws.
C-14	skip	Carriage Motor failure	Replace Carriage Motor (PL 11.4).
C-14	skip	Motor Driver failure	Replace NBCR PWB (PL 11.5, REP 11.5.2).

Table 1

	Item	Cause	Corrective Action
C-14	skip	NSC, MFC, EXT PWB failure	<ul style="list-style-type: none"> <li>Replace NSC PWB (PL 11.5, REP 11.5.2).</li> <li>Replace MFC PWB (PL 11.6, REP 11.6.1).</li> <li>Replace EXT PWB (PL 11.6, REP 11.6.1).</li> </ul>
C-14	skip	deformed Front/Rear Mirror Clip	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-14	skip	play between IIT Carriage Assembly and IIT Front/Rear Rail	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-15	smear	NSC, MFC, EXT PWB failure	<ul style="list-style-type: none"> <li>Replace NSC PWB (PL 11.5, REP 11.5.2).</li> <li>Replace MFC PWB (PL 11.6, REP 11.6.1).</li> <li>Replace EXT PWB (PL 11.6, REP 11.6.1).</li> </ul>
C-16	jitter/data error	NSC, MFC, EXT PWB failure	<ul style="list-style-type: none"> <li>Replace NSC PWB (PL 11.5, REP 11.5.2).</li> <li>Replace MFC PWB (PL 11.6, REP 11.6.1).</li> <li>Replace EXT PWB (PL 11.6, REP 11.6.1).</li> </ul>
C-17	hunching	Document not placed flat/placed in waves	Check the document.
C-17	hunching	IIT Carriage Assembly IIT Drum failure	Replace IIT Drum (PL 11.5).
C-17	hunching	defect Front/Rear Carriage Cable	Replace Front Carriage Cable/Rear Carriage Cable (PL 11.5, REP 11.5.1).
C-17	hunching	worn sliders	Replace Side Slider & Top Slider (PL 11.5).
C-17	hunching	a foreign object caught in the wire rewinding area	Remove the foreign object.
C-17	hunching	a foreign object attached to IIT Front/Rear Rail	Remove the foreign object.
C-18	banding		
C-19	incorrect magnification	Document not fed flat from ADF	Replace Read In/Out Roller (PL 15.7).
C-19	incorrect magnification	ADF Roller wear/failure	Replace Read In/Out Roller (PL 15.7).
C-19	incorrect magnification	Carriage Motor failure	Replace Carriage Motor (PL 11.4).
C-19	incorrect magnification	Motor Driver failure	Replace NBCR PWB (PL 11.5, REP 11.5.2).
C-19	incorrect magnification	NSC, MFC, EXT PWB failure	<ul style="list-style-type: none"> <li>Replace NSC PWB (PL 11.5, REP 11.5.2).</li> <li>Replace MFC PWB (PL 11.6, REP 11.6.1).</li> <li>Replace EXT PWB (PL 11.6, REP 11.6.1).</li> </ul>
C-19	incorrect magnification	IIT Carriage Assembly IIT Drum failure	Replace IIT Drum (PL 11.5).
C-19	incorrect magnification	optical mis-adjustment	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-20	poor resolution	a foreign object caught in gears	Remove the foreign object.
C-20	poor resolution	worn gear	Replace the Gear (PL 11.5).
C-20	poor resolution	worn sliders	Replace Side Slider & Top Slider (PL 11.5).
C-20	poor resolution	loose screws for the parts of IIT Carriage Assembly	Tighten the screws.
C-20	poor resolution	Carriage Motor failure	Replace Carriage Motor (PL 11.4).
C-20	poor resolution	Motor Driver failure	Replace NBCR PWB (PL 11.5, REP 11.5.2).
C-20	poor resolution	NSC, MFC, EXT PWB failure	Replace NSC PWB (PL 11.5, REP 11.5.2).
C-20	poor resolution	deformed Front/Rear Mirror Clip	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-20	poor resolution	play between IIT Carriage Assembly and IIT Front/Rear Rail	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-20	poor resolution	optical mis-adjustment	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-20	poor resolution	CCD failure	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).

Table 1

	Item	Cause	Corrective Action
C-21	residual image	MFC PWB failure	<ul style="list-style-type: none"> <li>Replace MFC PWB (PL 11.6, REP 11.6.1).</li> <li>Replace Memory (PL 11.6).</li> </ul>
C-23	moire	A copy of printed matter a customer made in the auto or manual density mode exhibits moire.	In that case, tell the customer that if they want to copy a document with any picture, using the photo mode will control possible moire.
C-23	moire	A customer made a copy of printed matter and copied the copy. The second generation copy exhibits moire.	Tell the customer the second generation copy often exhibits moire and that a small change in magnification will control possible moire.
C-23	moire	A customer made a copy of printed matter in photo mode. The copy exhibits moire.	Reorient the document. (advisable to rotate it 90 degrees)
C-25	mis-registration	incorrect set value	Adjust again.
C-25	mis-registration	Lead Regi: improper position of Carriage Sensor that detects the position of IIT Carriage Assembly	Reposition/replace Carriage Sensor (PL 11.4).
C-25	mis-registration	Lead /Side Regi: optical mis-adjustment	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-26	uneven density	Exposure Lamp/INV PWB failure	Replace Exposure Lamp/INV PWB (PL 11.5, REP 11.5.3)
C-26	uneven density	dirty White Reference	Clean White Reference (PL 11.2).
C-26	uneven density	NSC PWB failure	Replace NSC PWB (PL 11.5, REP 11.5.2).
C-28	skew	optical mis-adjustment	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).
C-28	skew	improperly installed ADF	Reinstall ADF.
C-28	skew	improperly set Document Guides	Tell the customer to set the Document Guides properly.
C-28	skew	Roller wear/failure	Replace Regi Roller and Read In/Out Roller (PL 15.7).
C-28	skew	dirty Roller	Clean Regi Roller and Read In/Out Roller (PL 15.7).
C-29	black band	poor shading	Replace NSC PWB (PL 11.5, REP 11.5.2).
C-29	black band	dirty mirrors	Clean the mirrors.
C-29	black band	dirty Platen Glass	Clean Platen Glass.
C-29	black band	dirty DADF Platen Glass	Clean the DADF Platen Glass.
C-29	black band	dirty White Reference	Clean White Reference (PL 11.2).
C-30	dark copy	Exposure Lamp failure	Replace Exposure Lamp (PL 11.4, REP 11.4.1).
C-30	dark copy	condensation	Adapt the machine to ambient temperature. Set the condensation timer in NOHAD of IOT NVM Chain-Func:50-16 as needed. Install the condensation heater.
C-30	dark copy	dirty glass	Clean DADF Platen Glass.
C-30	dark copy	dirty mirrors	Clean the mirrors.
C-30	dark copy	dirty lenses	Clean the lenses.
C-30	dark copy	CCD dirt/failure	Replace IIT Carriage Assembly (PL 11.2, REP 11.2.1).

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## REP 1.1.1 Main Drive Assembly

### Parts List on PL 1.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the Rear Cover. (REP 10.2.1)
2. Open the Left Cover Assembly (PL 2.5).
3. Partially pull out the XERO/Developer Cartridge. (REP 4.1.1)
4. Disconnect the gear and the connector. (Figure 1)
  1. Remove the E-Clip.
  2. Remove the gear.
  3. Remove the clamp.
  4. Disconnect the connector ( P/J214).

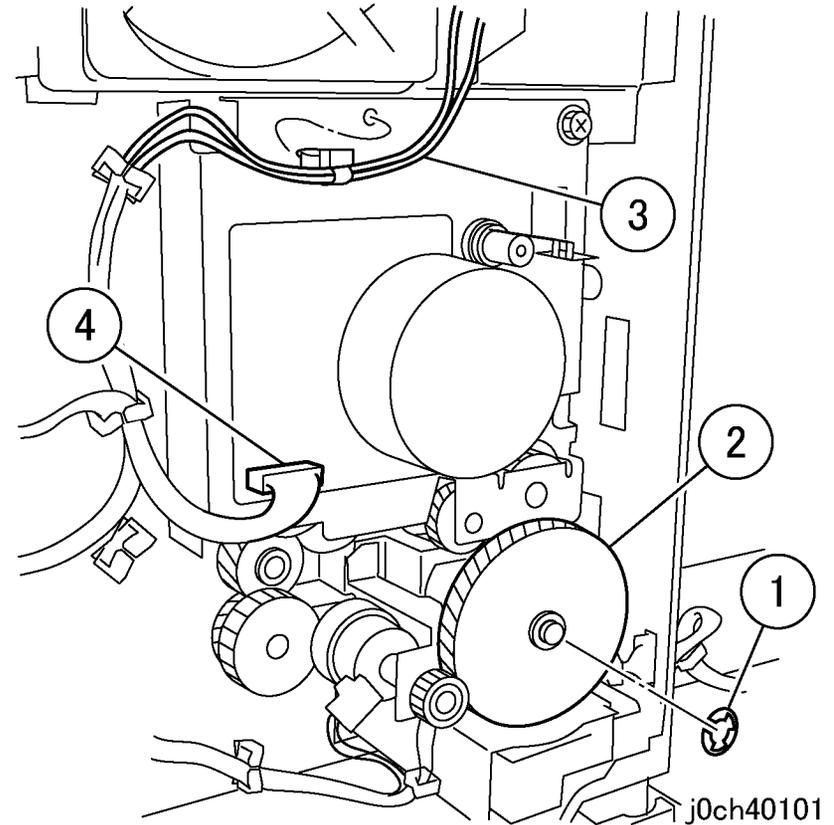


Figure 1 Disconnecting the gear and the connector (j0ch40101)

5. Remove the Main Drive Assembly. (Figure 2)
  1. Remove the screws (x4).
  2. Move idler to right and move harness aside while removing Main Drive Assembly.

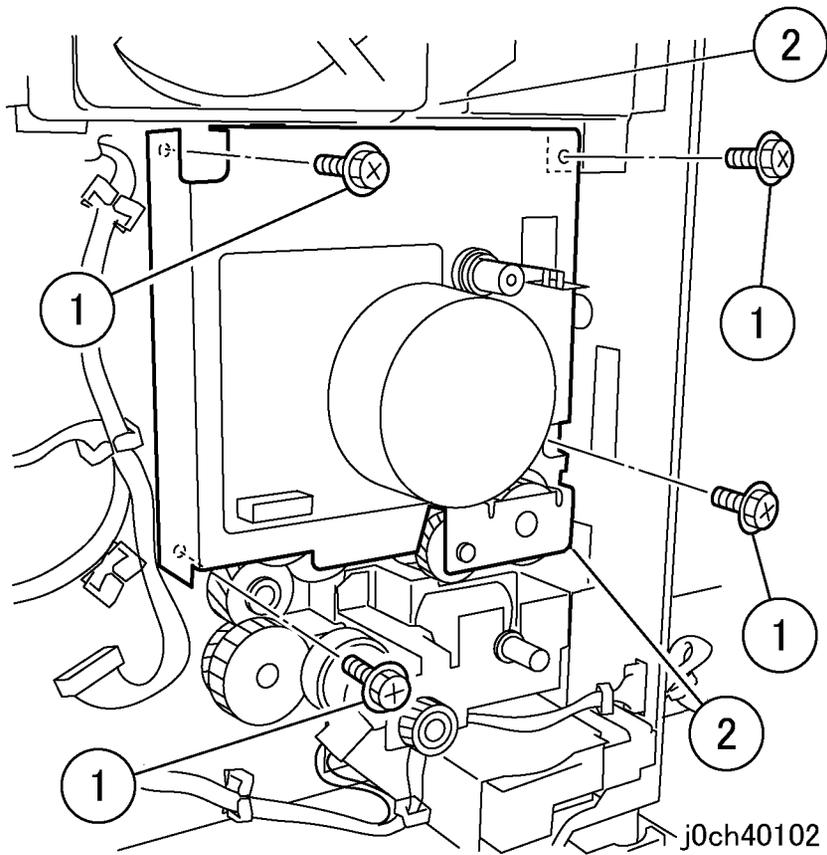


Figure 2 Removing the Main Drive Assembly (j0ch40102)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 2.2.1 Retard Pad

### Parts List on PL 2.2

#### Removal

**NOTE:** When replacing the Tray 1 Feed Roll and the Retard Pad, enter C/E mode. Clear the Tray 1 Feed sheets counter. Tray1 "Chain-Func:[29-34],[29-24],[29-14],[29-4]"

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.  
[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

**NOTE:** Replace the Tray 1 Retard Pad and the Feed Roll at the same time.

1. Remove Tray 1 paper.
2. Remove Tray 1.
  1. Ensure tray is pulled out to the stop.
  2. Lift end and pull out to remove.

3. Remove the Feed Roll Assembly. (Figure 1)
  1. Remove the bearings.
  2. Slide the bearings.
  3. Remove the Feed Roll Assembly.

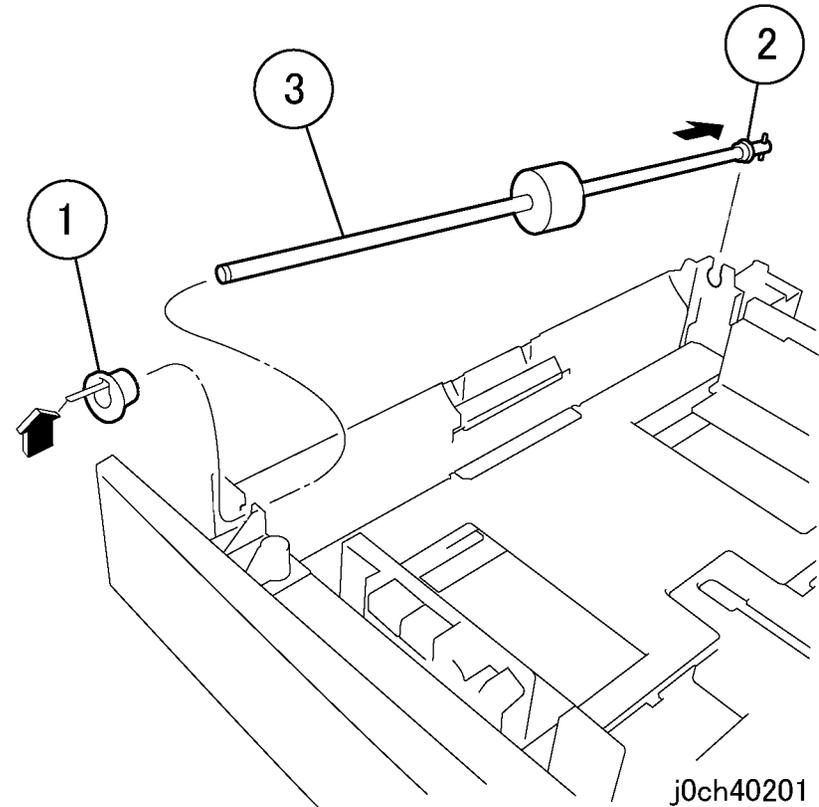


Figure 1 Removing the Feed Roll Assembly (j0ch40201)

4. Remove the Retard Pad (Figure 2).
  1. Press release tab and rotate the Retard Pad.
  2. Use small screwdriver to pry loose end of Retard Shaft.
  3. Pull out the shaft.

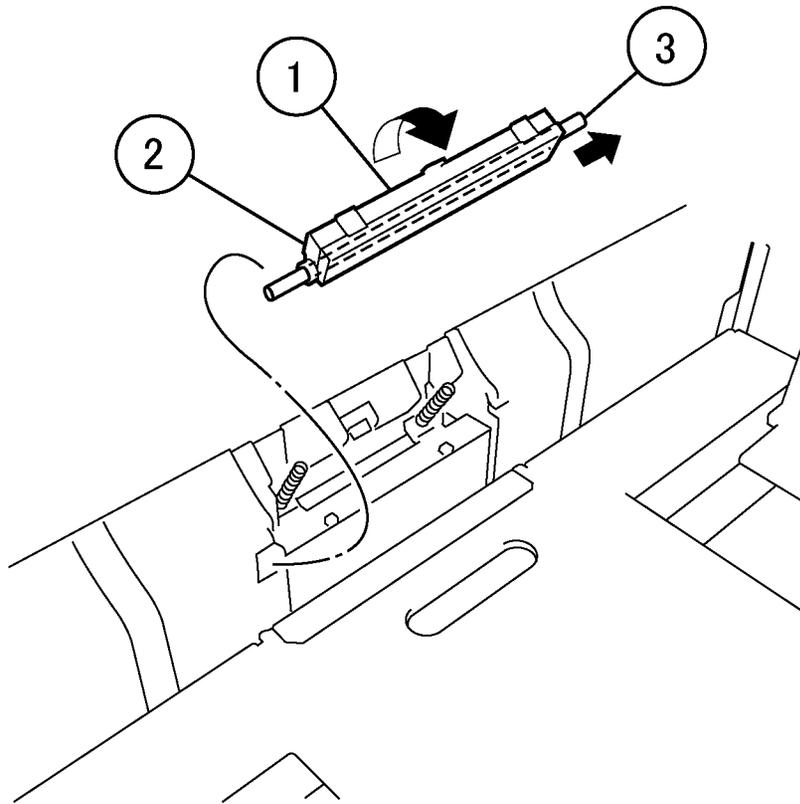


Figure 2 Removing the Retard Pad (j0ch40202)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 2.4.1 Registration Unit

### Parts List on PL 2.4

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the MPT Unit. (REP 7.1.1)
2. Remove the Left Cover Assembly. (REP 2.5.1)
3. Remove the Main Drive Assembly. (REP 1.1.1)
4. Remove Tray 1.
  - a. Remove paper from tray.
  - b. Ensure tray is pulled out to the stop.
  - c. Lift end and pull out to remove.

5. Remove the Paper Chute Assembly. (Figure 1)
  1. Remove the screws (x3).
  2. Remove the Paper Chute Assembly (PL 2.1).

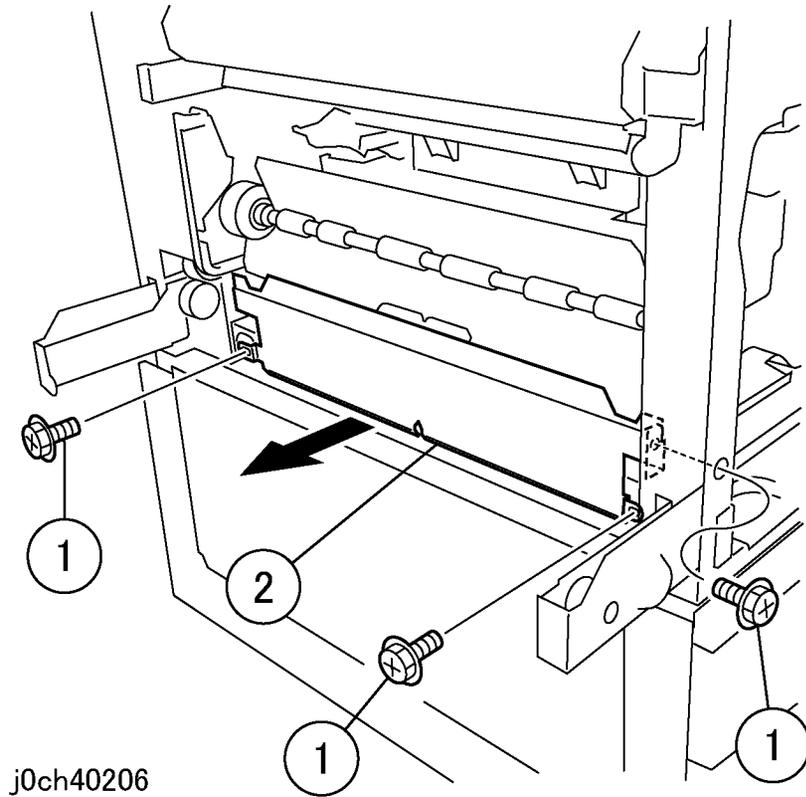


Figure 1 Removing the Paper Chute Assembly (j0ch40206)

**CAUTION**

*The connector is connected at the back of the Registration Unit.*

6. Prepare to remove the Registration Unit. (Figure 2)
  1. Remove the screws (x2).
  2. Rotate Registration Unit counterclockwise to disengage hidden locking tab (under sensor).
  3. Slide the Registration Unit to the rear.
  4. Lift the Registration Unit slightly and remove front pin from frame.

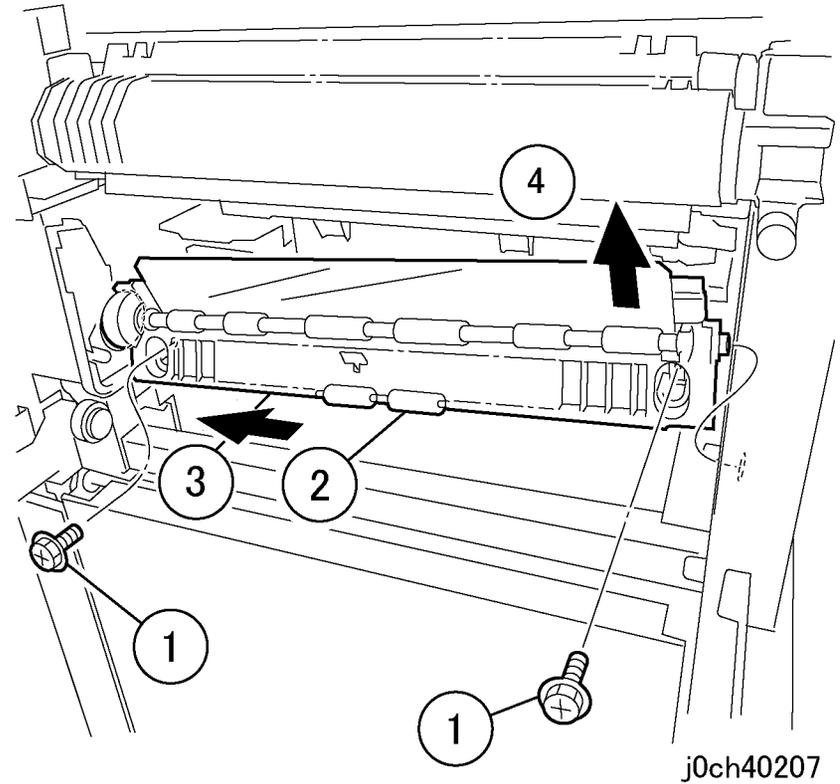


Figure 2 Preparing to Remove the Registration Unit (j0ch40207)

7. Remove the Registration Unit. (Figure 3)
  1. Turn over the Registration Unit.
  2. Disconnect P/J104.
  3. Disconnect P/J215.
  4. Release the Wire Harness from the clamp.
  5. Remove the Registration Unit.

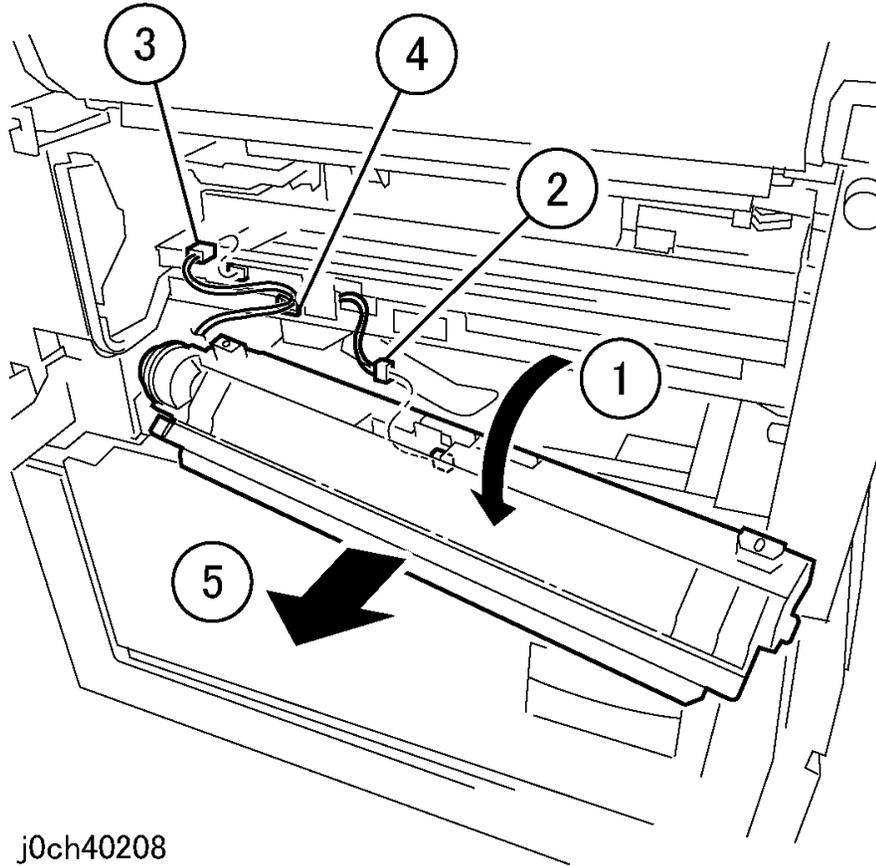


Figure 3 Removing the Registration Unit (j0ch40208)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 2.5.1 Left Cover Assembly

### Parts List on PL 2.5

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

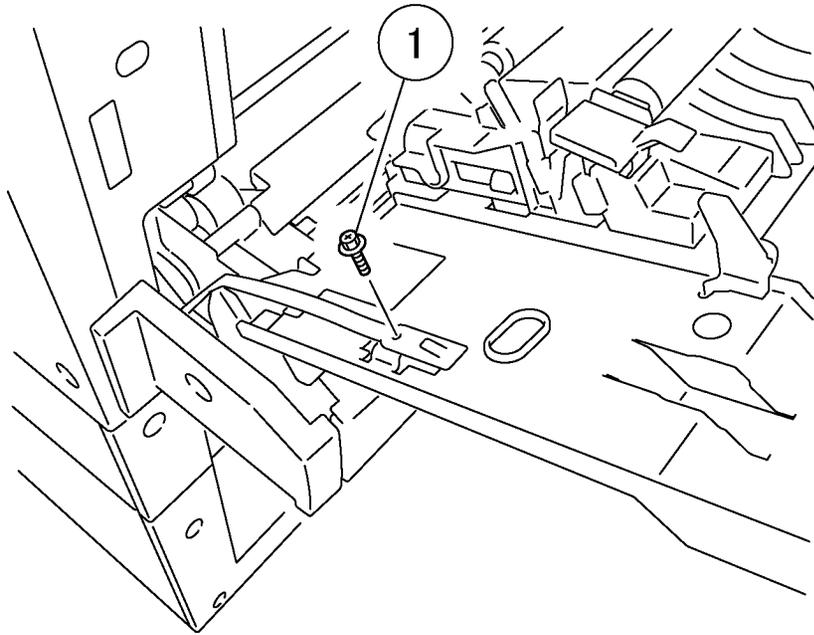
[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Open the Left Cover Assembly (PL 2.5).

j0ch40208

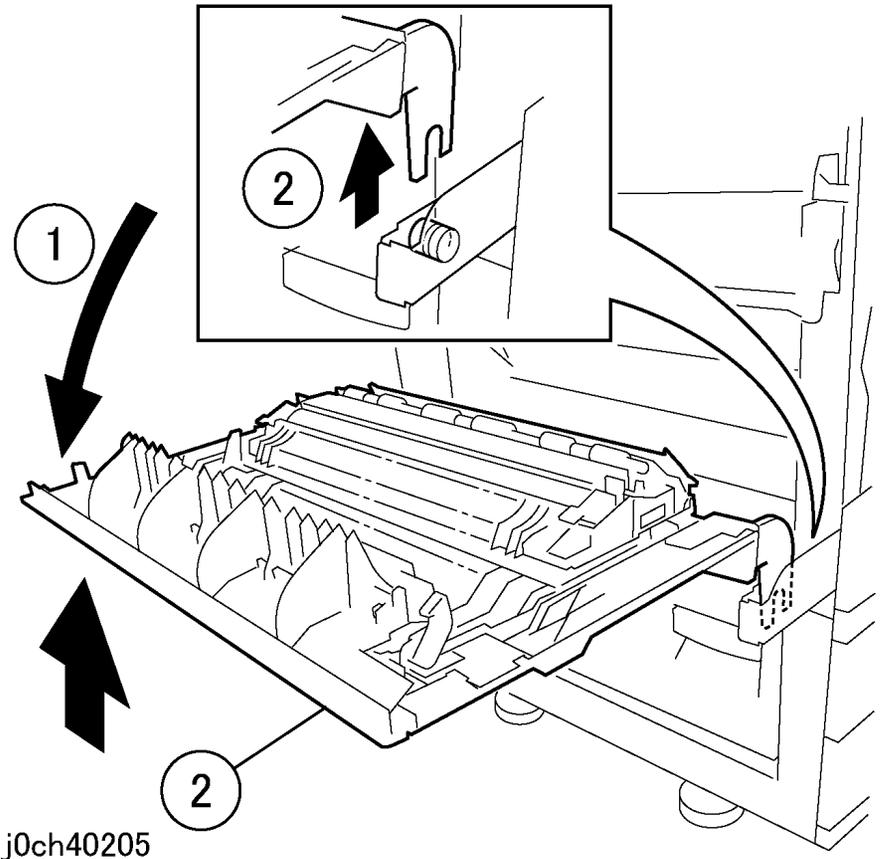
2. Remove the screw while holding on to the Left Cover Assembly. (Figure 1)



j0ch40210

Figure 1 Removing the Screw (j0ch40210)

3. Remove the Left Cover Assembly (Figure 2).
  1. Place the Left Cover Assembly horizontally.
  2. Lift up the Left Cover Assembly and remove.



j0ch40205

Figure 2 Removing the Left Cover Assembly (j0ch40205)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 2.5.2 BTR Assembly

### Parts List on PL 2.5

#### Removal

**NOTE:** When replacing the BTR Assembly, enter C/E mode. Clear the number of sheets reaching BTR. BTR "Chain-Func:[30/44],[30/43],[30/42],[30/41]"

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

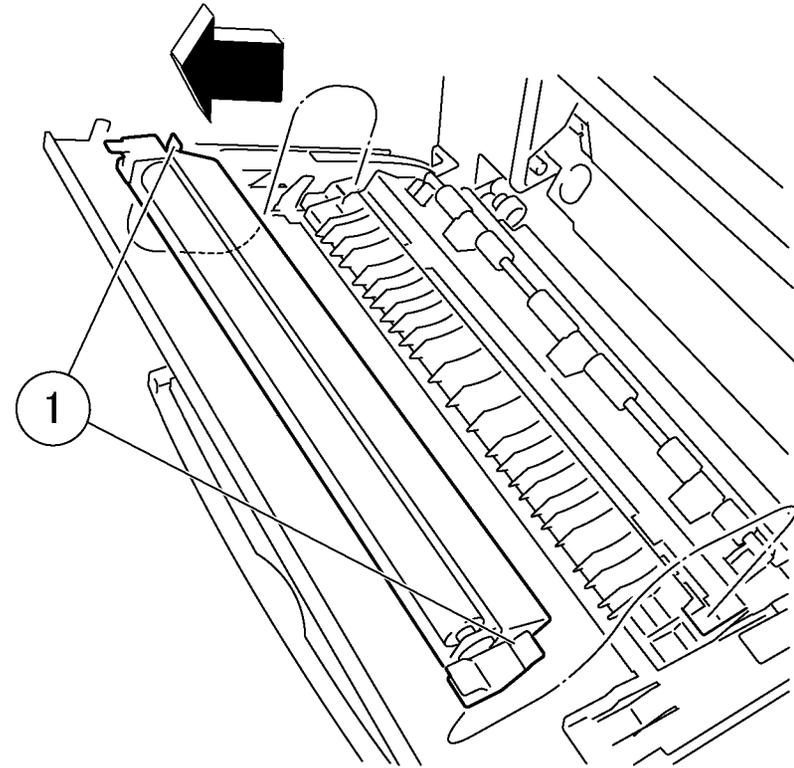
Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Open the Left Cover Assembly.

2. Remove the BTR Assembly. (Figure 1)
  1. Press Tabs to release and remove BTR Assembly.



j0ch40209

Figure 1 Removing the BTR Assembly (j0ch40209)

#### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 3.1.1 ROS Unit

### Parts List on PL 3.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

*[FAX Models]*

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

*[Printer Models]*

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the following parts:
  - a. XERO/Developer Cartridge (REP 4.1.1)
  - b. Toner Cartridge (REP 4.1.2)
  - c. Top Cover (REP 10.1.1)

2. Press the release tab and pull out to remove the Cap (Figure 1).

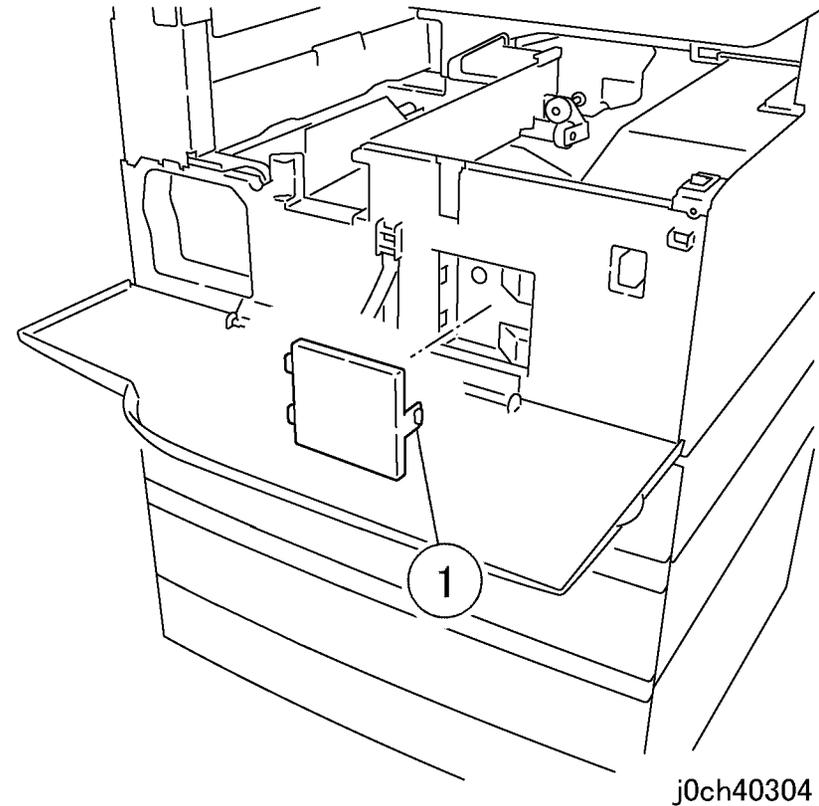


Figure 1 Removing the cap (j0ch40304)

3. Remove the Inner Cover (Figure 2).
  1. Remove the screws (x2).
  2. Push in tab to release and disconnect Strap.
  3. Remove the Inner Cover.

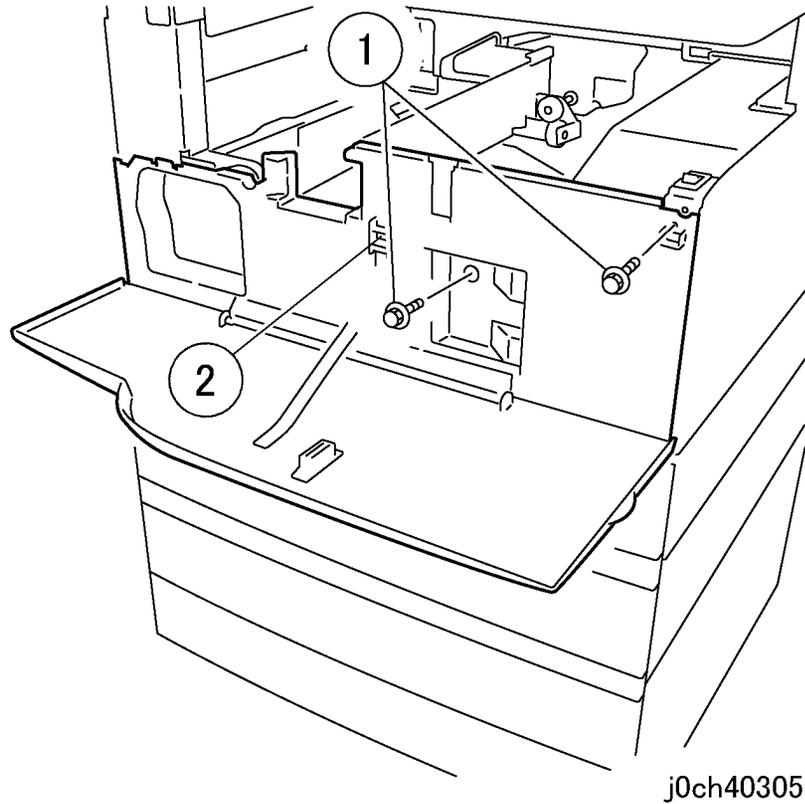


Figure 2 Removing the Inner Cover (j0ch40305)

4. Remove the Toner Housing. (Figure 3)

**NOTE:** When removing the Toner Housing, protect the floor with paper.

1. Disconnect P/J127.
2. Loosen the screw.
3. Remove the screw on the hose.
4. Remove the Toner Housing.

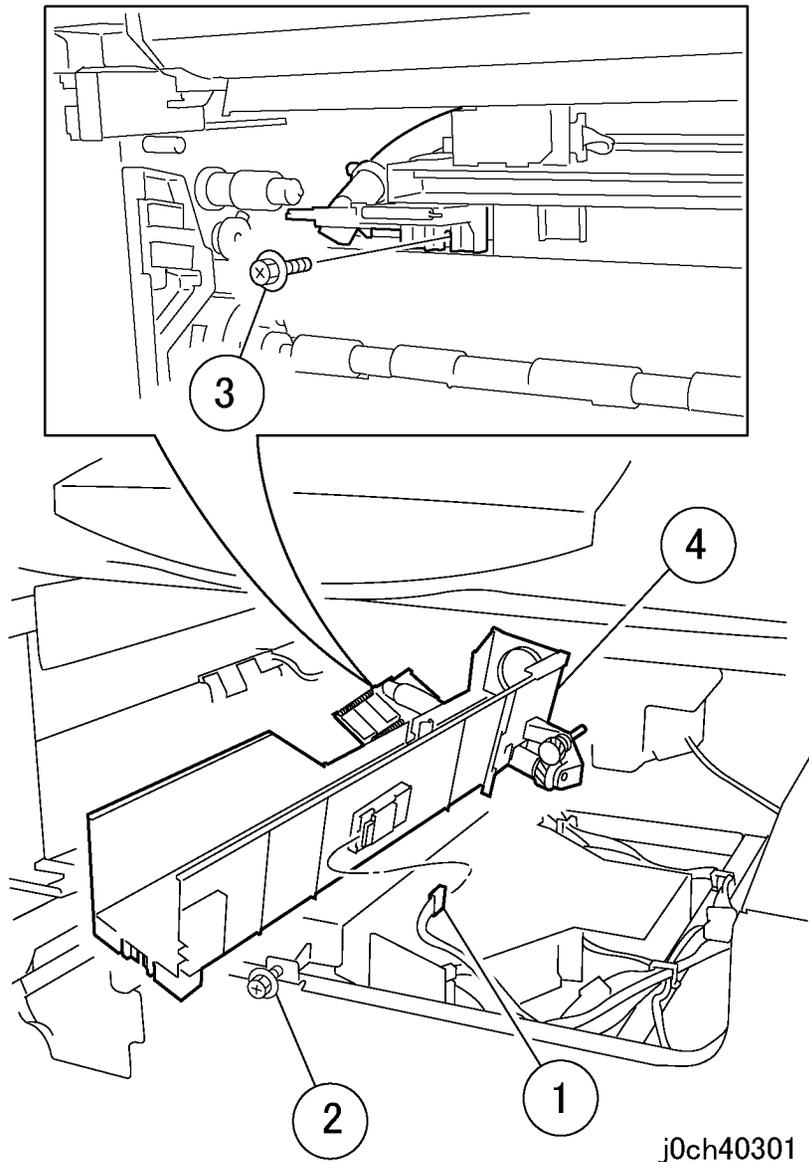
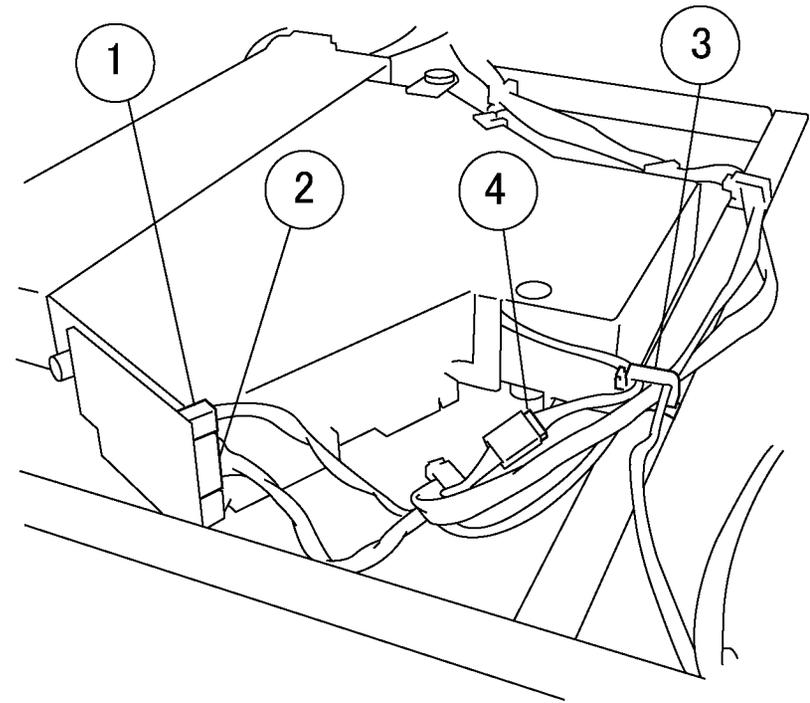


Figure 3 Removing the Toner Housing (j0ch40301)

j0ch40301

5. Disconnect the ROS connectors (x3). (Figure 4)
  1. Disconnect P/J160.
  2. Disconnect P/J140.
  3. Release the Wire Harness from the clamp.
  4. Disconnect P/J620.



j0ch40302

Figure 4 Disconnecting the connectors (x3) (j0ch40302)

**CAUTION**

*Do not touch the ROS window when removing the ROS.*

6. Remove the ROS Unit. (Figure 5)
 

Note: Put on the attachment included as a spare part on the Stubby Driver when removing the ROS Unit screws (x5).

  1. Remove the screws (x5).
  2. Remove the ROS Unit.

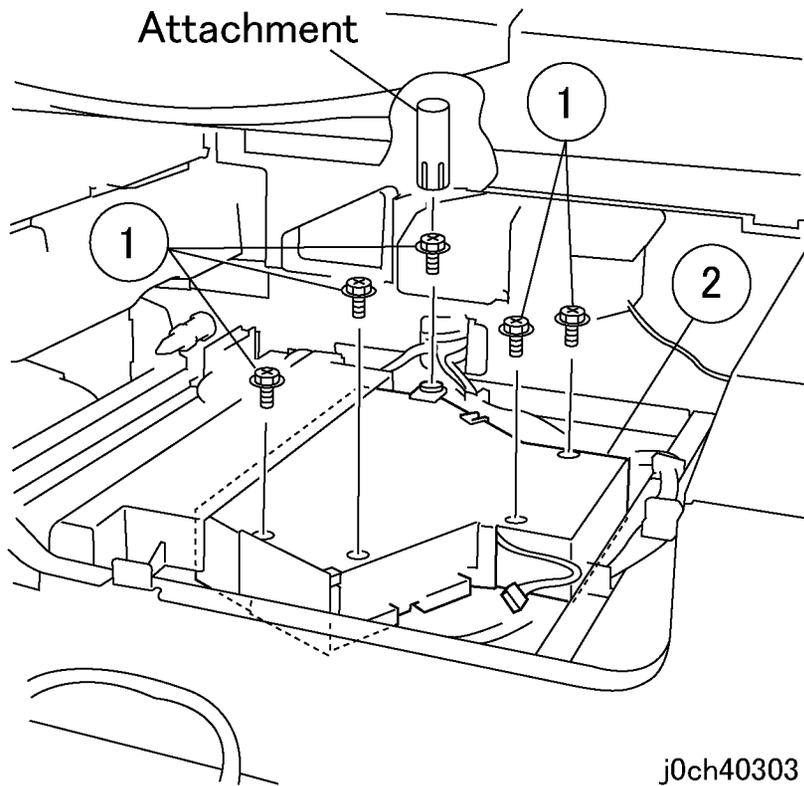


Figure 5 Removing the ROS Unit (j0ch40303)

## Replacement

### CAUTION

When connecting the P/J127 of the Toner CRUM PWB, be careful not to press too hard so that the PWB is shifted.

**NOTE:** Read the warning labels on the top of the ROS Unit carefully before performing servicing on the ROS Unit while it is still installed and connected to the power supply.

1. To install, carry out the removal steps in reverse order.

## REP 4.1.1 XERO/Developer Cartridge

### Parts List on PL 4.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Open the Left Cover Assembly (PL 2.5).
2. Open the Front Cover.

#### CAUTION

If Cartridge will be exposed to light for several minutes, store cartridge away from direct light source.

3. Remove the XERO/Developer Cartridge. (Figure 1)
  1. Remove the XERO/Developer Cartridge.

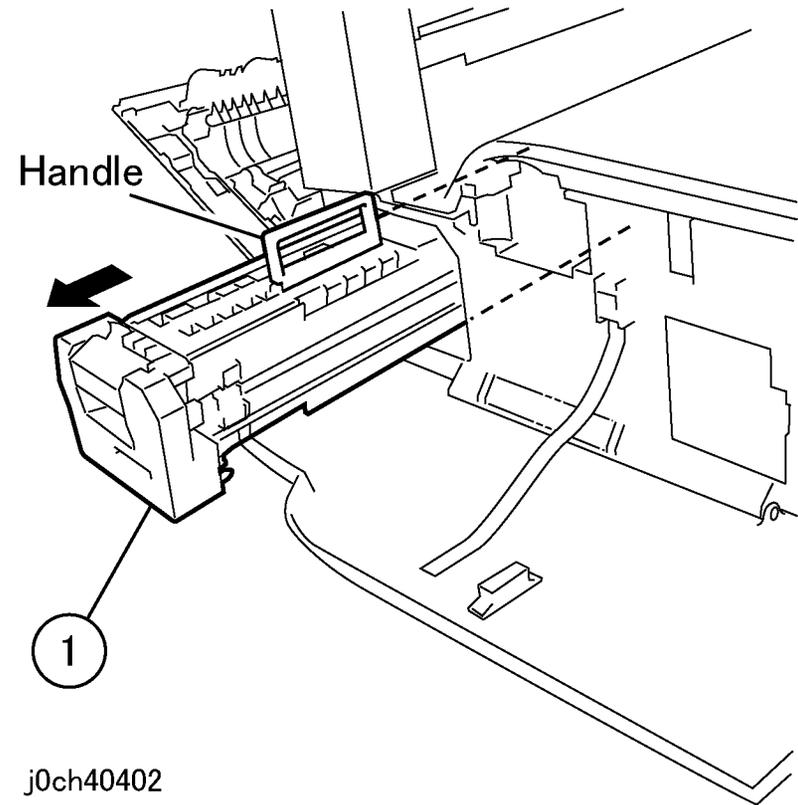


Figure 1 Removing the XERO/Developer Cartridge (j0ch40402)

#### Replacement

**NOTE:** Push in the handle of the XERO/Developer Cartridge until the handle latches securely.

1. To install, carry out the removal steps in reverse order.

## REP 4.1.2 Toner Cartridge

### Parts List on PL 4.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Open the Front Cover.
2. Remove the Toner Cartridge. (Figure 1)
  1. Release and pull out Toner Cartridge.

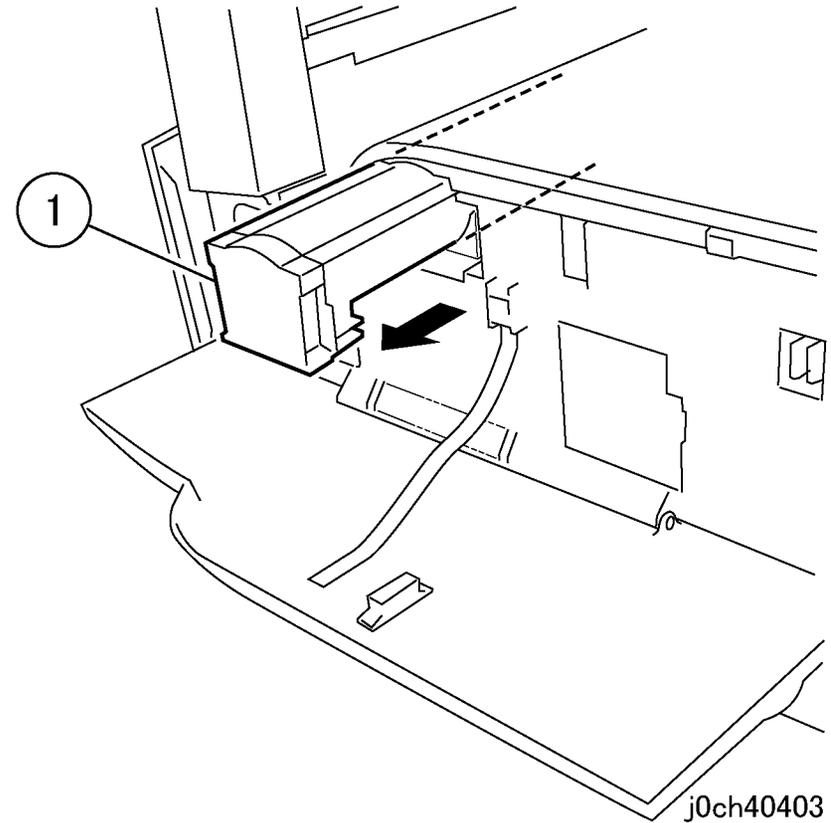


Figure 1 Removing the Toner Cartridge (j0ch40403)

#### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 4.2.1 Dispense Motor

### Parts List on PL 4.2

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the following parts:
  - XERO/Developer Cartridge (REP 4.1.1)
  - Toner Cartridge (REP 4.1.2)
  - Top Cover (REP 10.1.1)

2. Press the release tab and pull out to remove the Cap (Figure 1).

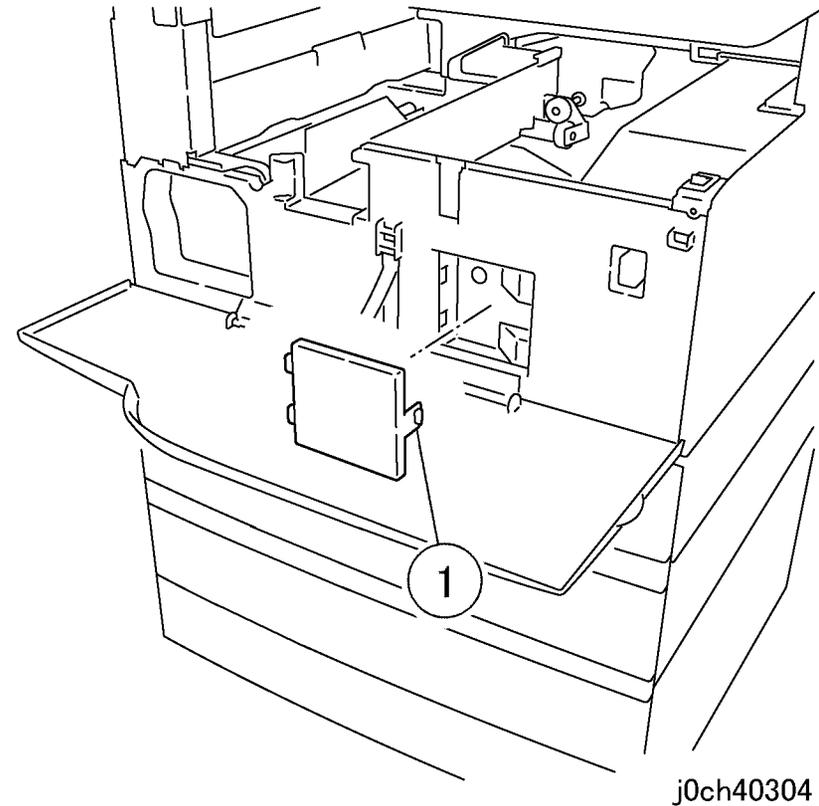


Figure 1 Removing the Cap (j0ch40304)

3. Remove the Inner Cover (Figure 2).
  1. Remove the screws (x2).
  2. Push in tab to release and disconnect Strap.
  3. Remove the Inner Cover.

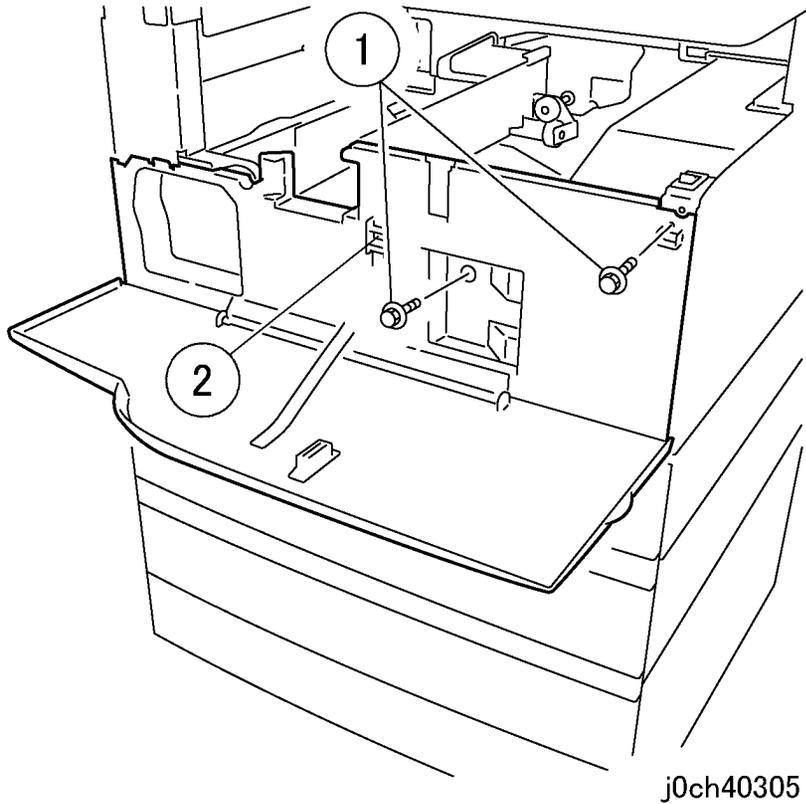


Figure 2 Removing the Inner Cover (j0ch40305)

4. Remove the Toner Housing. (Figure 3)

**NOTE:** When removing the Toner Housing, protect the floor with paper.

1. Disconnect P/J127.
2. Loosen the screws (x2).
3. Remove the screw on the hose.
4. Remove the Toner Housing.

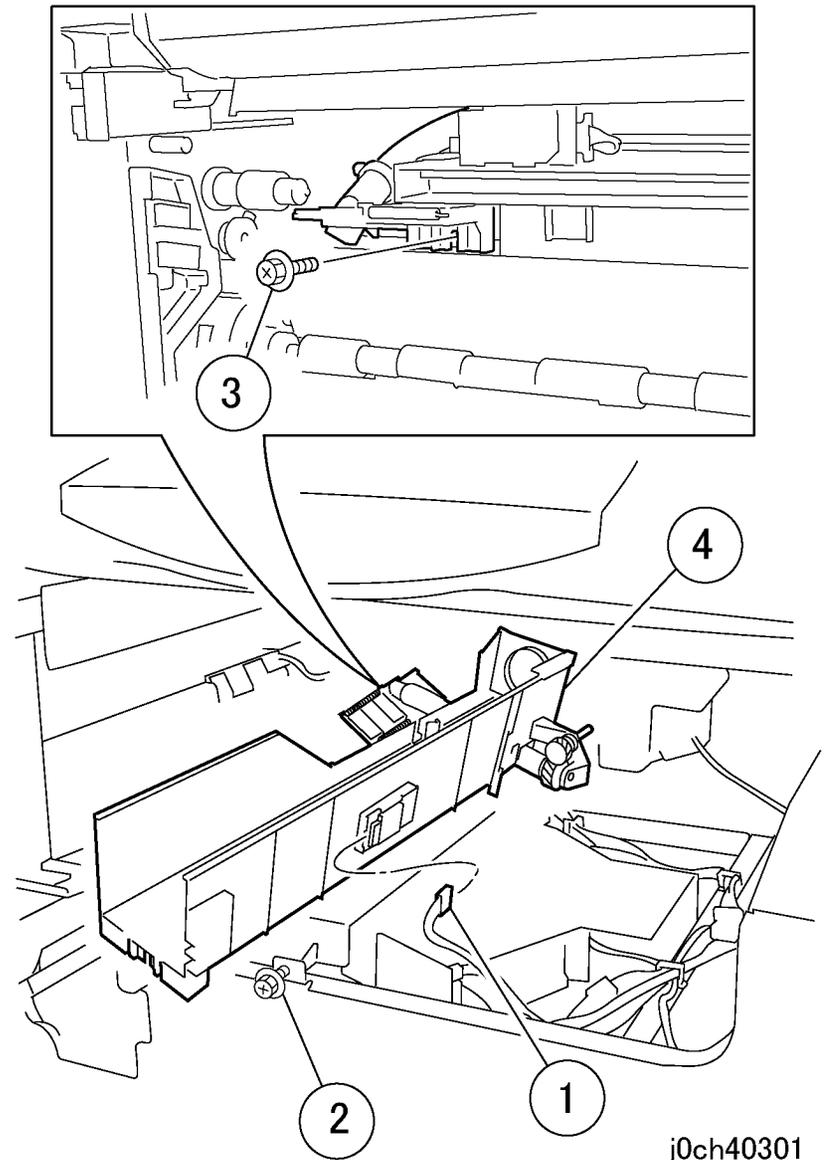


Figure 3 Removing the Toner Housing (j0ch40301)

5. Remove the Dispense Motor. (Figure 4)

1. Disconnect P/J126.
2. Remove the screws (x4).

3. Remove the Dispense Motor.

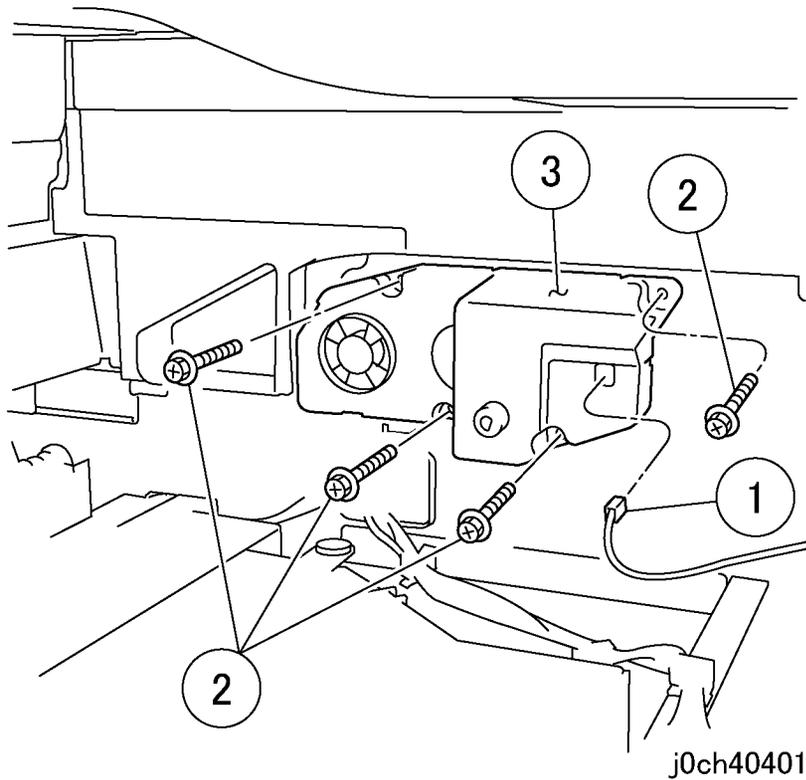


Figure 4 Removing the Dispense Motor (j0ch40401)

### Replacement

1. To install, carry out the removal steps in reverse order.



## REP 5.1.1 Fuser Assembly

### Parts List on PL 5.1

#### Removal

**NOTE:** When replacing the Fuser Assembly, enter C/E mode. Clear the Fuser counter. Fuser “Chain-Func:[21/39],[21/29],[21/19],[21/9]”

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

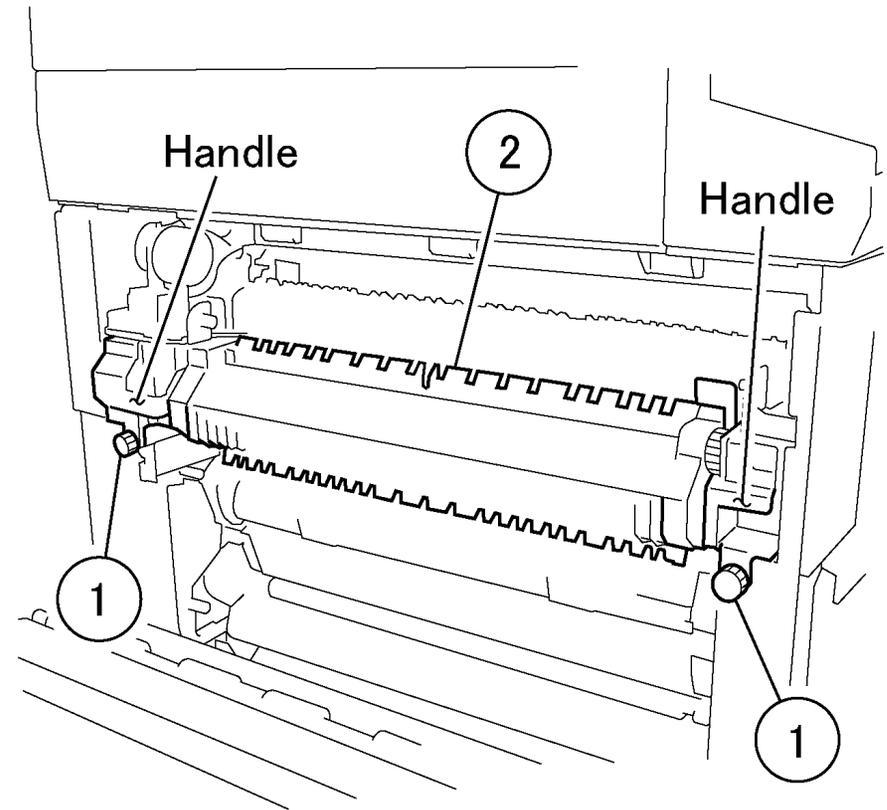
Check that the “Jobs in Memory” lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

**NOTE:** Do not start servicing until the Fuser has cooled down.

1. Open the Left Cover Assembly (PL 2.5).
2. Remove the Fuser Assembly. (Figure 1)
  1. Free the knobs (x2) by turning them.
  2. Hold the Fuser Assembly by the handles (x2) and pull out to remove.



j0ch40501

Figure 1 Removing the Fuser Assembly (j0ch40501)

#### Replacement

1. To install, carry out the removal steps in reverse order.



## REP 6.1.1 Exit + OCT Assembly

### Parts List on PL 6.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the Rear Cover. (REP 10.2.1)

2. [FAX Models]

Carry out Steps 3 and 4.

[Models without FAX]

Go to Step 5.

3. Remove the ADC PWB. (Figure 1)

1. Disconnect the connector.

2. Disconnect the connector.

3. Remove the screws (x4).

**NOTE:** P/J will disconnect when removing ADC PWB.

4. Remove the ADC PWB.

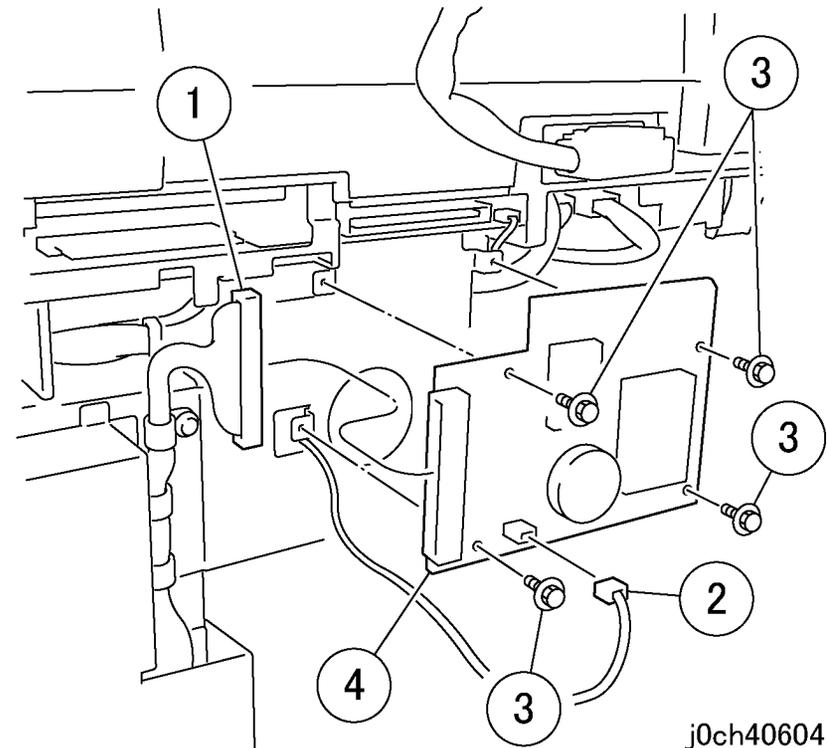


Figure 1 Removing the ADC PWB (j0ch40604)

4. Remove the ADC Bracket. (Figure 2)

1. Remove the screws (x4).
2. Remove the ADC Bracket.

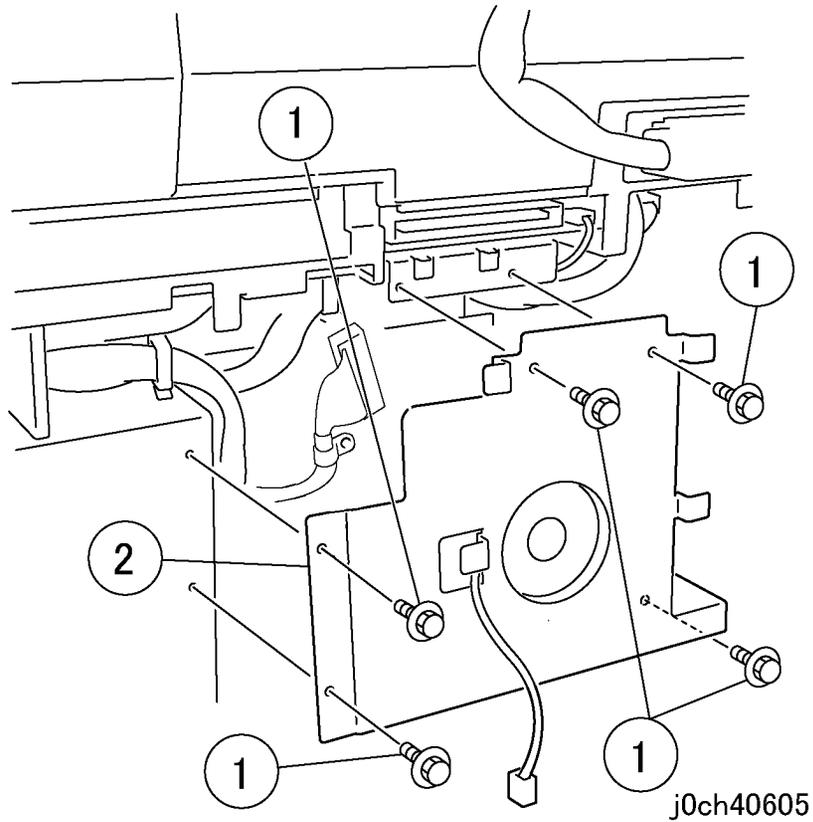


Figure 2 Removing the ADC Bracket (j0ch40605)

5. Disconnect the connectors (x3). (Figure 3)

1. Disconnect P/J419.
2. Disconnect P/J206.
3. Disconnect P/J207.

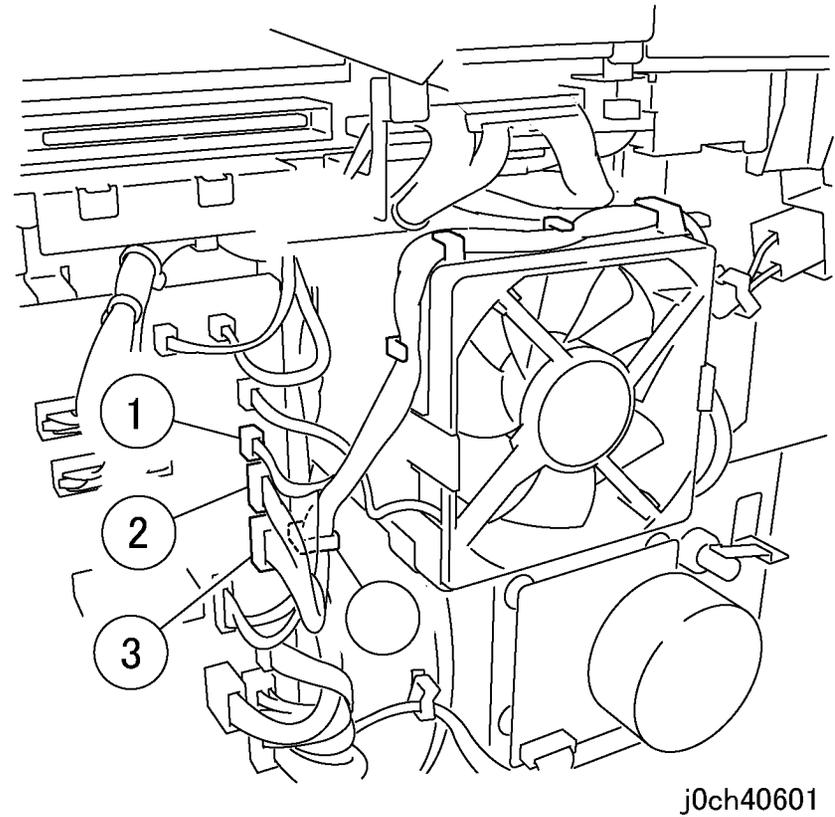


Figure 3 Disconnecting the connectors (x3) (j0ch40601)

6. Open the Left Cover Assembly (PL 2.7).
7. Remove the stoppers (x2). (Figure 4)
  1. Remove the screw.
  2. Remove the stopper.
  3. Remove the screw.
  4. Remove the stopper.

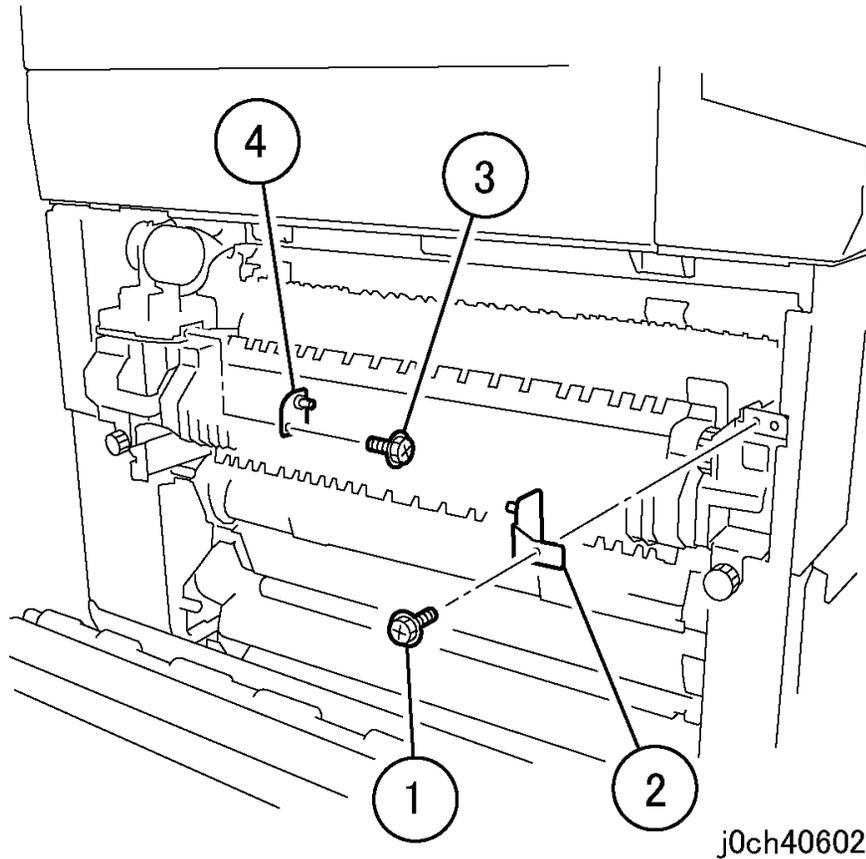


Figure 4 Removing the stoppers (x2) (j0ch40602)

8. Remove the Cover. (Figure 5)
  1. Remove the screw.
  2. Remove the Cover.

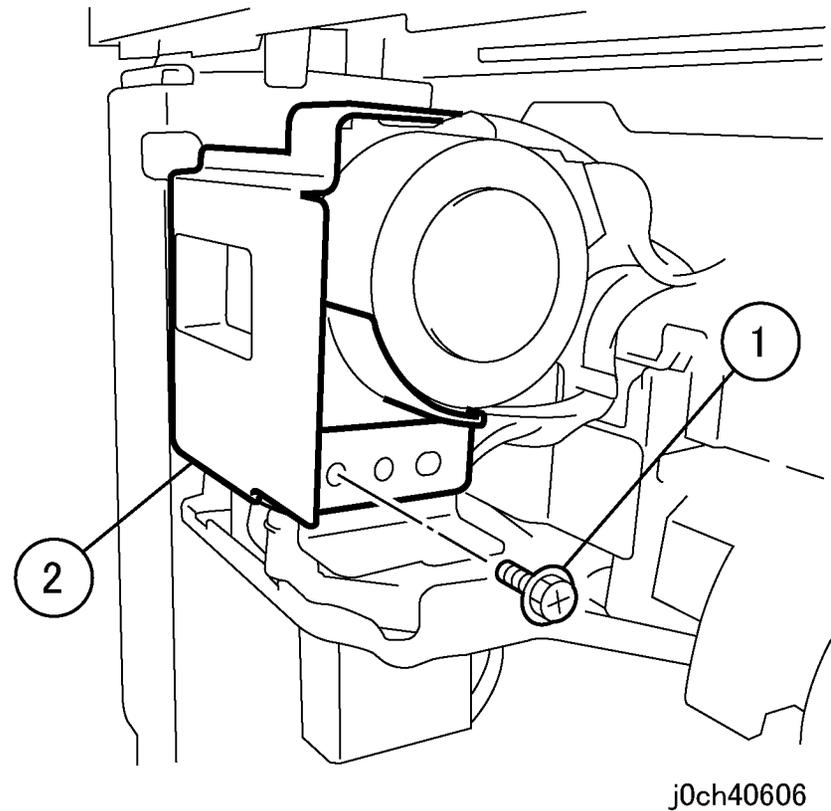
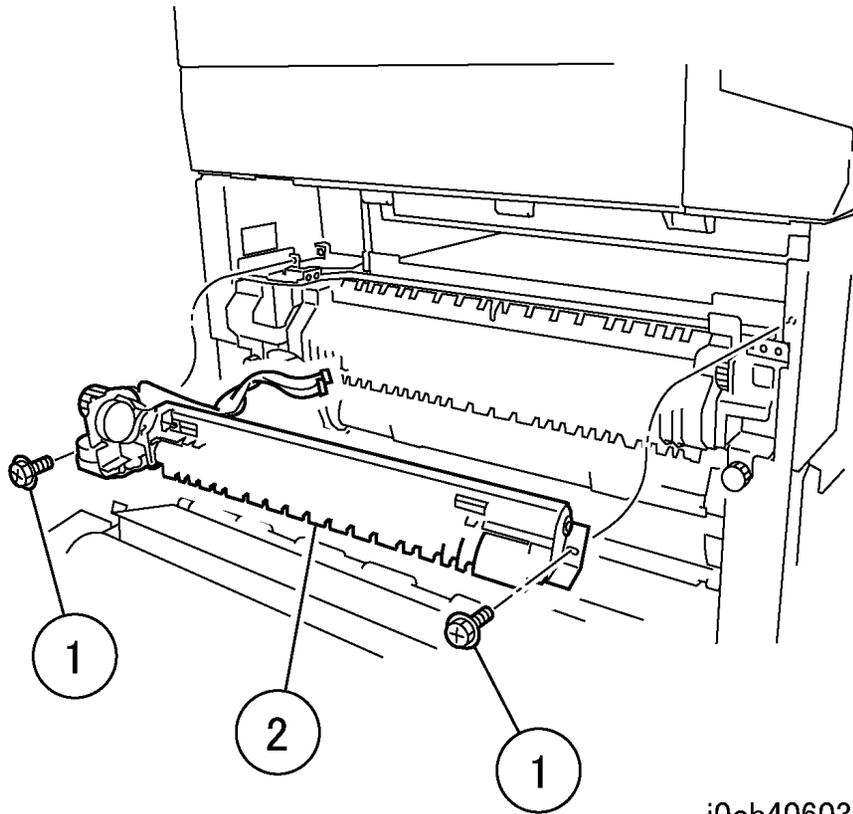


Figure 5 Removing the cover (j0ch40606)

9. Remove the Exit + OCT Assembly. (Figure 6)
  1. Remove the screws (x2).
  2. Remove the Exit + OCT Assembly.



j0ch40603

Figure 6 Removing the Exit + OCT Assembly (j0ch40603)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 7.1.1 MPT Unit

### Parts List on PL 7.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

*[FAX Models]*

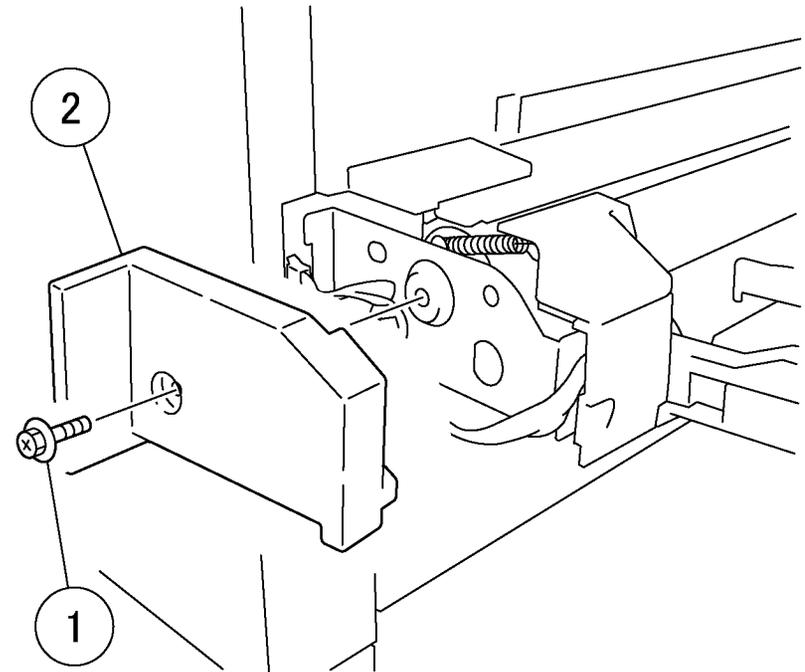
Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

*[Printer Models]*

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the MPT Rear Cover. (Figure 1)

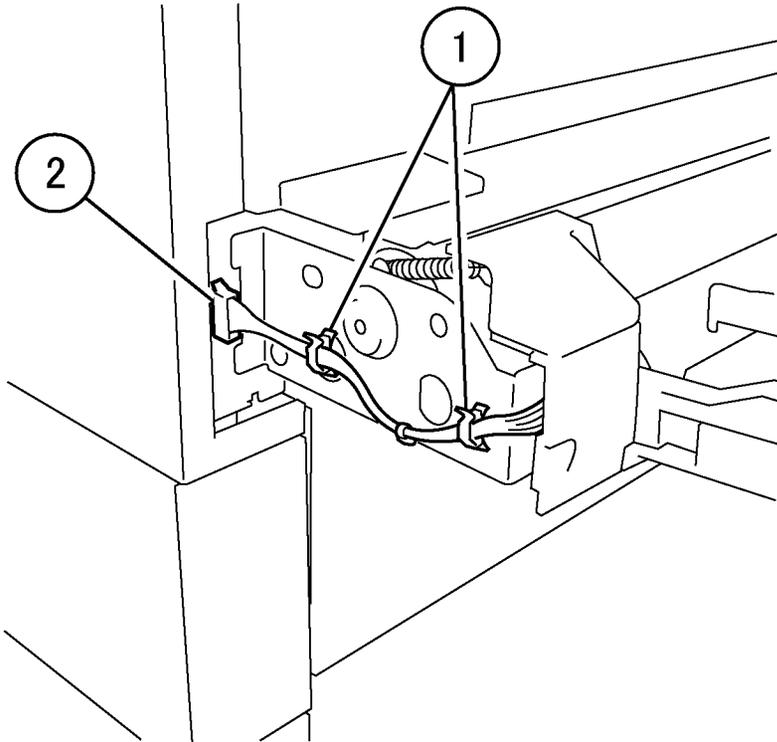
1. Remove the screw.
2. Remove the MPT Rear Cover.



j0ch40706

Figure 1 Removing the MPT Rear Cover (j0ch40706)

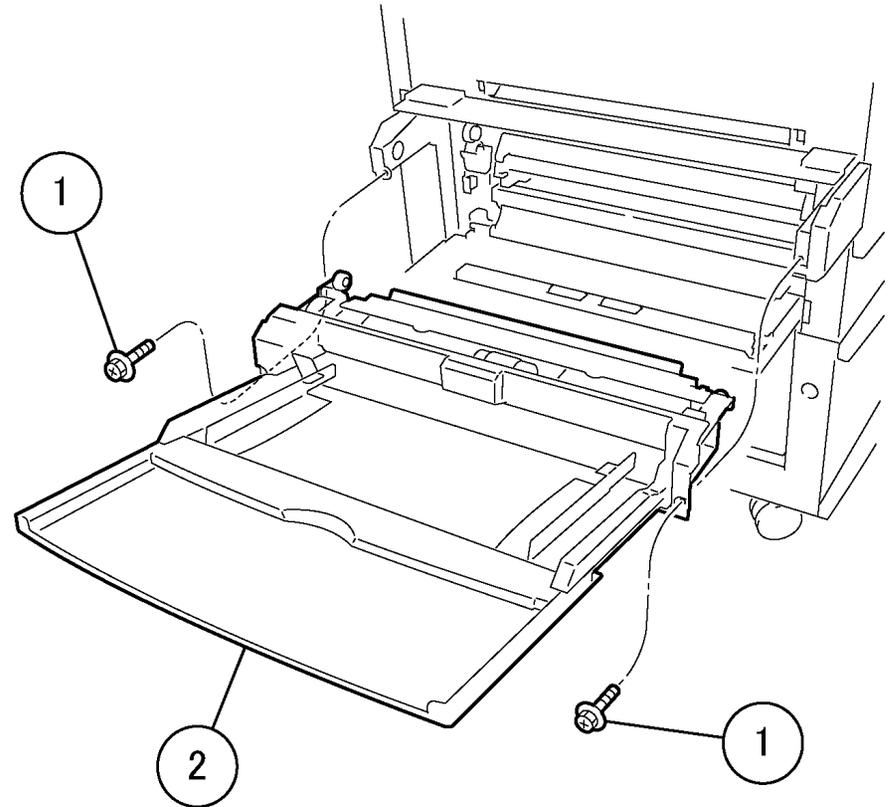
2. Disconnect the connector. (Figure 2)
  1. Release the Wire Harness from the clamp (x2).
  2. Disconnect the connector.



j0ch40701

Figure 2 Disconnecting the connector (j0ch40701)

3. Remove the MPT Unit. (Figure 3)
  1. Remove the screws (x2).
  2. Remove the MPT Unit.



j0ch40702

Figure 3 Removing the MPT Unit (j0ch40702)

## Replacement

1. To install, carry out the removal steps in reverse order.
2. When replacing, enter Diag mode. Clear the counter. MPT "Chain-Func:[29-39],[29-29],[29-19],[29-9]"
3. When replacing the MPT Tray Assembly (PL 7.1), carry out MPT Size Guide Adjustment (ADJ 7.1.1).

## REP 7.2.1 MPT Retard Pad

### Parts List on PL 7.2

#### Removal

**NOTE:** When replacing the MPT Feed Roll and Retard Pad, enter C/E mode. Clear the MPT Feed sheets counter. MPT "Chain-Func:[29-39],[29-29],[29-19],[29-9]"

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

**NOTE:** Replace the MPT Retard Pad and the MPT Feed Roll at the same time.

1. Remove the MPT Unit. (REP 7.1.1)

2. Remove the Pinch Chute (Figure 1).

**NOTE:** Do not remove the middle screw. Check position of ground strap.

1. Remove the screws (x2).
2. Remove the Pinch Chute.

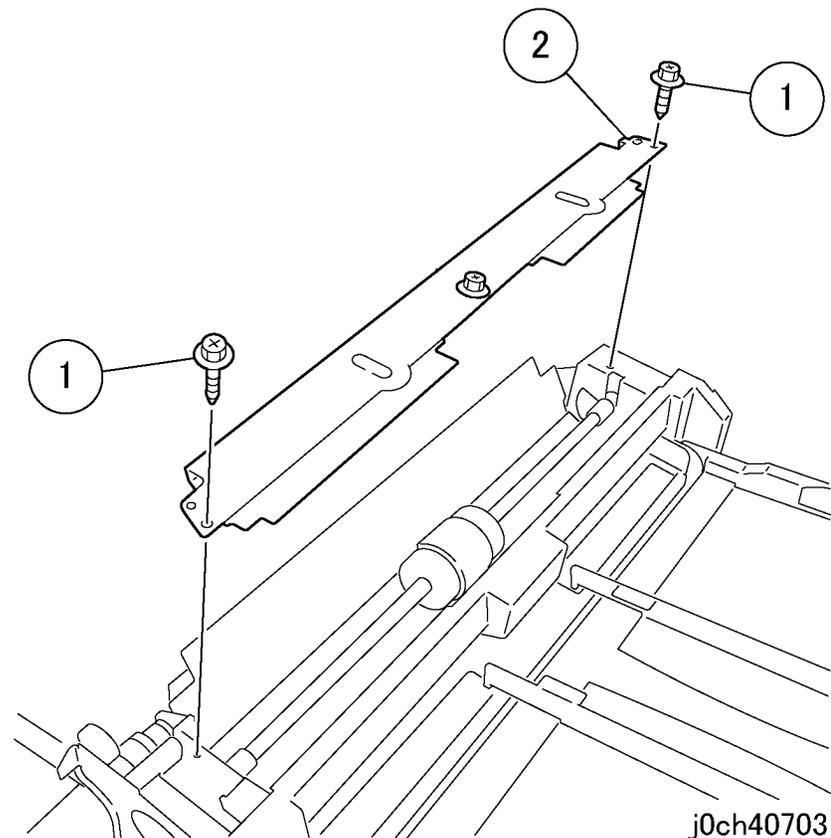


Figure 1 Removing the plate (j0ch40703)

3. Remove the MPT Feed Roll. (Figure 2)
  1. Release locking tab on Feed Roll End Caps and slide End Cap away from Feed Roll and Retard Pad
  2. Slide out the MPT Feed Roll to the front.

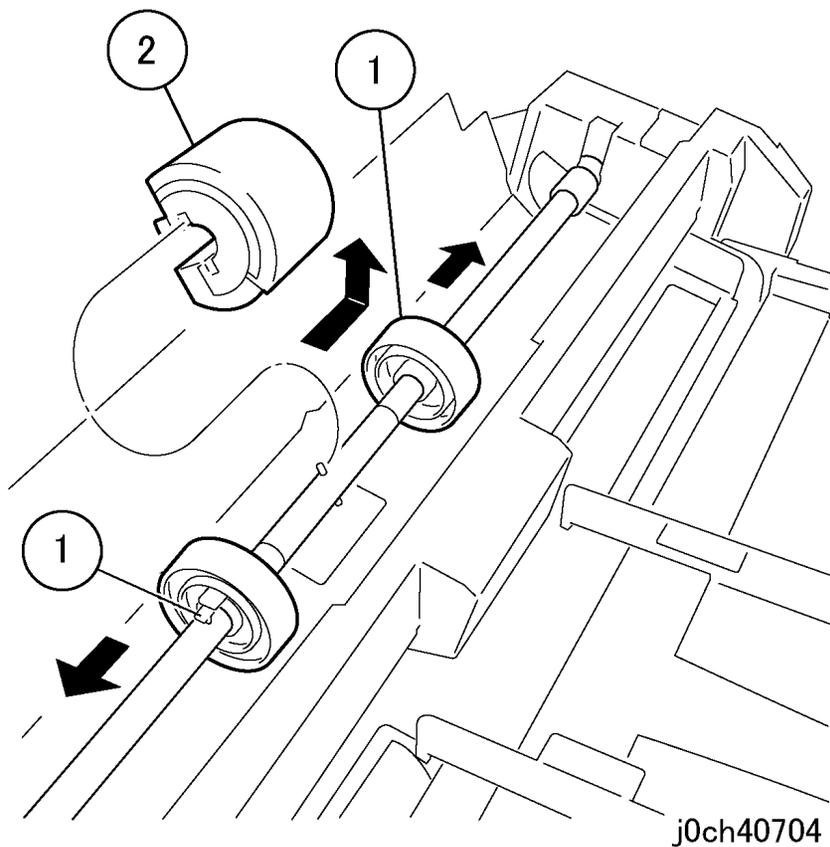


Figure 2 Removing the MPT Feed Roll (j0ch40704)

4. Remove the MPT Retard Pad. (Figure 3)
  1. Remove the springs (x2).
  2. Remove the MPT Pad.
  3. Pull out the shaft.

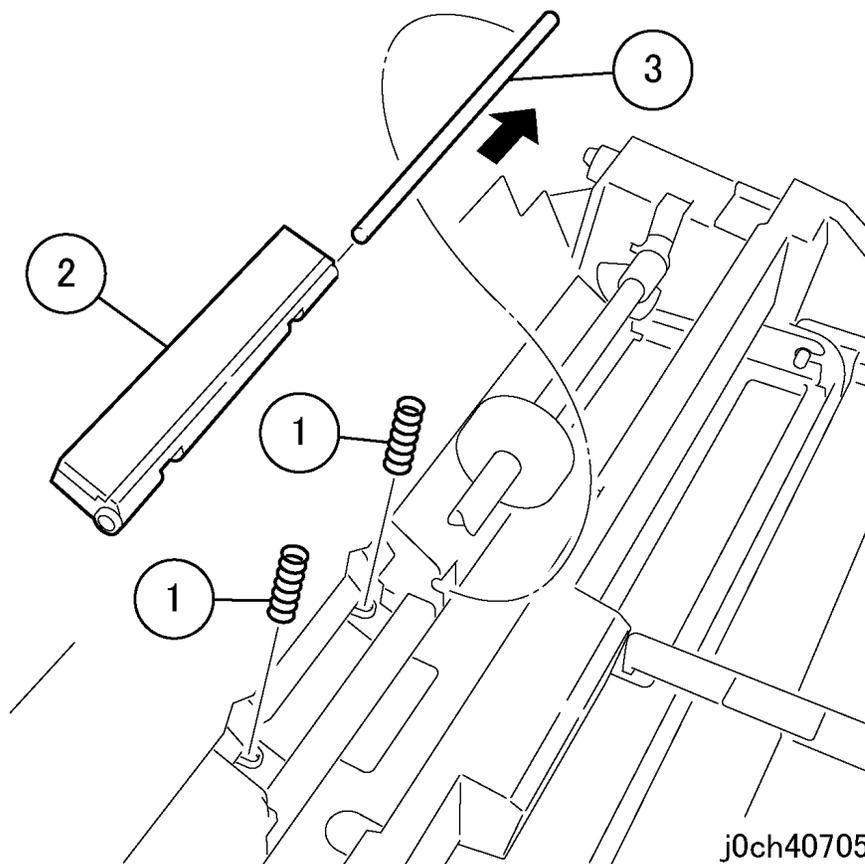


Figure 3 Removing the MPT Retard Pad (j0ch40705)

### Replacement

1. To install, carry out the removal steps in reverse order.

**NOTE:** Install MPT Feed Roll with arrow on Feed Roll toward front of MPT Unit.



## REP 9.1.1 MCU PWB

### Parts List on PL 9.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

**NOTE:** Static electricity may damage electrical parts.

Always wear a wrist strap to protect electrical parts from static damage. If a wrist strap is not available, touch some metallic parts before servicing to discharge the static electricity.

#### CAUTION

Do not replace the MFC PWB (PL 11.6) at the same time.

As the MFC PWB contains the BACK UP1 and BACK UP2 billing data, if it is replaced at the same time, the billing data cannot be restored to the new MCU PWB MASTER.

1. Backup the IOT adjustment values and settings stored in the MCU PWB to the IOT NVM List before replacement.
2. If necessary, backup the contents of the IOT HFSI counter and the FAIL/JAM/Error History to the machine's Machine Log Sheet.
3. When replacing the MCU PWB, replace the EP ROM with the contents of the MCU PWB before replacement. (Figure 1).

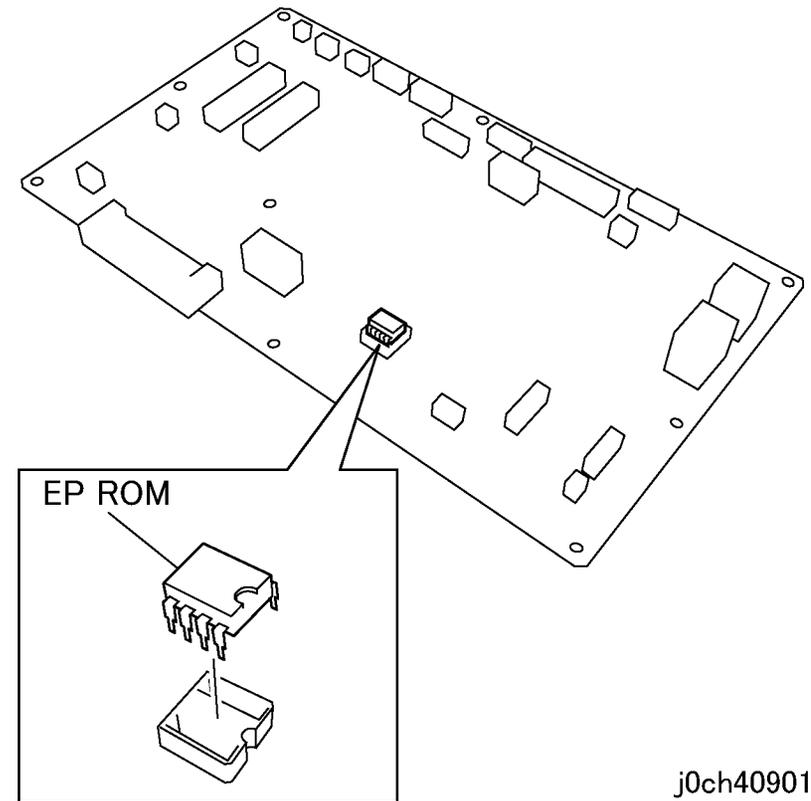


Figure 1 Installing the EP ROM (j0ch40901)

#### Replacement

1. After replacement, restore the items prepared in Steps 1 and 2.

## REP 9.2.1 ESS PWB

### Parts List on PL 9.2

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

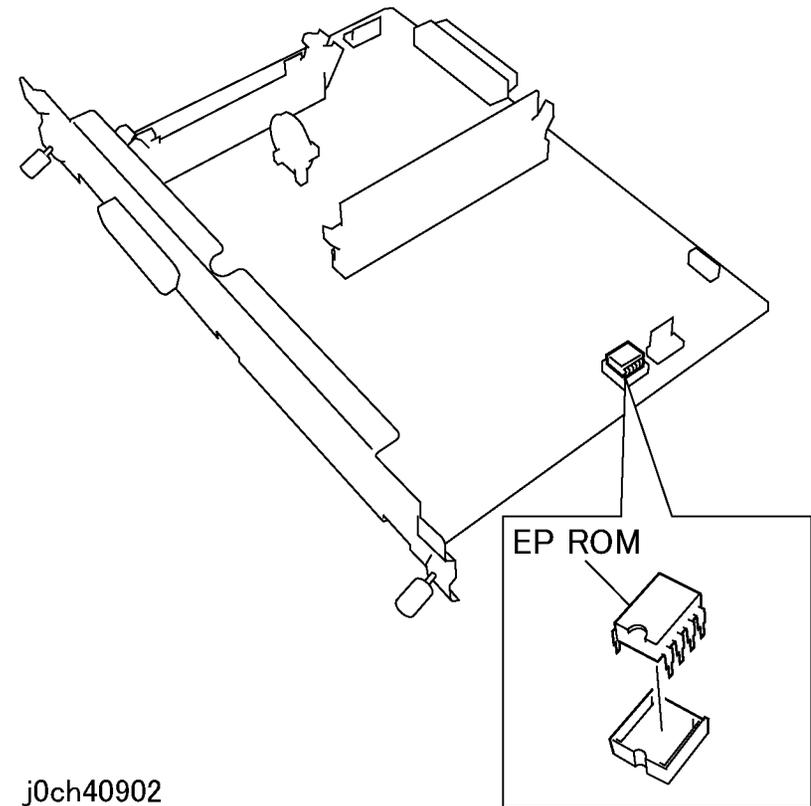
Press the [Job Status] button to ensure that there are no jobs in progress.

**NOTE:** Static electricity may damage electrical parts.

Always wear a wrist strap to protect electrical parts from static damage. If a wrist strap is not available, touch some metallic parts before servicing to discharge the static electricity.

1. Press the [Machine Status] button, enter [Report List] (Print Jobs) and print out the System Settings List.
2. Switch off the power. Disconnect the power cord.
3. Loosen Thumbscrews (2) and pull out ESS PWB (PL 9.2).
4. If a new ESS PWB will be installed, remove the EP ROM from the old ESS PWB and install it on the new ESS PWB (Figure 1).

Note: The Mac Address is stored in the EP ROM.



j0ch40902

Figure 1 Installing the EP ROM (j0ch40902)

#### Replacement

1. After replacement, check the contents of the System Settings List printed out in Step 1 and restore the relevant items.

## REP 10.1.1 Top Cover

### Parts List on PL 10.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

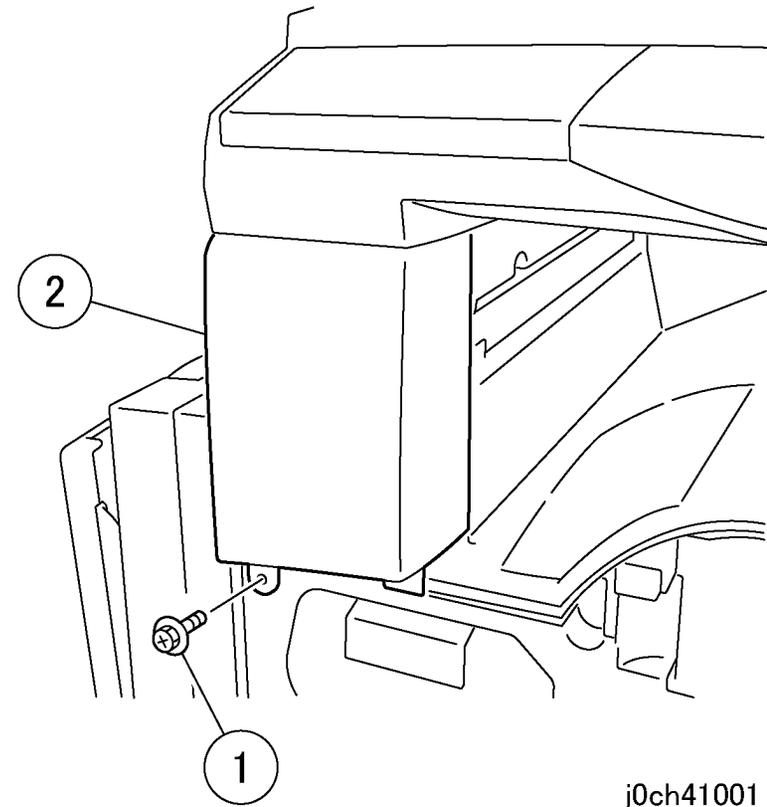
Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the following parts:
  - Toner Cartridge (REP 4.1.2)
  - XERO/Developer Cartridge (REP 4.1.1)

2. Remove the Front Left Cover. (Figure 1)
  1. Remove the screw.
  2. Remove the Front Left Cover.



j0ch41001

Figure 1 Removing the Front Left Cover (j0ch41001)

3. Remove the Top Cover. (Figure 2)
  1. Remove the screws (x2).
  2. Remove the Top Cover.

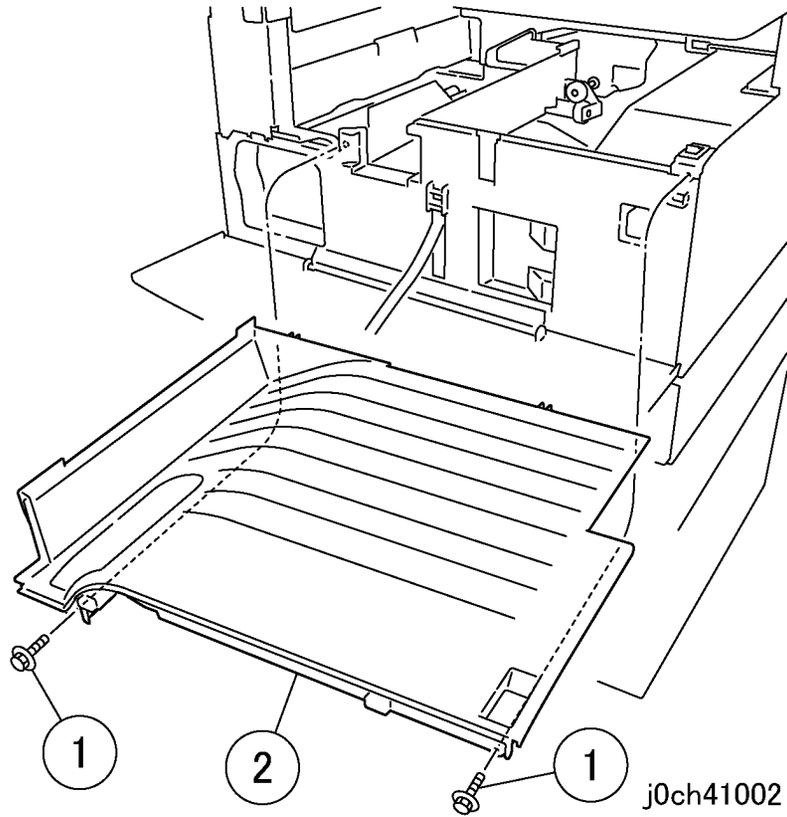


Figure 2 Removing the Top Cover (j0ch41002)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 10.2.1 Rear Cover

### Parts List on PL 10.2

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

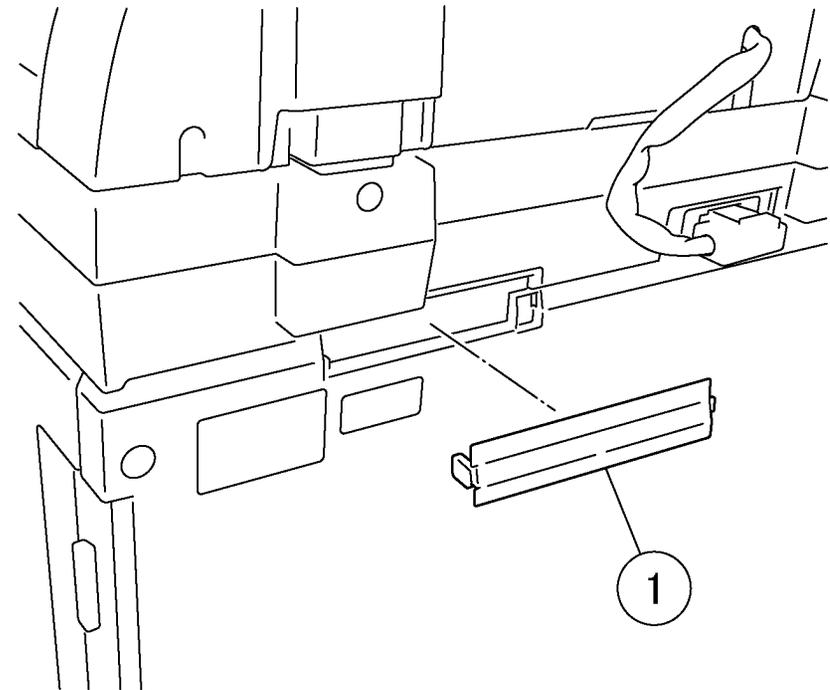
[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the Memory Cover. (Figure 1)
  1. Remove the Memory Cover.



j0ch41003

Figure 1 Removing the Memory Cover (j0ch41003)

2. For the Duplex and Tray Module machines, disconnect the connectors to the Duplex and Tray Module. (Figure 2)
  1. Disconnect the connector.
  2. Remove the clamp.
  3. Disconnect the connector.
  4. Remove the clamp.

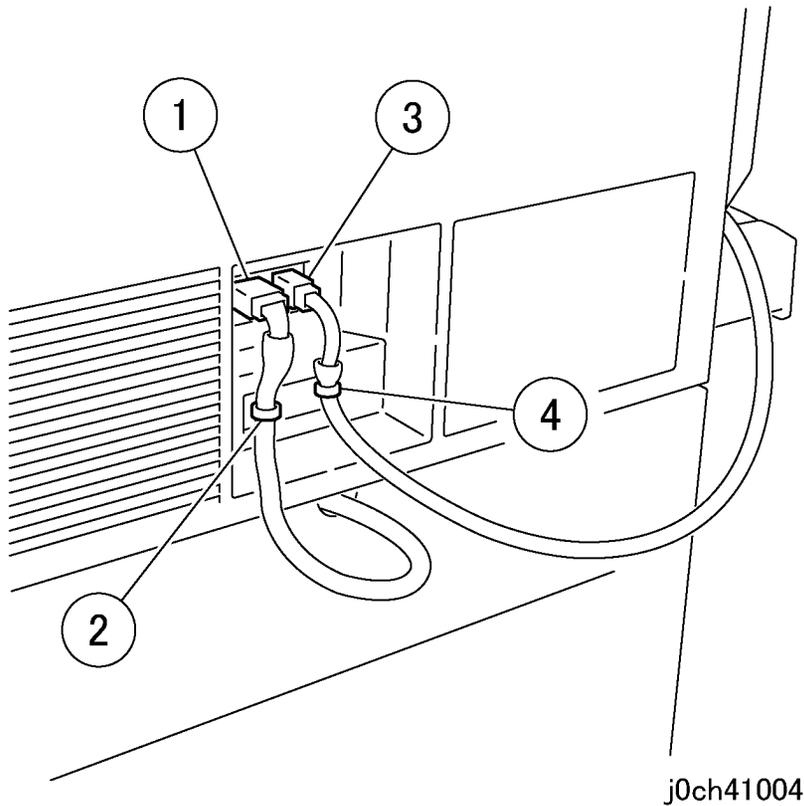


Figure 2 Disconnecting the connectors (j0ch41004)

3. Remove the Rear Cover. (Figure 3)
  1. Remove the screws (x3).
  2. Lift just enough to disengage tabs and remove the Rear Cover. Extension may limit vertical movement

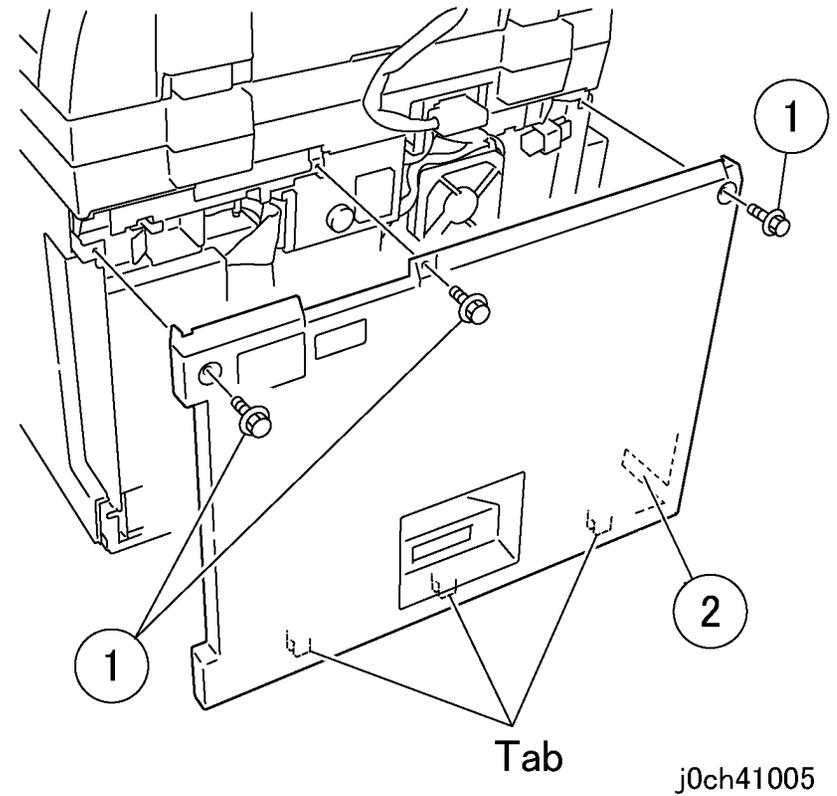


Figure 3 Removing the Rear Cover (j0ch41005)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 11.1.1 Control Panel

### Parts List on PL 11.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

*[FAX Models]*

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

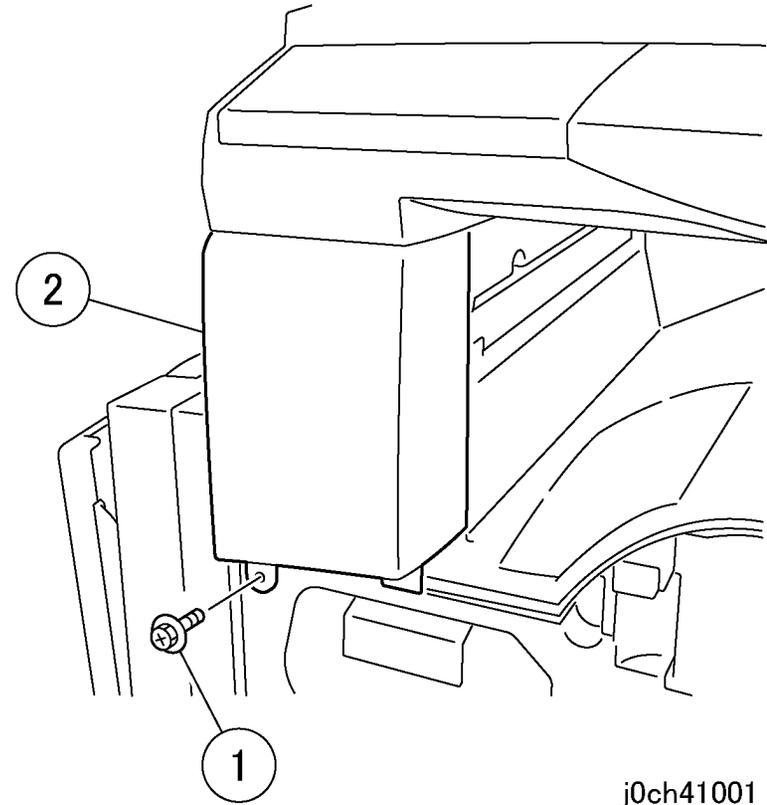
*[Printer Models]*

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Open Front Cover.

2. Remove the Front Left Cover. (Figure 1)

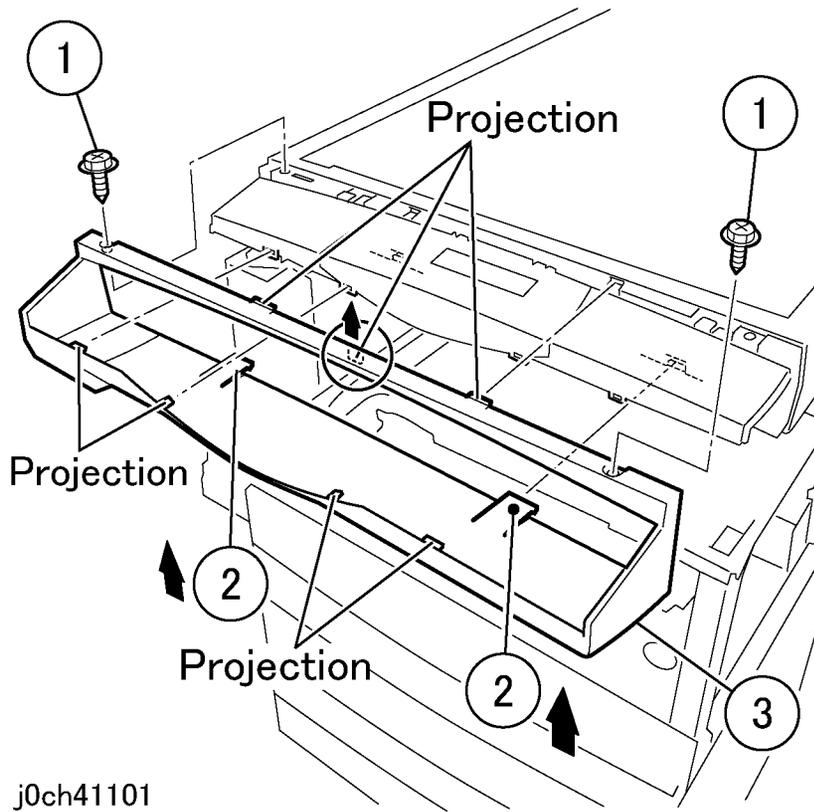
1. Remove the screw.
2. Remove the Front Left Cover.



j0ch41001

Figure 1 Removing the Front Left Cover (j0ch41001)

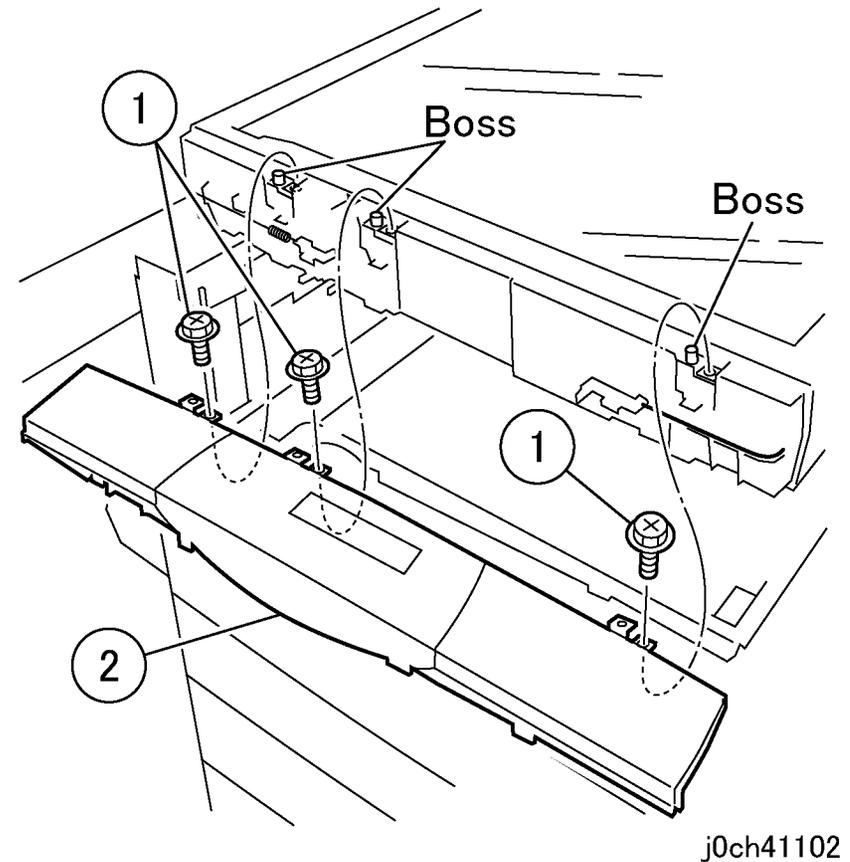
3. Remove the IIT Front Cover. (Figure 2)
  1. Open Platen Cover/ADF/DADF.
  2. Remove the Tapping Screws (x2).
  3. Press up on tabs (x2).
  4. Remove the IIT Front Cover.



j0ch41101

Figure 2 Removing the IIT Front Cover (j0ch41101)

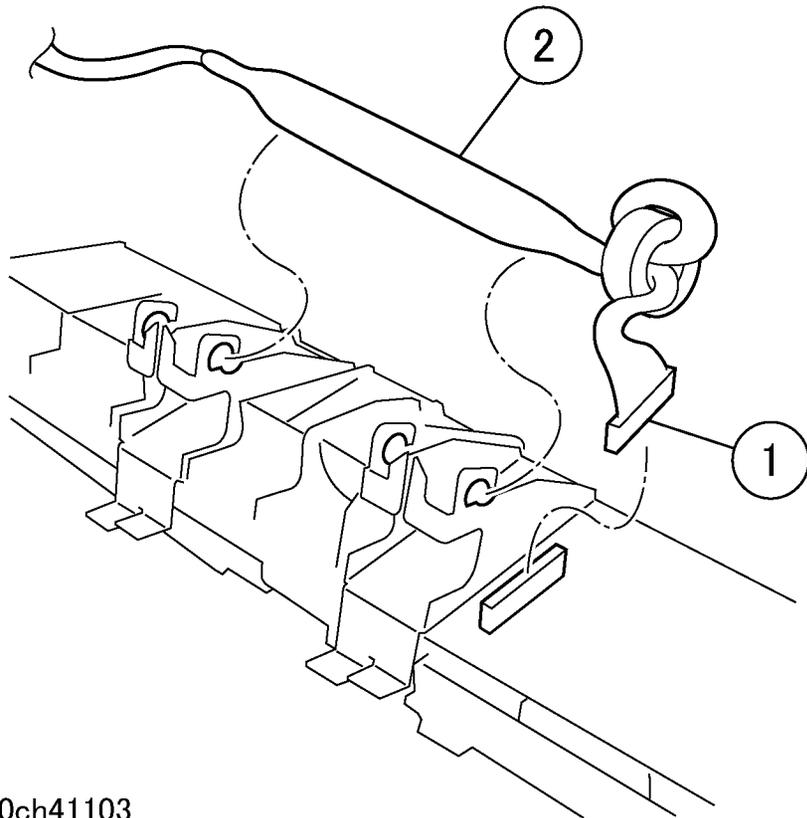
4. Remove the Control Panel with the connector still connected. (Figure 3)
  1. Remove the screws (x3).
  2. Remove the Control Panel.



j0ch41102

Figure 3 Removing the Control Panel (j0ch41102)

5. Remove the Wire Harness from the Control Panel. (Figure 4)
  1. Turn over the Control Panel
  2. Remove the Wire Harness.
  3. Disconnect the connector.



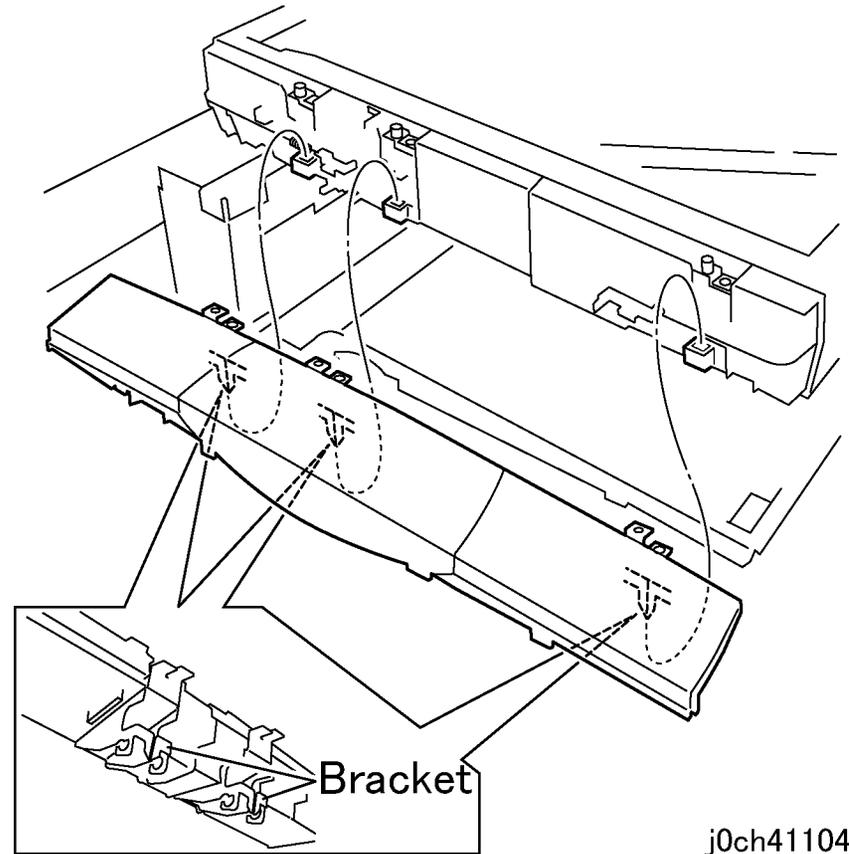
j0ch41103

Figure 4 Removing the Wire Harness (j0ch41103)

### Replacement

1. To install, carry out the removal steps in reverse order taking note of the following:

**NOTE:** When installing the Control Panel, ensure that the bracket is properly inserted into the hole. (Figure 5)



j0ch41104

Figure 5 Installing the Control Panel (j0ch41104)

## REP 11.1.2 MFC and EXT PWB Box

### Parts List on PL 11.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the Rear Cover. (REP 10.2.1)

2. Remove the ADC PWB. (Figure 1)
  1. Disconnect the connector.
  2. Disconnect the connector.
  3. Remove the screws (x4).
  4. Remove the ADC PWB.

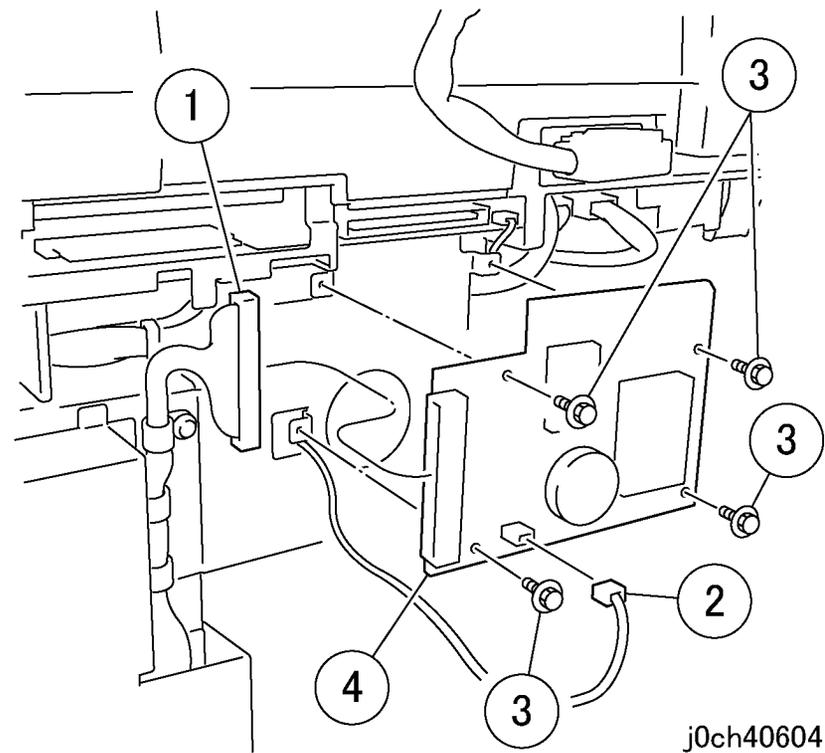


Figure 1 Removing the ADC PWB (j0ch40604)

3. Remove the ADC Bracket. (Figure 2)
  1. Remove the screw.
  2. Remove the screws (x5).
  3. Remove the ADC Bracket.

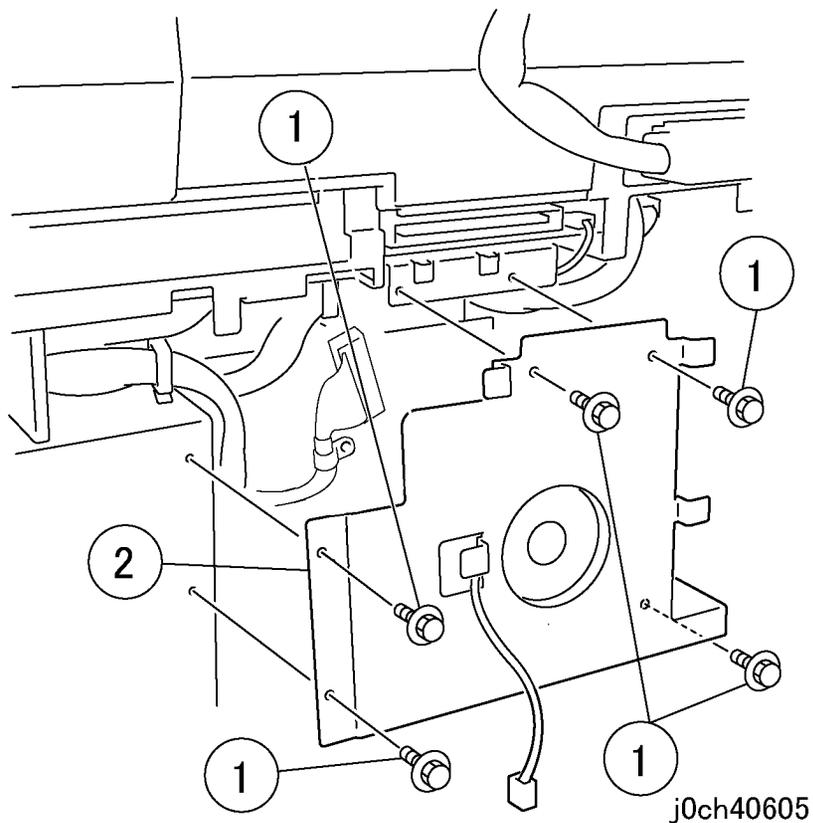


Figure 2 Removing the ADC Bracket (j0ch40605)

4. AS for the machine with DADF/ADF, disconnect the connector from DADF/ADF. (Figure 3)
  1. Disconnect the connector.

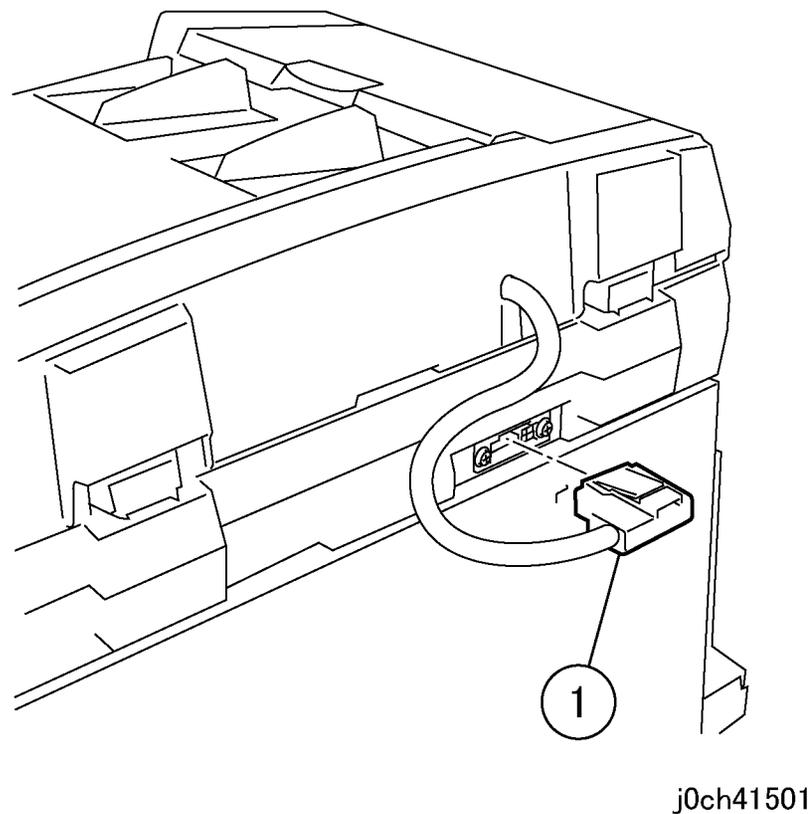
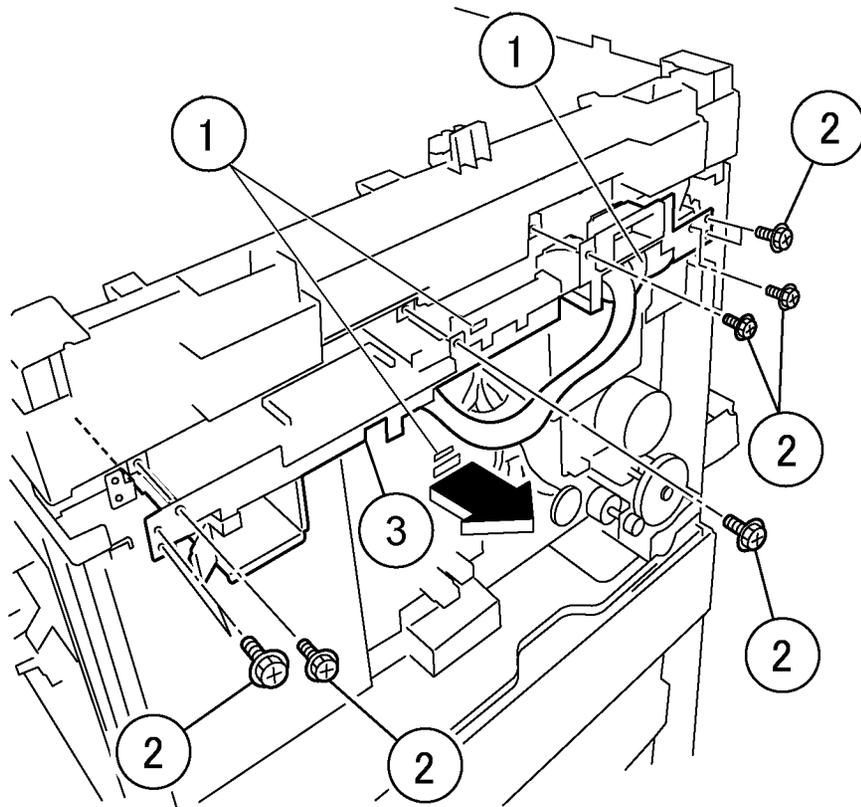


Figure 3 Disconnecting the connector (j0ch41501)

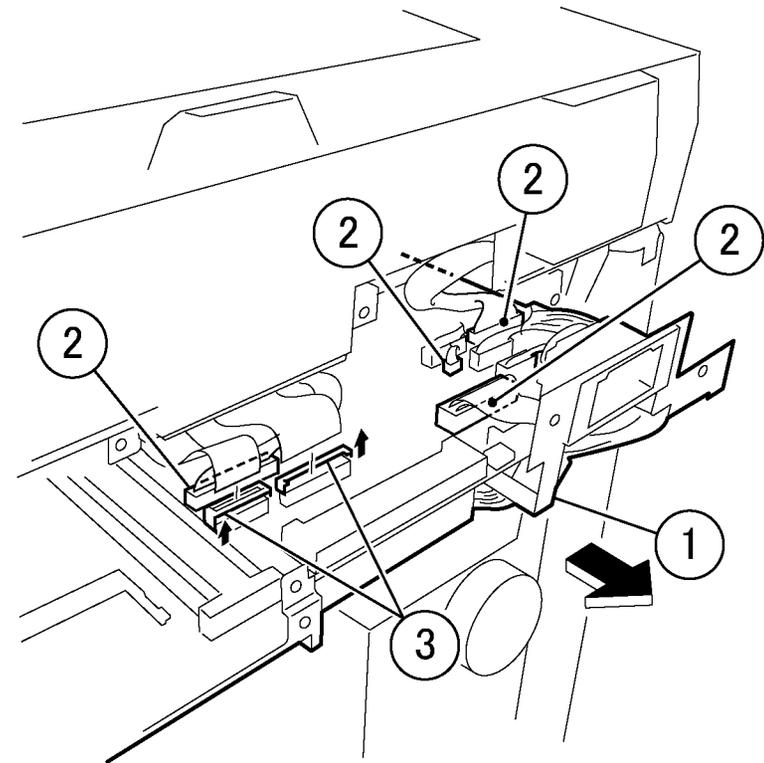
5. Pull out the MFC and EXT PWB Box. (Figure 4)
  1. Disconnect the connectors (x4).
  2. Remove the screws (x8).
  3. Pull out the MFC and EXT PWB Box.



j0ch41113

Figure 4 Pulling out the MFC and EXT PWB Box (j0ch41113)

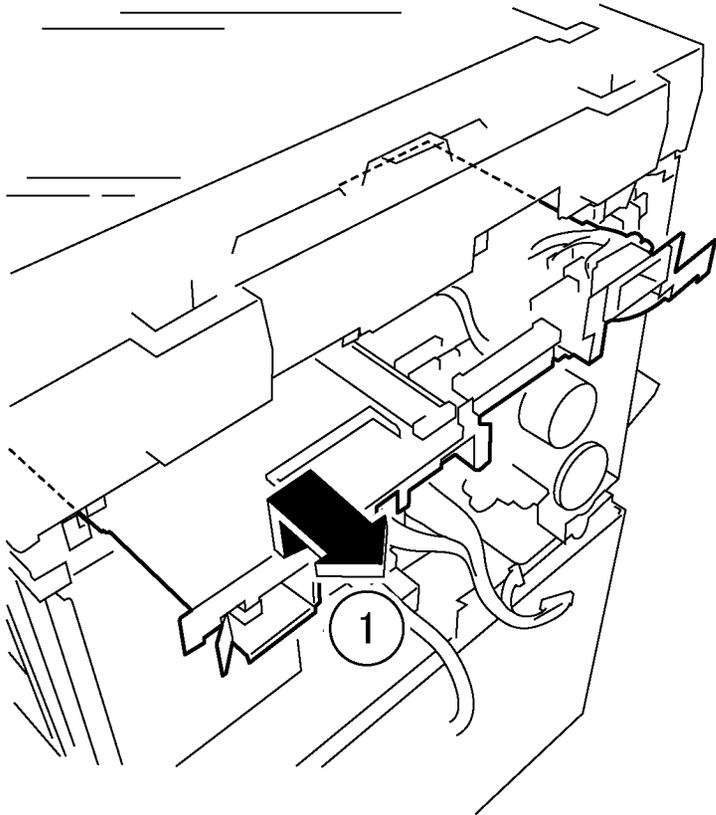
6. Disconnect the NBCR-Host/NBCR-Power Cable. (Figure 5)
  1. Raise the hooks (x2) and remove the cables (x2).
  2. Disconnect the connectors (x5).



j0ch41133

Figure 5 Disconnecting the cables (j0ch41133)

7. Remove the MFC and EXT PWB Box. (Figure 6)
  1. Remove the MFC and EXT PWB Box.



j0ch41134

Figure 6 Removing the MFC and EXT PWB Box (j0ch41134)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 11.2.1 IIT Carriage Assembly

### Parts List on PL 11.2

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

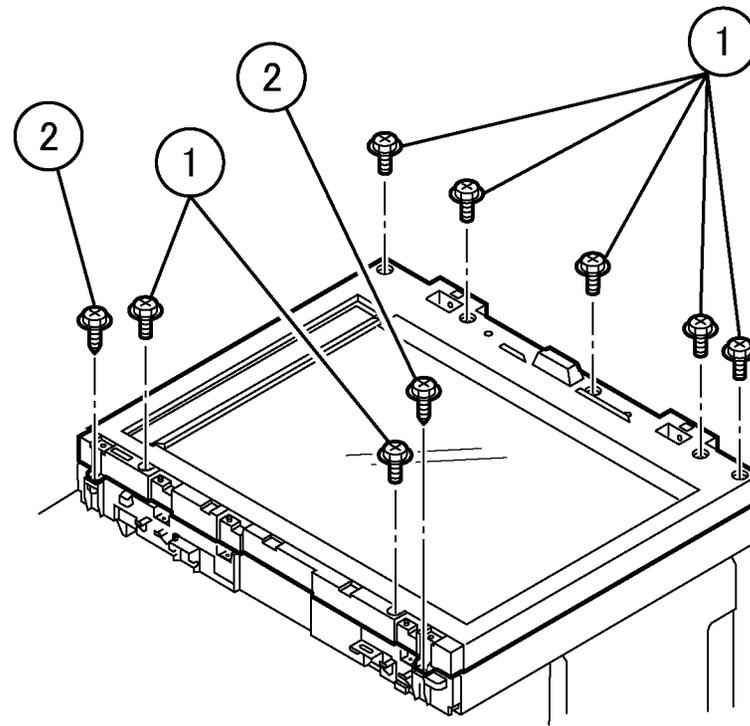
Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the following parts:

- Platen Cover (PL 11.1)
- DADF/ADF (REP 15.1.1)
- Control Panel (REP 11.1.1)

2. Remove the screw from the IIT Upper Cover. (Figure 1)

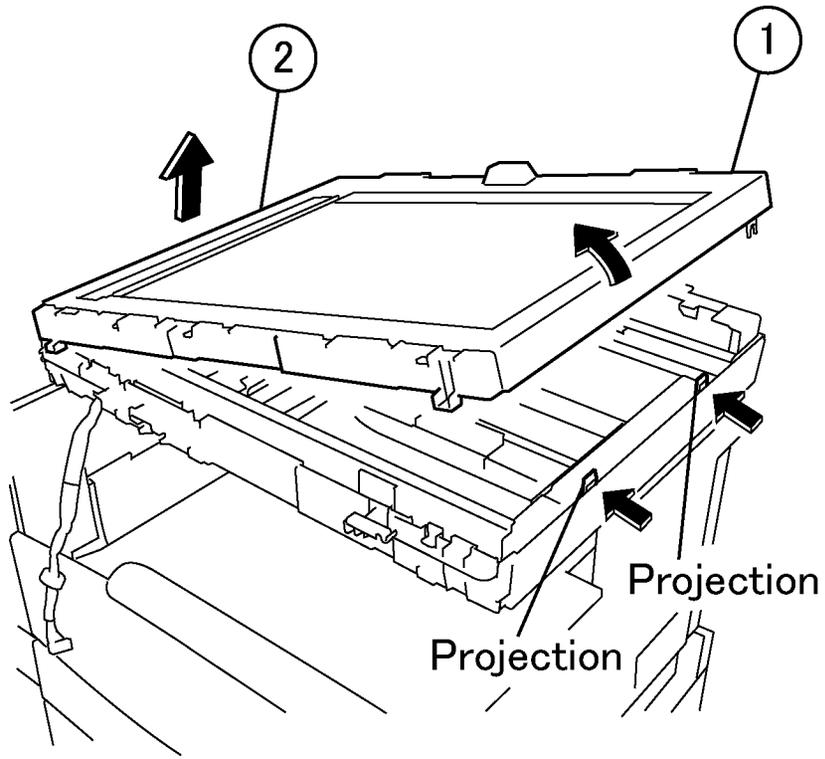
1. Remove the screws (x4).
2. Remove the Tapping Screws (x5).



j0ch41139

Figure 1 Removing the screws (j0ch41139)

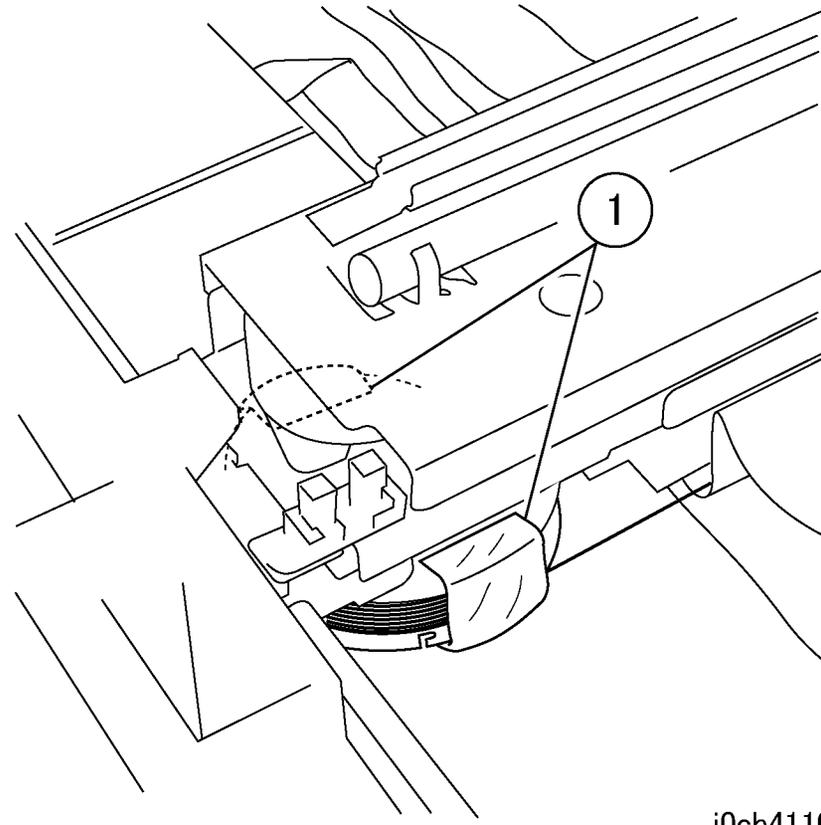
3. Remove the IIT Upper Cover. (Figure 2)
  1. Open the IIT Upper Cover by approximately 10cm while pressing the latches (x2) inside the IIT Lower Cover.
  2. Remove the IIT Upper Cover.



j0ch41149

Figure 2 Removing the IIT Upper Cover (j0ch41149)

4. Secure the cable with tape. (Figure 3)
  1. Secure the cable with tape.



j0ch41105

Figure 3 Securing the cable (j0ch41105)

5. Remove the cable bracket on the front right. (Figure 4)

1. Remove the screw.
2. Release the screw.
3. Remove the cable bracket.
4. Remove the Front Carriage Cable.

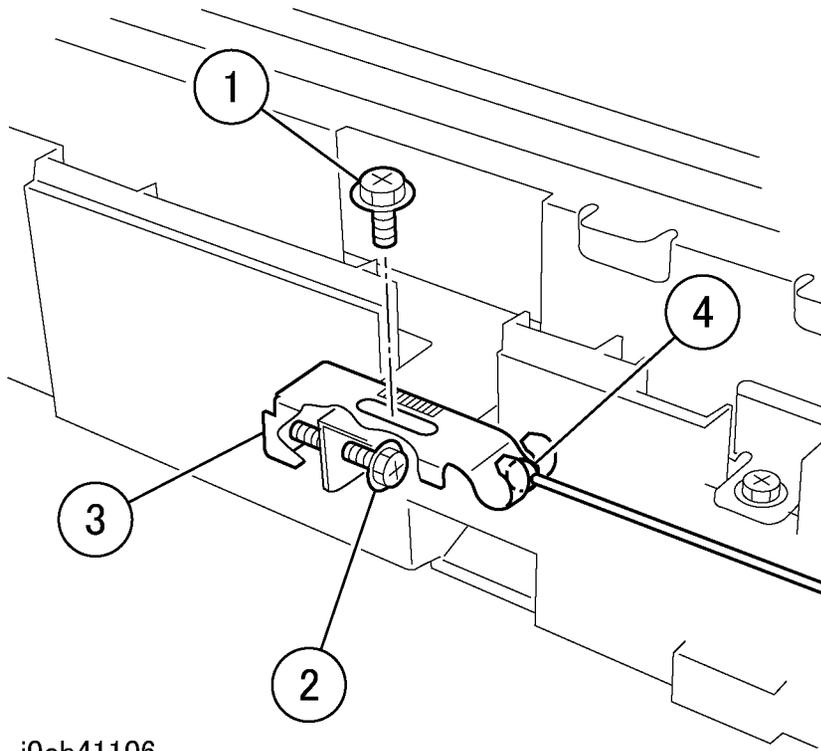


Figure 4 Removing the bracket (j0ch41106)

6. Remove the spring on the front left. (Figure 5)

1. Remove the spring.

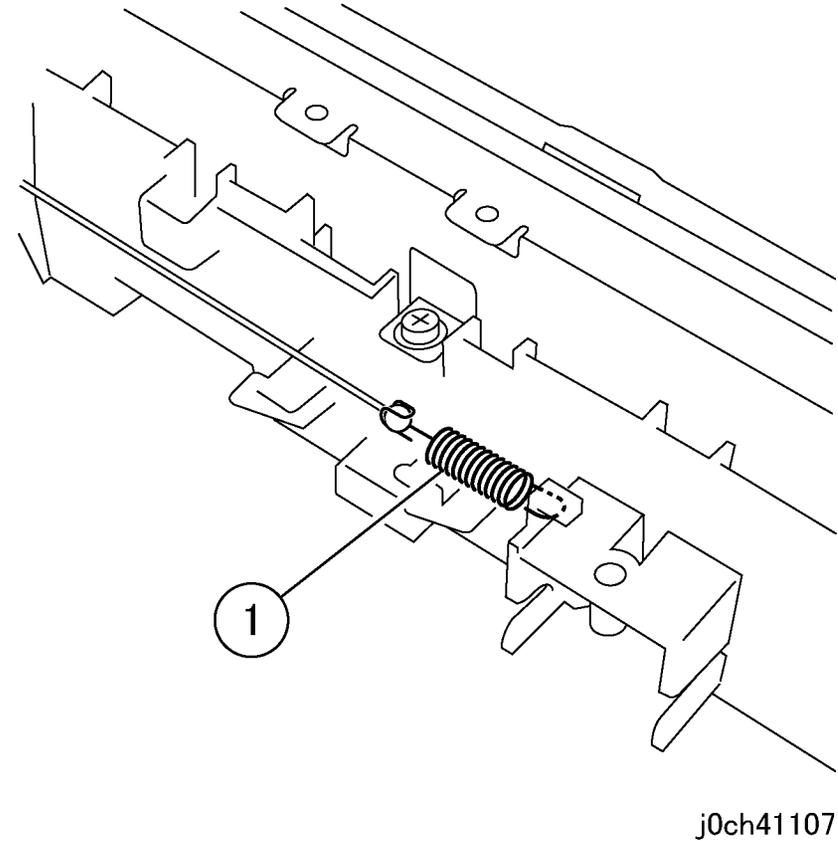


Figure 5 Removing the spring (j0ch41107)

7. Remove the rear spring on the rear left. (Figure 6)
  1. Remove the spring.

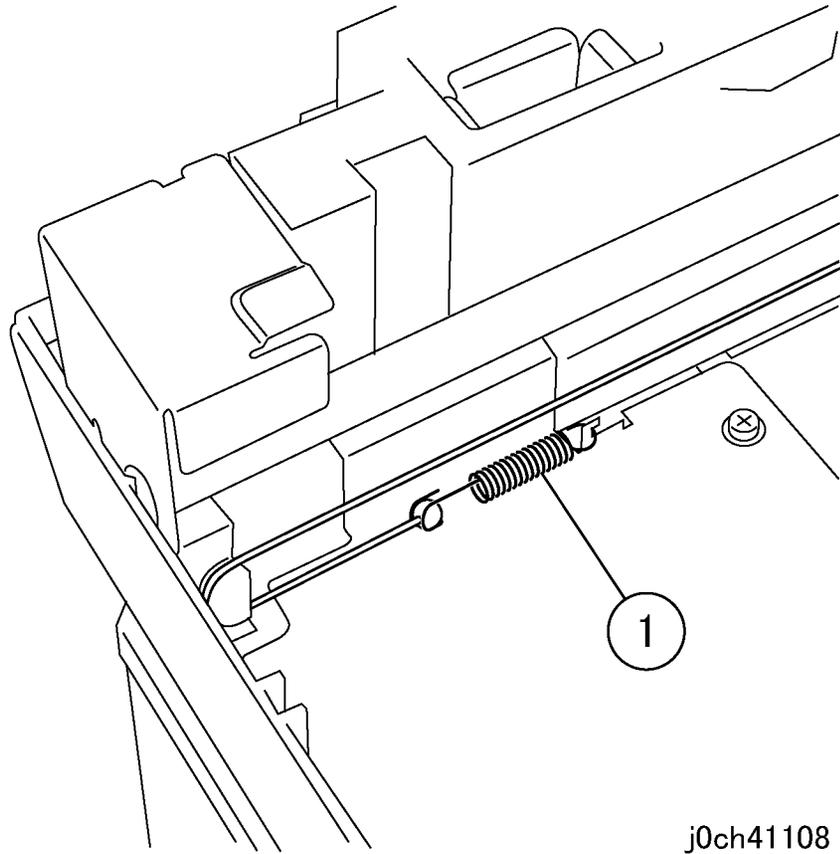


Figure 6 Removing the spring (j0ch41108)

8. Remove the Cable Ball on the rear right. (Figure 7)
  1. Remove the Cable Ball.

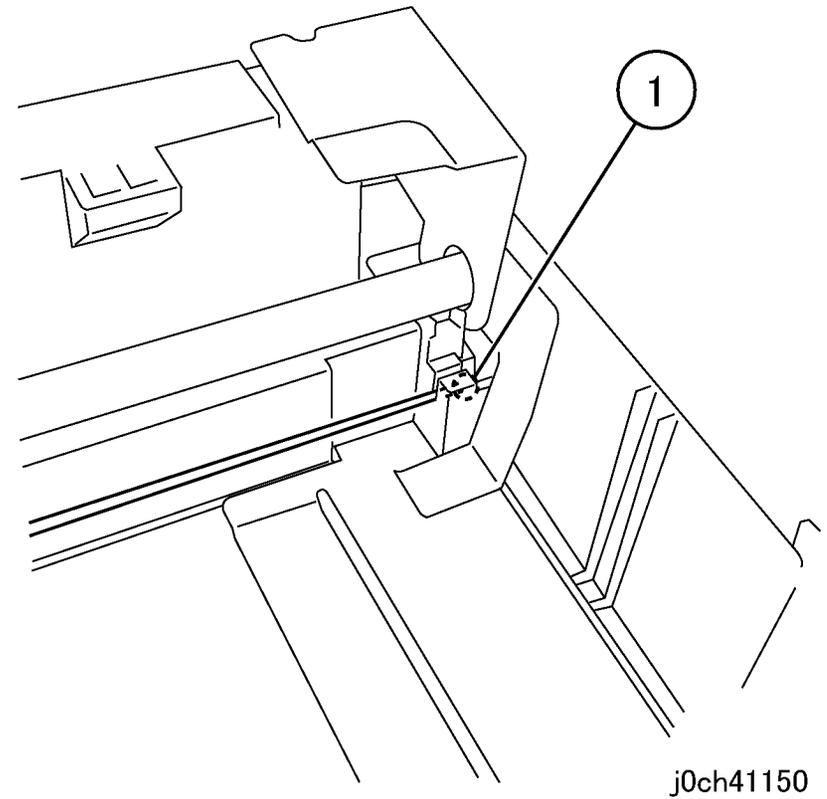


Figure 7 Removing the Cable Ball (j0ch41150)

9. Secure the Carriage Cable onto the side of the IIT Carriage with tape. (Figure 8)
  1. Secure the cable with tape.

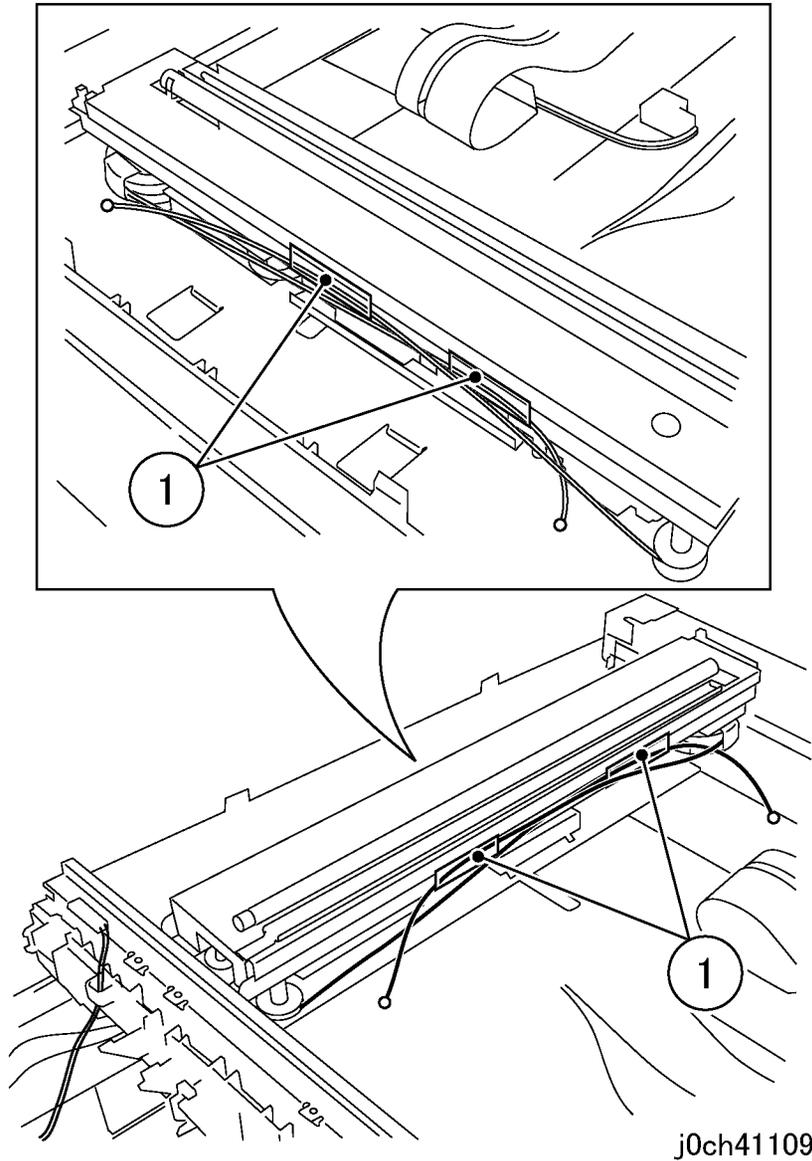


Figure 8 Securing the cable (j0ch41109)

10. Remove the bracket. (Figure 9)
  1. Remove the screws (x2).
  2. Remove the bracket.

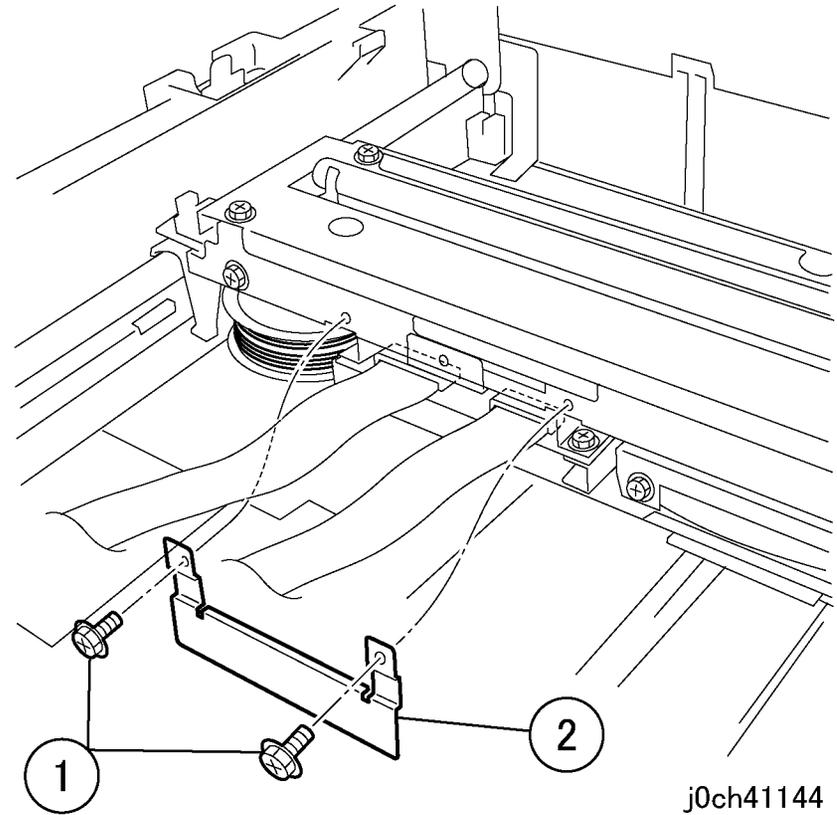
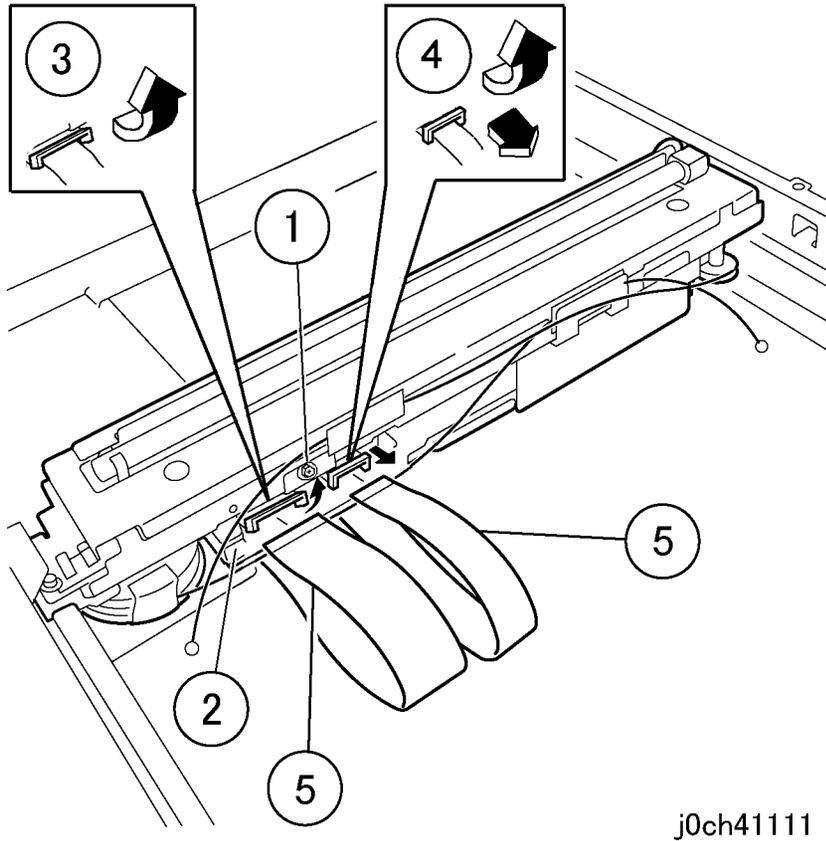


Figure 9 Removing the bracket (j0ch41144)

### CAUTION

Cable locks in steps 1 and 2 are different and will break if not released correctly.

11. Disconnect the cables. (Figure 10)
  1. Flip up cable lock.
  2. Pull forward and then flip up cable lock.
  3. Disconnect the cables (x2).
  4. Remove the IIT Carriage Assembly.



j0ch41111

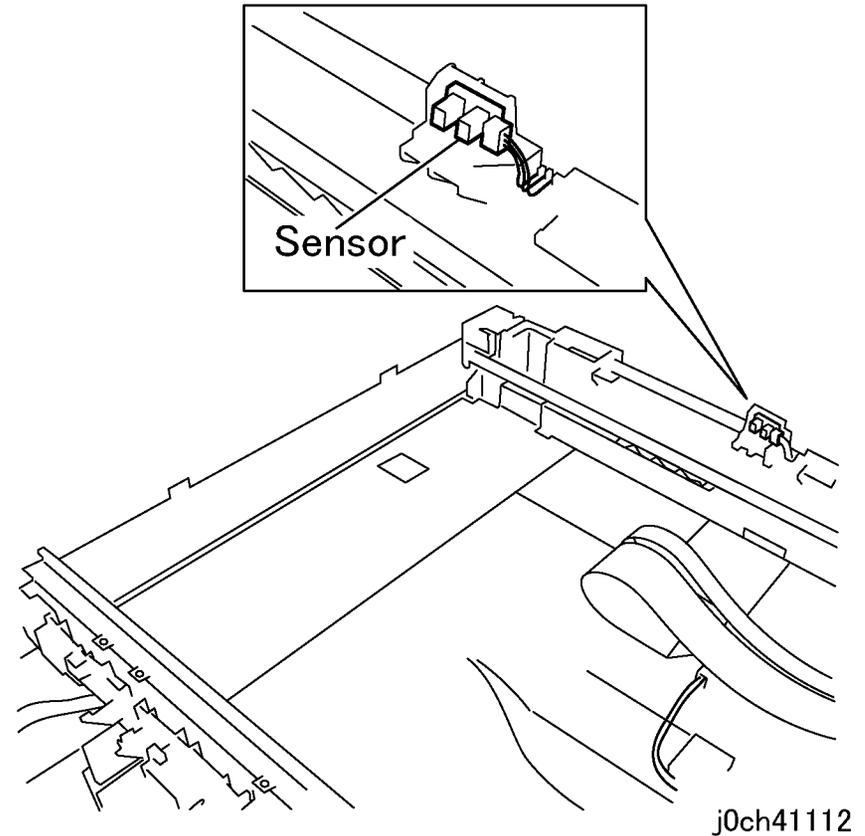
Figure 10 Disconnecting the IIT Carriage Assembly (j0ch41111)

### Replacement

1. To install, carry out the removal steps in reverse order taking note of the following:

**NOTE:** Be careful not to damage the sensor when installing the IIT Upper Cover. (Figure 11)

2. Check adjustment ADJ 11.1.1.



j0ch41112

Figure 11 Installing the IIT Upper Cover (j0ch41112)

## REP 11.2.2 NBCR-Host/NBCR-Power Cable

### Parts List on PL 11.2

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

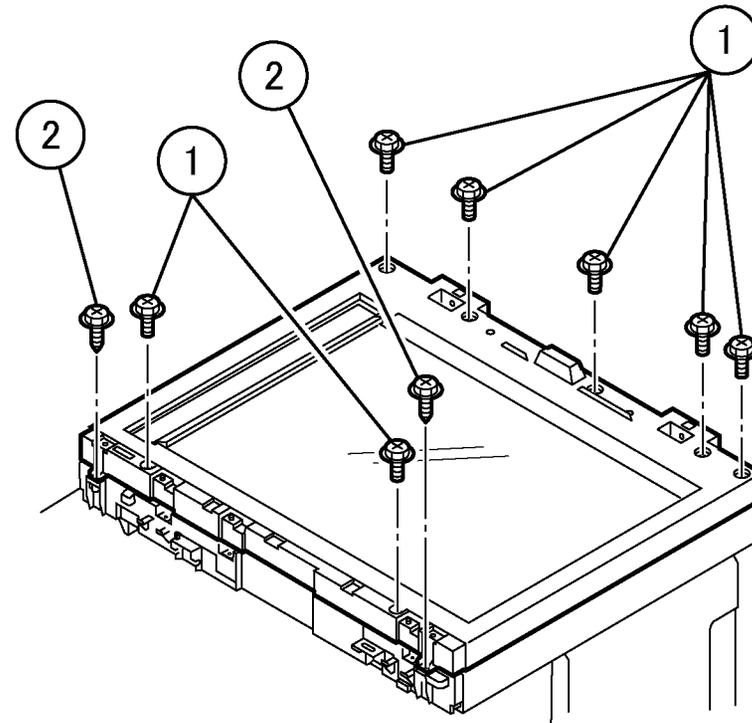
[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the following parts:
  - a. Platen Cover (PL 11.1)
  - b. DADF/ADF (REP 15.1.1)
  - c. Control Panel (REP 11.1.1)
  - d. Rear Cover (REP 10.2.1)
2. Remove the screw from the IIT Upper Cover. (Figure 1)
  1. Remove the screws (x4).
  2. Remove the Tapping Screws (x5).



j0ch41139

Figure 1 Removing the screws (j0ch41139)

3. Remove the IIT Upper Cover. (Figure 2)
  1. Open the IIT Upper Cover by approximately 10cm while pressing the latches (x2) inside the IIT Lower Cover.
  2. Remove the IIT Upper Cover.

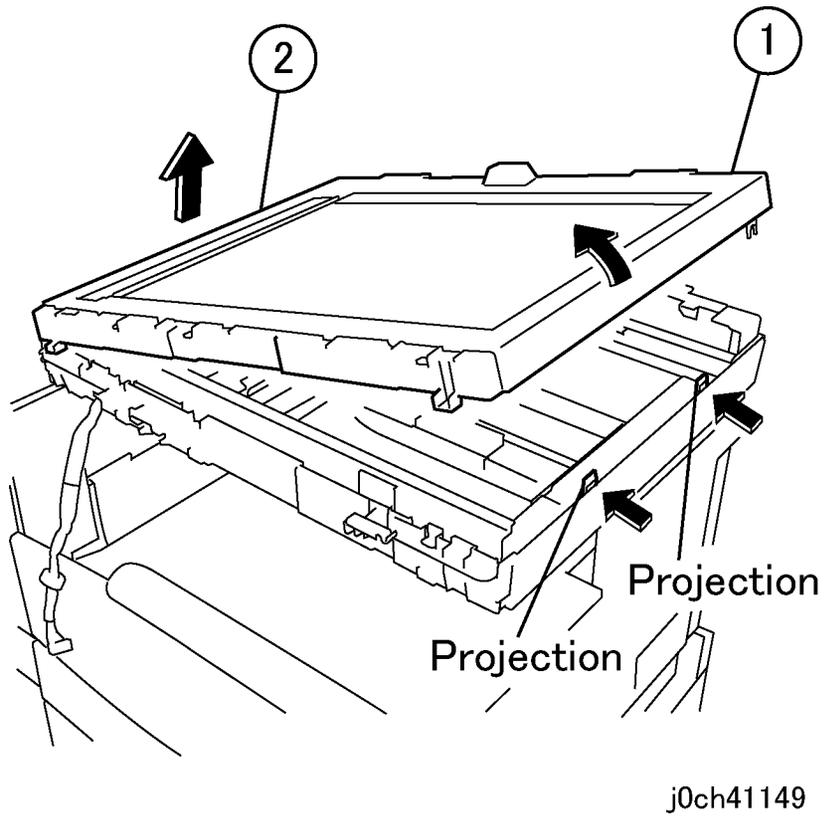


Figure 2 Removing the IIT Upper Cover (j0ch41149)

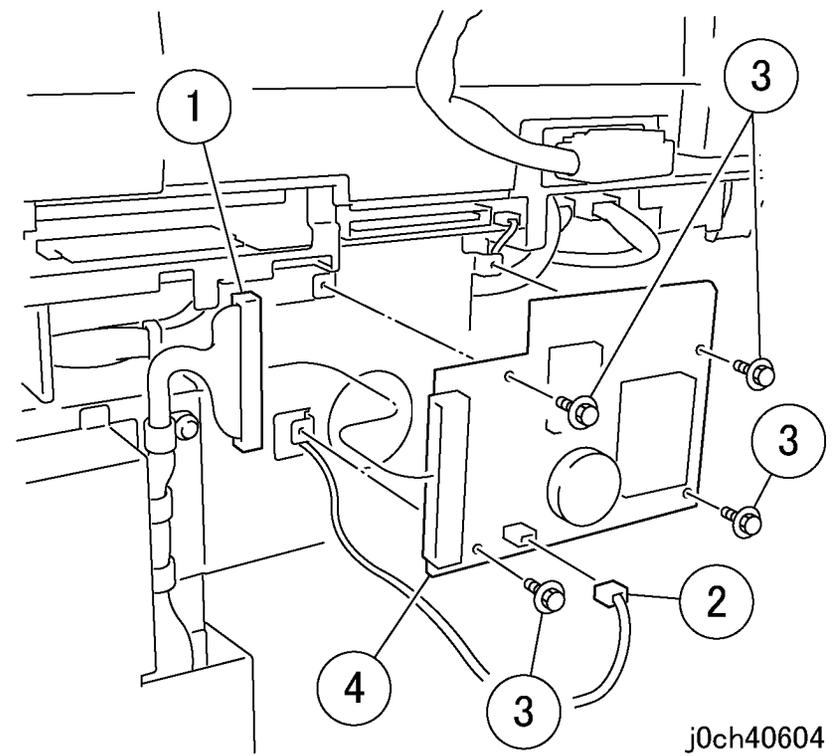


Figure 3 Removing the ADC PWB (j0ch40604)

4. Remove the ADC PWB. (Figure 3)
  1. Disconnect the connector.
  2. Disconnect the connector.
  3. Remove the screws (x4).
  4. Remove the ADC PWB.

5. Remove the ADC Bracket. (Figure 4)
  1. Remove the screw.
  2. Remove the screws (x5).
  3. Remove the ADC Bracket.

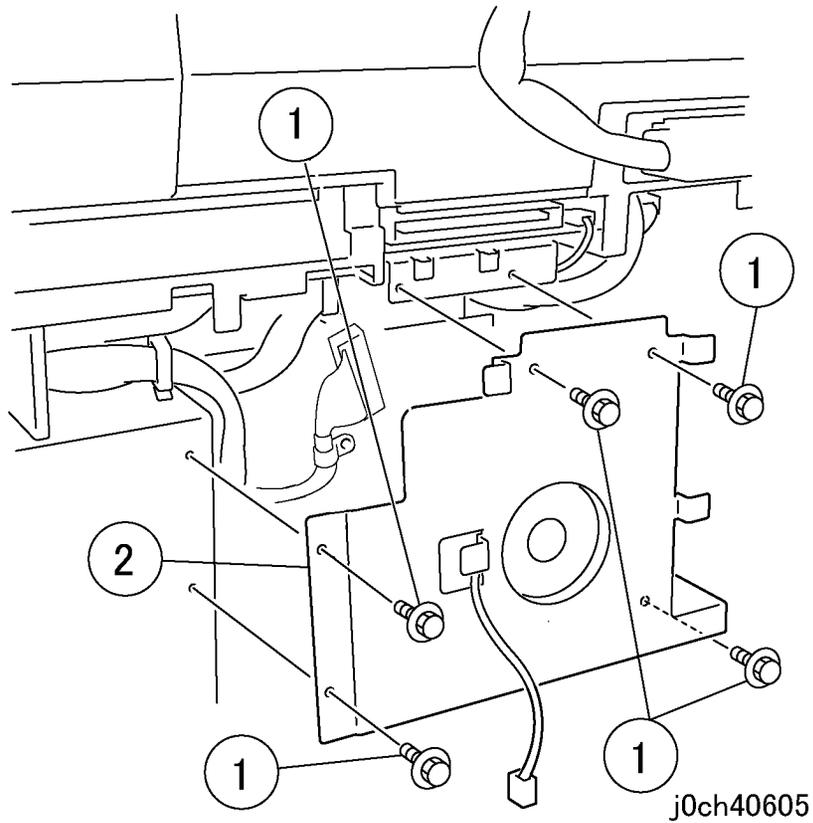


Figure 4 Removing the ADC Bracket (j0ch40605)

6. Pull out the MFC and EXT PWB Box. (Figure 5)
  1. Disconnect the connectors (x4).
  2. Remove the screws (x8).
  3. Pull out the MFC and EXT PWB Box.

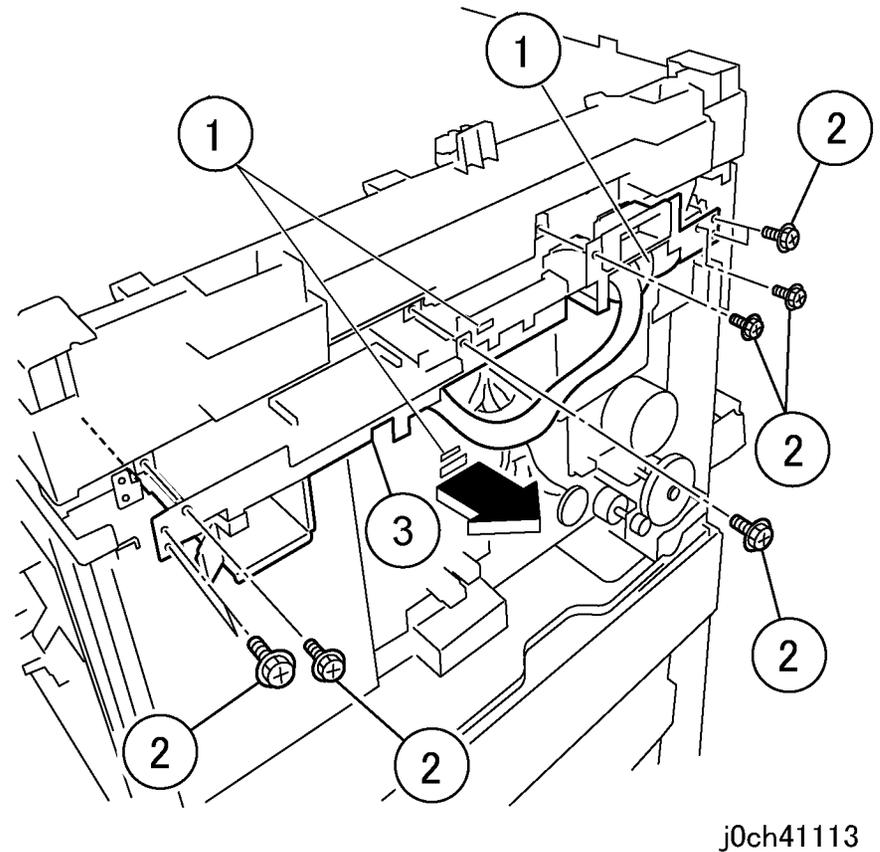


Figure 5 Pulling out the MFC and EXT PWB Box (j0ch41113)

7. Disconnect the NBCR-Host/NBCR-Power Cable. (Figure 6)

1. Raise the hooks (x2).
2. Pull out the NBCR-Host/NBCR-Power Cable (x2).

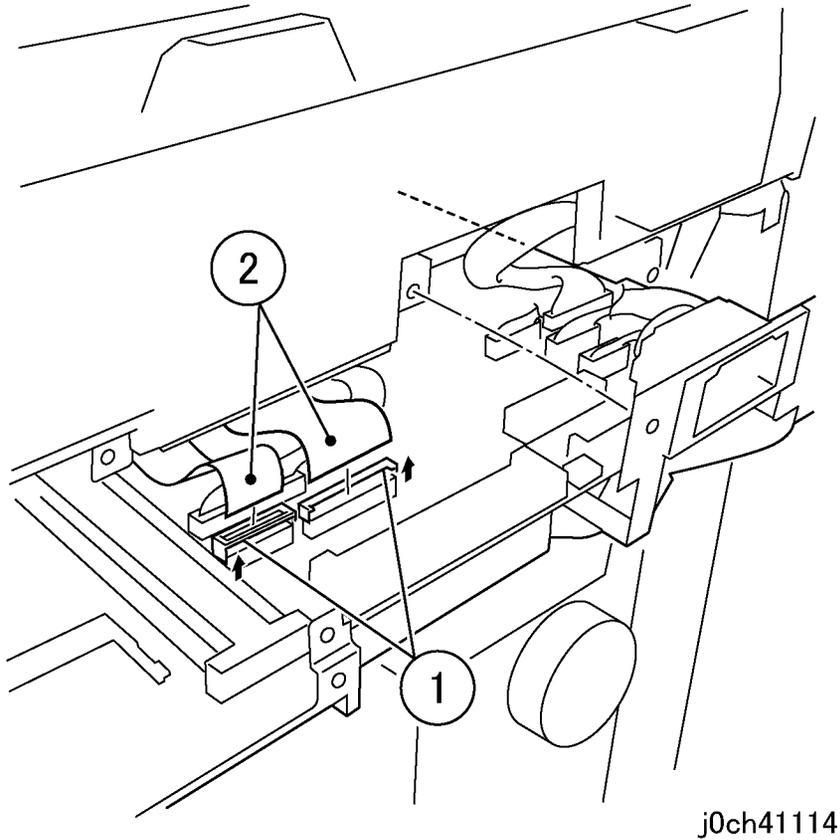


Figure 6 Removing the cables (j0ch41114)

8. Remove the bracket. (Figure 7)

1. Remove the screw (x2).
2. Remove the bracket.

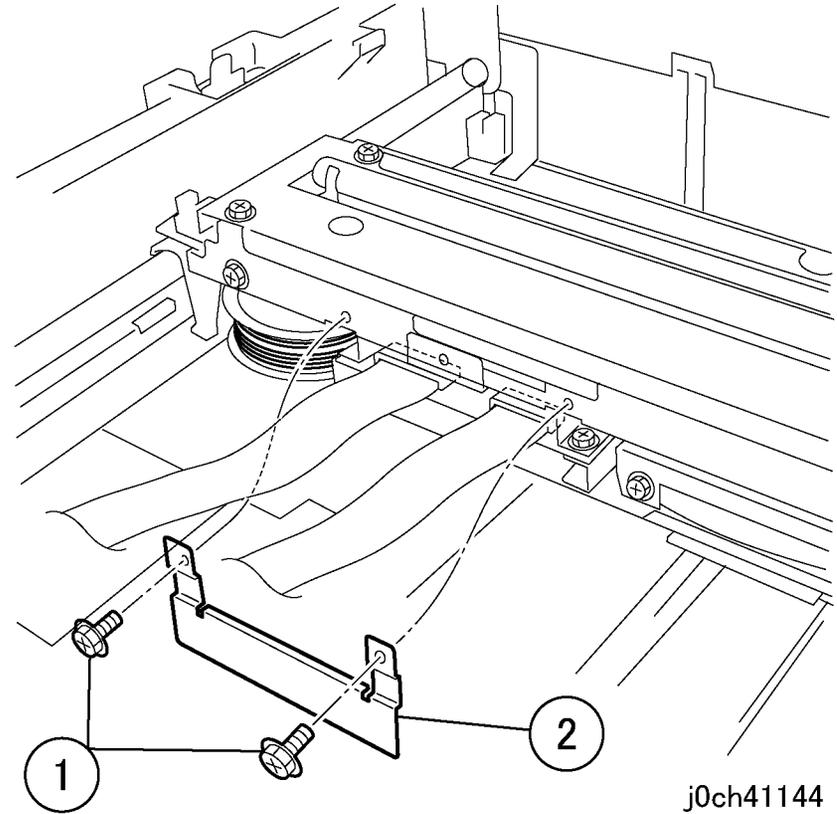


Figure 7 Removing the bracket (j0ch41144)

9. Disconnect the NBCR-Host/NBCR-Power Cable. (Figure 8)

1. Pull the hooks (x2).
2. Pull out the NBCR-Host/NBCR-Power Cable.

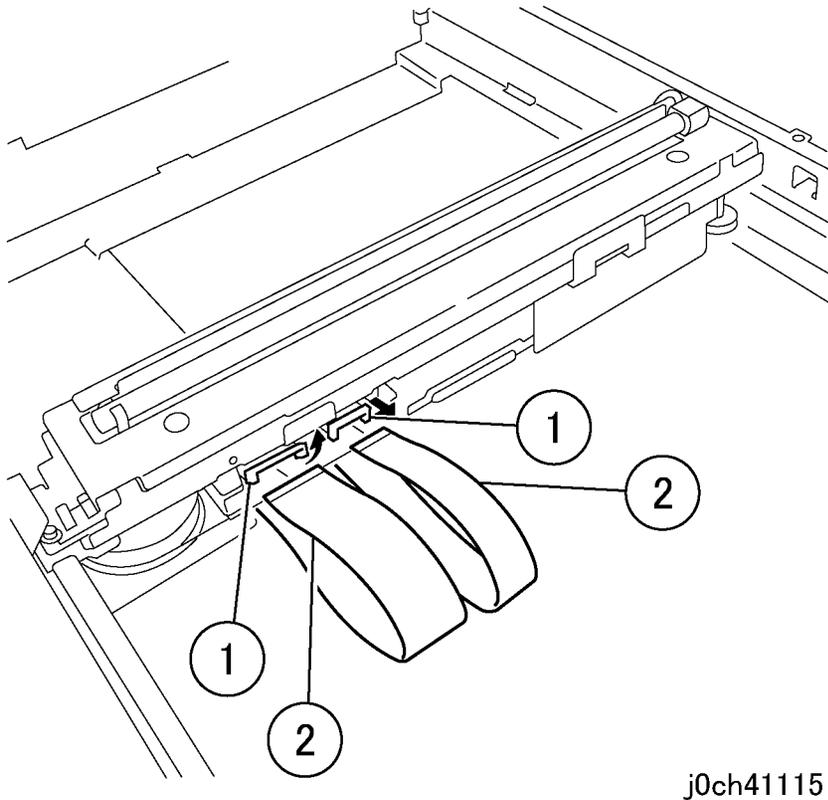


Figure 8 Removing the plate (j0ch41115)

10. Remove the NBCR-Host/NBCR-Power Cable. (Figure 9)

1. Remove the screw.
2. Remove the FPC Cover.
3. Remove the NBCR-Host/NBCR-Power Cable.

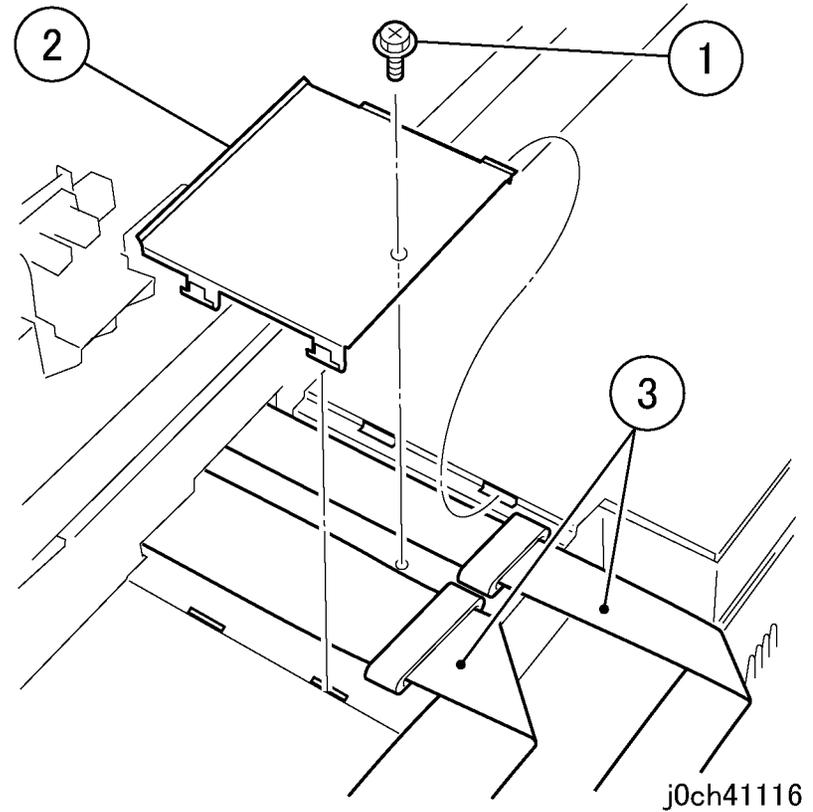


Figure 9 Removing the cable (j0ch41116)

**Replacement**

1. To install, carry out the removal steps in reverse order.

## REP 11.4.1 Exposure Lamp

### Parts List on PL 11.4

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

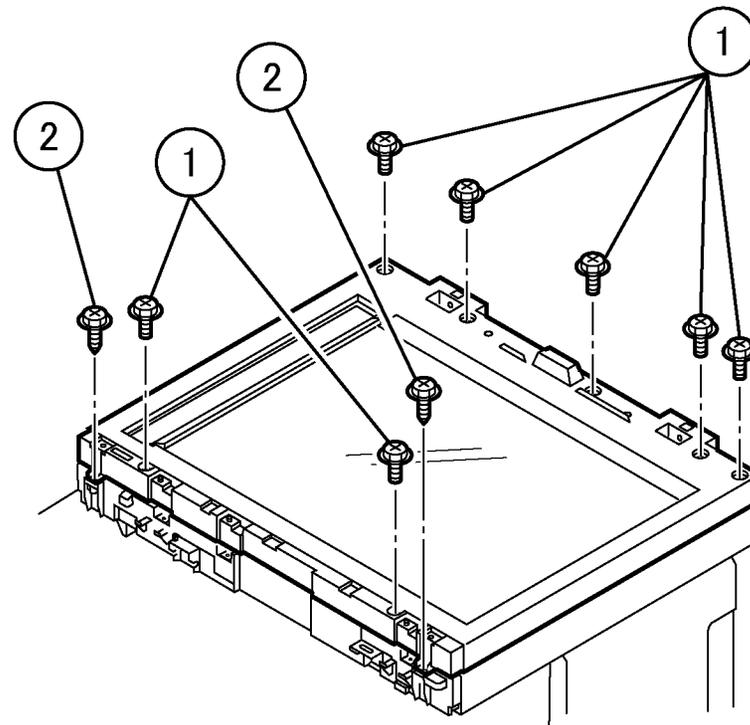
Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the following parts.
  - a. Platen Cover (PL 11.1)
  - b. DADF /ADF (REP 15.1.1)
  - c. Control Panel (REP 11.1.1)

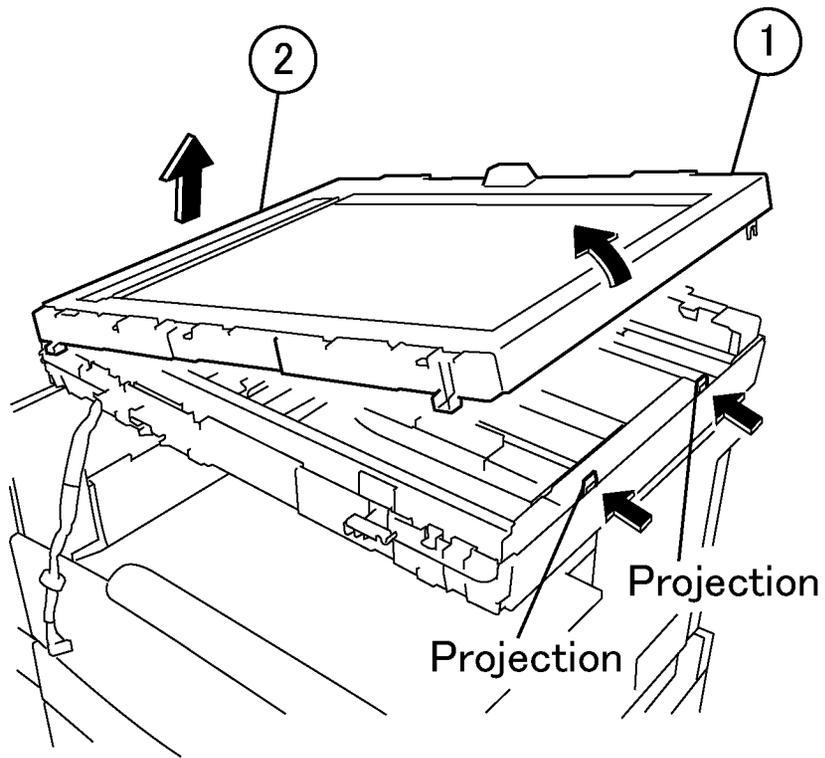
2. Remove the screw from the IIT Upper Cover. (Figure 1)
  1. Remove the screws (x4).
  2. Remove the Tapping Screws (x5).



j0ch41139

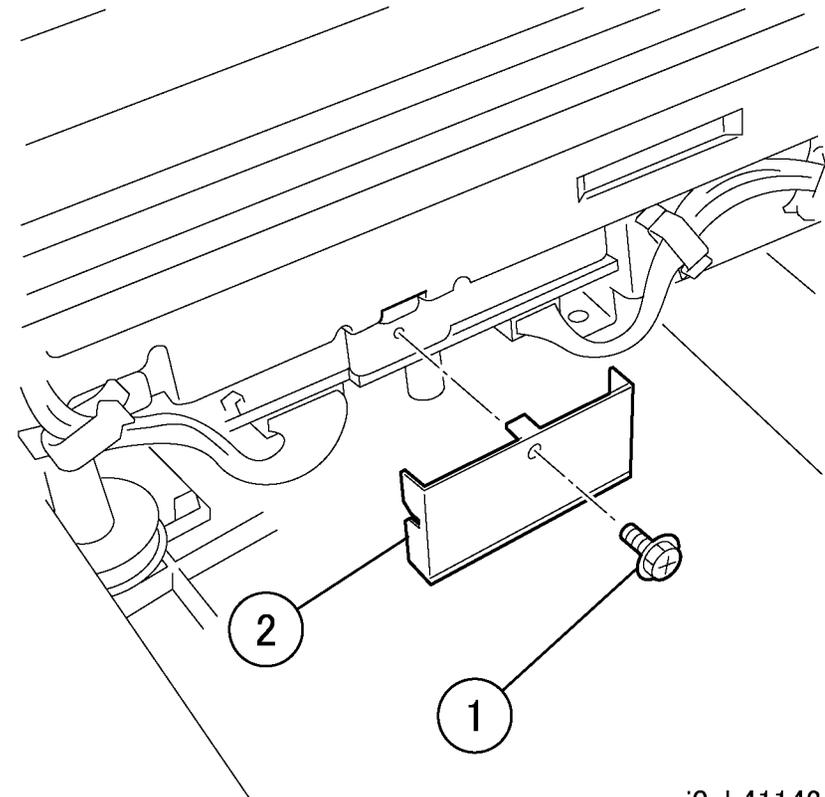
Figure 1 Removing the IIT Upper screws (j0ch41139)

3. Remove the IIT Upper Cover. (Figure 2)
  1. Open the IIT Upper Cover by approximately 10cm while pressing the latches (x2) inside the IIT Lower Cover.
  2. Remove the IIT Upper Cover.



j0ch41149

Figure 2 Removing the IIT Upper Cover (j0ch41149)

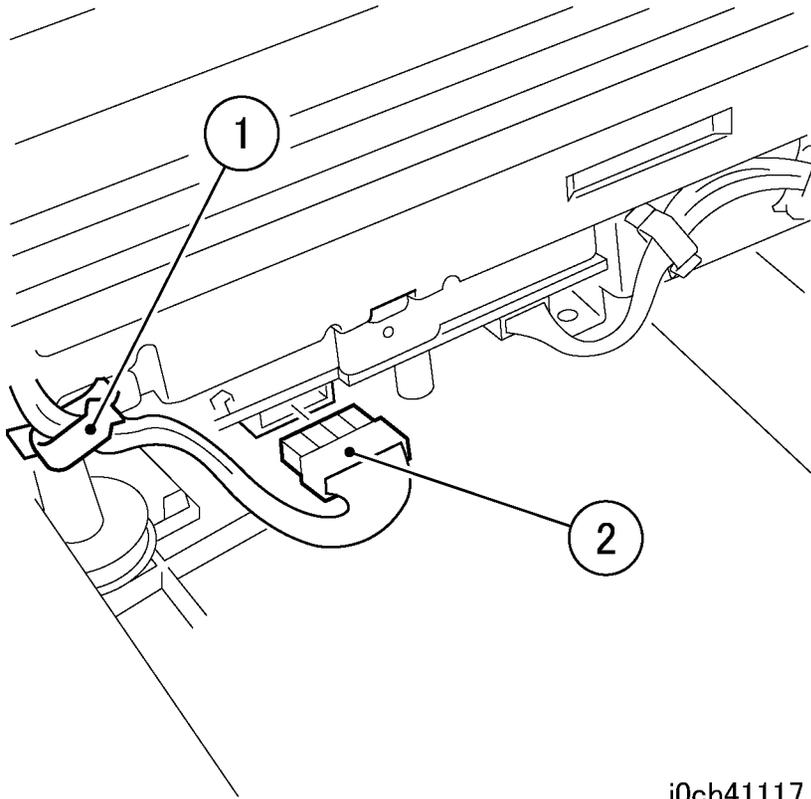


j0ch41142

Figure 3 Removing the INV Bracket (j0ch41142)

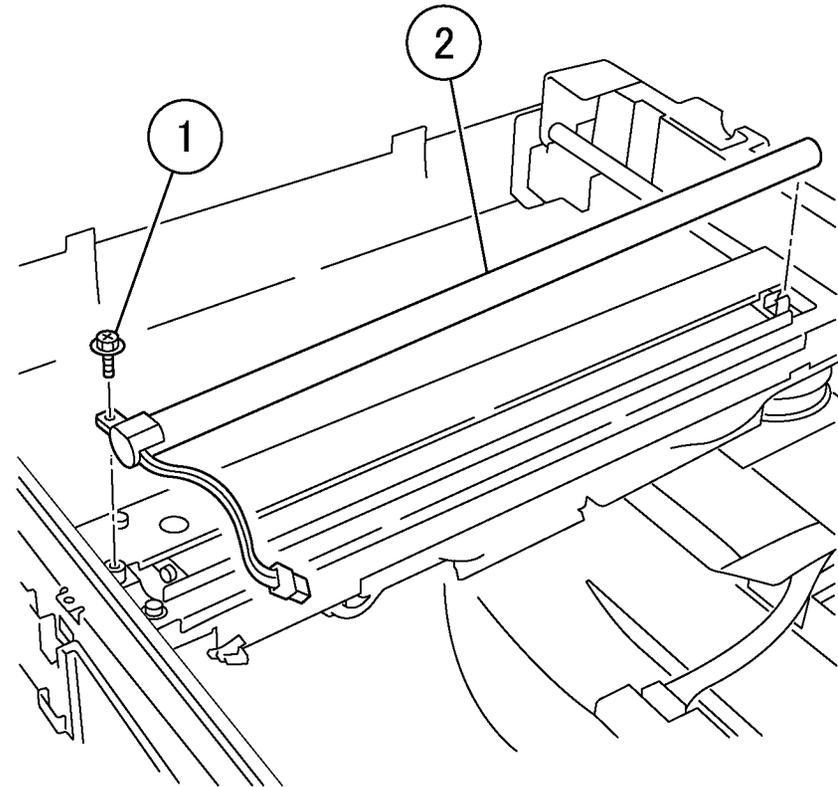
4. Remove the INV Bracket. (Figure 3)
  1. Remove the screw.
  2. Remove the INV Bracket.

5. Disconnect the connector. (Figure 4)
  1. Release the clamps (x2) and remove the Wire Harness.
  2. Disconnect the connector.



j0ch41117

Figure 4 Disconnecting the connector (j0ch41117)



j0ch41118

Figure 5 Removing the Exposure Lamp (j0ch41118)

6. Remove the Exposure Lamp. (Figure 5)
  1. Remove the screw.
  2. Remove the Exposure Lamp.

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 11.5.1 Front/Rear Carriage Cable

### Parts List on PL 11.5

#### Removal

##### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

##### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the IIT Carriage Assembly. (REP 11.2.1)

2. Remove the tape and remove the Front/Rear Carriage Cable. (Figure 1)

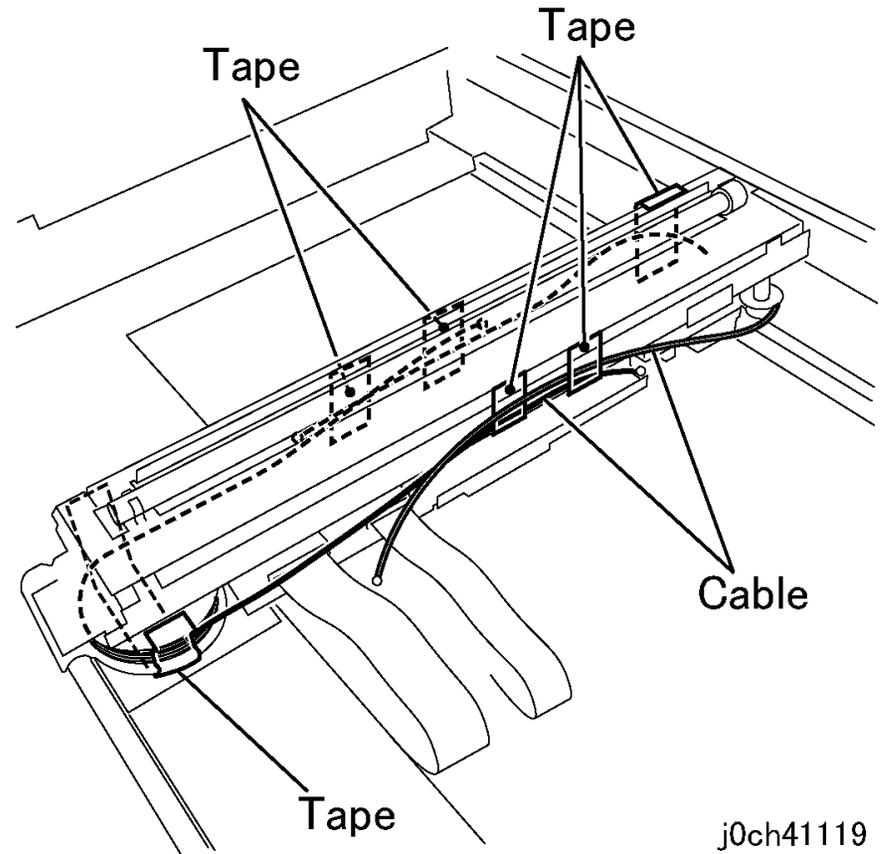
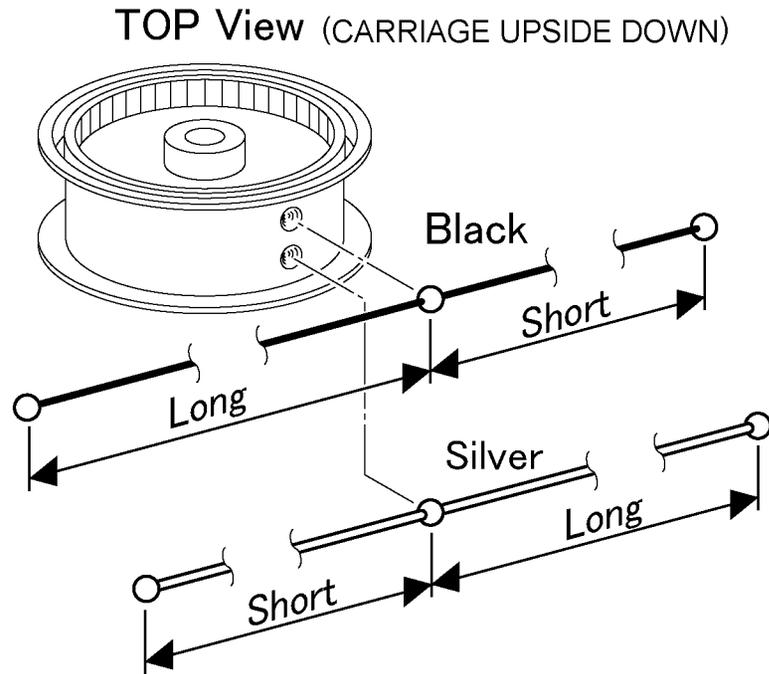


Figure 1 Removing the cable (j0ch41119)

## Replacement

1. Align the Front/Rear Carriage Cable with the drum hole and install. (Figure 2)

**NOTE:** The view in Figure 1 is inverted if holding Carriage right side up.

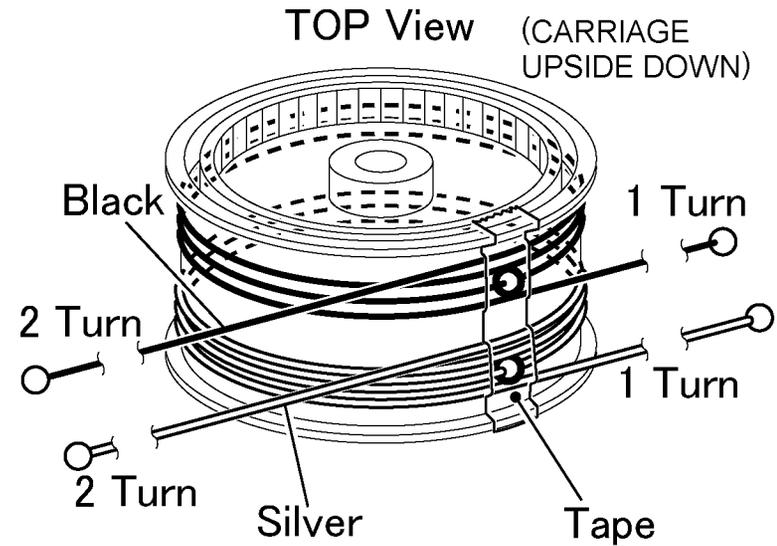


j0ch41120

Figure 2 Installing the cables-1 (j0ch41120)

2. Coil the Front/Rear Carriage Cable around the drum and secure it with tape as shown. (Figure 3)

**NOTE:** This view in Figure 1 is inverted if holding Carriage right side up.



j0ch41121

Figure 3 Installing the cables-2 (j0ch41121)

3. Coil the Front/Rear Carriage Cable around the pulley as shown. (Figure 4)

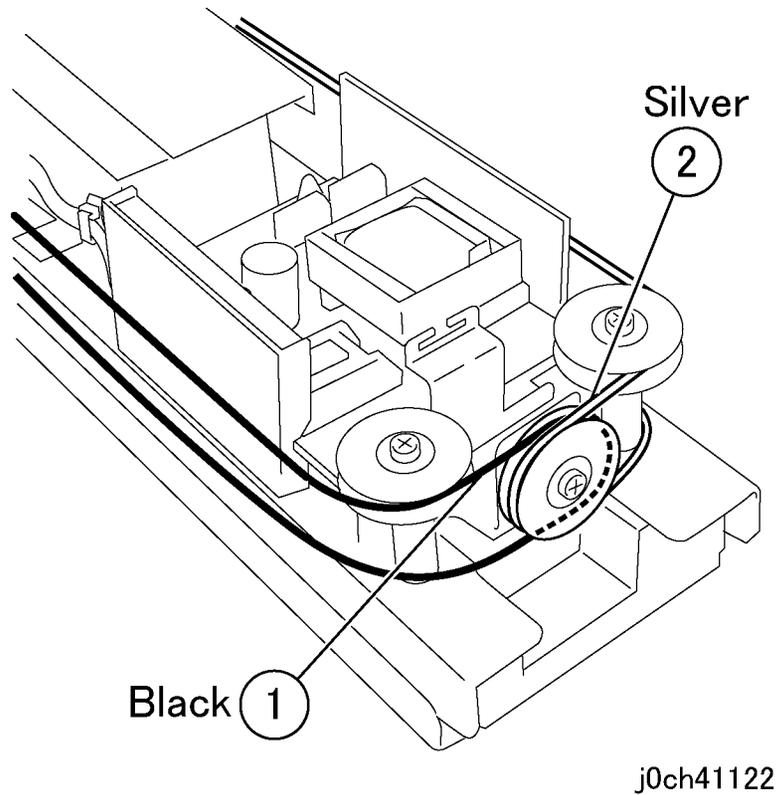


Figure 4 Installing the cables-3 (j0ch41122)

4. Temporarily secure the cables that are coiled around the pulley or drum with tape. (Figure 5)

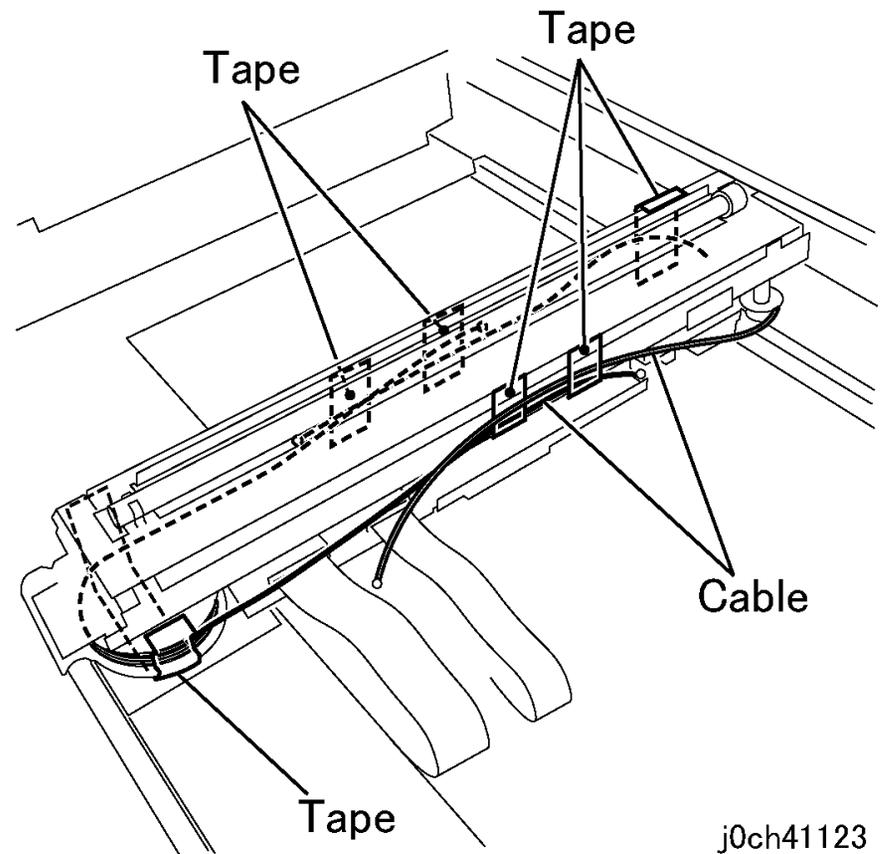


Figure 5 Installing the cables-4 (j0ch41123)

5. Install the Front/Rear Carriage Cable to the IIT in the sequence as shown. (Figure 6)

6. Adjust the position of the Carriage Assembly. (ADJ 11.1.1)

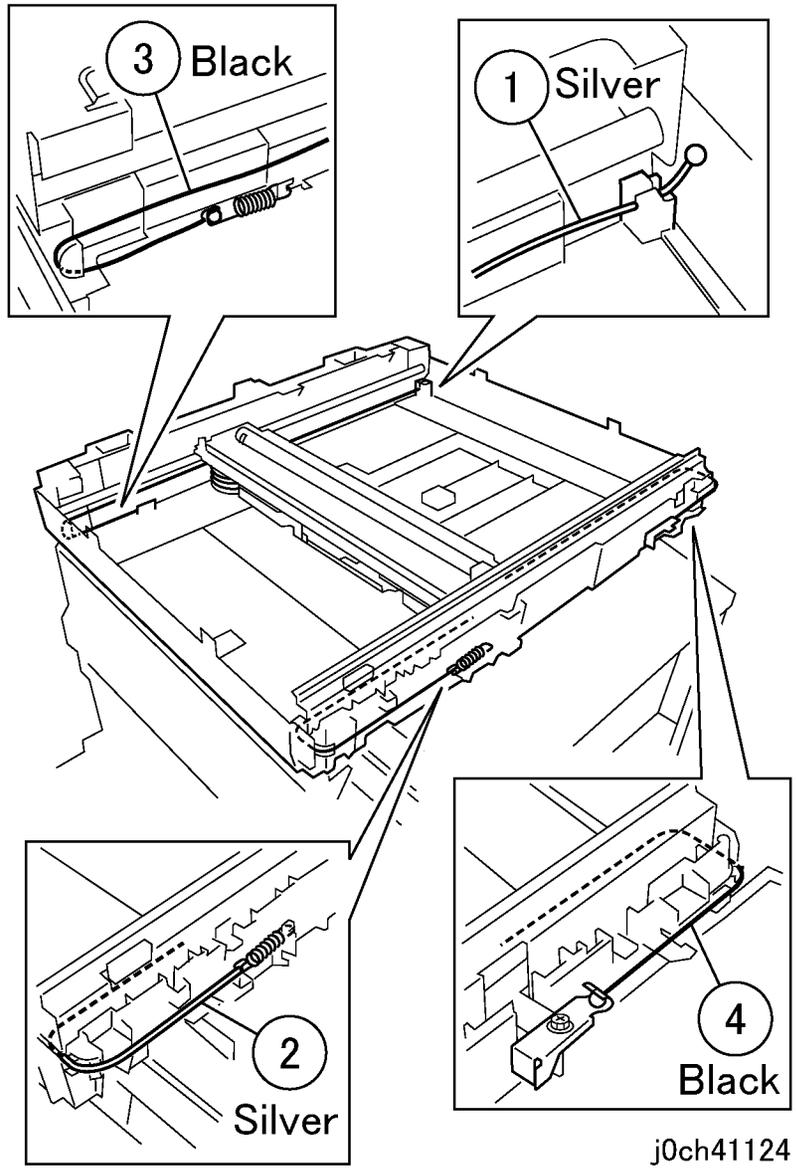


Figure 6 Installing the cables-5 (j0ch41124)

## REP 11.5.2 NSC/NBCR PWB

### Parts List on PL 11.5

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

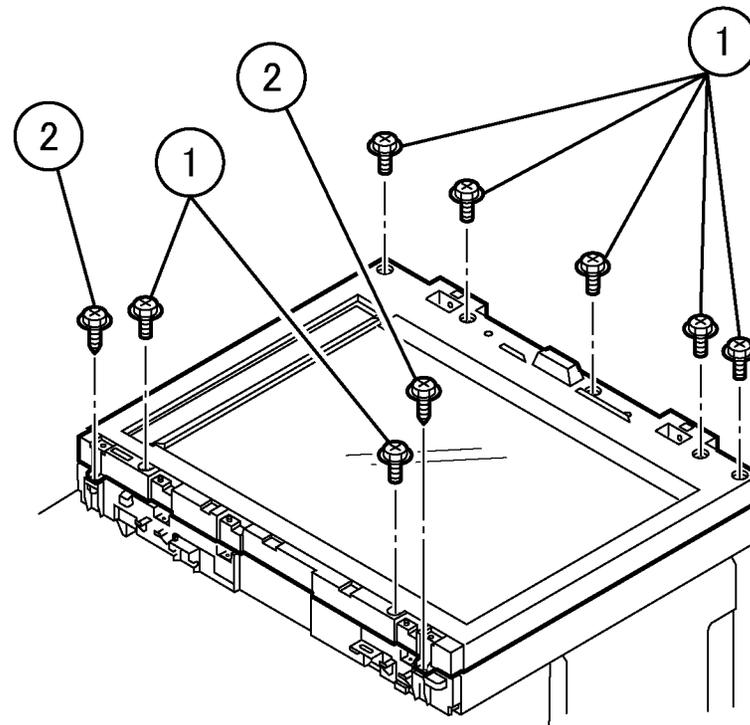
Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the following parts.

- Platen Cover (PL 11.1)
- DADF/ADF (REP 15.1.1)
- Control Panel (REP 11.1.1)

2. Remove the screw from the IIT Upper Cover. (Figure 1)

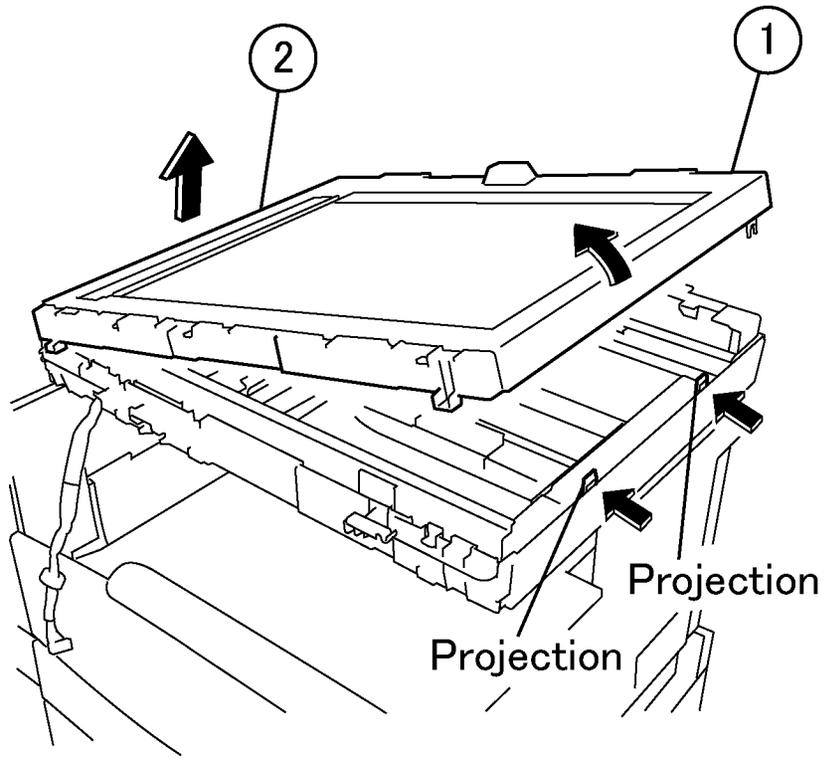
1. Remove the screws (x4).
2. Remove the screws (x5).



j0ch41139

Figure 1 Removing the IIT screws (j0ch41139)

3. Remove the IIT Upper Cover. (Figure 2)
  1. Open the IIT Upper Cover by approximately 10cm while pressing the latches (x2) inside the IIT Lower Cover.
  2. Remove the IIT Upper Cover.

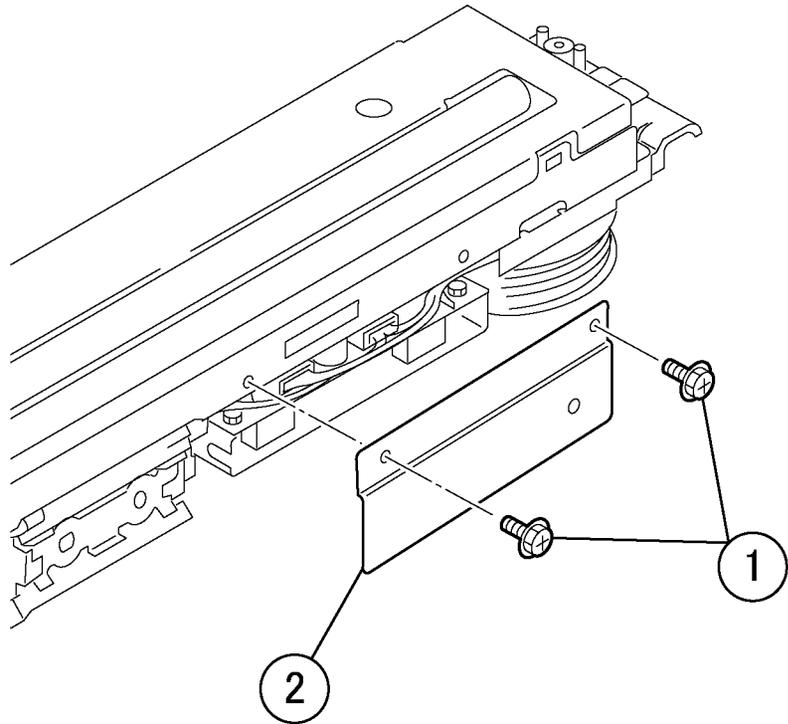


j0ch41149

Figure 2 Removing the IIT Upper Cover (j0ch41149)

4. Remove the bracket. (Figure 3)

1. Remove the screw.
2. Remove the bracket.

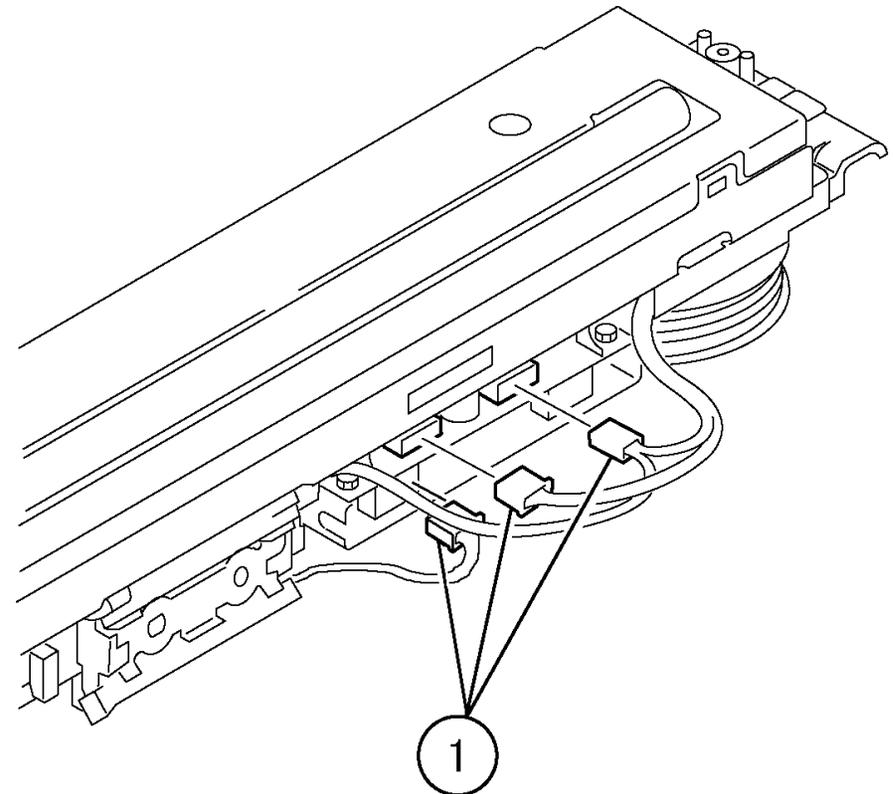


j0ch41143

Figure 3 Removing the bracket (j0ch41143)

5. Disconnect the connectors. (Figure 4)

1. Disconnect the connectors (x3).



j0ch41125

Figure 4 Disconnecting the connectors (j0ch41125)

6. Remove the bracket. (Figure 5)

1. Remove the screws (x2).
2. Remove the bracket.

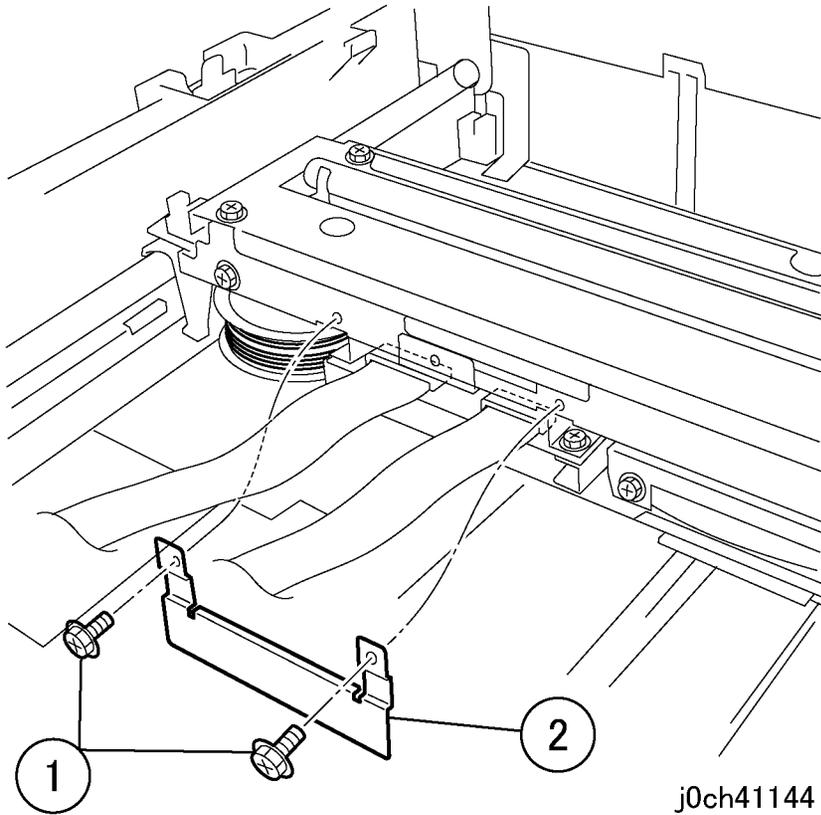


Figure 5 Removing the bracket (j0ch41144)

7. Remove the NSC/NBCP PWB. (Figure 6)

1. Remove the screw.
2. Slide out the NSC/NBCR PWB a little.
3. Flip up cable lock.
4. Pull forward and flip up cable lock.
5. Remove cables from PWB.
6. Pull out to remove PWB.

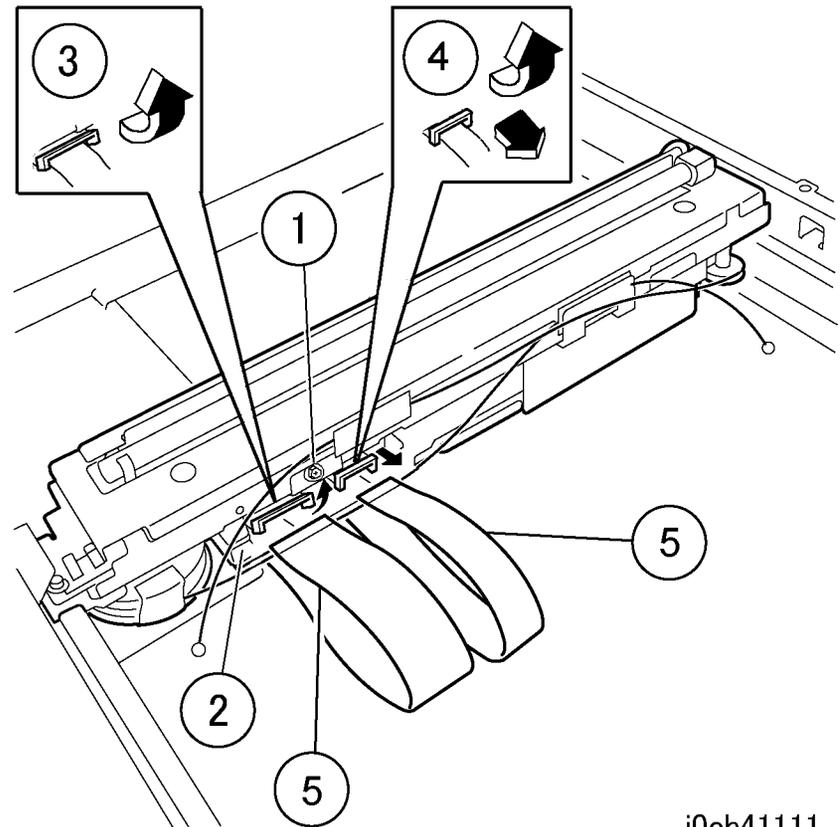


Figure 6 Removing the NSC/NBCP PWB (j0ch41111)

8. Remove the NSC PWB. (Figure 7)

1. Remove the screws (x4).
2. Remove the NSC PWB.

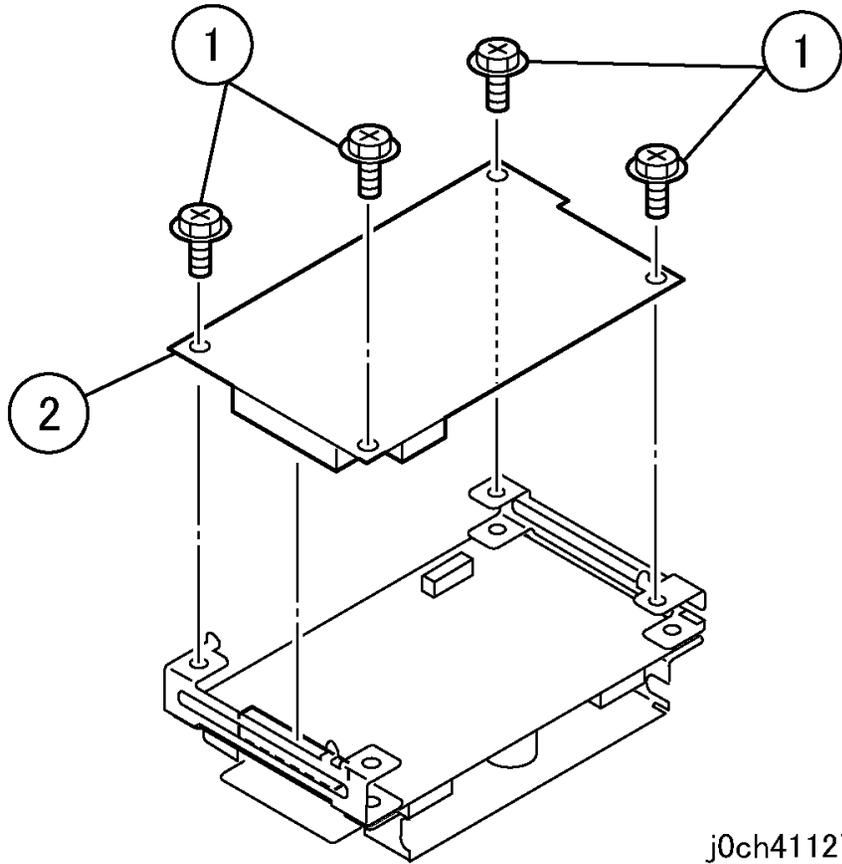


Figure 7 Removing the NSC PWB (j0ch41127)

9. Remove the NBCR PWB. (Figure 8)

1. Remove the screws (x4).
2. Remove the bracket.
3. Remove the NBCR PWB.

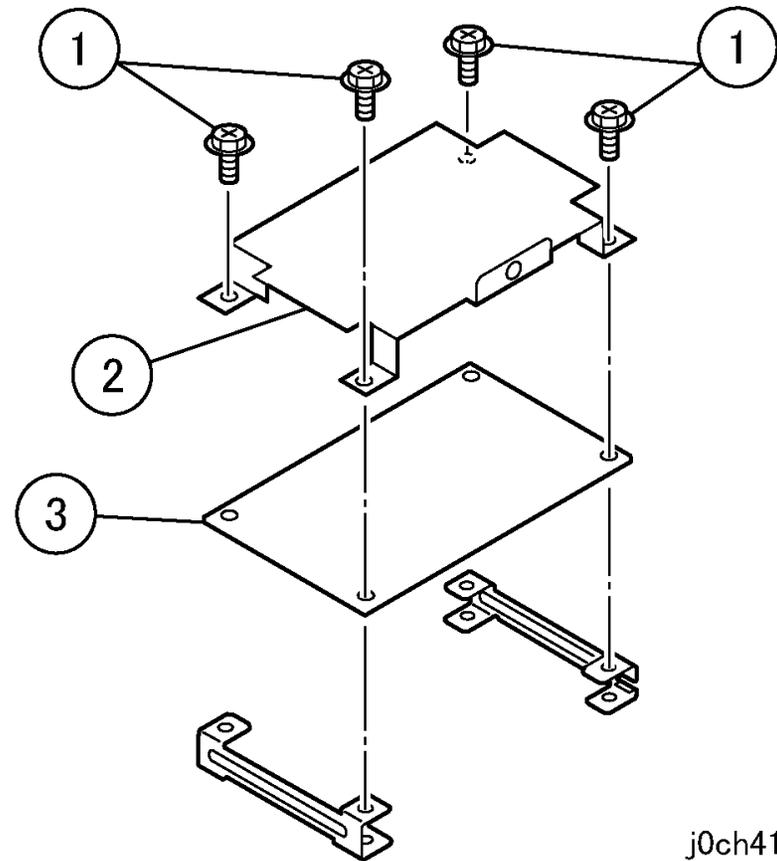


Figure 8 Removing the NBCR PWB (j0ch41128)

**Replacement**

1. To install, carry out the removal steps in reverse order.

## REP 11.5.3 Inv PWB

### Parts List on PL 11.5

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

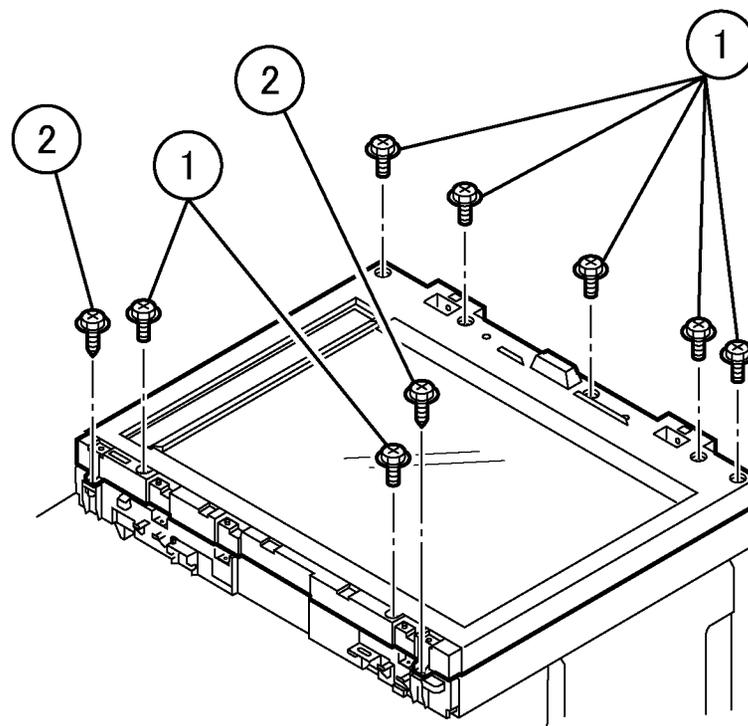
Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the following parts.

- Platen Cover (PL 11.1)
- DADF/ADF (REP 15.1.1)
- Control Panel (REP 11.1.1)

2. Remove the screw from the IIT Upper Cover. (Figure 1)

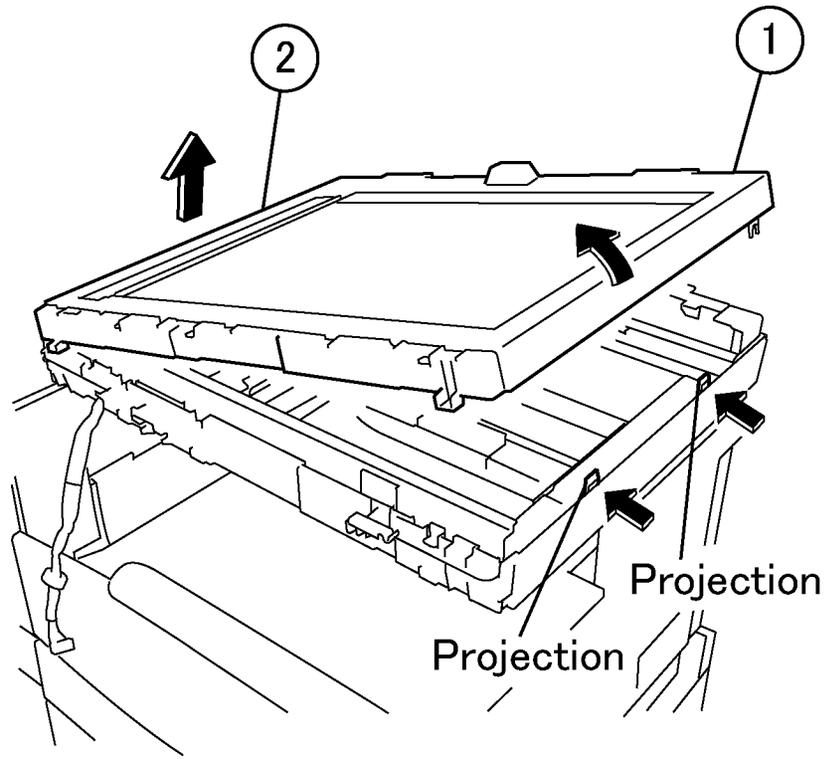
1. Remove the screws (x4).
2. Remove the Tapping Screws (x5).



j0ch41139

Figure 1 Removing the IIT screws (j0ch41139)

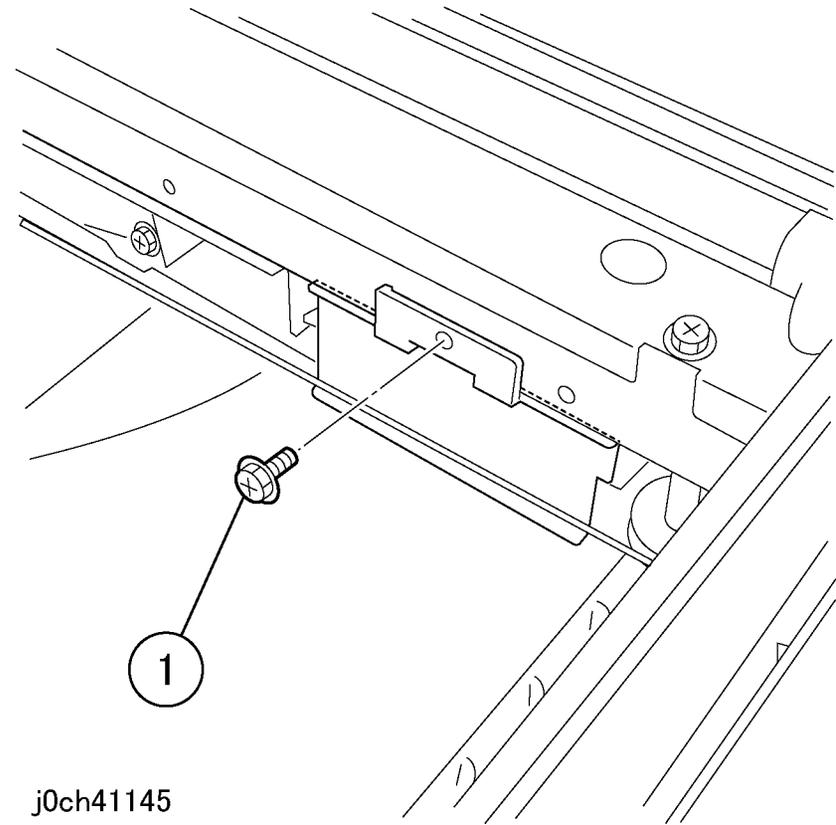
3. Remove the IIT Upper Cover. (Figure 2)
  1. Open the IIT Upper Cover by approximately 10cm while pressing the latches (x2) inside the IIT Lower Cover.
  2. Remove the IIT Upper Cover.



j0ch41149

Figure 2 Removing the IIT Upper Cover (j0ch41149)

4. Remove the screw. (Figure 3)
  1. Remove the screw.

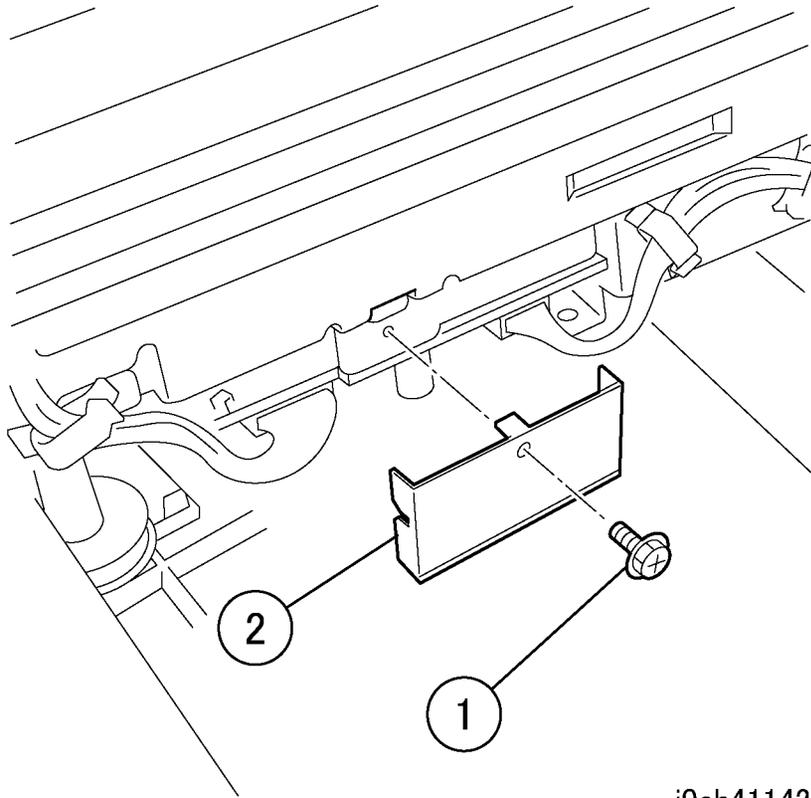


j0ch41145

Figure 3 Removing the screw (j0ch41145)

5. Remove the INV Bracket. (Figure 4)

1. Remove the screw.
2. Remove the INV Bracket.

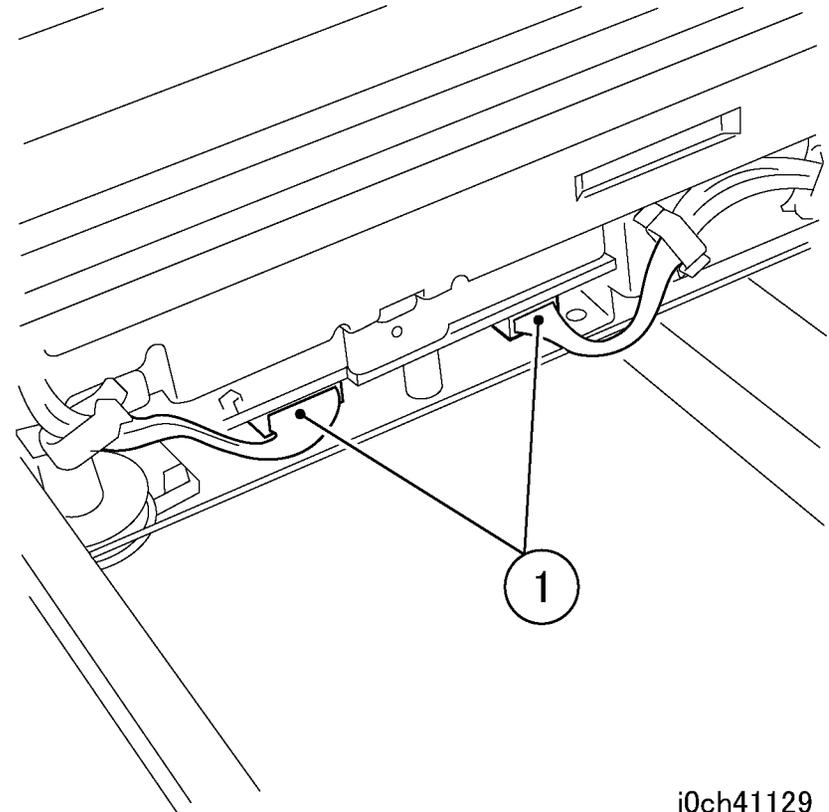


j0ch41142

Figure 4 Removing the INV Bracket (j0ch41142)

6. Disconnect the connectors. (Figure 5)

1. Disconnect the connectors (x2).



j0ch41129

Figure 5 Disconnecting the connectors (j0ch41129)

7. Remove the INV PWB Assembly. (Figure 6)
  1. Lift up the Carriage Assembly.
  2. Turn the INV PWB in the direction of the arrow and remove.

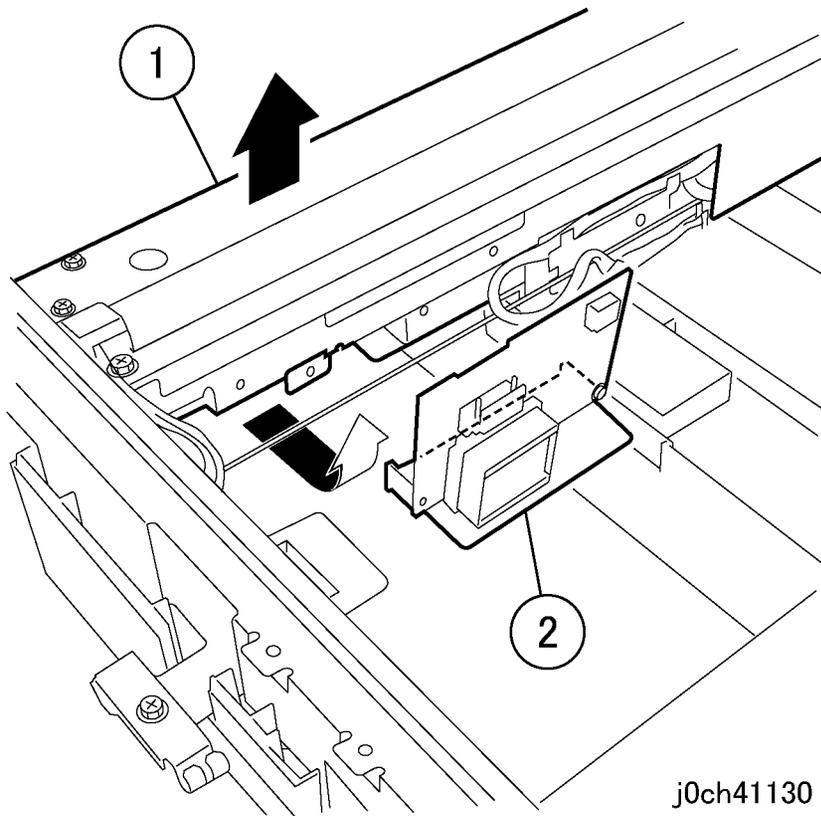
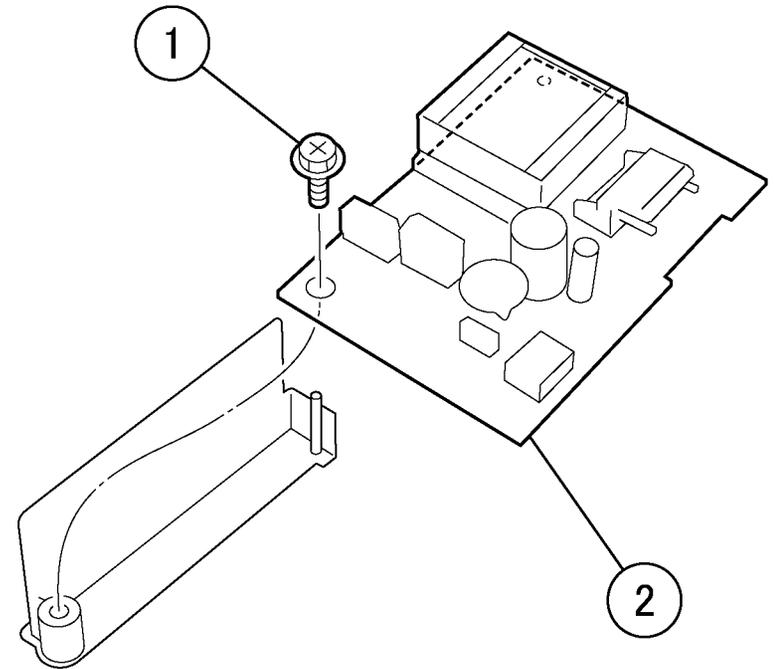


Figure 6 Removing the INV PWB Assembly (j0ch41130)

8. Remove the INV PWB. (Figure 7)
  1. Remove the screws.
  2. Remove the INV PWB.



j0ch41131

Figure 7 Removing the INV PWB (j0ch41131)

#### Replacement

1. To install, carry out the removal steps in reverse order.

**NOTE:** Ensure notches in Inv Bracket engage edge of PWB.

## REP 11.6.1 MFC PWB

### Parts List on PL 11.6

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

#### CAUTION

Do not replace the MCU PWB (PL 9.1) at the same time.

As the MCU PWB contains the Master Billing Counter, if it is replaced at the same time, the Billing Counter cannot be stored in the new MFC PWB BACK UP1 and BACK UP2.

1. Before replacing the MFC PWB, print out the CE Report (Section 6, Entering Diagnostic Mode).
2. Backup the IIT/FAX adjustment values and settings stored in the MFC PWB to the IIT NVM List before replacement.
3. If necessary, backup the contents of the IIT HFSI counter and the FAIL/JAM/Error History to the machine's Machine Log Sheet.
4. Remove the MFC and EXT PWB Box. (REP 11.1.2)

5. Remove the MFC PWB. (Figure 1)

1. Remove the screws (x3).
2. Remove the MFC PWB.

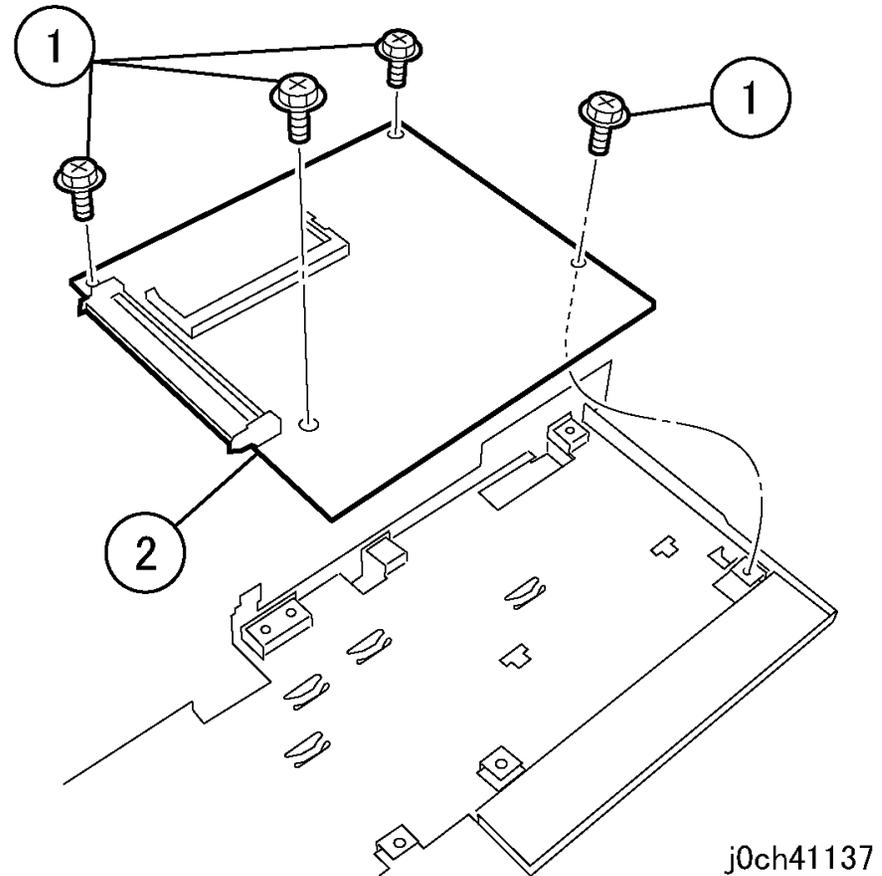


Figure 1 Removing the MFC PWB (j0ch41137)

6. Remove the memory. (Figure 2)

1. Release the hooks (x2).
2. Remove the memory.

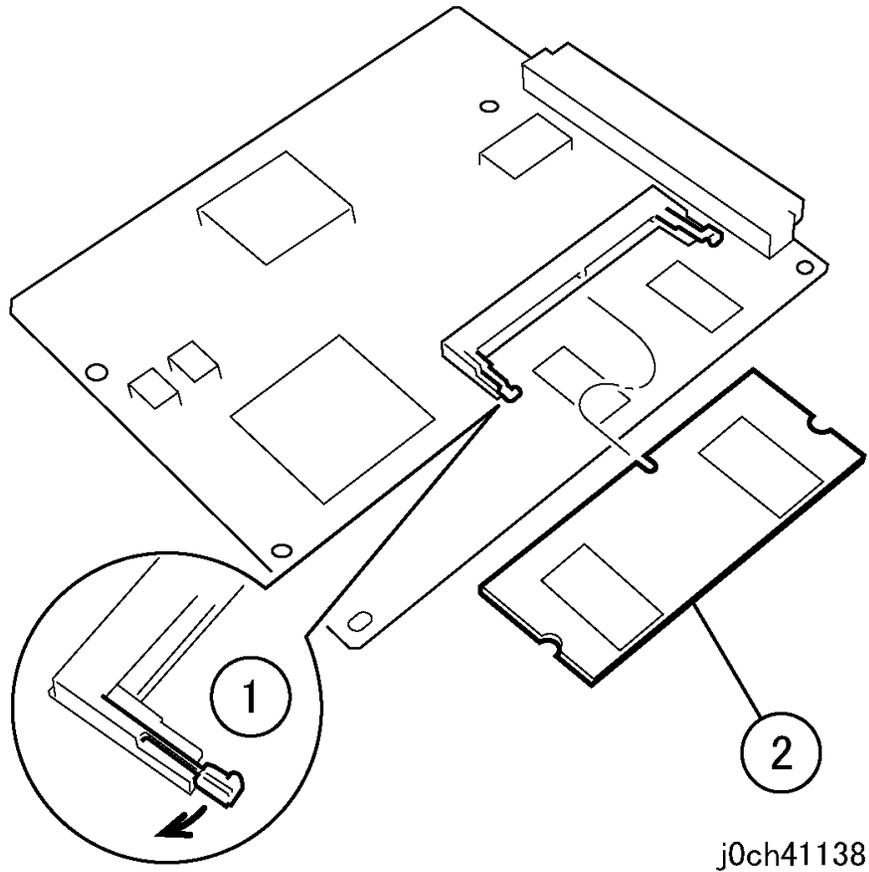


Figure 2 Removing the memory (j0ch41138)

**Replacement**

1. To install, carry out the removal steps in reverse order.
2. If a new MFC PWB will be installed, remove the EP ROM (IC22, IC21) from the old MFC PWB and install it on the new MFC PWB. (Figure 3)

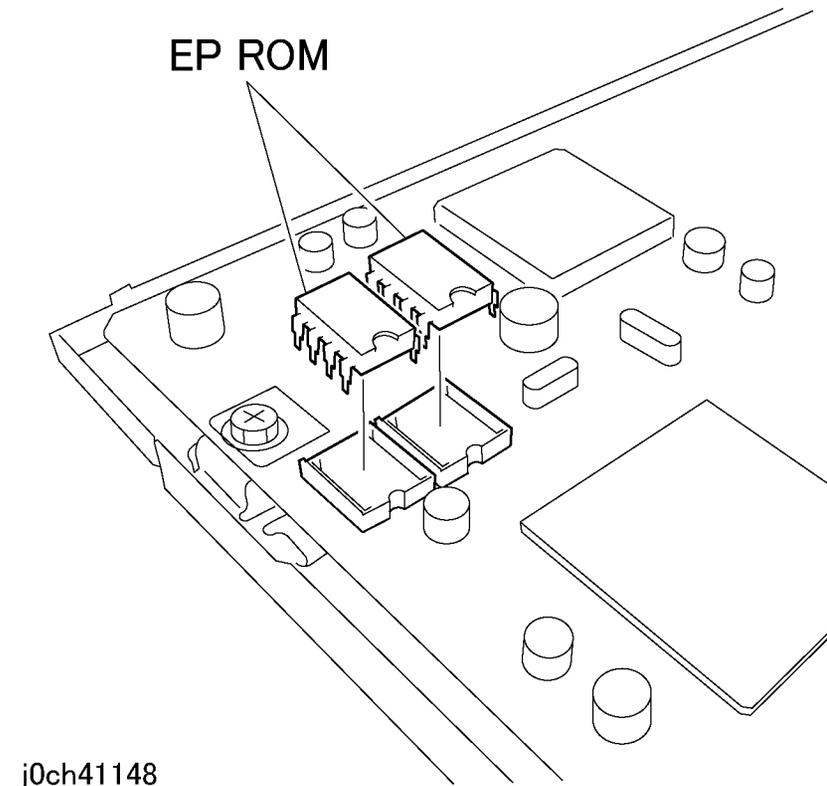


Figure 3 Installing the EP ROM (j0ch41148)

3. After replacing the MFC PWB, check the contents of the CE Report printed out in Step 1 and the items prepared in Step 2. Restore the relevant items.

## REP 11.6.2 EXT PWB

### Parts List on PL 11.6

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. If necessary, backup the contents of the IIT HFSI counter and the FAIL/JAM/Error History to the machine's Machine Log Sheet.
2. Remove the MFC and EXT PWB Box. (REP 11.1.2)

3. Remove the MFC PWB. (Figure 1)
  1. Remove the screws (x4).
  2. Remove the MFC PWB while carefully disconnecting from the EXT PWB.

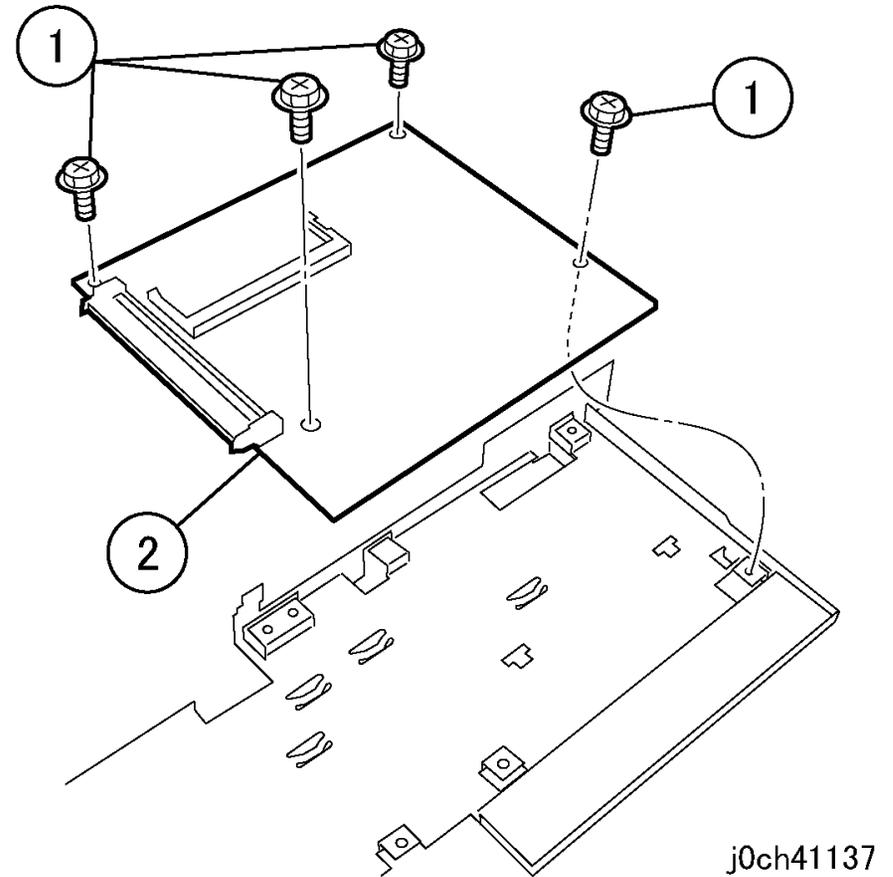


Figure 1 Removing the MFC PWB (j0ch41137)

4. Remove the EXT PWB (Figure 2).

1. Remove the Screws (x5).

**NOTE:** Use care in 3 (Figure 2) while removing EXT PWB.

2. Remove the EXT PWB.

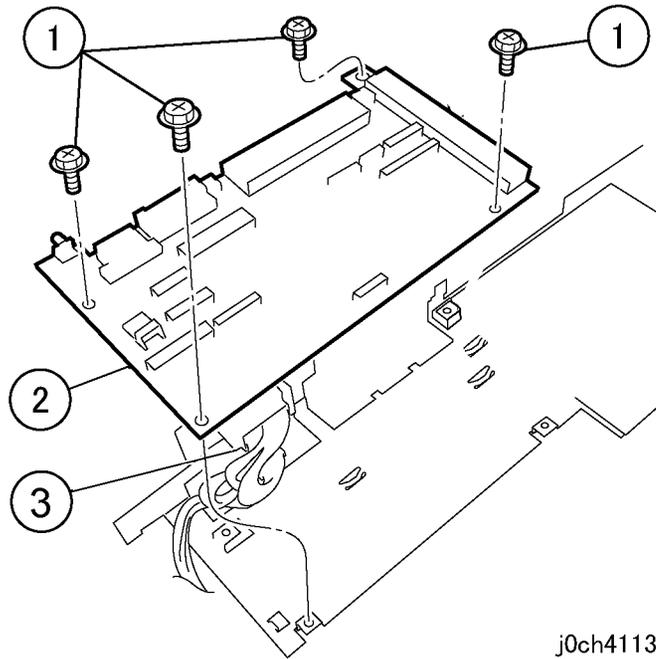


Figure 2 Removing the EXT PWB (j0ch41136)

## Replacement

1. To install, carry out the removal steps in reverse order.

## REP 12.1.1 Tray 3 Feeder

### Parts List on PL 12.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the Left Lower Cover. (REP 12.7.1)
2. Pull out Tray 3.
3. Open the lower Left Cover (PL 12.7).

4. Remove the bracket. (Figure 1)

1. Remove the screw.
2. Remove the bracket.

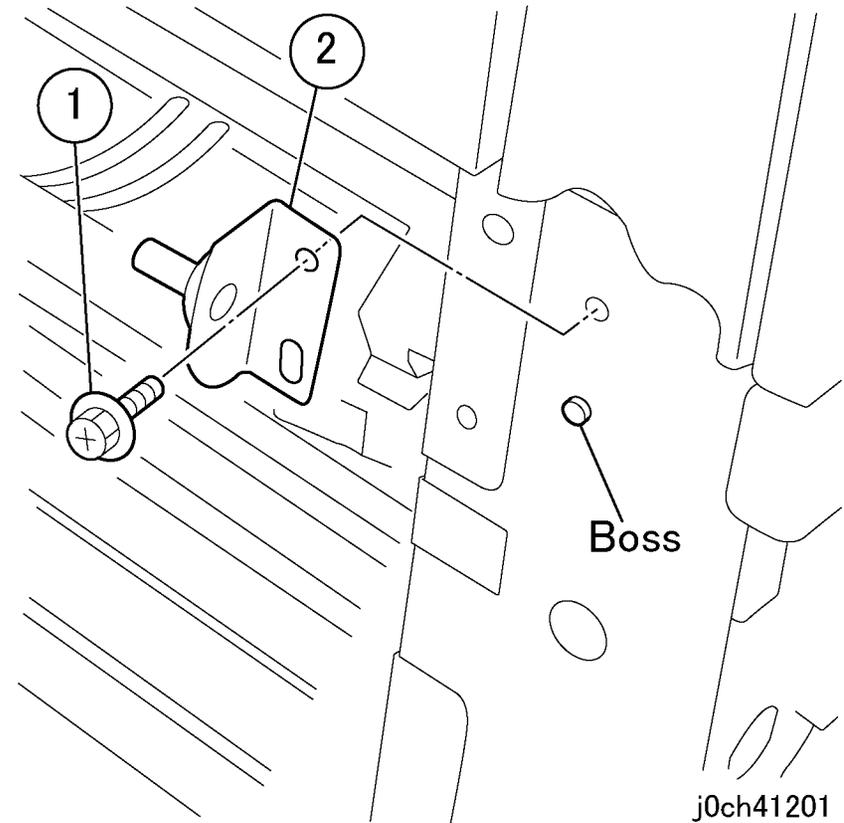
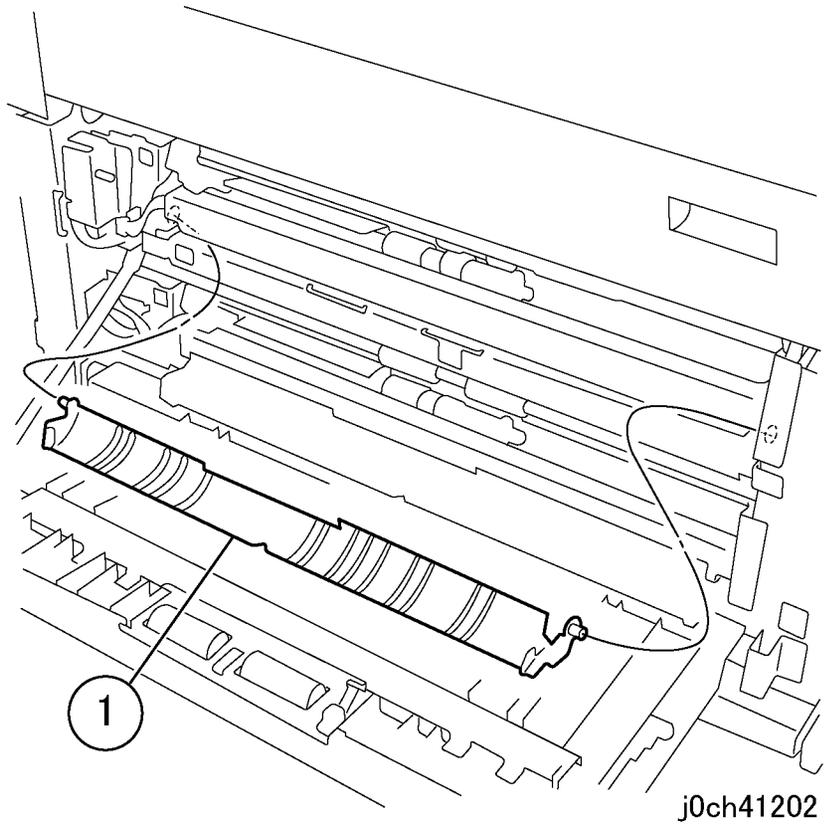


Figure 1 Removing the bracket (j0ch41201)

5. Remove the Feed Out Chute. (Figure 2)

1. Remove the Feed Out Chute.

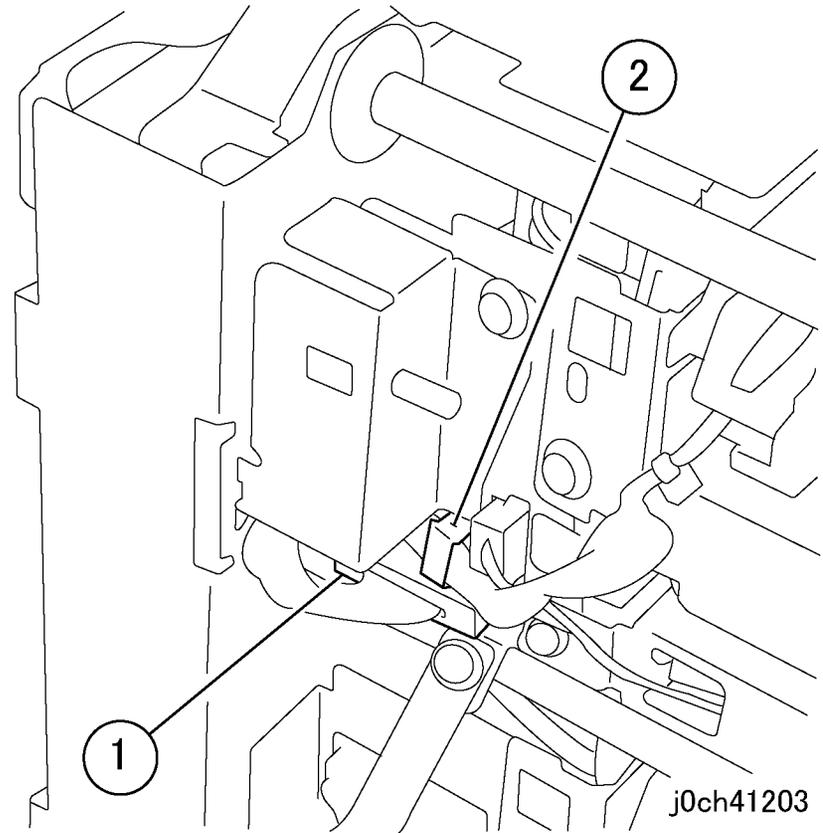


j0ch41202

Figure 2 Removing the Feed Out Chute (j0ch41202)

6. Disconnect the connector. (Figure 3)

1. Disconnect the connector.
2. Release the clamp and remove the wire.



j0ch41203

Figure 3 Disconnecting the connector (j0ch41203)

7. Remove the Tray 3 Feeder. (Figure 4)

1. Remove the screws (x2).
2. Remove the Tray 3 Feeder.

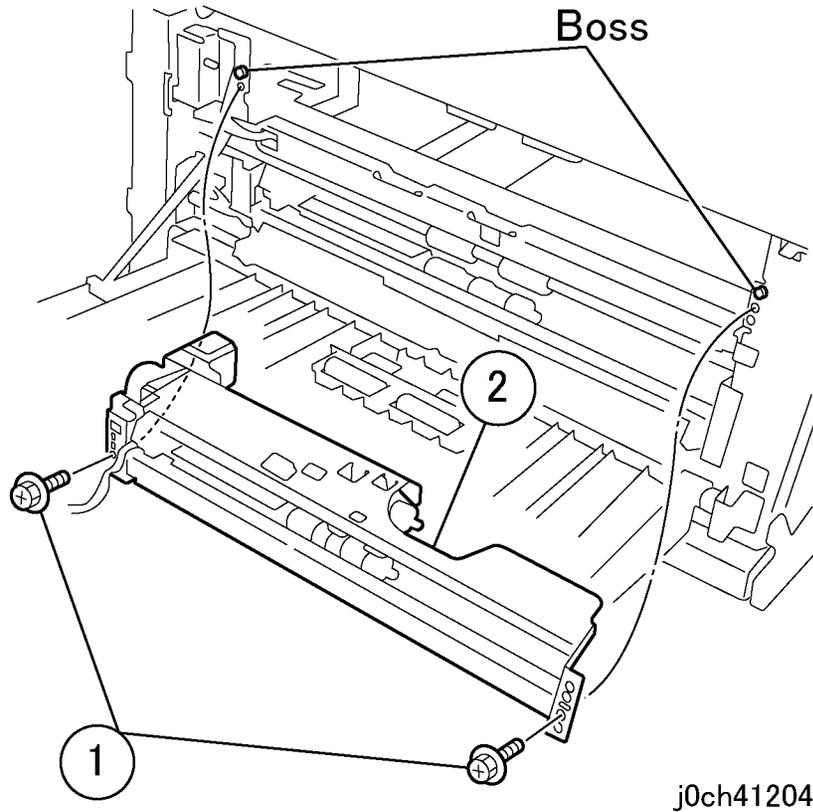


Figure 4 Removing the Tray 3 Feeder (j0ch41204)

### Replacement

1. To install, carry out the removal steps in reverse order.
2. When replacing, enter Diag. mode. Clear the counter. Tray 3 "Chain-Func:[29-36],[29-26],[29-16],[29-6]"

## REP 12.1.2 Tray 4 Feeder

### Parts List on PL 12.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Pull out Tray 4.
2. Remove the Left Lower Cover. (REP 12.7.1)
3. Open the lower Left Cover (PL 12.7).

4. Remove the screws. (Figure 1)

1. Remove the screws.

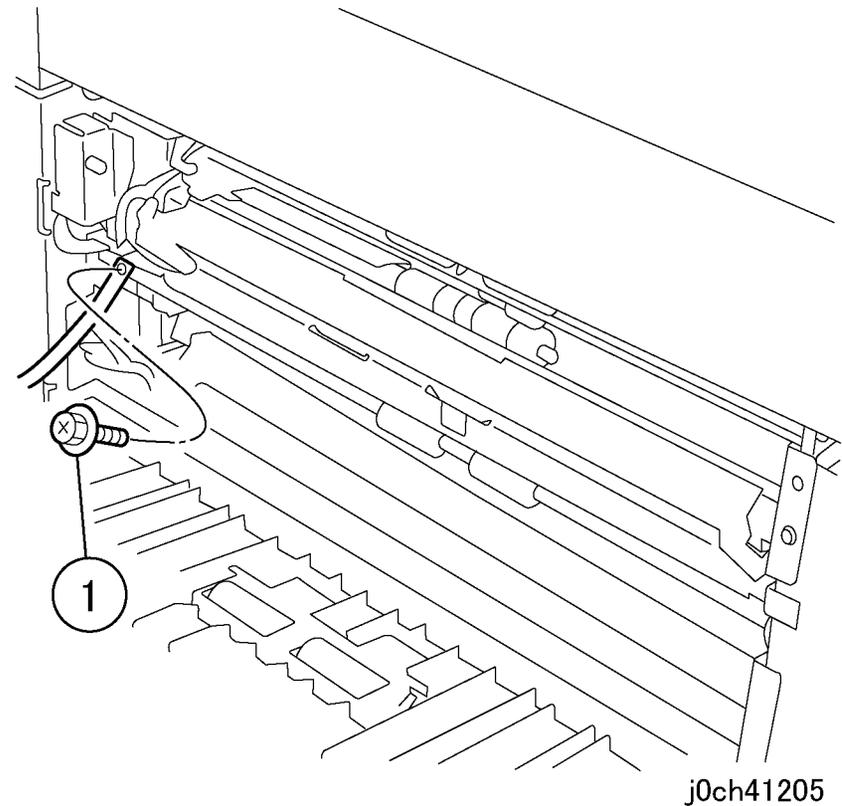


Figure 1 Removing the screws (j0ch41205)

5. Remove the Feed Out Chute. (Figure 2)

1. Remove the Feed Out Chute.

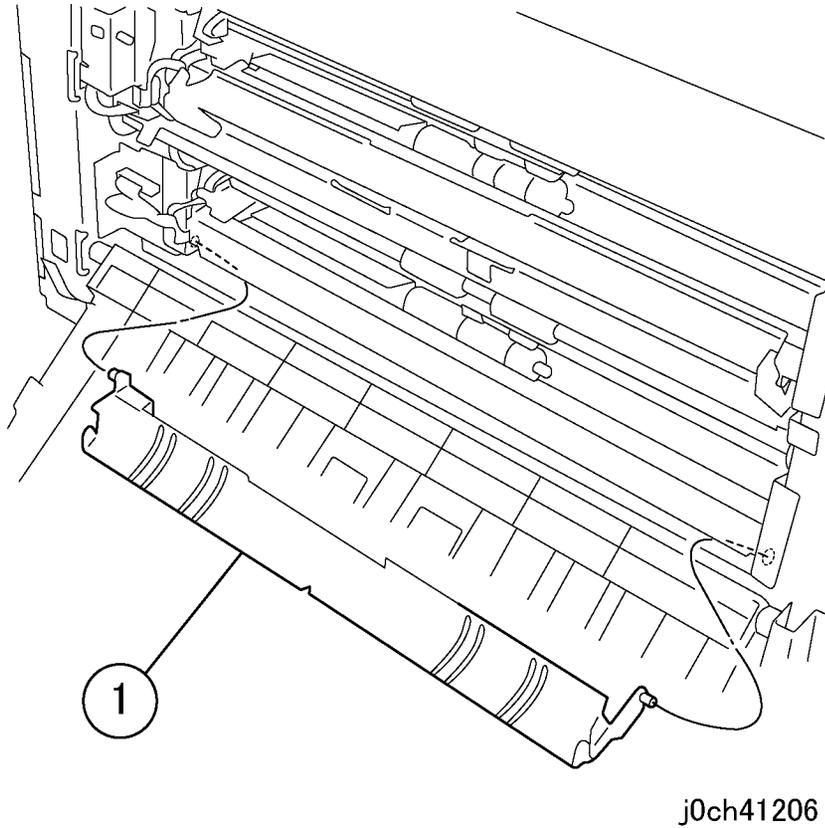


Figure 2 Removing the Feed Out Chute (j0ch41206)

6. Disconnect the connector. (Figure 3)

1. Disconnect the connector.
2. Release the clamp and remove the wire.

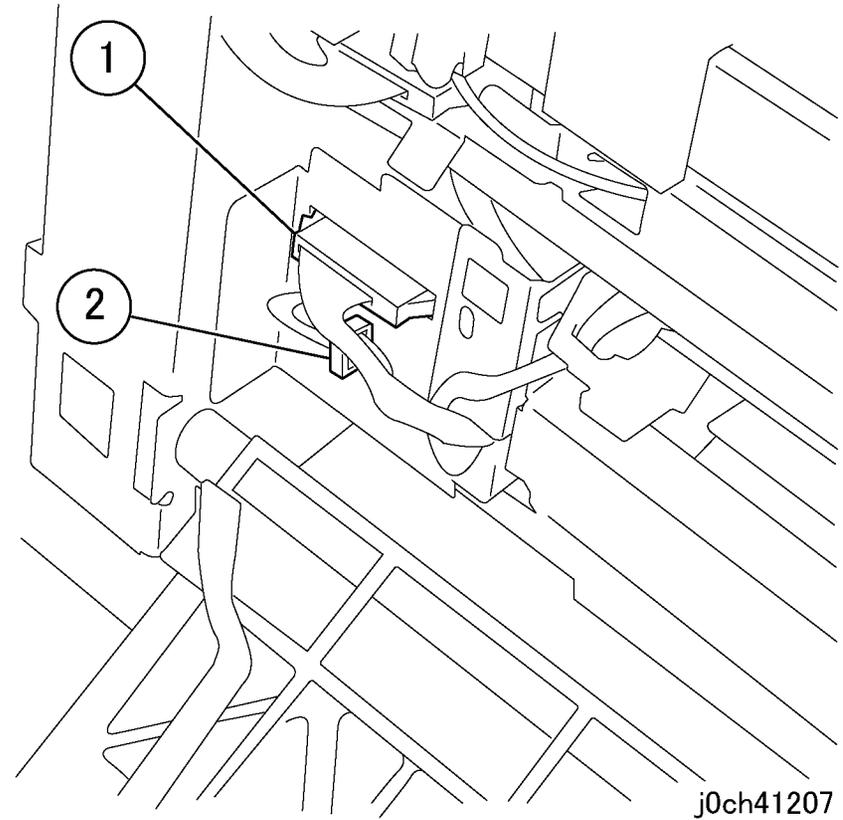


Figure 3 Disconnecting the connector (j0ch41207)

7. Remove the Tray 4 Feeder. (Figure 4)
  1. Remove the screws (x2).
  2. Remove the Tray 4 Feeder.

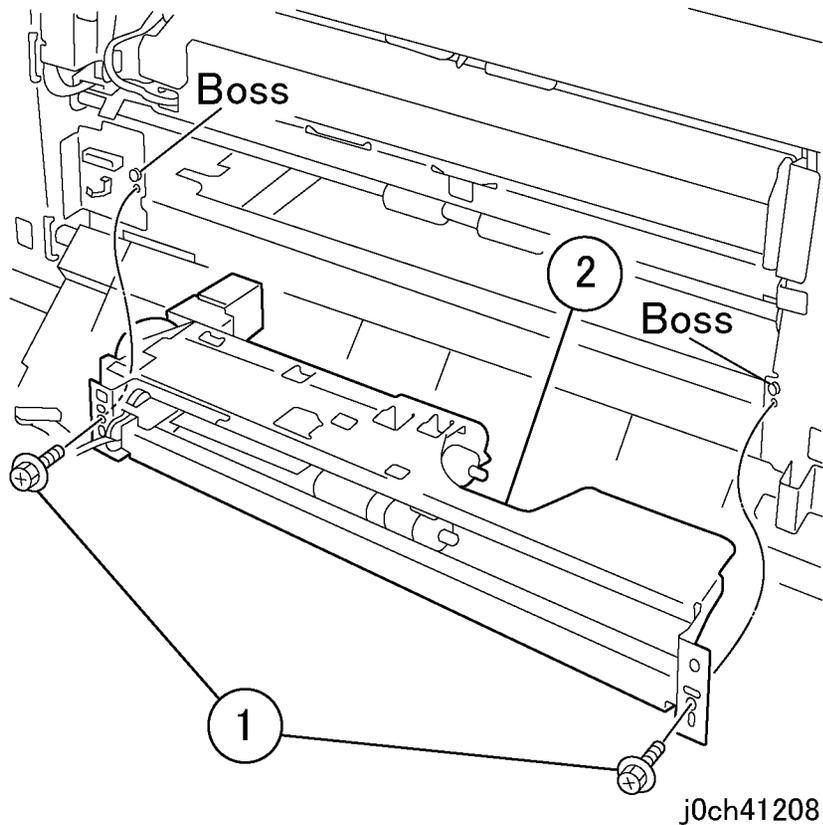


Figure 4 Removing the Tray 4 Feeder (j0ch41208)

### Replacement

1. To install, carry out the removal steps in reverse order.
2. When replacing, enter Diag. mode. Clear the counter.  
Tray 4 "Chain-Func:[29-37],[29-27],[29-17],[29-7]"

## REP 12.3.1 Feed/Retard/Nudger Roll

### Parts List on PL 12.3

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

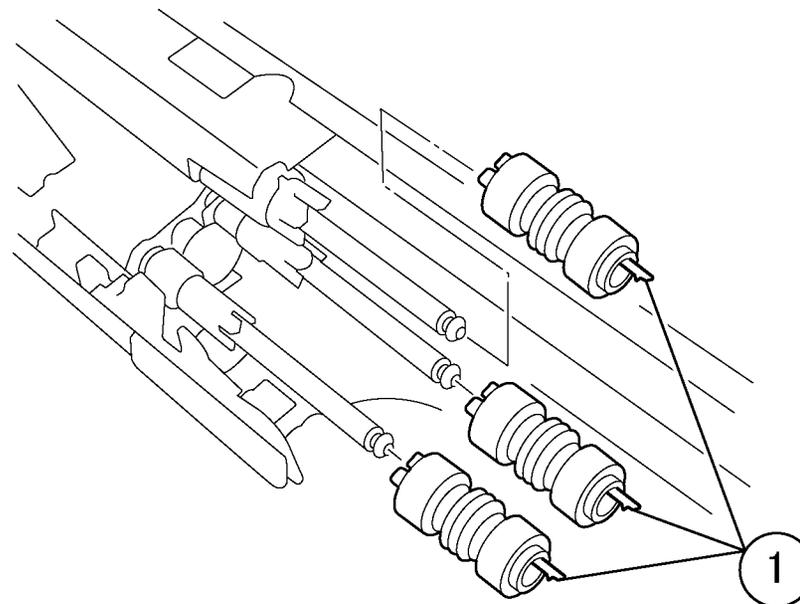
[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

**NOTE:** The Feed, Retard, and Nudger Roll must be replaced at the same time.

1. Remove the paper tray for the Feed/Retard/Nudger Roll to be replaced.
  - a. Pull out tray and remove paper.
  - b. Ensure tray is pulled out to the stop.
  - c. Lift end and pull out to remove.
2. Reach in to paper tray cavity in machine and pull Front Chute forward (PL 12.3).

3. Remove the Feed/Retard/Nudger Roll (Figure 1).
  1. Release the lock tab and pull off the Feed/Retard/Nudger Rolls



j0ch41210

Figure 1 Removing the Feed/Retard/Nudger Roll (j0ch41210)

#### Replacement

1. To install, carry out the removal steps in reverse order.
2. When replacing, enter Diag. mode. Clear the counter.  
Tray 3 "Chain-Func:[29-36],[29-26],[29-16],[29-6]"  
Tray 4 "Chain-Func:[29-37],[29-27],[29-17],[29-7]"

## REP 12.6.1 2TM PWB

### Parts List on PL 12.6

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

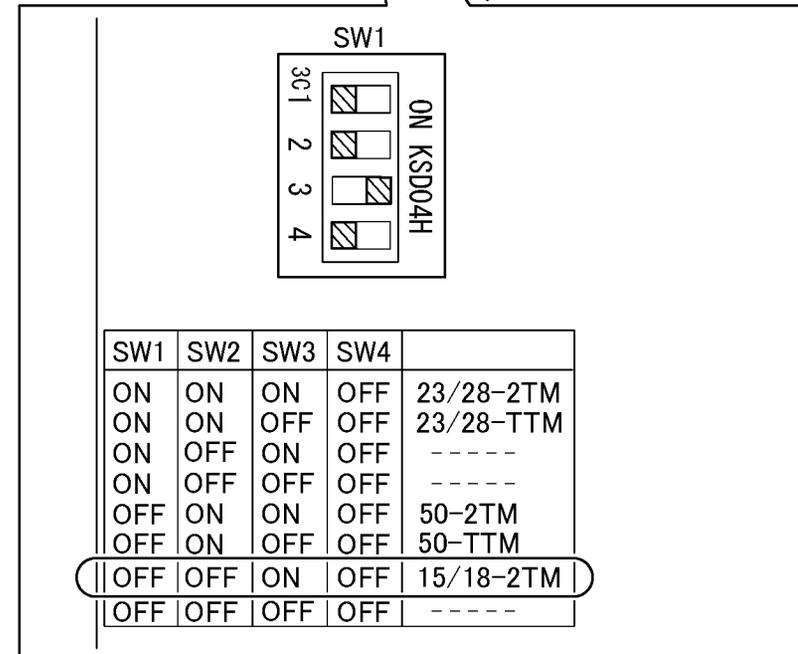
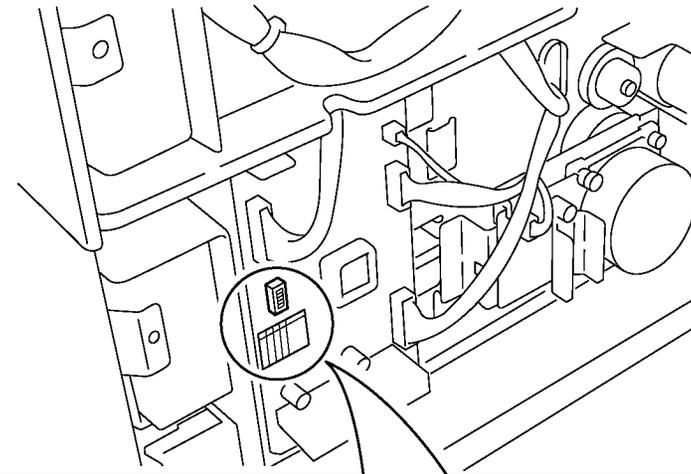
[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

- When replacing the 2TM PWB, set the 2TM PWB Dip Switch to the position as shown. (Figure 1)



j0ch41211

Figure 1 Setting the Dip Switch (j0ch41211)

## REP 12.7.1 Left Lower Cover

### Parts List on PL 12.7

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

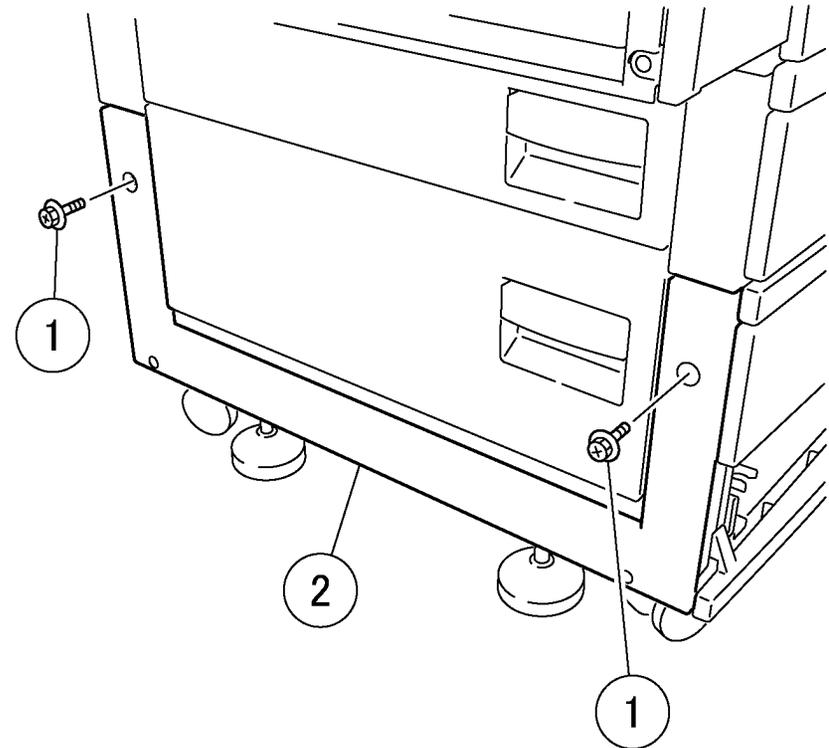
[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Pull out Tray 4.
2. Remove the Left Lower Cover. (Figure 1)
  1. Remove the screws (2).
  2. Remove the Left Lower Cover.



j0ch41212

Figure 1 Remove the Left Lower Cover (j0ch41212)

#### Replacement

1. To install, carry out the removal steps in reverse order.



## REP 13.1.1 Tray 2 Feeder

### Parts List on PL 13.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Pull out Tray 2.
2. Open the lower Left Cover (PL 12.7).

3. Remove the bracket. (Figure 1)
  1. Remove the Feed Out Chute.
  2. Remove the screw and the bracket.

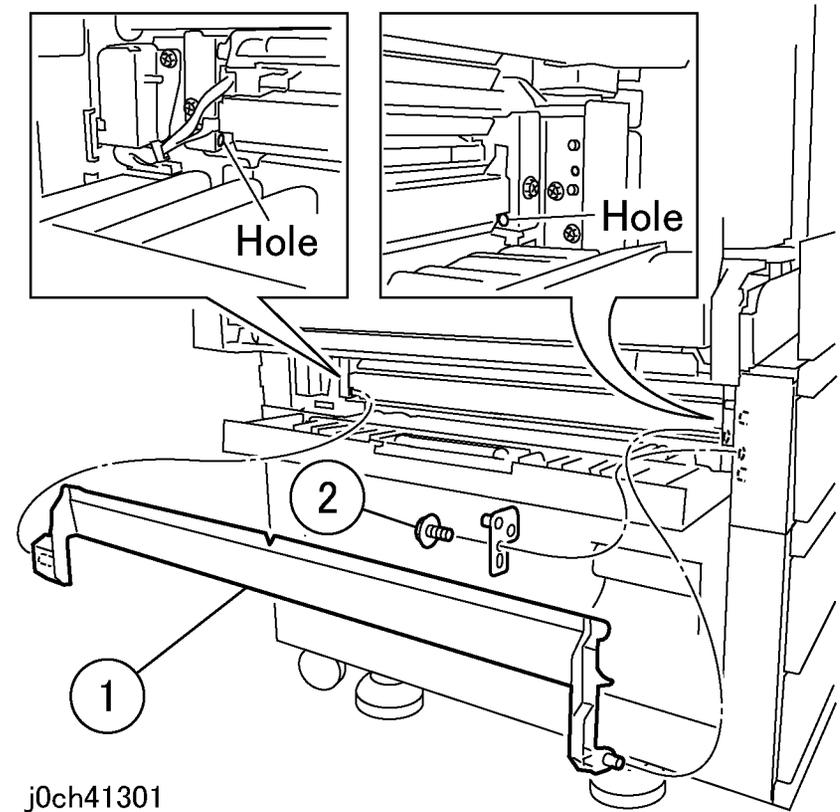
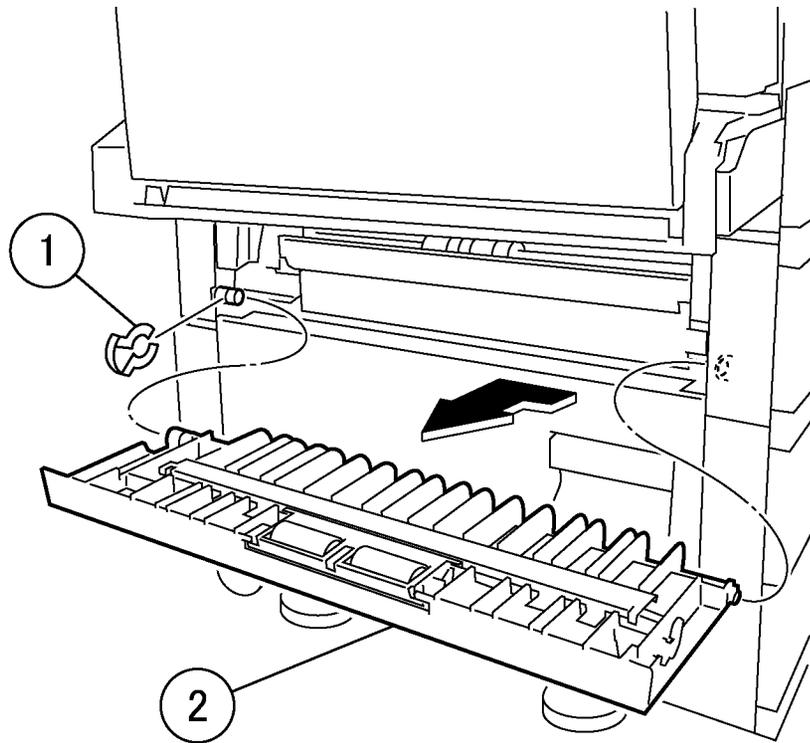


Figure 1 Removing the bracket (j0ch41301)

4. Remove the Left Cover Assembly. (Figure 2)

1. Remove the KL-Clip.
2. Remove the Left Cover Assembly.

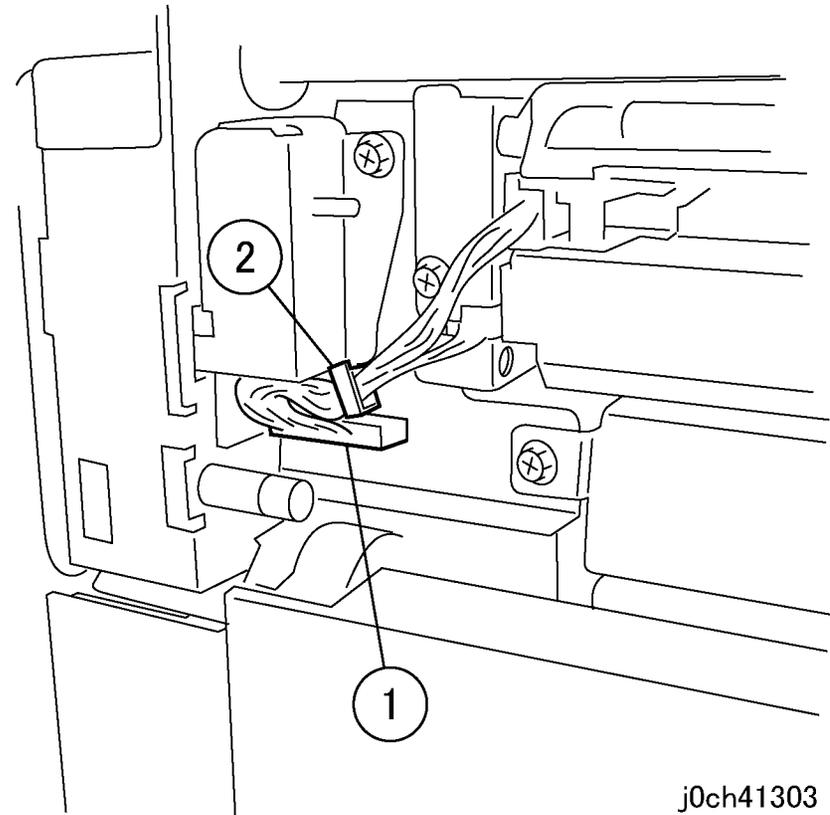


j0ch41302

Figure 2 Removing the Left Cover Assembly (j0ch41302)

5. Disconnect the connector. (Figure 3)

1. Disconnect the connector.
2. Release the clamp and remove the Wire Harness.



j0ch41303

Figure 3 Disconnecting the connector (j0ch41303)

6. Remove the Tray 2 Feeder. (Figure 4)

1. Remove the screws (x2).
2. Remove the Tray 2 Feeder.

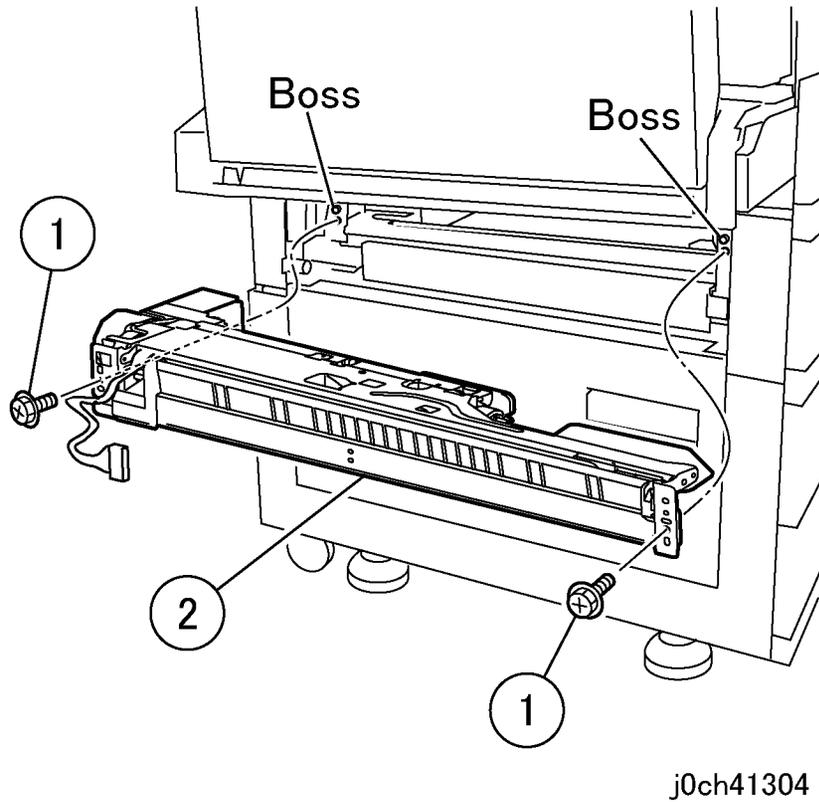


Figure 4 Removing the Tray 2 Feeder (j0ch41304)

**Replacement**

1. To install, carry out the removal steps in reverse order.
2. When replacing, enter Diag. mode. Clear the counter. Tray 2 "Chain-Func: [29-35],[29-25],[29-15],[29-5]"

## REP 13.3.1 Feed/Retard/Nudger Roll

### Parts List on PL 13.3

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

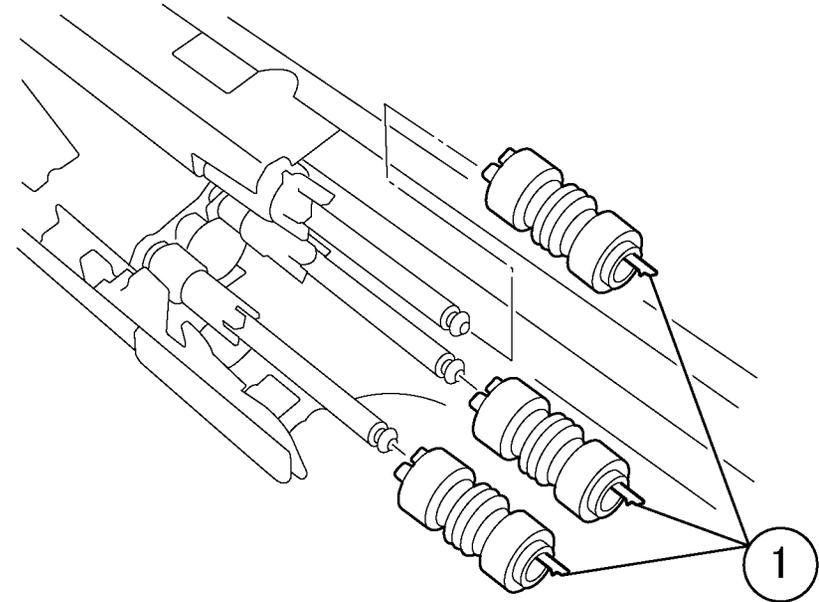
[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

**NOTE:** The Feed, Retard, and Nudger Roll must be replaced at the same time.

1. Remove the paper tray for the Feed/Retard/Nudger Roll to be replaced.
  - a. Pull out tray and remove paper.
  - b. Ensure tray is pulled out to the stop.
  - c. Lift end and pull out to remove.
2. Reach in to paper tray cavity in machine and pull Front Chute forward (PL 12.3).

3. Remove the Feed/Retard/Nudger Roll (Figure 1).
  1. Release the lock tab and pull off the Feed/Retard/Nudger Rolls



j0ch41210

Figure 1 Removing the Feed/Retard/Nudger Roll (j0ch41210)

#### Replacement

1. To install, carry out the removal steps in reverse order.
2. When replacing, enter Diag. mode. Clear the counter.  
Tray 2 "Chain-Func:[29-37],[29-27],[29-17],[29-7]"

## REP 15.1.1 DADF/ADF

### Parts List on PL 15.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

*[FAX Models]*

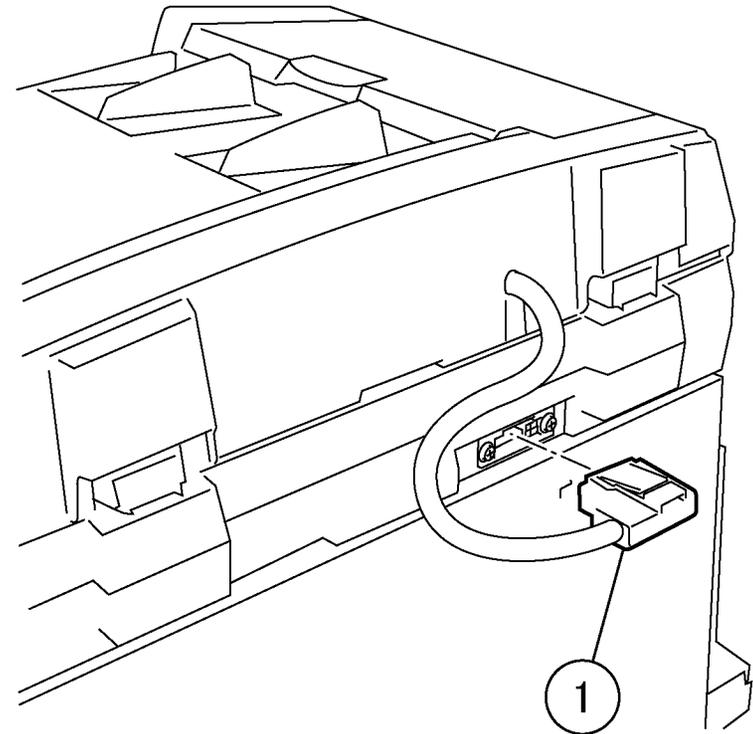
Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

*[Printer Models]*

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Disconnect the connector. (Figure 1)

1. Disconnect the connector.



j0ch41501

Figure 1 Disconnecting the connector (j0ch41501)

2. Remove the screws. (Figure 2)

1. Remove the screws (x2).

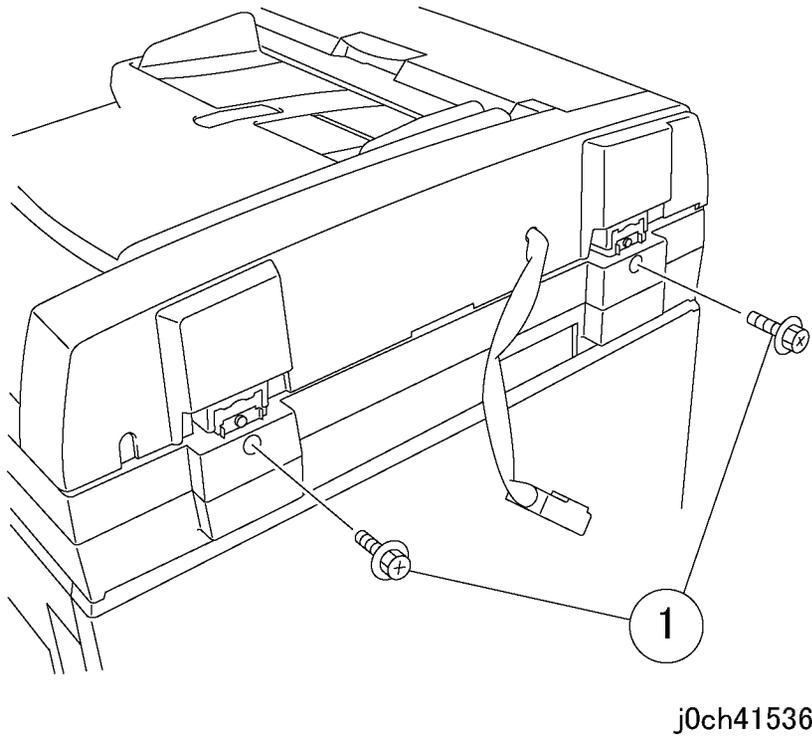


Figure 2 Removing the screws (j0ch41536)

3. Remove the DADF/ADF. (Figure 3)

1. Remove the DADF/ADF.

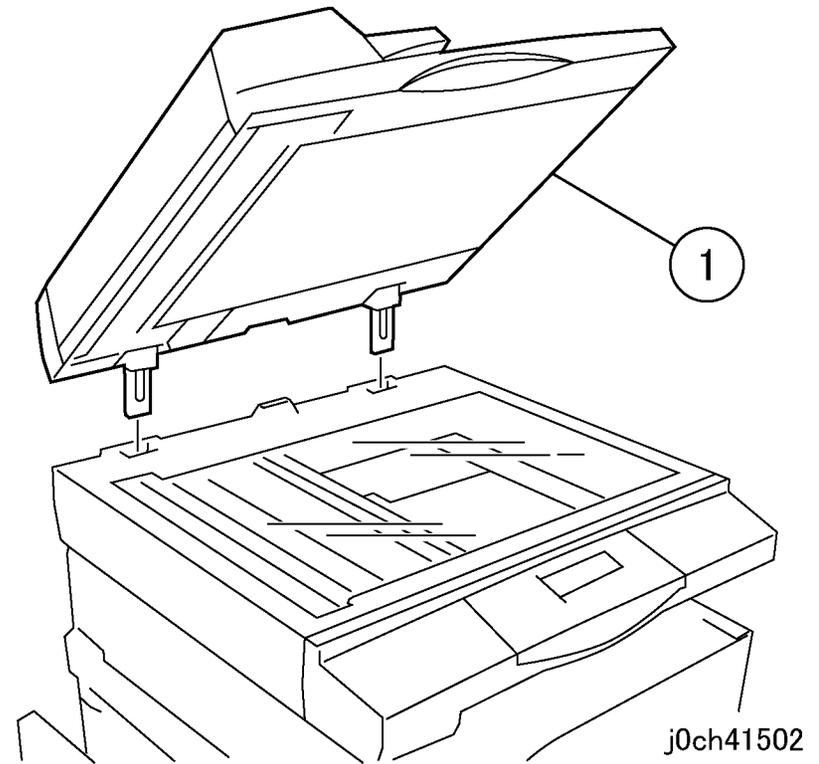


Figure 3 Removing the DADF/ADF (j0ch41502)

**Replacement**

1. To install, carry out the removal steps in reverse order.

## REP 15.1.2 DADF/ADF Platen Cushion

### Parts List on PL 15.1

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the Platen Cushion. (Figure 1)
  1. Pull off the Platen Cushion at the corners to disconnect the interlocking fasteners.

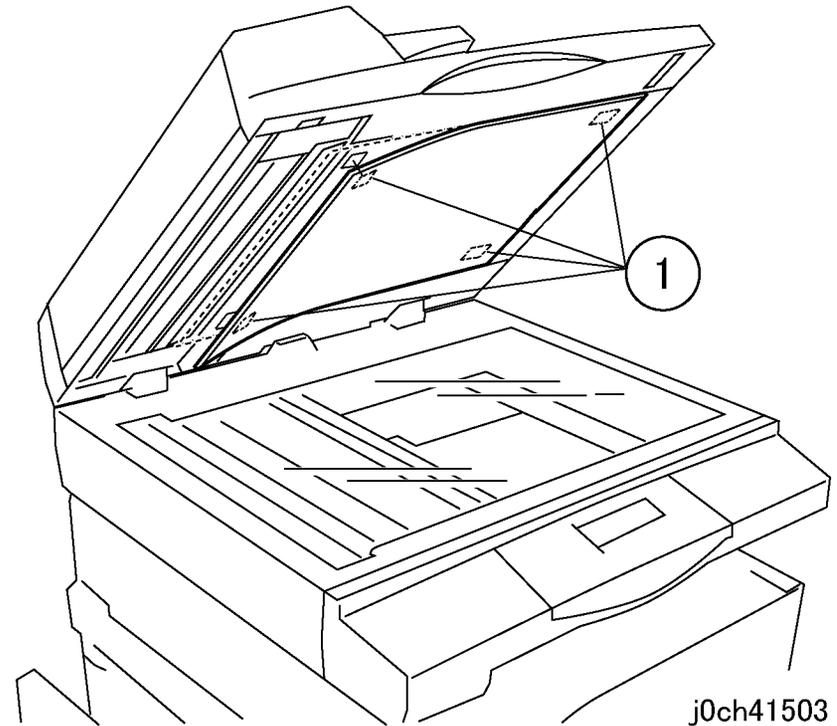
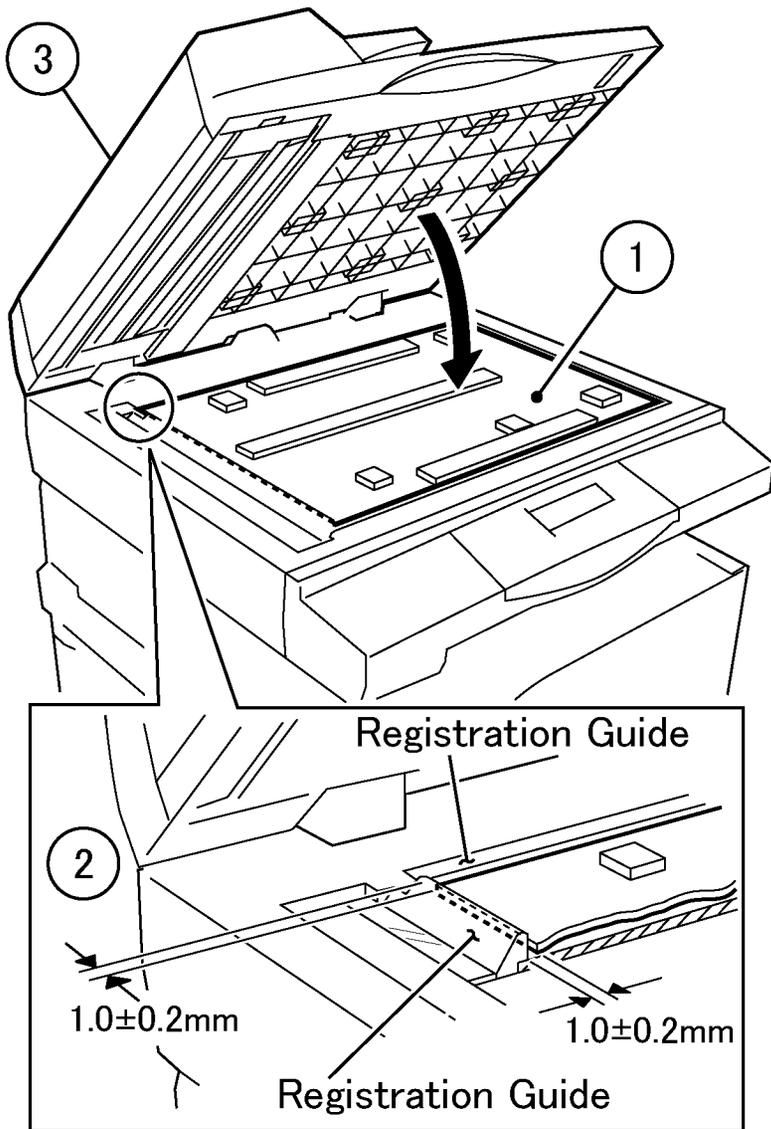


Figure 1 Removing the Platen Cushion (j0ch41503)

#### Replacement

1. Install the Platen Cushion. (Figure 2)
  1. Place the Platen Cushion on the Platen Glass.
  2. Make a gap between the Platen Cushion and the Registration Guide.
  3. Slowly lower the DADF/ADF to engage the interlocking fasteners.



j0ch41504

Figure 2 Installing the Platen Cushion (j0ch41504)

## REP 15.2.1 Document Tray Assembly

Parts List on PL 15.2

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

*[FAX Models]*

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

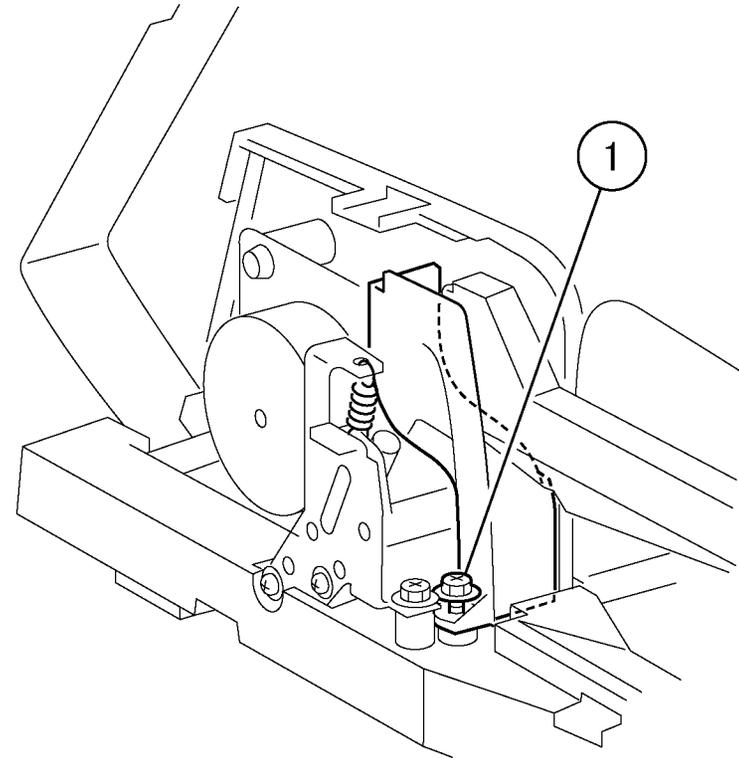
*[Printer Models]*

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the following parts:
  - Front Cover (REP 15.2.3)
  - Rear Cover (REP 15.2.4)
2. Open the Top Cover (PL 15.4).

3. Remove the Tapping Screw. (Figure 1)

1. Loosen the screw.

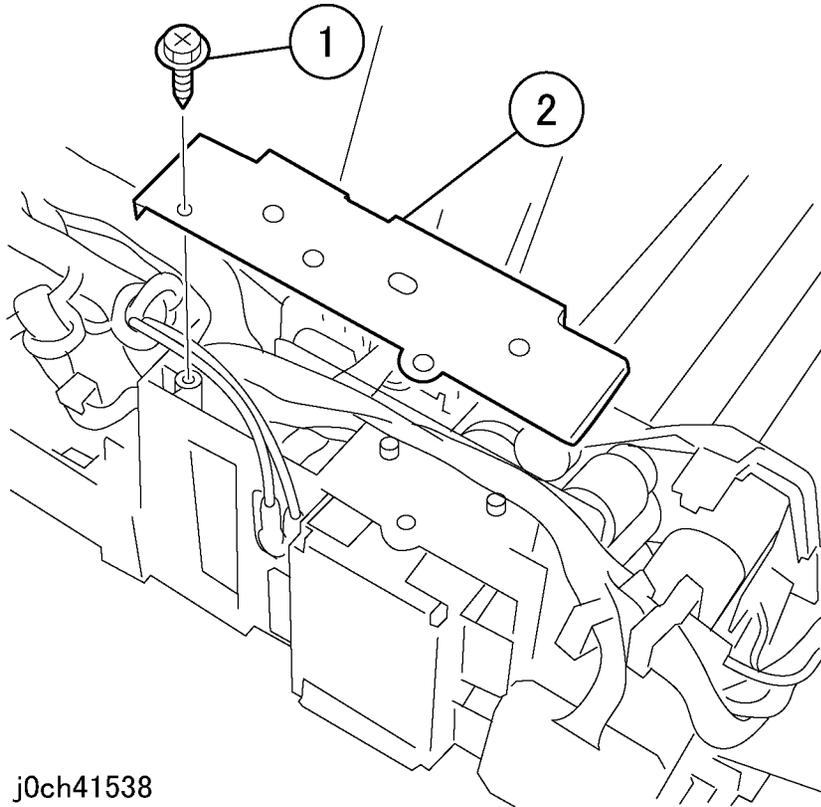


j0ch41505

Figure 1 Removing the Tapping Screw (j0ch41505)

4. Remove the Support Bracket. (Figure 2)

1. Remove the Tapping Screw.
2. Remove the Support Bracket.

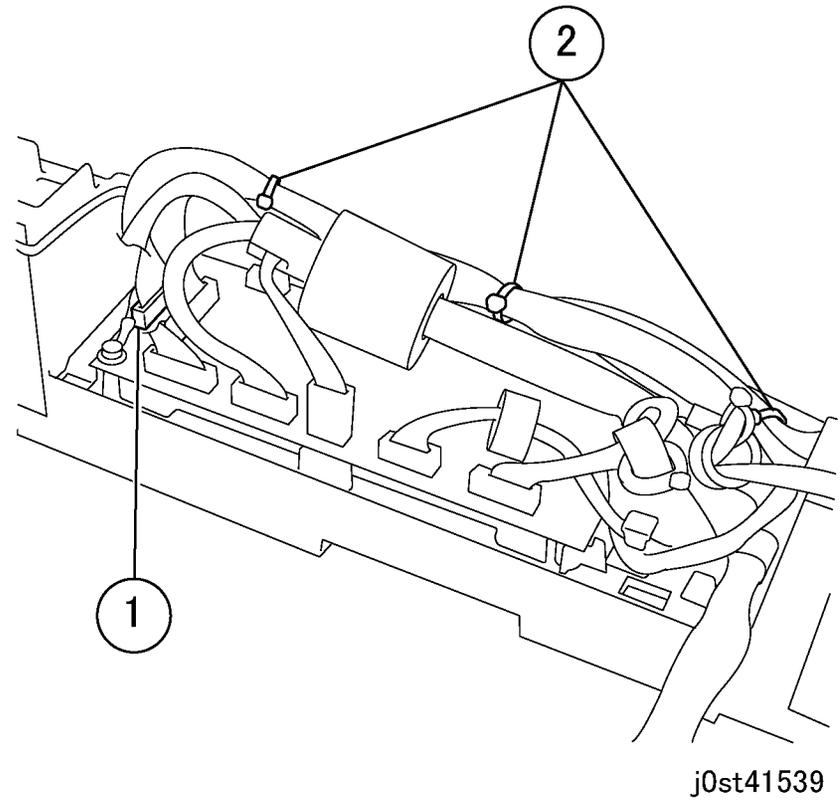


j0ch41538

Figure 2 Removing the Support Bracket (j0ch41538)

5. Disconnect the connector. (Figure 3)

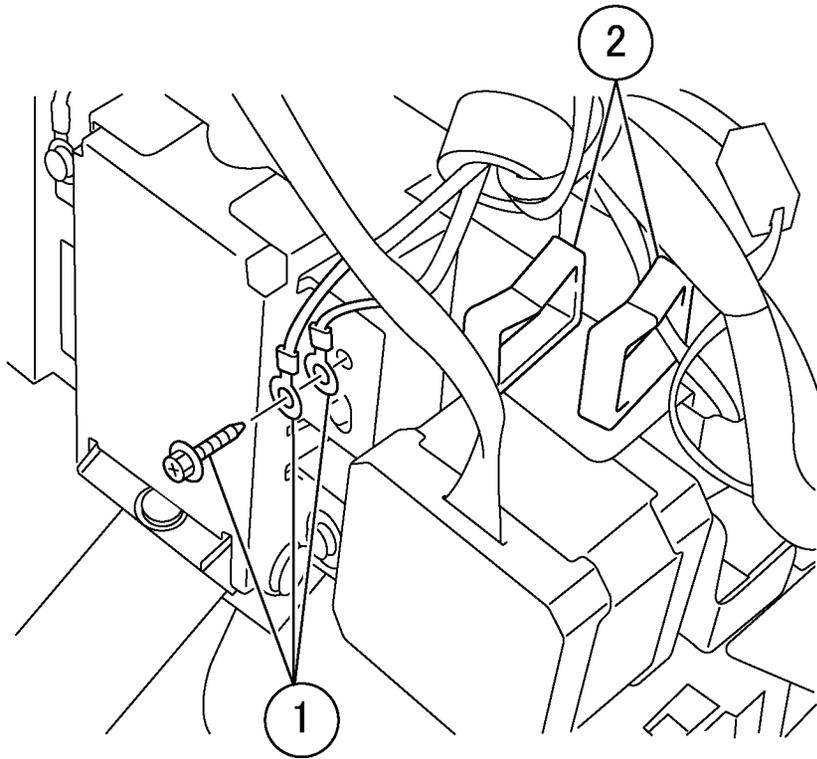
1. Disconnect the connector.
2. Cut the cable ties (x3).



j0st41539

Figure 3 Disconnecting the connector (j0st41539)

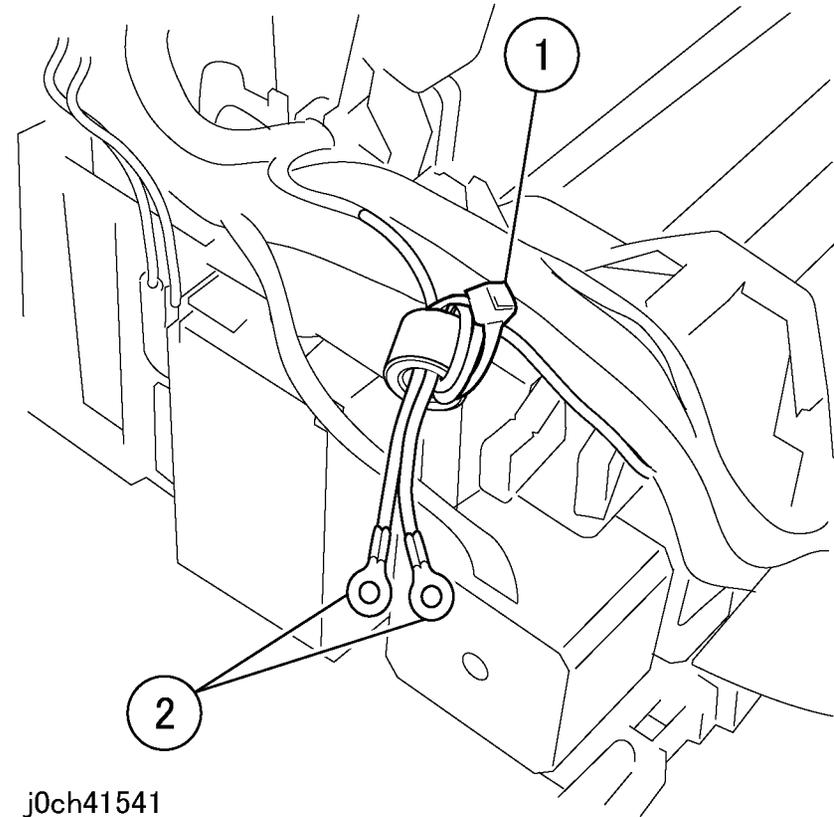
6. Release the Wire Harness from the clamps. (Figure 4)
  1. Remove the screw and remove the Earth Wires (x2).
  2. Release the Wire Harness from the clamps (x2).



j0ch41540

Figure 4 Removing the Wire Harness (j0ch41540)

7. Cut the cable tie. (Figure 5)
  1. Cut the cable tie.
  2. Pull out the Earth Wire from the core.



j0ch41541

Figure 5 Removing the Earth Wire (j0ch41541)

8. Remove the Document Tray Assembly. (Figure 6)
  1. Remove the Document Tray Assembly.

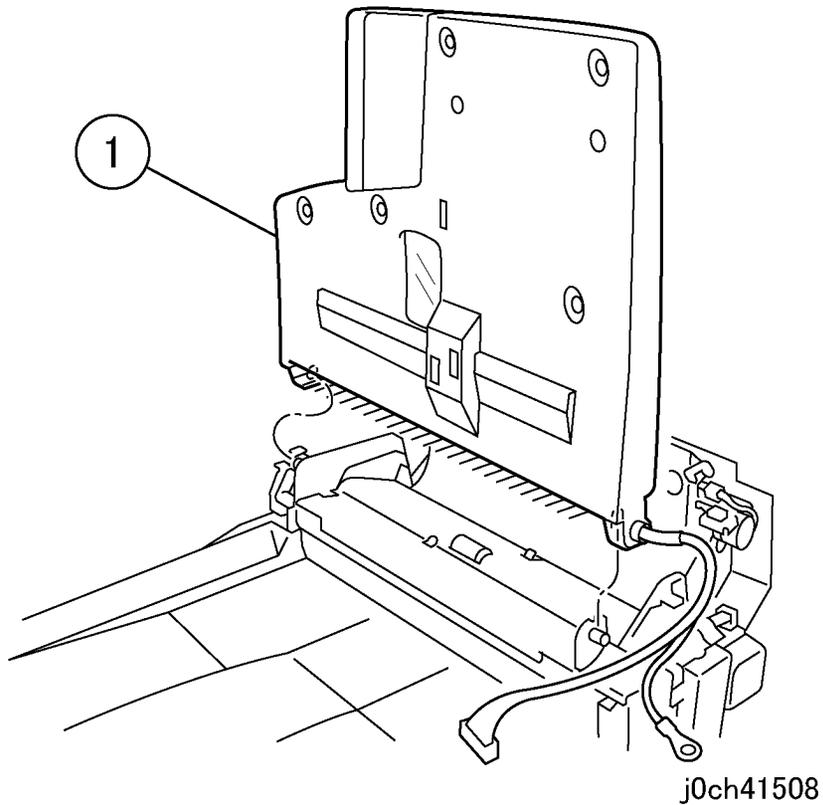


Figure 6 Removing the Document Tray Assembly (j0ch41508)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 15.2.2 DADF/ADF Feeder Assembly

### Parts List on PL 15.2

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the DADF/ADF. (REP 15.1.1)
2. Remove the following covers.
  - Front Cover (REP 15.2.3)
  - Rear Cover (REP 15.2.4)
3. Open the Top Cover (PL 15.4).
4. Remove the Document Tray Assembly. (REP 15.2.1)

5. Remove the Rear Blind Cover. (Figure 1)

1. Remove the Tapping Screw.
2. Remove the Rear Blind Cover.

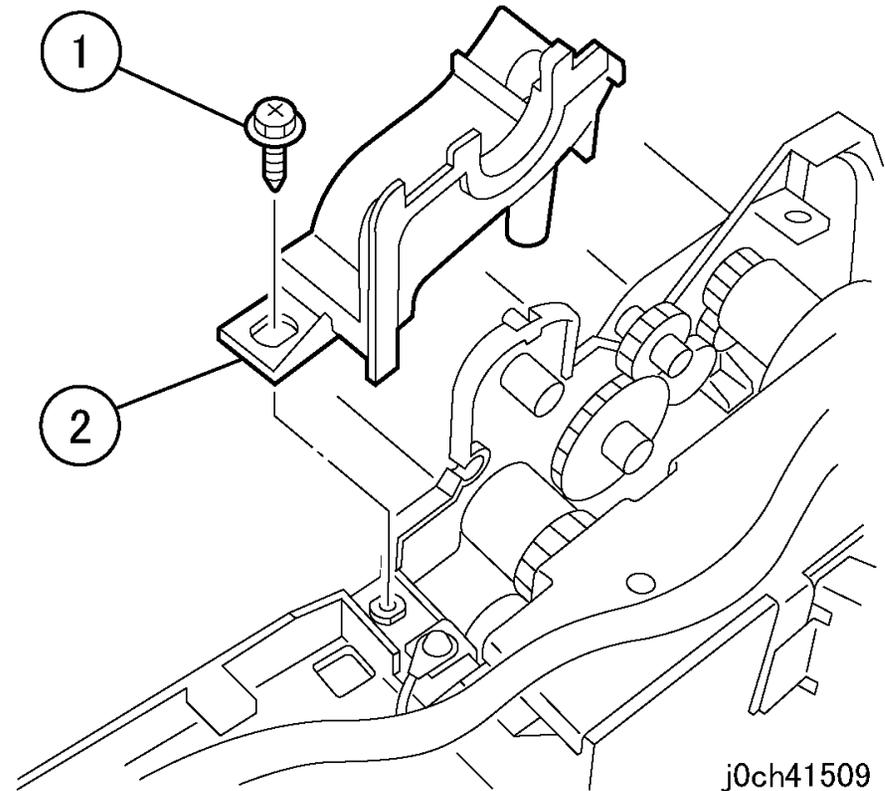
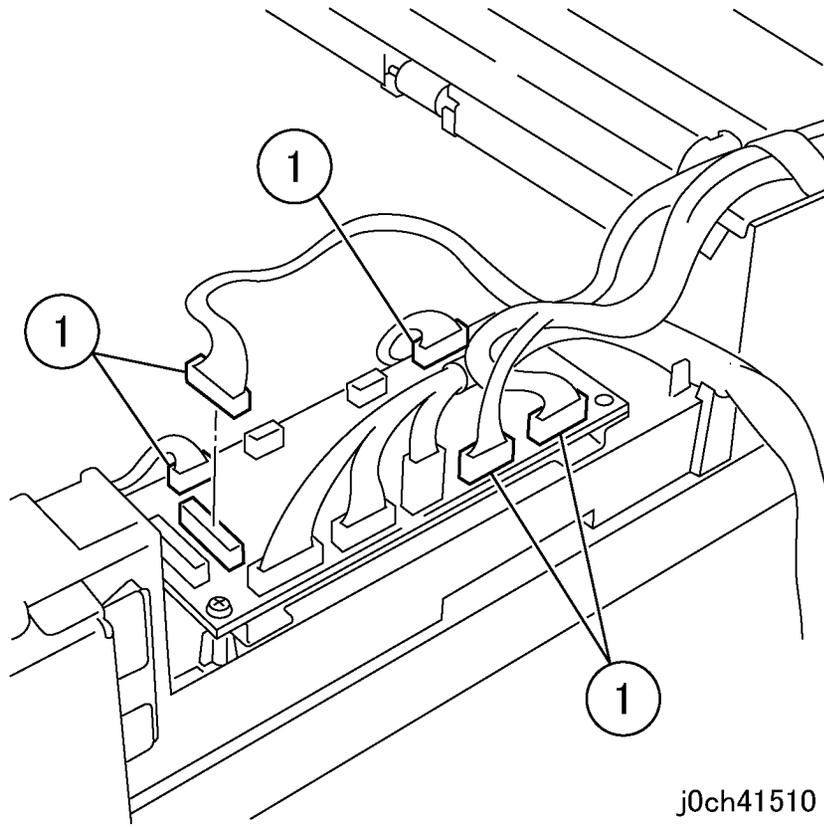


Figure 1 Removing the Rear Blind Cover (j0ch41509)

6. Disconnect the DADF/ADF PWB connectors. (Figure 2)

1. Disconnect the connectors (x5).

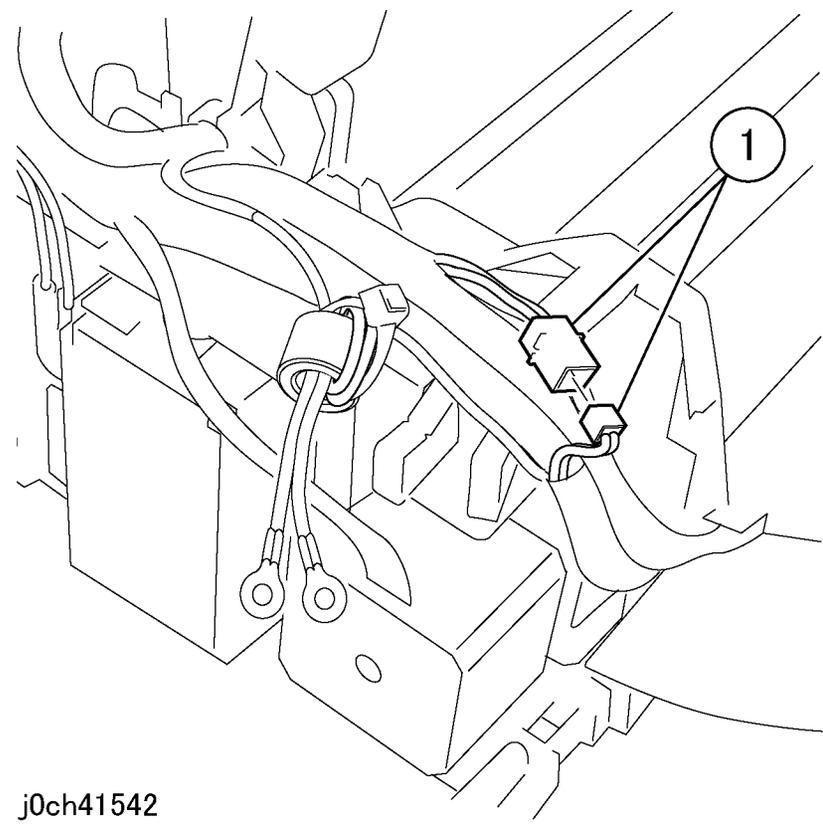


j0ch41510

Figure 2 Disconnecting the PWB connectors (j0ch41510)

7. Disconnect the connector. (Figure 3)

1. Disconnect the connector.

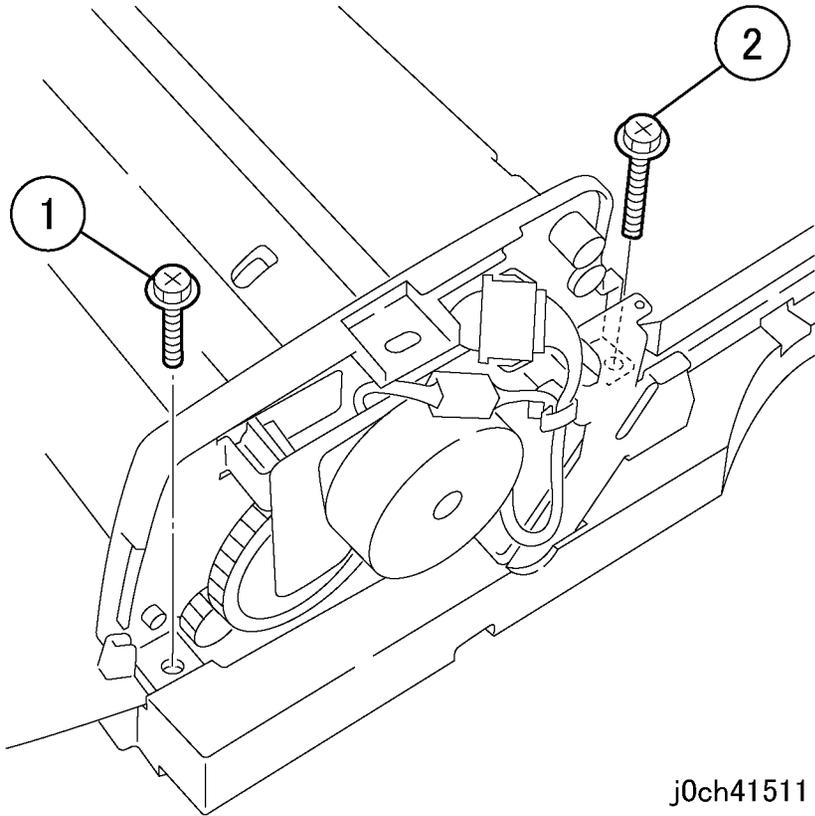


j0ch41542

Figure 3 Disconnecting the connector (j0ch41542)

8. Remove the screws at the front. (Figure 4)

1. Remove the screw (short).
2. Remove the screw (15 mm).

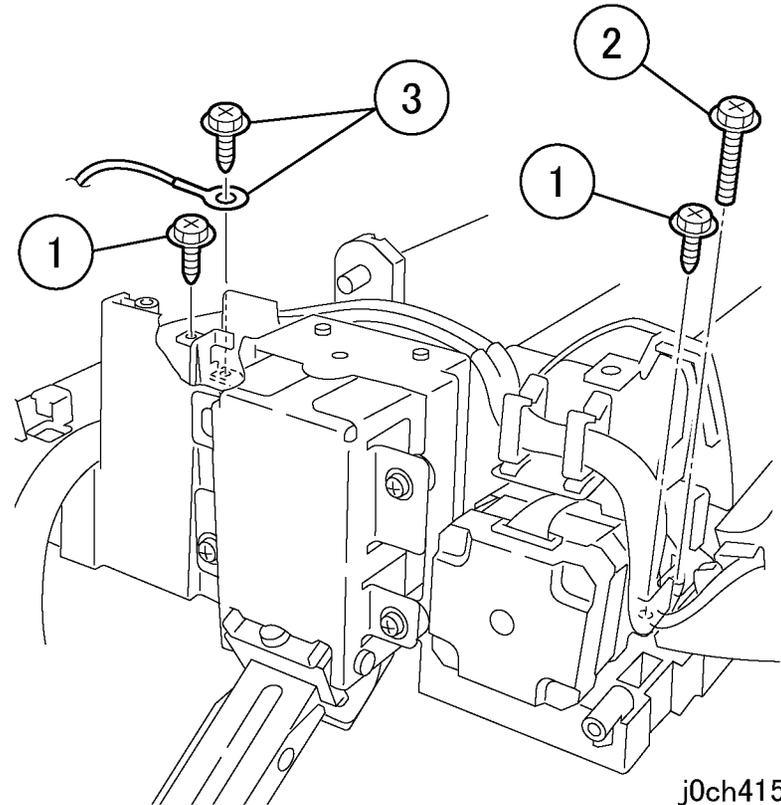


j0ch41511

Figure 4 Removing the screws (j0ch41511)

9. Remove the screws at the rear. (Figure 5)

1. Remove the Tapping Screws (x2).
2. Remove the screw (W/S screw: long).
3. Remove the Tapping Screw and remove the Earth Wires.



j0ch41514

Figure 5 Removing the screws (j0ch41514)

10. Remove the DADF/ADF Feeder Assembly. (Figure 6)

1. Remove the DADF/ADF Feeder Assembly.

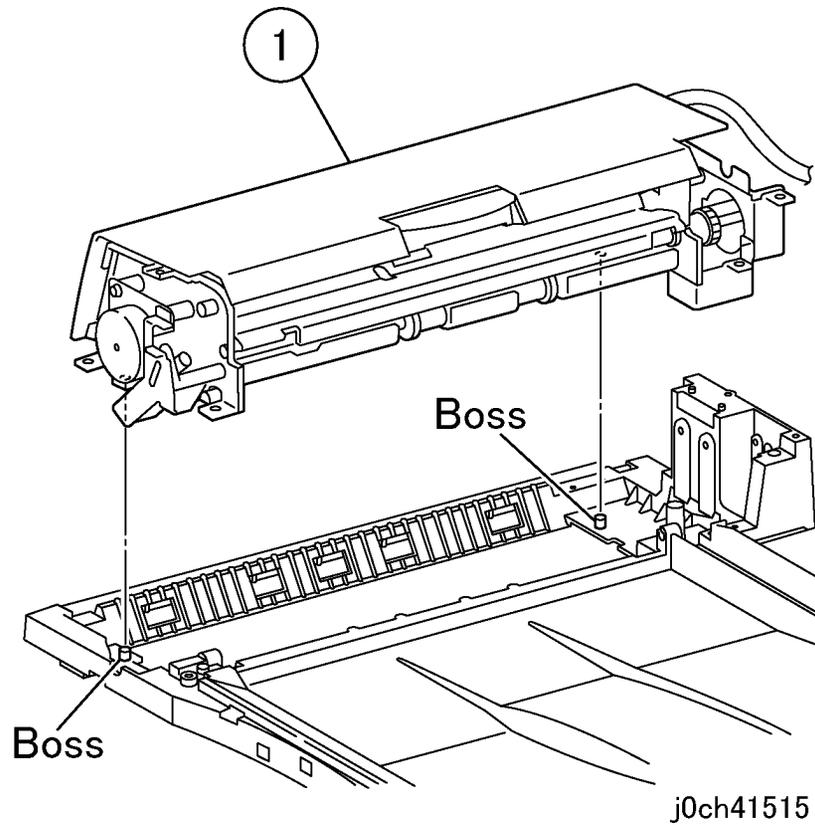


Figure 6 Removing the DADF/ADF Assembly (j0ch41515)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 15.2.3 Front Cover

### Parts List on PL 15.2

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the Front Cover. (Figure 1)
  1. Open Feeder.
  2. Remove the Tapping Screws (x3).
  3. Remove the screw.
  4. Push the Front Cover in the direction of the arrow and remove.

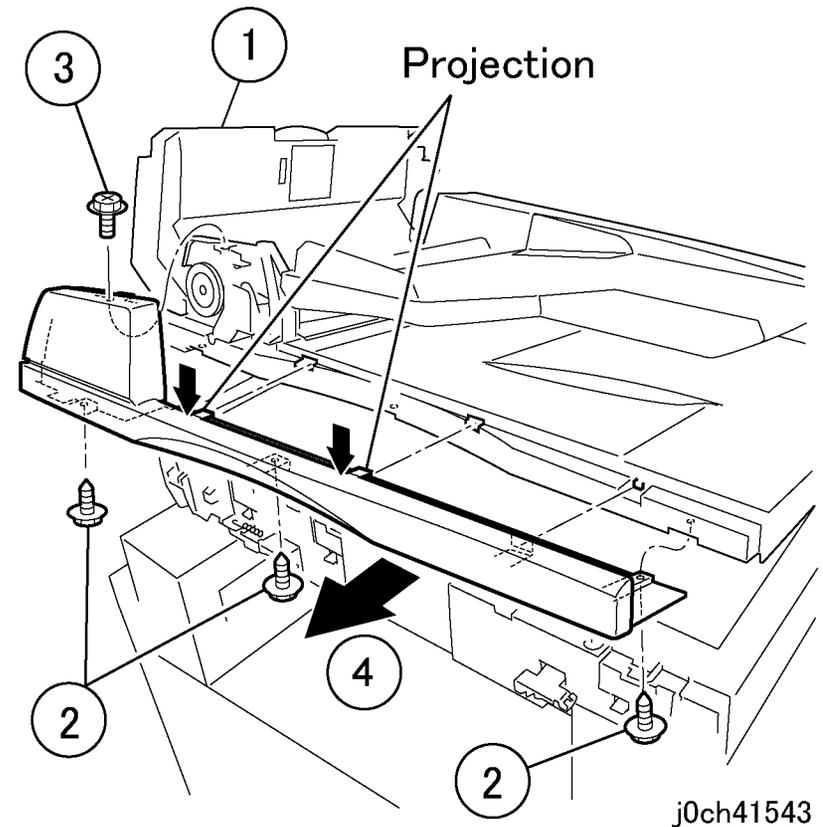


Figure 1 Removing the Front Cover (j0ch41543)

#### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 15.2.4 Rear Cover

### Parts List on PL 15.2

### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the Rear Cover (Figure 1).
  1. Open Feeder and lift Document Tray Assembly.
  2. Remove the screw.
  3. Remove the Tapping Screws (x2).
  4. Push the Rear Cover in the direction of the arrow and remove.

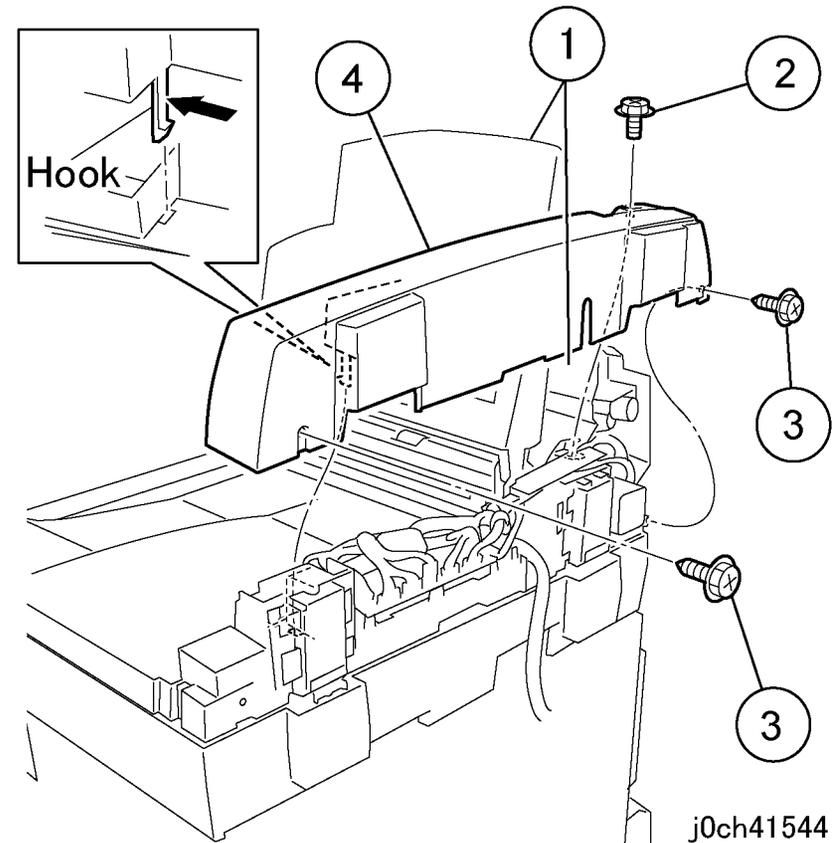


Figure 1 Removing the Rear Cover (j0ch41544)

### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 15.3.1 DADF/ADF Control PWB

### Parts List on PL 15.3

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

*[FAX Models]*

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

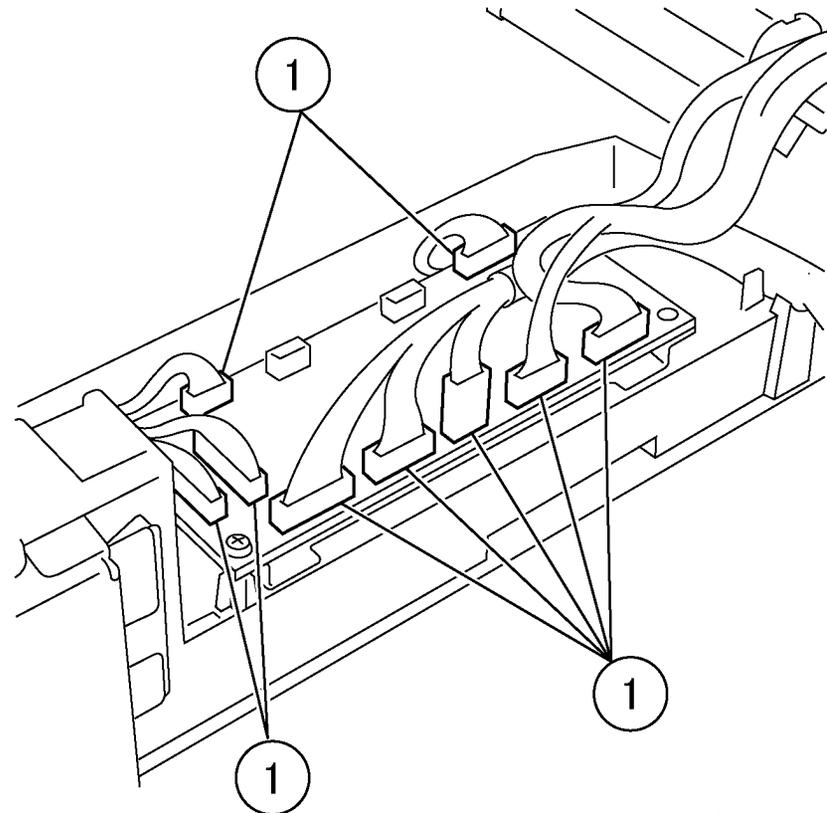
*[Printer Models]*

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the Rear Cover. (REP 15.2.4)

2. Disconnect the PWB connectors. (Figure 1)

1. Disconnect the connectors (x8).



j0ch41516

Figure 1 Disconnecting the connectors (j0ch41516)

3. Remove the DADF/ADF Control. (Figure 2)
  1. Remove the Tapping Screws (x3).
  2. Remove the Tapping Screw and remove the Earth Wires.
  3. Remove the DADF/ADF Control PWB.

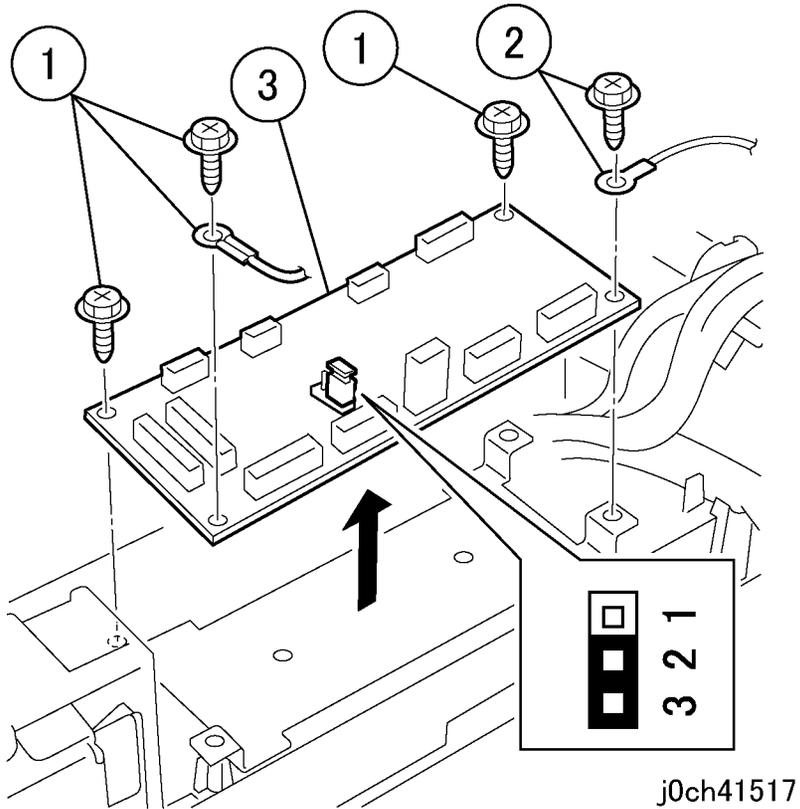


Figure 2 Removing the PWB (j0ch41517)

### Replacement

1. To install, carry out the removal steps in reverse order.
  2. Check the position of the Shorting Connector and if necessary change the setting. (Figure 3)
- DADF: 2-3  
ADF: 1-2

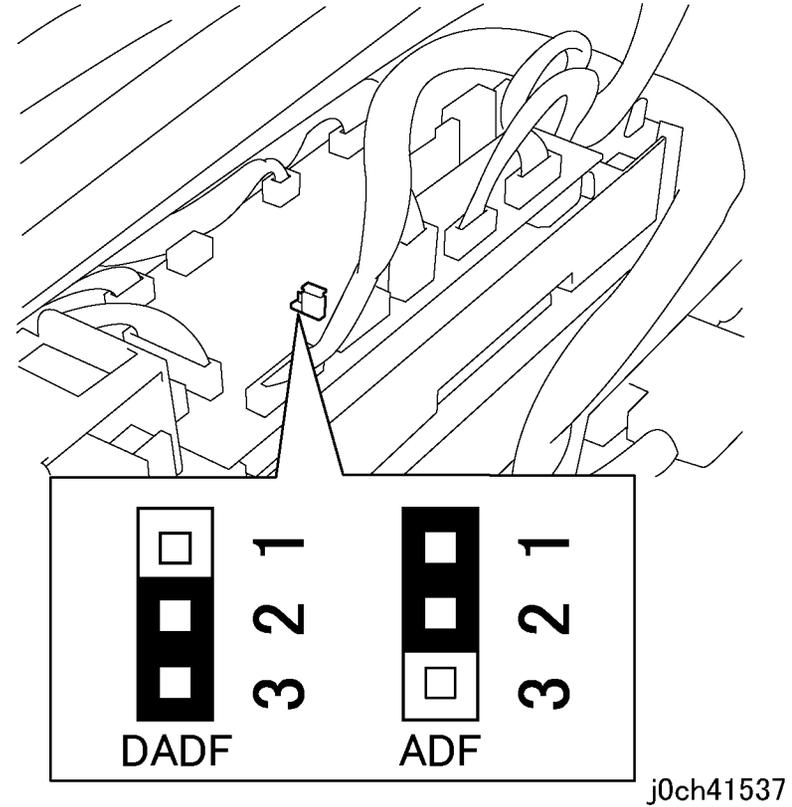


Figure 3 Shorting Connector setting (j0ch41537)

## REP 15.3.2 Left Counter Balance

### Parts List on PL 15.3

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the DADF/ADF. (REP 15.1.1)
2. Remove the Rear Cover. (REP 15.2.4)
3. Open the Top Cover (PL 15.4).

#### WARNING

Ensure that the DADF/ADF is removed.

If the Counter Balance is removed with the Top Cover closed, the compressed spring will be released immediately and may cause personal injury.

4. Remove the Film Cover. (Figure 1)
  1. Remove the Film Cover.

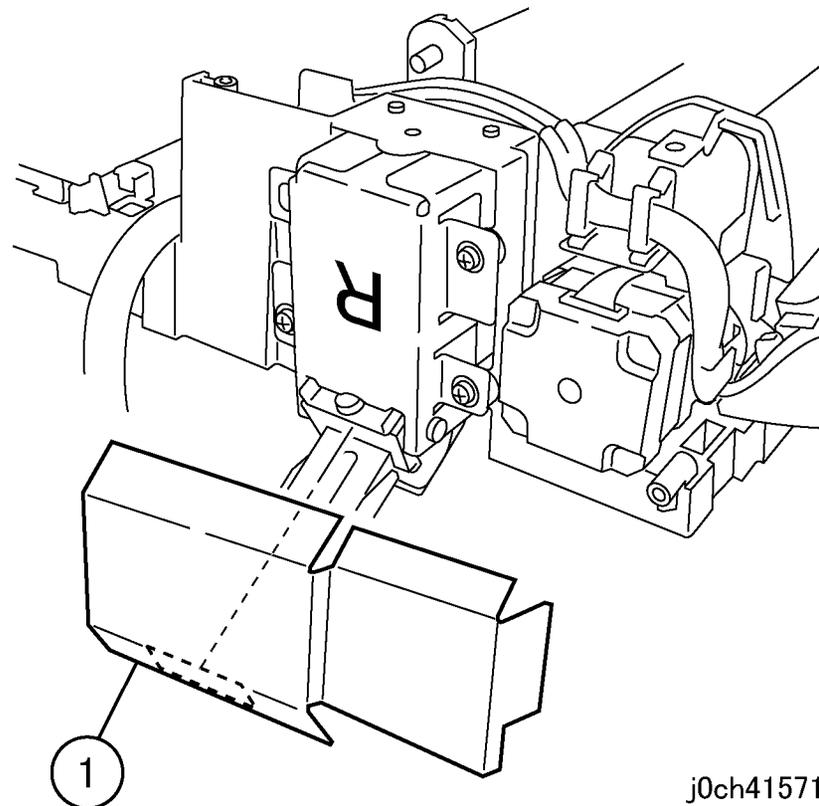
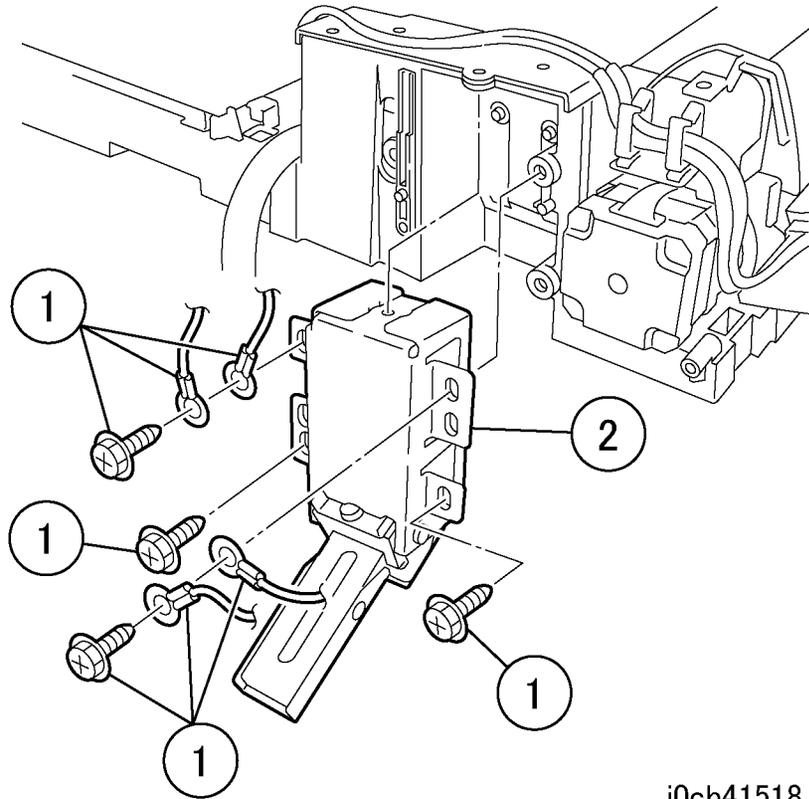


Figure 1 Removing the Film Cover (j0ch41571)

5. Remove the Left Counter Balance. (Figure 2)

1. Remove the Tapping Screws (x4).
2. Remove the Left Counter Balance.



j0ch41518

Figure 2 Removing the Left Counter Balance (j0ch41518)

### Replacement

1. To install, carry out the removal steps in reverse order.
2. Adjust the Counterbalance (ADJ 15.1.2).

## REP 15.3.3 Right Counter Balance

### Parts List on PL 15.3

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the DADF/ADF. (REP 15.1.1)
2. Remove the Rear Cover. (REP 15.2.4)

#### WARNING

Ensure that the DADF/ADF is removed.

If the Counter Balance is removed with the Rear Cover closed, the compressed spring will be released immediately and may cause personal injury.

3. Remove the Film Cover. (Figure 1)
  1. Remove the Film Cover.

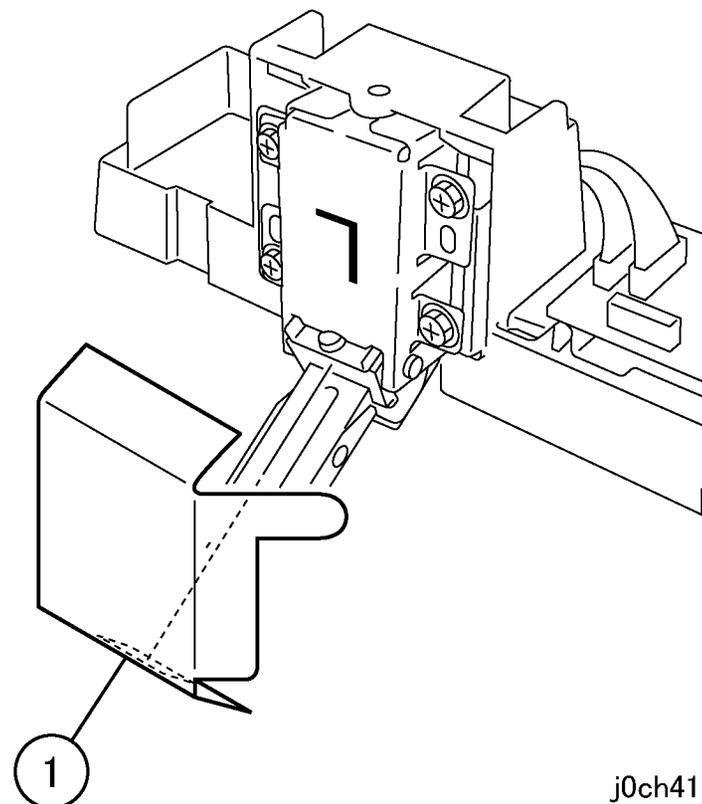


Figure 1 Removing the Film Cover (j0ch41570)

4. Remove the screws that secure the Right Counter Balance. (Figure 2)
  1. Insert the mark-off line.
  2. Remove the screws (x4).
  3. Remove the Right Counter Balance.

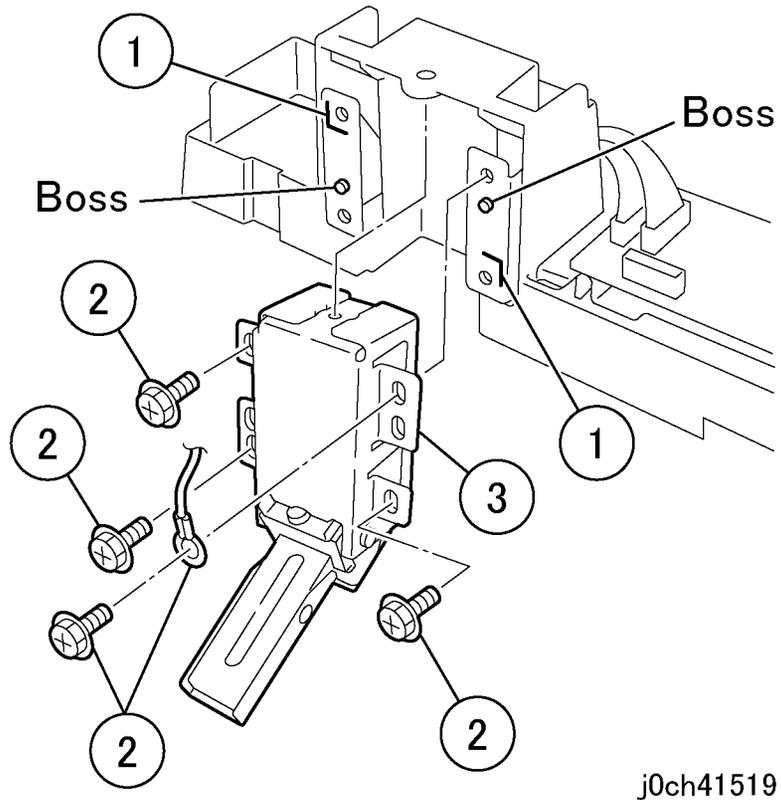


Figure 2 Removing the Right Counter Balance (j0ch41519)

### Replacement

1. To install, carry out the removal steps in reverse order.
2. Adjust the Counterbalance (ADJ 15.1.2).
3. Check the position of the DADF/ADF. (ADJ 15.1.1)

## REP 15.4.1 Top Cover

### Parts List on PL 15.4

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Open the Top Cover (PL 15.4).

2. Remove the Top Cover (Figure 1).
  1. Remove the screws (x2).
  2. Remove the hooks (x2).
  3. Rotate cover away from feeder and remove the Top Cover.

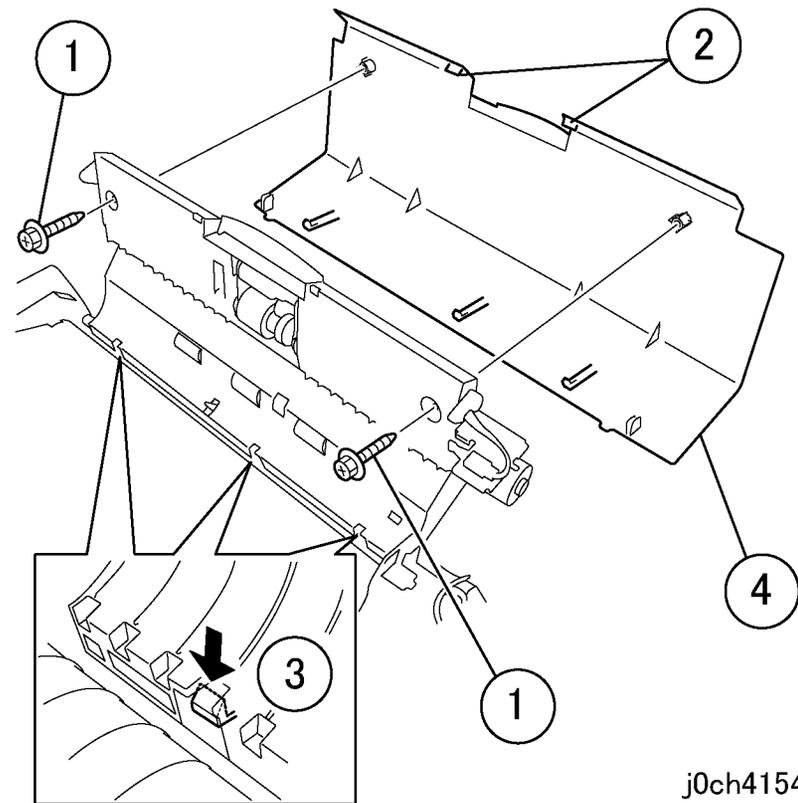


Figure 1 Removing the Top Cover (j0ch41546)

#### Replacement

1. To install, carry out the removal steps in reverse order.

## REP 15.8.1 Retard Roll

### Parts List on PL 15.8

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

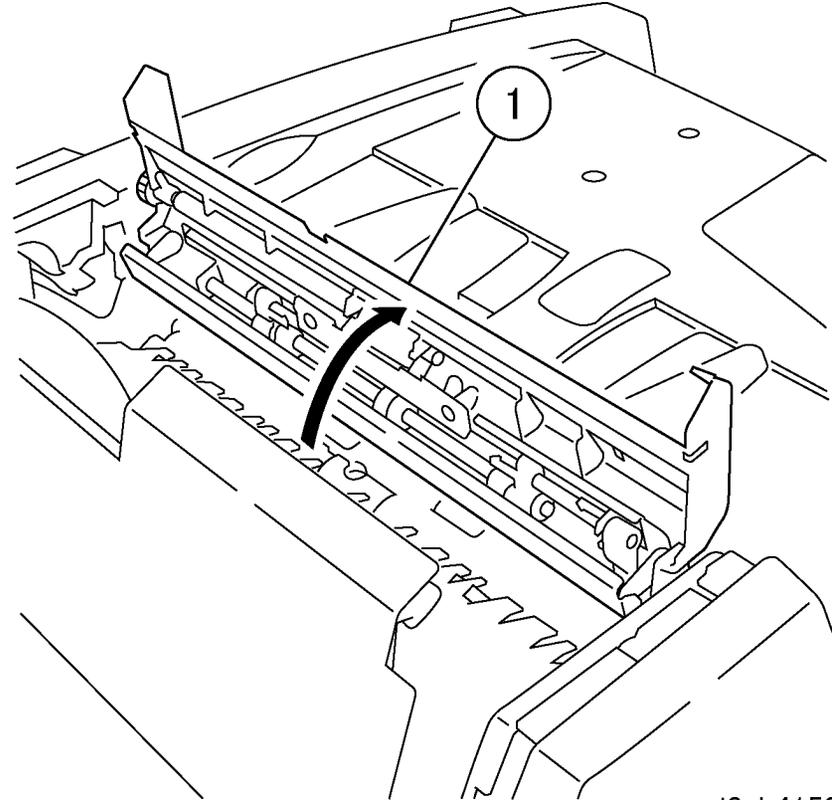
Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Open the Top Cover (PL 15.4).

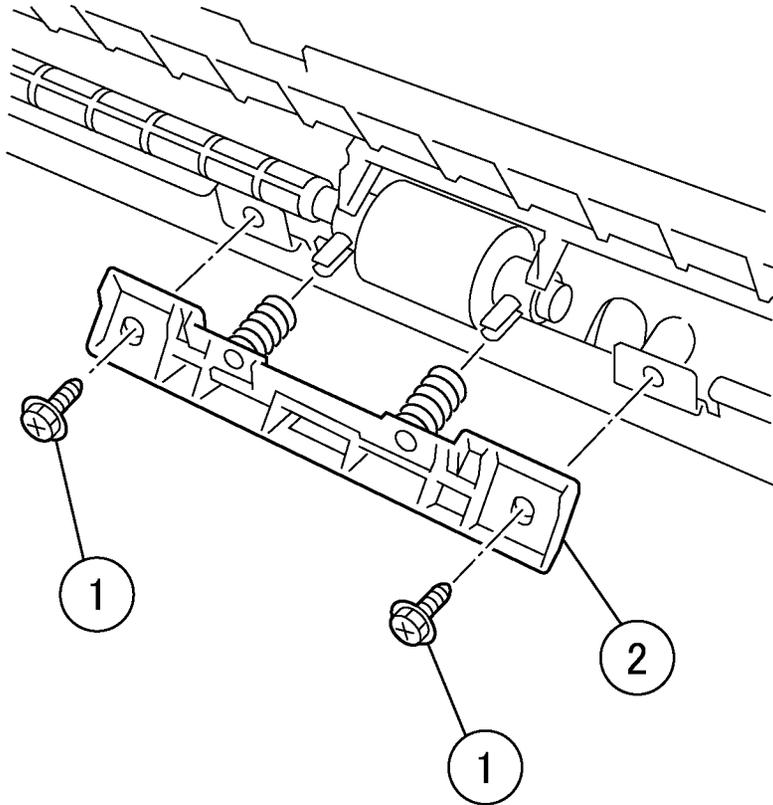
2. Open the Retard Roll Assembly. (Figure 1)
  1. Open the Retard Roll Assembly to the fully open position.



j0ch41520

Figure 1 Open the Retard Roll Assembly (j0ch41520)

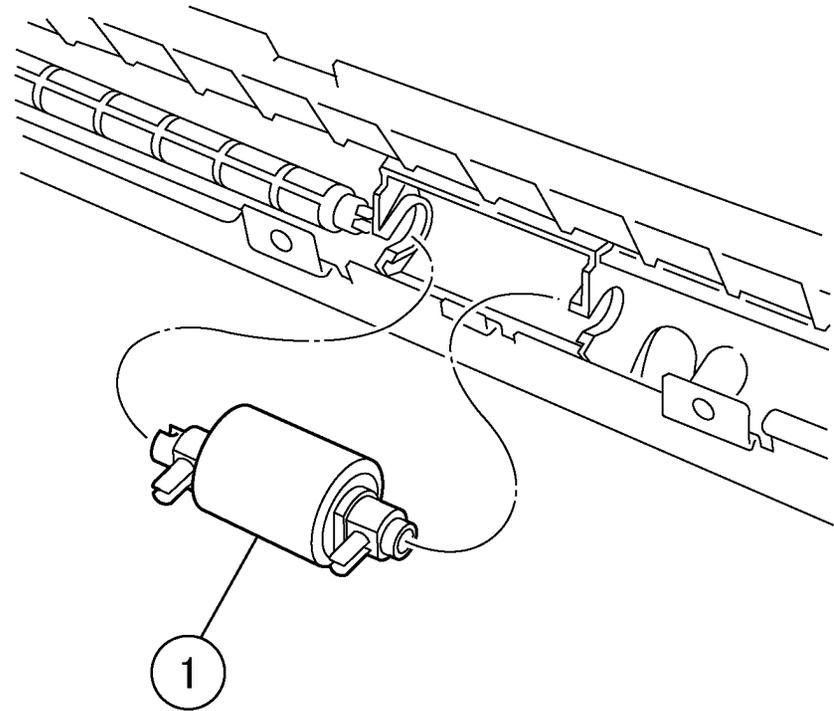
3. Remove the plate. (Figure 2)
  1. Remove the Tapping Screws (x2).
  2. Remove the plate while capturing the springs.



j0ch41521

Figure 2 Removing the plate (j0ch41521)

4. Remove the Retard Roll (Figure 3)
  1. Remove the Retard Roll with the bearings.

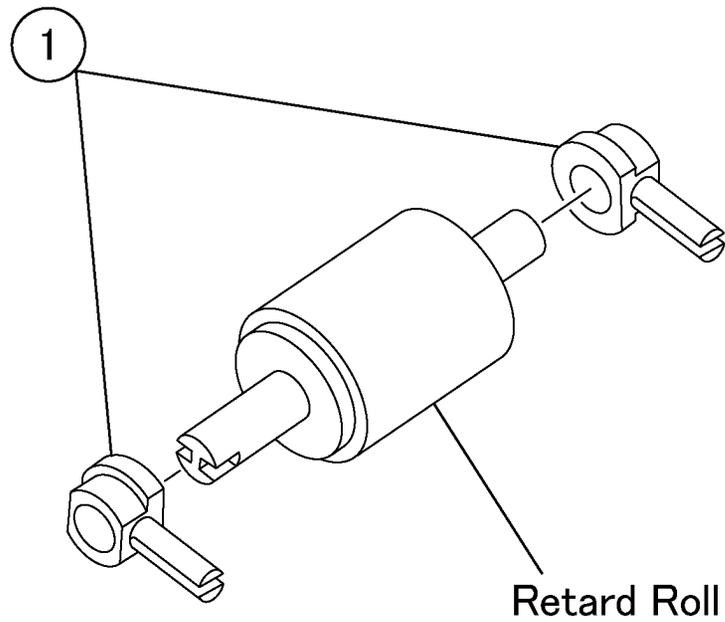


j0ch41522

Figure 3 Removing the Retard Roll (j0ch41522)

5. Remove the Retard Roll. (Figure 4)

1. Note position of bearings and then remove the bearings (x2).



j0ch41523

Figure 4 Removing the bearings (j0ch41523)

### Replacement

1. To install, carry out the removal steps in reverse order while noting position of bearings in step 5.
2. When replacing, enter Diag. mode.  
Select [CE-Setting], [Counter] and then [IIT]. Clear the counter.  
[Feed] and [Feed(DUP)](DADF).

## REP 15.9.1 Pickup Roll, Feed Roll

### Parts List on PL 15.9

#### Removal

#### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

#### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

*[FAX Models]*

Check that the "Jobs in Memory" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

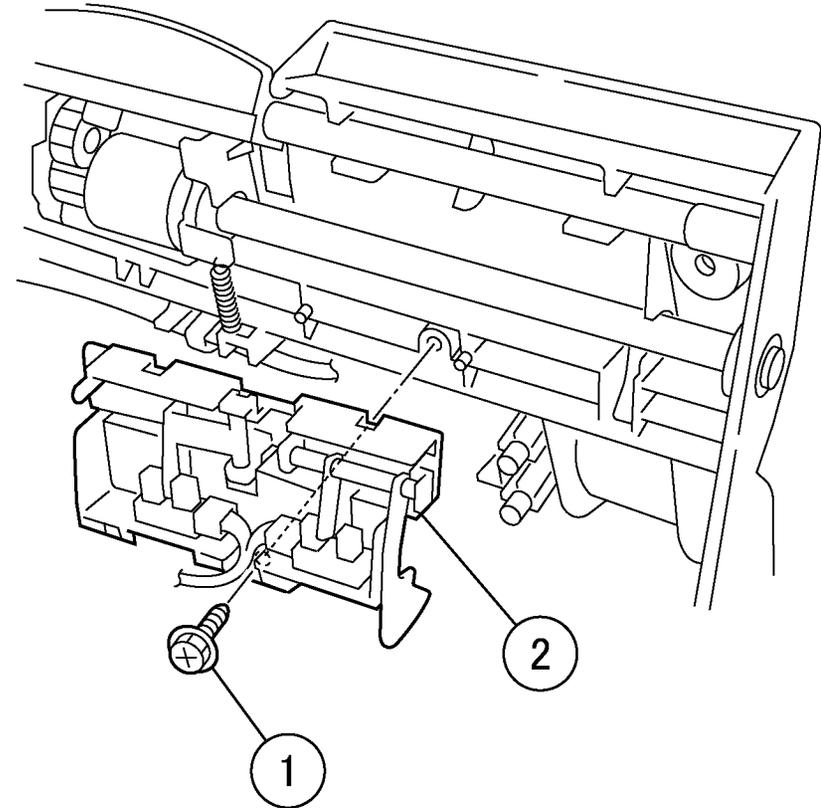
*[Printer Models]*

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the Top Cover. (REP 15.4.1)
2. Open the DADF Feeder Assembly (PL 15.9).

3. Remove the sensor holder. (Figure 1)

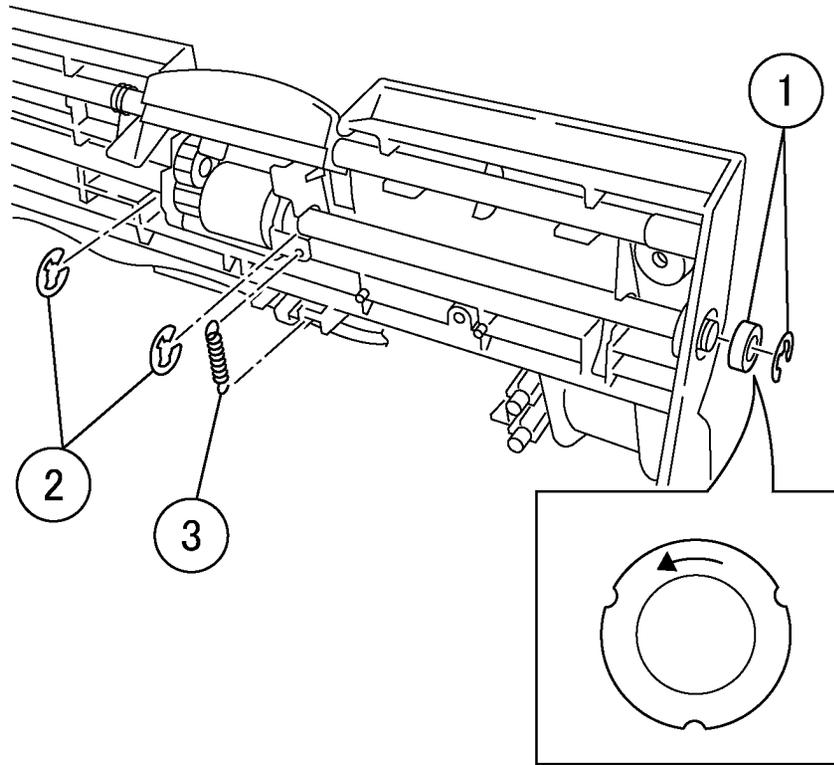
1. Remove the Tapping Screw.
2. Remove the sensor holder.



j0ch41525

Figure 1 Removing the sensor holder (j0ch41525)

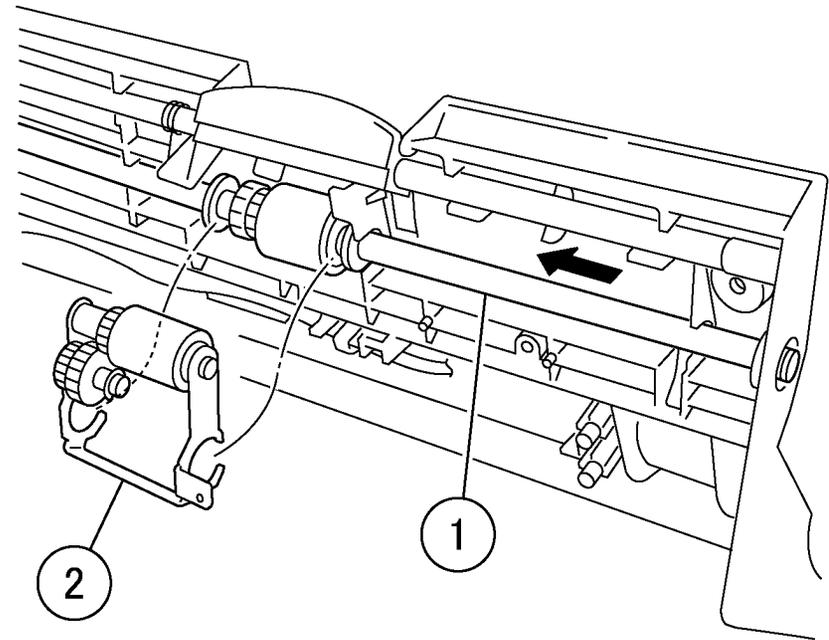
4. Remove the spring. (Figure 2)
  1. Remove the E-Clip and the bearings.
  2. Remove the E-Clips (x2).
  3. Remove the spring.



j0ch41526

Figure 2 Removing the spring (j0ch41526)

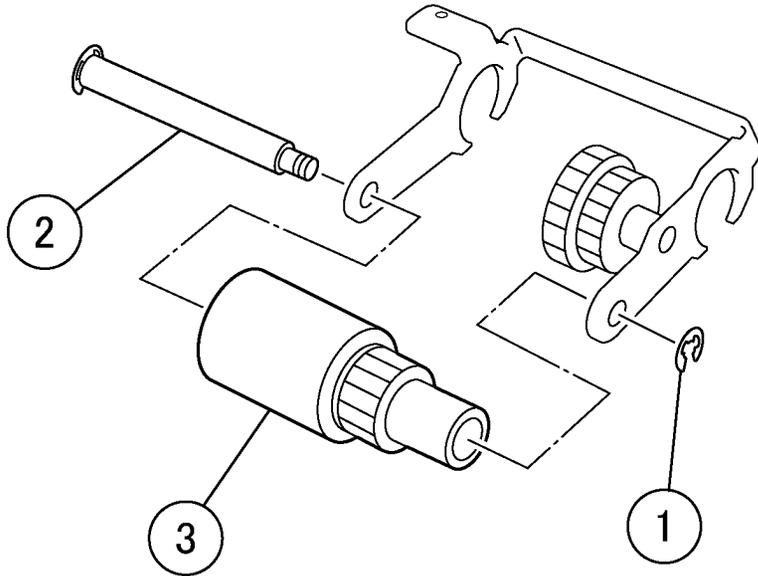
5. Remove the Pickup Roll Assembly (Figure 3).
  1. Move the shaft.
  2. Remove the Pickup Roll Assembly.



j0ch41527

Figure 3 Removing the Pickup Roll Assembly (j0ch41527)

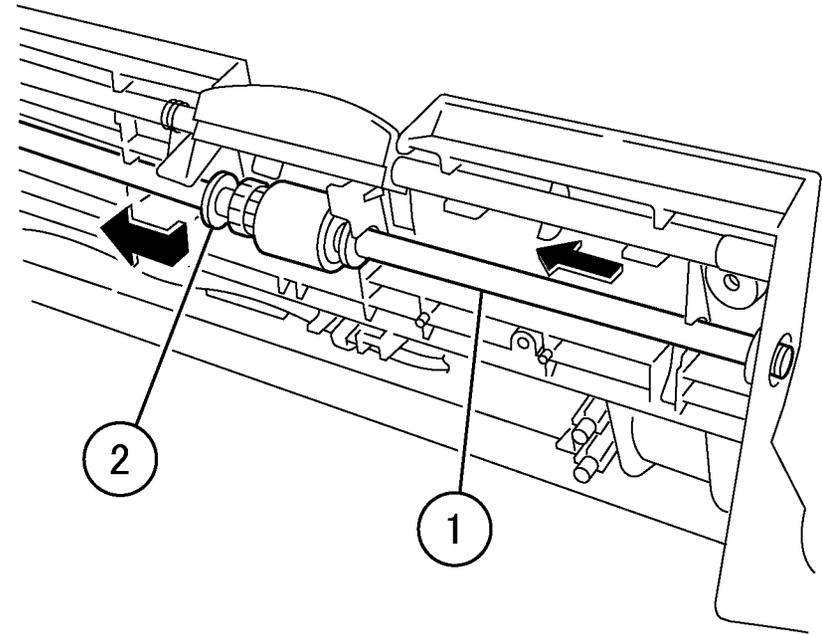
6. Remove the Pickup Roll. (Figure 4)
  1. Remove the E-Clip.
  2. Remove the shaft.
  3. Remove the Pickup Roll.



j0ch41528

Figure 4 Removing the Pickup Roll (j0ch41528)

7. Remove the Feed Roll shaft. (Figure 5)
  1. Disconnect P/J for Document Feed Clutch and remove cable tie from wires.
  2. Move shaft assembly toward rear so bearing stops against frame
  3. Push frame away from bearing and continue to move shaft assembly toward rear until shaft clears frame (4) and remove.
  4. Remove bearings and Feed Roll from shaft.



j0ch41572

Figure 5 Removing the Feed Roll Shaft (j0ch41572)

### Replacement

1. To install, carry out the removal steps in reverse order.
2. When replacing, enter Diag. mode. Select [CE-Setting], [Counter] and then [IIT]. Clear the counter. [Feed] and [Feed(Dup)](DADF).



## ADJ 4.1.1 Toner Density Adjustment

### Purpose

To set a suitable 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 by adjusting the toner level accordingly.

### Check

1. Prepare to check ATC values.
  - a. Enter Diagnostic Mode (refer to Entering Diagnostic Mode).
  - b. Enter CE Settings (refer to CE Settings).
  - c. Select **Chain-Func** and press the **Enter** button.
  - d. Select **ATC Check** and press the **Enter** button.
2. Check the ATC values.
  - a. Select Check (if not highlighted) and press the **Start** button to run ATC check. Wait for machine to silence.
  - b. Press the **Start** button 5 times to display data.

*NOTE: The 4 digits above Check is ATC Target value. The 4 digits above Up is ATC Out value. Last 2 digits above Down is ATC Result value.*
  - c. Check that the ATC Result value is 01.
    - If 01 is displayed no adjustment is required. Exit diagnostics (refer to Entering Diagnostic Mode). Return to Call Flow.
    - If 00 or 02 is displayed go to the Adjustment.
    - If 03 is displayed there is a fault. Exit diagnostics (refer to Entering Diagnostic Mode), make a few copies, and go to the RAP when a fault code is displayed.

### Adjustment

1. Adjust ATC.
  - a. If the value is 00 go to step b.  
If the value is 02 go to step c.
  - b. Select **Up** and press the **Start** button. A blank sheet will be printed while toner is dispensed. Go to step 2 in the Check.
  - c. Select **Down** press the **Start** button. A black sheet will be printed to consume toner. Go to step 2 in the Check.



## ADJ 7.1.1 MPT Size Guide Adjustment

### Purpose

To load the smallest and largest position of the MPT Side Guide into NVM.

### Adjustment

1. Prepare to adjust MPT Side Guide.
  - a. Enter Diagnostic Mode (refer to Entering Diagnostic Mode).
  - b. Enter CE Settings (refer to CE Settings).
  - c. Select **Chain-Func** and press the **Enter** button.
  - d. Select IO Check and press the **Enter** button.
2. Adjust for smallest position.
  - a. Adjust the MPT Side Guide to the smallest setting.
  - b. Select **Chain** and enter **20** on number keypad.
  - c. Select **Func** and enter **5** on number keypad.
  - d. Press the Start button. A displayed 0 indicates smallest position adjustment complete.
3. Adjust for largest position.
  - a. Adjust the MPT Side Guide to the largest setting.
  - b. Select **Chain** and enter **20** on number keypad (not required if already set).
  - c. Select **Func** and enter **6** on number keypad.
  - d. Press the Start button. A displayed 0 indicates largest position adjustment complete.
4. Exit diagnostics (refer to Entering Diagnostic Mode). Return to Call Flow.



## ADJ 9.1.1 IOT Lead Edge/Side Edge Registration

### Purpose

Align the image on the drum with the paper.

*NOTE: As there are no built-in test patterns, use the IOT "System Settings List".*

### Check

1. Print the Test Pattern.
  - a. Load A4 or 8.5x11 paper in Tray 1 in the SEF direction.
  - b. Remove the paper from the other paper trays.
  - c. Press the **Machine Status** button.
  - d. Select **Report List** and press the **Enter** button.
  - e. Select **System Settings** and press the **Enter** button.
  - f. Press the **Start** button to print the 4 page System Settings List.
  - g. Mark page 1 with Tray 1.
  - h. Repeat steps **a** through **g** for the other trays and MPT and mark the test print according to the number of the tray that fed the paper.

*NOTE: To save paper load 1 sheet, run the report, and after the out of paper message displays press the Job Status button and select Stop (Delete). Go to step a and use a different tray until you have test prints from all the trays.*

2. Check the IOT Lead Edge/Side Edge registration (Figure 1)
  - a. Compare the spec in A4 Table 1 or 8.5x11 Table 2 to the test prints from each tray.
  - b. If all of the test prints are in specification, go to step 3.  
If any of the test prints are not in spec go to the adjustment at this time.
3. Make a 2-sided test print.
  - a. Load paper in Tray 1.
  - b. Remove paper from the other paper trays.
  - c. Mark a test print that is in specification as Side 1 and mark another as Side 2.
  - d. Place the 2 test prints in the document handler with the test print marked as side 1 on top.
  - e. Select **1-2 Sided** and select **Rotate Side 2**.
  - f. Press the **Start** button and mark the 2 sided copy with the number of the tray that fed the paper.
  - g. Repeat steps e and f for the other trays and the MPT and mark the copies according to the number of the tray that fed the paper.
4. Check the IOT Lead Edge/Side Edge registration for the Side 2 test prints (Figure 1).
  - a. Compare the spec in A4 Table 1 or 8.5x11 Table 2 to the Side 2 copies.
  - b. If the side 2 copies are in spec no adjustment is required. Return to Call Flow.  
If any of the side 2 copies are not in spec, go to the adjustment.

↑  
Copy Output Direction (SEF)

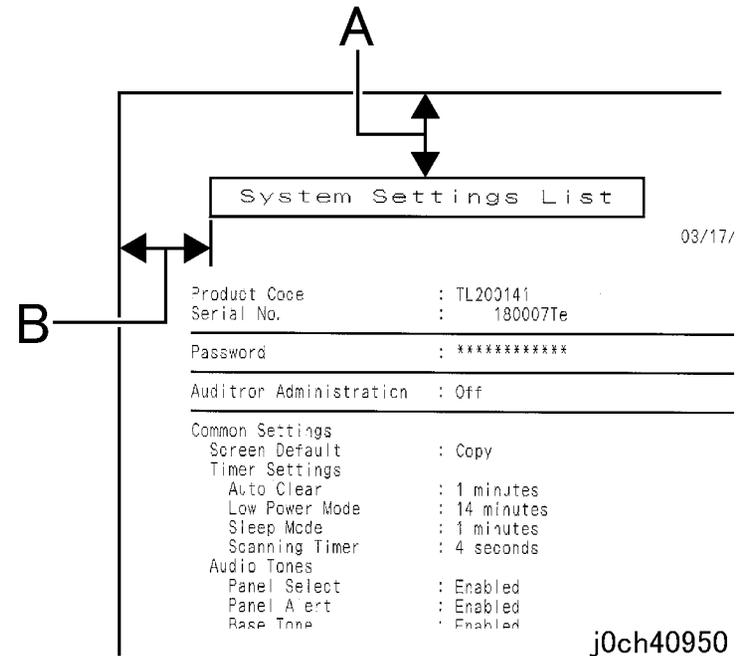


Figure 1 IOT Lead Edge/Side Edge Registration (j0ch40950)

Table 1 A4 Specification

Item	Simplex	Duplex	MSI
Lead Edge (A)	14.5 +/-1.3mm	14.5 +/-1.7mm	14.5 +/-2.0mm
Side Edge (B)	18 +/-1.8mm	18 +/-2.2mm	18 +/-2.5mm

Table 2 8.5 x 11 Specification

Item	Simplex	Duplex	MSI
Lead Edge (A)	15 +/-1.3mm	15 +/-1.7mm	15 +/- 2.0mm
Side Edge (B)	21 +/-1.8mm	21 +/-2.2mm	21 +/-2.5mm

## Adjustment

1. Prepare to adjust IOT Lead Edge/Slide Edge Registration.
  - a. Enter Diagnostic Mode (refer to Entering Diagnostic Mode).
  - b. Enter CE Settings (refer to CE Settings).
  - c. Select **Chain-Func** and press the **Enter** button.
  - d. Select **NVRAM R/W** and press the **Enter** button.
2. Adjust IOT Lead Edge/Slide Edge Registration (Table 3).
  - a. Identify the Chain-Func to be changed in Table 3.
  - b. Select **Chain** and enter **6** or **20** as required per Table 3.
  - c. Select **Func** and enter number as required per Table 3.
  - d. Write a new NVM value (refer to NVRAM R/W).
    - i. Select **Read** to toggle to **Write**.
    - ii. Enter a new value to make the required change.  
If the measured value is short: Set a larger value.  
If the measured value is long: Set a smaller value.
    - iii. Press the **Start** button to load the new value.
    - iv. Verify the NVM change (select **Chain** and enter chain number, select **Func** and enter Func number, press the **Start** button and value is displayed above Read.)  
Repeat steps b, c, and d if new value is not displayed.
  - e. Exit Diagnostics (refer to Entering Diagnostic Mode).
3. Go back to step 1 of the Check (select appropriate steps) to verify the adjustment.

Table 3

Chain-Func	Name	Min.	Initial	Max	Increment
6-20	ALL TRAY-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-21	TRAY1-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-22	TRAY2-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-23	TRAY3-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-24	TRAY4-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-26	MPT-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-28	DUP ALL TRAY-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-29	DUP TRAY1-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-30	DUP TRAY2-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-31	DUP TRAY3-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-32	DUP TRAY4-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
6-34	DUP MPT-LASER SIDE REGI ADJUSTMENT	1	50	99	0.254mm
20-1	LEAD REGI ADJUSTMENT - ALL TRAY	0	33	66	0.135mm

Table 3

Chain-Func	Name	Min.	Initial	Max	Increment
20-10	TRAY2-4 for Thick-1 Paper - LEAD REGI ADJUSTMENT	0	33	66	0.135mm
20-11	TRAY2-4 for Thick-2 Paper - LEAD REGI ADJUSTMENT	0	33	66	0.135mm
20-12	MPT for Thick-1 Paper - LEAD REGI ADJUSTMENT	0	33	66	0.135mm
20-13	MPT for Thick-2 Paper - LEAD REGI ADJUSTMENT	0	33	66	0.135mm
20-27	DUP ALL SIZE for Thick-1 Paper - LEAD REGI ADJUSTMENT	0	33	66	0.135mm
20-28	DUP ALL SIZE for Thick-2 Paper - LEAD REGI ADJUSTMENT	0	33	66	0.135mm
20-41	TRAY1 for Normal Paper - LEAD REGI ADJUSTMENT	0	33	66	0.135mm
20-42	TRAY2-4 for Normal Paper - LEAD REGI ADJUSTMENT	0	33	66	0.135mm
20-43	MSI for Normal Paper - LEAD REGI ADJUSTMENT	0	33	66	0.135mm
20-45	DUP ALL SIZE for Normal Paper - LEAD REGI ADJUSTMENT	0	33	66	0.135mm

## ADJ 9.1.2 Edge Erase

### Purpose

To correct the Lead, Trail Edge and Side Edge (rear/front) erase values.

*NOTE: The IOT Lead Edge/Side Edge Registration must be adjusted.*

### Check

1. Check the IOT Lead Edge/Side Edge Registration (ADJ 9.1.1).
2. Prepare to check edge erase.
  - a. Enter Diagnostic Mode (refer to Entering Diagnostic Mode).
  - b. Enter CE Settings (refer to CE Settings).
  - c. Select **Chain-Func** and press the **Enter** button.
  - d. Select **Chain** and enter **23**.
  - e. Select **Func** and enter **24**.
  - f. Press the **Start** button to check that the value is 0.  
If the value is 0, go to step 3.  
If the value is 1, go to step g
  - g. Write 23-24 NVM value to 0 (refer to NVRAM R/W).
    - i. Select **Chain** and enter **23**.
    - ii. Select **Func** and enter **24**.
    - iii. Select **Read** to toggle to **Write**.
    - iv. Enter **0**.
    - v. Press the **Start** button to load the new value.
    - vi. Verify the NVM change (select **Chain** and enter chain number, select **Func** and enter Func number, press the **Start** button and value is displayed above Read.) Repeat steps i - v if 0 value is not displayed.
  - h. Exit Diagnostics (refer to Entering Diagnostic Mode).
3. Make a test pattern.
  - a. Remove a sheet of paper from tray that will be used for edge erase check.
  - b. Draw a line to the edge of each side of the paper.
4. Check that all image is erased that is within 2mm of the edge of the paper.
  - a. Place test pattern on document glass.
  - b. Select the tray where paper was removed and used to make test pattern.
  - c. Make a copy and check that 2mm of the line at each edge is erased.
  - d. If the edge erase is in spec, no adjustment is required. Go to step 5.  
If the edge erase is not in spec go to the adjustment.
5. Reset NVM 23-24.
  - If value in NVM 23-24 was originally 1 (step 2f), go back to perform step g to reset the value to 1. Then return to Call Flow.  
If the value was already at 0, return to Call Flow.

### Adjustment

1. Prepare to adjust Edge Erase.
  - a. Enter Diagnostic Mode (refer to Entering Diagnostic Mode).
  - b. Enter CE Settings (refer to CE Settings).
  - c. Select **Chain-Func** and press the **Enter** button.
  - d. Select **NVRAM R/W** and press the **Enter** button.
2. Adjust Edge Erase.
  - a. Identify the Chain-Func to be changed in Table 1.
  - b. Select **Chain** and enter **6**.
  - c. Select **Func** and enter number as required.
  - d. Write a new NVM value (refer to NVRAM R/W).
    - i. Select **Read** to toggle to **Write**.
    - ii. Enter a new value to make the required change.  
If the setting value is increased, the erase value increases.  
If the setting value is decreased, the erase value decreases.
    - iii. Press the **Start** button to load the new value.
    - iv. Verify the NVM change (select **Chain** and enter chain number, select **Func** and enter Func number, press the **Start** button and value is displayed above Read.) Repeat steps b, c, and d if new value is not displayed.
3. Exit Diagnostics (refer to Entering Diagnostic Mode).
4. Go back to step 4 of the Check to check Edge Erase.

Table 1

Chain-Func	Name	Min.	Initial	Max	Increment
6-59	SIDE NORMAL ERASE ADJUSTMENT	0	8	16	0.254mm
6-60	TOP NORMAL ERASE ADJUSTMENT	0	15	30	0.135mm
6-63	END NORMAL ERASE SIDE REGI ADJUSTMENT	0	15	30	0.135mm

## ADJ 9.2.1 ESS Firmware Version Downloading

### Purpose

To download the version of firmware in the ESS PWB for both Standard and PostScript options.

*NOTE: There are 3 types of procedure for downloading as follows:*

*Using the USB Port*

*Using the Network Port*

*Using the Parallel Port*

Check the current software versions.

1. Press the [Machine Status] button.
2. Enter [Report List] (Print Jobs). Print the System Settings List and check the software ROM version \*.\*.\*\*.

Select the method as appropriate to your PWS and the cables you have.

If your PWS has Windows 98 you should use either the Network or the Parallel procedures. If you have Windows 2000 or XP operating systems you can use any of the 3 procedures.

### M 118 and M118i USB FIRMWARE DOWNLOAD

1. Power off the Machine and the PWS.
2. Plug the USB cable into the USB port on the ESS PWB and to your PWS.
3. Power on the Machine into the Download Mode. (When the Please Wait AND the Xerox logo is displayed press the Power Save and the C buttons at the same time until Download is displayed.)
4. Power on the PWS.
5. A "Device Found" window will pop-up on your PWS. Select Cancel on this pop-up.
6. Open the PWS Firmware Update Tool. (FWDLMgr.exe)
7. Click on Agree in the License Screen.
8. On the Firmware Update Tool screen select the following:
9. Printer Model: CopyCentre/ WorkCentre M118.
10. File name: Click on Browse. (On the next screen you need to find the .bin file to download. The file should read either: STD-DLD.BIN for WorkCentre machines without the PostScript option or PS-DLD.BIN for WorkCentre machines that have the PostScript option. Highlight the file that you want and click on Open.)
11. Click on Add once you have found the File name.
12. Click on Version to check the version of the software you are about to download.
13. Click on Next.
14. In the Firmware Update Tool select USB port.
15. Click Next.
16. The Download will start and takes approximately 10 minutes.

17. The data transfer status is shown in the Firmware Update Tool window (Update in Progress). When updating is completed, the Firmware Update Tool (Result) window will be displayed. Click [Finish].
18. The Machine will reboot and come up to the Ready to Copy Mode when finished.
19. The ESS Software Download is now complete.
20. Compare a new configuration sheet to the one printed at the start of the instructions.

### NETWORK FIRMWARE DOWNLOAD

1. Print out a configuration sheet to compare options at the completion of the download and to locate the machine IP address.
2. Set the IP address on your PWS to be 1 different from the machine and the subnet mask to be the same as the machine.
3. Power off the Machine and the PWS.
4. Plug in the Crossover cable to both the Machine and the PWS.
5. Power on the Machine into the Download Mode. (When the Please Wait AND the Xerox logo is displayed press the Power Save and the C buttons at the same time until Download is displayed.)
6. Power on the PWS.
7. Open the PWS Firmware Update Tool. (FWDLMgr.exe)
8. Click on Agree in the License Screen.
9. On the Firmware Update Tool screen select the following:
10. Printer Model: CopyCentre/ WorkCentre M118.
11. File name: Click on Browse. (On the next screen you need to find the .bin file to download. The file should read either: STD-DLD.BIN for WorkCentre machines without the PostScript option or PS-DLD.BIN for WorkCentre machines that have the PostScript option. Highlight the file that you want and click on Open.)
12. Click on Add once you have found the File name.
13. Click on Next.
14. In the Firmware Update Tool select Network (Port 9100).
15. Click Next.
16. Select Search, wait until the machine is found.
17. Check that the correct machine IP address is displayed, and select it.
18. Check the Version. This will display the version of the software you are about to download.
19. Select Next.
20. The Download will start and takes approximately 10 minutes.
21. The data transfer status is shown in the Firmware Update Tool window (Update in Progress). When updating is completed, the Firmware Update Tool (Result) window will be displayed. Click [Finish].
22. The Machine will reboot and come up to the Ready to Copy Mode when finished.
23. On the PWS select finish and Click Yes to exit the program.
24. The Software Download is now complete.
25. Compare a new configuration sheet to the one printed at the start of the instructions.

### M 118 and M118i PARALLEL FIRMWARE DOWNLOAD

1. Power off the Machine and the PWS.
2. Plug the parallel cable into the Parallel port on the ESS PWB and to your PWS.

3. Power on the Machine into the Download Mode. (When the Please Wait AND the Xerox logo is displayed press the Power Save and the C buttons at the same time until Download is displayed.)
4. Power on the PWS.
5. Open the PWS Firmware Update Tool. (FWDLMgr.exe)
6. Click on Agree in the License Screen.
7. On the Firmware Update Tool screen select the following:
8. Printer Model: CopyCentre/ WorkCentre M118.
9. File name: Click on Browse. (On the next screen you need to find the .bin file to download. The file should read either: STD-DLD.BIN for WorkCentre machines without the PostScript option or PS-DLD.BIN for WorkCentre machines that have the PostScript option. Highlight the file that you want and click on Open.)
10. Click on Add once you have found the File name.
11. Click on Version to check the version of the software you are about to download.
12. Click on Next.
13. In the Firmware Update Tool select Parallel Port(P).
14. Click Next.
15. The Download will start and takes approximately 10 minutes.
16. The data transfer status is shown in the Firmware Update Tool window (Update in Progress). When updating is completed, the Firmware Update Tool (Result) window will be displayed. Click [Finish].
17. The Machine will reboot and come up to the Ready to Copy Mode when finished.
18. The ESS Software Download is now complete.
19. Compare a new configuration sheet to the one printed at the start of the instructions.

## ADJ 9.11.1 MFC Version Upgrade

### Purpose

To upgrade the version of software in the MFC PWB and the EXT PWB.

### Adjustment

1. Check following to determine if the machine has Fax or not.
  - A telephone line is connected to rear of machine.
  - An ADC PWB is present (PL 9.3).
  - A Fax PWB is present (PL 9.3).
  - A speed dial keypad is present on control panel (same machines may have Fax without the speed dial keypad) or Fax selections are available.
2. If the machine has Fax go to step 3.  
If the machine is not equipped with Fax, go to step 6.
3. Remove the Compact Flash card from the machine (PL 9.3).
  - a. Switch off the machine power.
  - b. Remove the Rear Cover (REP 15.2.4).
  - c. Remove the Compact Flash card from the ADC PWB (PL 9.3).
4. Connect Compact Flash card to PWS.
  - a. Connect Flash Card reader to PWB.
  - b. Connect Compact Flash card to Flash Card reader.
5. Copy following files to the Flash Card using the windows file copying utility.
  - a. Load latest machine software CD into PWS CD drive.
  - b. Start windows file copying utility and copy following files to the Compact Flash card.
    - chpa001 (Copy/fax controller software (IIT,DADF/ADF,FAX))
    - chla000 (Language data + FAX PTT data)
    - ma001 (configuration file, unique for (CF/CFP model))
  - c. Go to step 9.
6. Prepare machine to receive machine software.
  - a. Install ADC PWB on machine (REP 11.1.2, reverse the steps to remove the ADC PWB).
  - b. Remove the Compact Flash card from the ADC PWB
7. Connect Compact Flash card to PWS.
  - a. Connect Flash Card reader to PWB.
  - b. Connect Compact Flash card to Flash Card reader.
8. Copy following files to the Flash Card using the windows file copying utility.
  - a. Load latest machine software CD into PWS CD drive.
  - b. Start windows file copying utility and copy following files to the Compact Flash card.
    - vxWORKS.rom (Install software)
    - chpr000xx1 (Copy controller software: IIT, DADF/ADF)
    - chpr000xx2 (Boot software)
    - chlR000 (Language data)
    - ma001 (configuration file, unique for (DC/CP model))
9. Remove Compact Flash card from PWS and reinstall in ADC PWB.

10. Switch on the machine. The ROM update starts automatically when the power is turned on.
11. After the update, switch off the machine power.
12. If machine is not equipped with Fax, remove the ADC PWB.  
For all machines, reinstall the Rear Cover (REP 15.2.4).
13. Switch on the machine. Verify machine operation.

## ADJ 11.1.1 Carriage Assembly Position Adjustment

### Purpose

To set the Platen Glass mode scan properly by adjusting the alignment of the Carriage Assembly and the IIT Upper Cover.

### WARNING

To avoid personal injury or shock, do not perform repair or adjustment with electrical power applied to the machine.

### CAUTION

To prevent data loss when the power switch is turned off, please note the following.

[FAX Models]

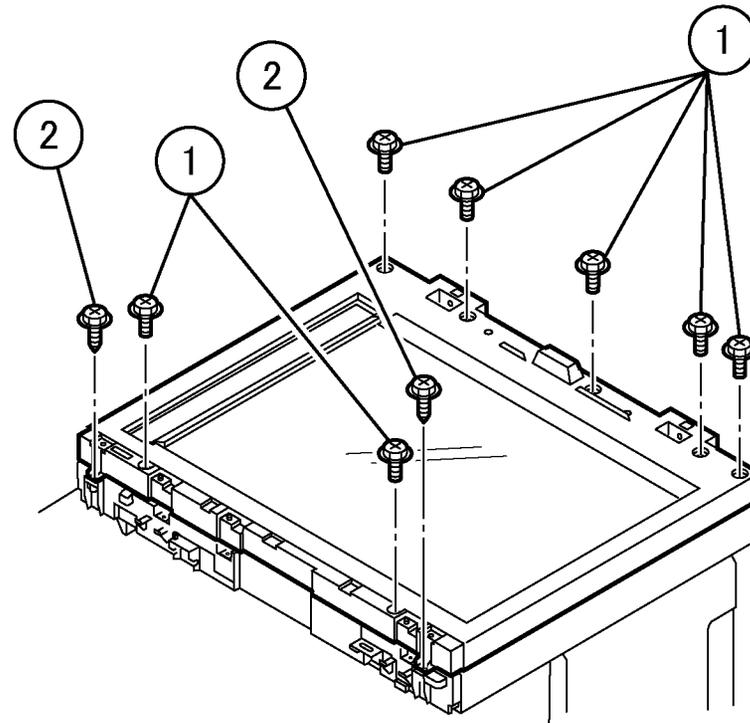
Check that the "Stored Documents" lamp is not on, and press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

### Adjustment

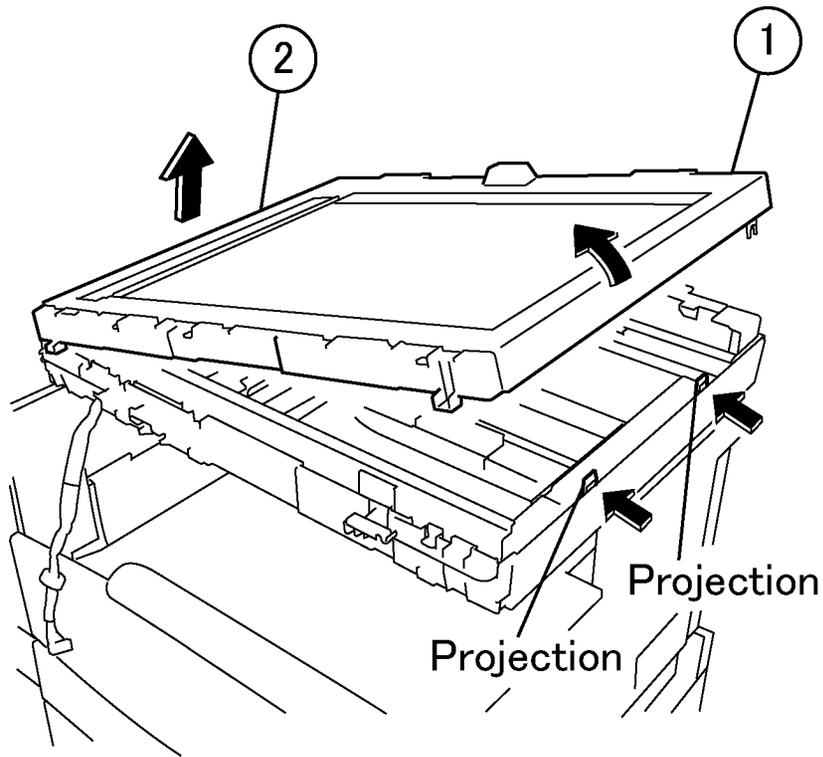
1. Remove the following parts:
  - Platen Cover (PL 11.1)
  - DADF/ADF (REP 15.1.1)
  - Control Panel (REP 11.1.1)
2. Remove the screw from the IIT Upper Cover. (Figure 1)
  1. Remove the screws (x7).
  2. Remove the Tapping Screws (x2).



j0ch41139

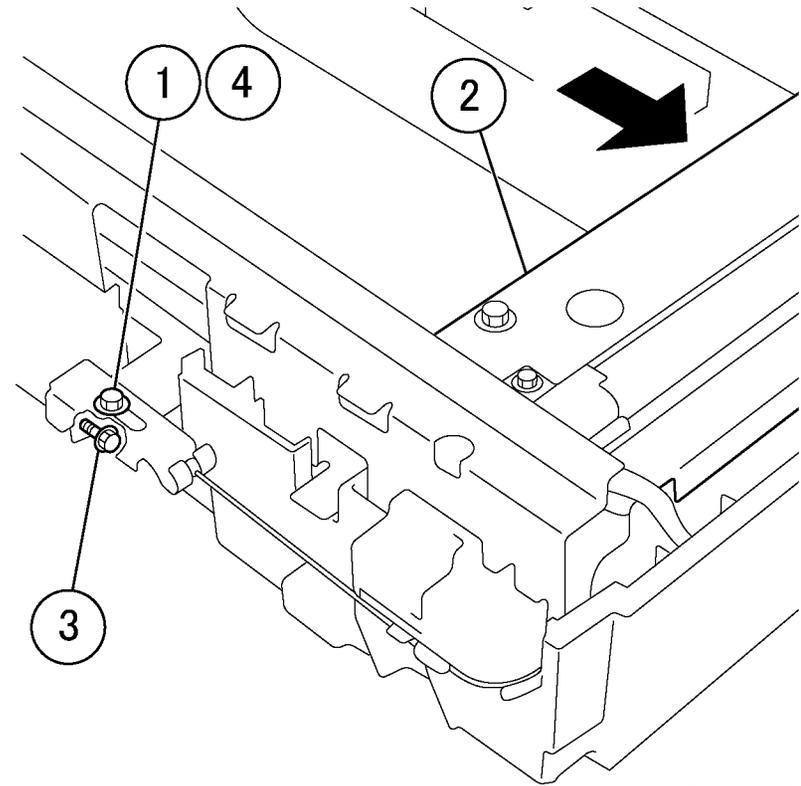
Figure 1 Removing the IIT Upper Cover (j0ch41139)

3. Remove the IIT Upper Cover. (Figure 2)
  1. Open the IIT Upper Cover by approximately 10cm while pressing the latches (x2) inside the IIT Lower Cover.
  2. Remove the IIT Upper Cover.



j0ch41149

**Figure 2 Removing the IIT Upper Cover (j0ch41149)**



j0ch41147

**Figure 3 Parallel adjustment of the Carriage (j0ch41147)**

4. Adjust so that the Carriage Assembly and the IIT Under Cover (PL 11.3) are parallel. (Figure 3)
  1. Loosen the Stopper Screw.
  2. Move the Carriage Assembly to the right end.
  3. Turn the Adjustment Screw to adjust.
  4. Loosen the screw.

Note: If the Adjustment Screw is turned anti-clockwise, the front of the Carriage Assembly will move to the left.

5. Restore the machine to its original state. Make a copy in Platen mode.
6. Check the optical skew and if necessary repeat from Step 1 onwards.

## ADJ 11.1.2 IIT Lead Edge/Side Edge Registration

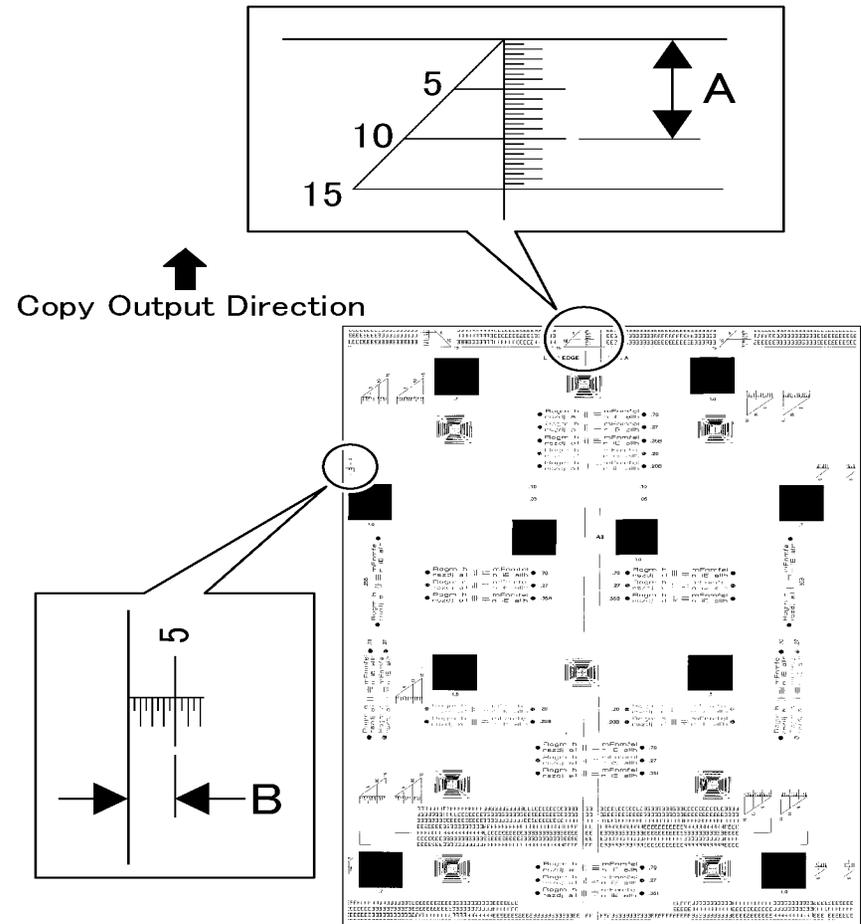
### Purpose

To set the home position for the IIT Lead Edge (Slow Scan) direction/IIT Side Edge (Fast Scan) direction.

**NOTE:** The IOT Lead Edge/Side Edge Registration must be adjusted.

### Check

1. Check the IOT Lead Edge/Side Edge Registration (ADJ 9.1.1).
  2. Check the IIT Lead Edge/Side Edge Registration.
    - a. Register geometric test pattern on platen glass (Figure 1).
    - b. Make 5 copies at 100%.
    - c. Compare the spec in Table 1 to the Lead Edge (Part A) and Side Edge (Part B) registration on the 3rd copy.
    - d. If the Lead Edge and Side Edge registration is in spec, no adjustment is required. Return to Call Flow.
- If the Lead Edge and Side Edge registration is not in spec go to the adjustment.



j0ch41180

Figure 1 IIT Lead Edge/Side Edge Registration (j0ch41180)

Table 1 Lead Edge/Side Edge Registration Specification

Item	Simplex	Duplex	MSI
Lead Edge (A)	10 +/-1.6mm	10 +/-2.0mm	10 +/-2.2mm
Side Edge (B)	5 +/-2.1mm	5 +/-2.5mm	5 +/-3.0mm

## Adjustment

1. Prepare to adjust Lead Edge and Side Edge registration.
  - a. Enter Diagnostic Mode (refer to Entering Diagnostic Mode).
  - b. Enter CE Settings (refer to CE Settings).
  - c. Select **MFC** and press the **Enter** button.
  - d. Select **Regist** and press the **Enter** button.
2. Adjust Lead Edge and Side Edge registration (Table 2).
  - a. Enter 102 to adjust Lead Edge, A, or 101 to adjust Side Edge, B, and press the **Enter** button to display current setting.
  - b. Press the **C** button to delete the value.
  - c. Enter a new value and press the **Enter** button.
    - i. If the Lead Edge, A, reg measurement is short enter a smaller number by selecting + or - and then entering the new number.  
If the Lead Edge, A, reg measurement is long, enter a larger number by selecting + or - and then entering the new number.  
If the Side Edge, B, reg measurement is short enter a larger number by selecting + or - and then entering the new number  
If the Side Edge, B, reg measurement is long enter a smaller number by selecting + or - and then entering the new number
    - ii. Press the **Enter** button to load the new number.
  - d. Exit Diagnostics (refer to Entering Diagnostic Mode).

**Table 2 IIT Lead Edge/Side Edge Adjustment**

Func No.	Name	Min.	Initial	Max	Increment
101	Platen PRadjF (B)	-72	0	72	24=1mm
102	Platen PRadjS (A)	-24	0	127	24=1mm

3. Go to step 2 of the Check.

## ADJ 11.1.3 Reduce/Enlarge Adjustment

### Purpose

To reproduce a document that is exactly the same size as the original when 100% is selected.

### Check

1. Make a test pattern.
  - a. Remove a sheet of paper from tray that has the largest size paper, SEF.
  - b. Draw a 10 mm long line parallel to any edge of the paper (not in edge erase zone).
  - c. Draw another line directly opposite first line near the other edge (not in edge erase zone).
  - d. Repeat above so each side has a line near the edge.
  - e. Mark lines parallel to short edge with SS.
  - f. Mark lines parallel to long edge with FS.
2. Check the 100% reproduction.
  - a. Register test pattern on platen glass with short edge to left or right.
  - b. Make a copy.
  - c. The lines on the copy should be the same distance from each other as the lines on the test pattern. Overlay the copy on the test pattern and hold up to a light source. The lines should be aligned.
  - d. If the lines are aligned, return to Call Flow.  
If the lines are not aligned, go to the Adjustment.

## Adjustment

1. Prepare to adjust Reduction/Enlargement.
  - a. Enter Diagnostic Mode (refer to Entering Diagnostic Mode).
  - b. Enter CE Settings (refer to CE Settings).
  - c. Select **MFC** and press the **Enter** button.
  - d. Select **Regist** and press the **Enter** button.
2. Adjust the Reduction/Enlargement (Table 1).
  - a. Enter 121 to adjust FS or 122 to adjust SS and press the **Enter** button to display current setting.
  - b. Press the **C** button to delete the value.
  - c. Enter a new value and press the **Enter** button.
    - i. If distance between lines on copy are shorter enter a larger number by selecting + or - and then entering the new number.  
If distance between lines on copy are larger enter a smaller number by selecting + or - and then entering the new number.
    - ii. Press the **Enter** button to load the new number.
  - d. Exit Diagnostics (refer to Entering Diagnostic Mode).

**Table 1 Reduction/Enlargement Adjustment**

Func No.	Name	Min.	Initial	Max	Increment
121	Platen FS Reduce/Enlarge Adjustment	-10	0	10	0.1%
122	Platen SS Reduce/Enlarge Adjustment	-10	0	10	0.1%

3. Go back to step 2 and verify the adjustment.
4. Check the IIT Lead Edge/Side Edge Registration ( ADJ 11.1.2)

## ADJ 11.1.4 APS Sensor

### Purpose

To set the APS Sensor detection value for documents placed on the Platen.

### Check

1. Place 5 A3 or 11x17" blank sheets on the Platen and close the cover.
2. Prepare to check APS Sensor Adjustment.
  - a. Enter Diagnostic Mode (refer to Entering Diagnostic Mode).
  - b. Enter CE Settings (refer to CE Settings).
  - c. Select **MFC** and press the **Enter** button.
  - d. Select **IIT SNS** and press the **Enter** button.  
  
*NOTE: The current APS Sensor Threshold Value will be displayed in the IIT Detect Sensor Adjust screen.*
3. Check APS Sensor adjustment.
  - a. Select **Detect** in the IIT Detect Sensor Adjust screen and press the **Enter** button. Record the values.  
  
*NOTE: The detection value for the document detected by the APS Sensor will be displayed.*
  - b. Select **Detect** in the IIT Detect Sensor Adjust screen and press the **Enter** button again. Record the values.  
  
*NOTE: The APS Sensor will detect the document again. The detection value will be displayed and confirmed.*
  - c. If the values in steps 3 and 4 are the same, the check is good. Exit Diagnostics (refer to Entering Diagnostic Mode). Return to Call Flow.  
If the values in steps 3 and 4 are different, go to the adjustment.

### Adjustment

1. Press the Enter button to load the new value.  
Go back to step 3 in the Check to confirm the detection value.



## ADJ 15.1.1 DADF/ADF Position Adjustment

### Purpose

To correct the feeding of the original by adjusting the alignment of the DADF/ADF Assembly and the DADF Platen Glass.

### Adjustment

1. Remove the Rear Cover. (REP 15.2.4)
2. Change the position of the Right Counter Balance and adjust the skew value. (Figure 1)
  1. Loosen the screws (x4).
  2. Move the DADF/ADF in direction A or B.
  3. Loosen the screws (x5).

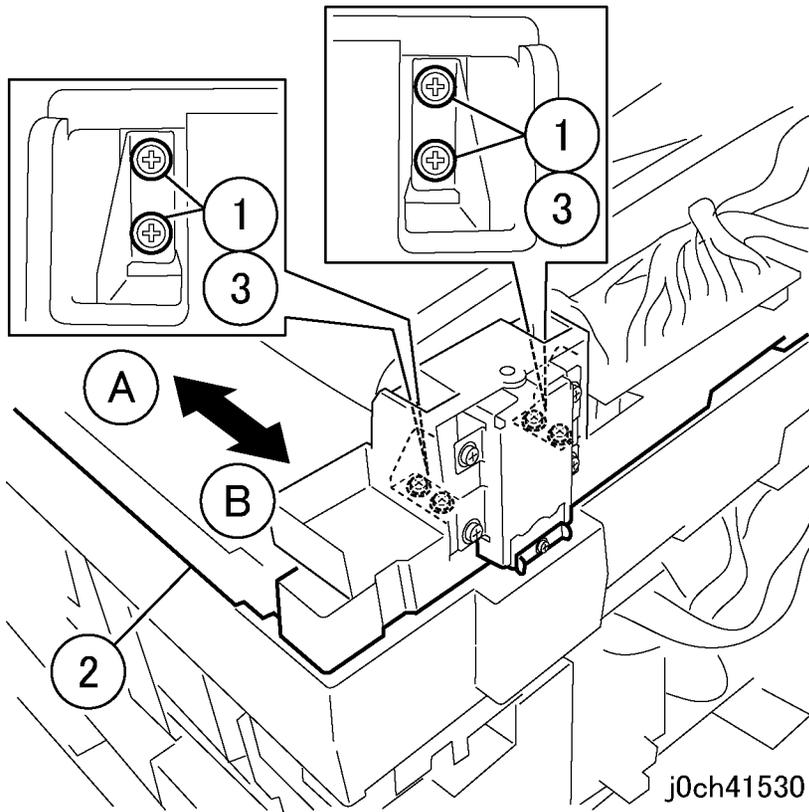


Figure 1 DADF/ADF Position Adjustment-1 (j0ch41530)

- DADF/ADF was moved in direction A (Figure 2)

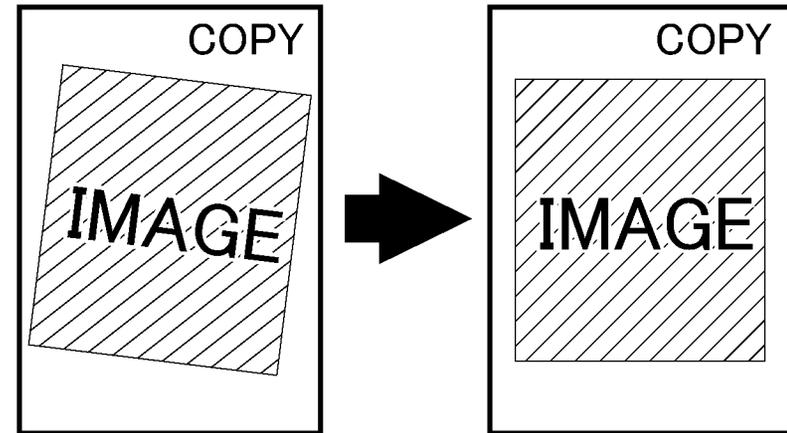


Figure 2 DADF/ADF Position Adjustment-2 (j0ch41531)

- DADF/ADF was moved in direction B (Figure 3)

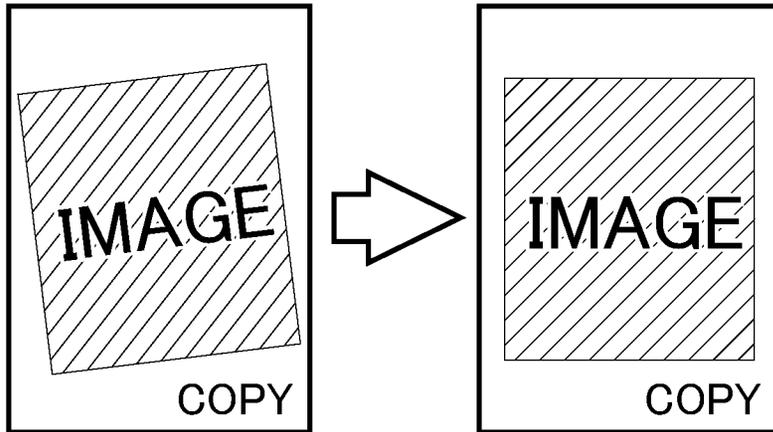
## ADJ 15.1.2 DADF/ADF Lead Edge Registration

### Purpose

To set the DADF/ADF Lead Edge Registration).

### Check

1. Check the IOT Lead Edge/Side Edge Registration (ADJ 9.1.1)
2. Check the IIT Lead Edge/Side Edge Registration (ADJ 11.1.2)
3. Check the DADF/ADF Position (ADJ 15.1.1)
4. For ADF, go to step 5.  
For DADF, go to step 7.
5. Prepare a test pattern in one of the following ways:
  - Use a plain paper test pattern (82E2020) with a similar lead edge target as shown (Figure 1).
  - Make a plain paper copy of a test pattern from the platen glass with an equivalent lead edge target as shown (Figure 1).
  - Make a mark 10 mm from the lead edge (short edge) of a piece of paper as shown (Figure 1) and use as a test pattern.
6. Make 5 copies using the following selections.
  - a. Place test pattern in the ADF.
  - b. Select tray size that matches test pattern lead edge (short edge) size.
  - c. Select **100%**.
  - d. Select **5** copies and press **Start** button.
  - e. Go to step 10.
7. Prepare a side 1 test pattern in one or more of the following ways and mark as side 1:
  - Use a plain paper test pattern (82E2020) with a similar lead edge target as shown (Figure 1).
  - Make a plain paper copy of a test pattern from the platen glass with an equivalent lead edge target as shown (Figure 1).
  - Make a mark 10 mm from the lead edge (short edge) of a piece of paper as shown (Figure 1) and use as a test pattern.
8. Take test pattern made in step 7 and create side 2 by making a mark 10 mm from the lead edge (short edge) and mark as side 2. Side 1 and Side 2 marks will be on opposite edges.
9. Make 5 copies using the following selections.
  - a. Place test pattern in the DADF, side 1 facing up, SEF.
  - b. Select tray size that matches width of test pattern size.
  - c. Select **100%**.
  - d. Select **2-2 Sided**.
  - e. Select **5** copies and press **Start** button.
10. Check the Lead Edge registration on the Side 1 (ADF/DADF) and Side 2 (DADF) copies.
  - a. Select the 3rd copy from the set of 5.
  - b. Compare the copies to the spec (Table 1).
  - c. If the copies are in spec, no adjustment is required. Return to Call Flow.  
If the copies are in not in spec, go to the adjustment.



j0ch41532

Figure 3 DADF/ADF Position Adjustment-3 (j0ch41532)

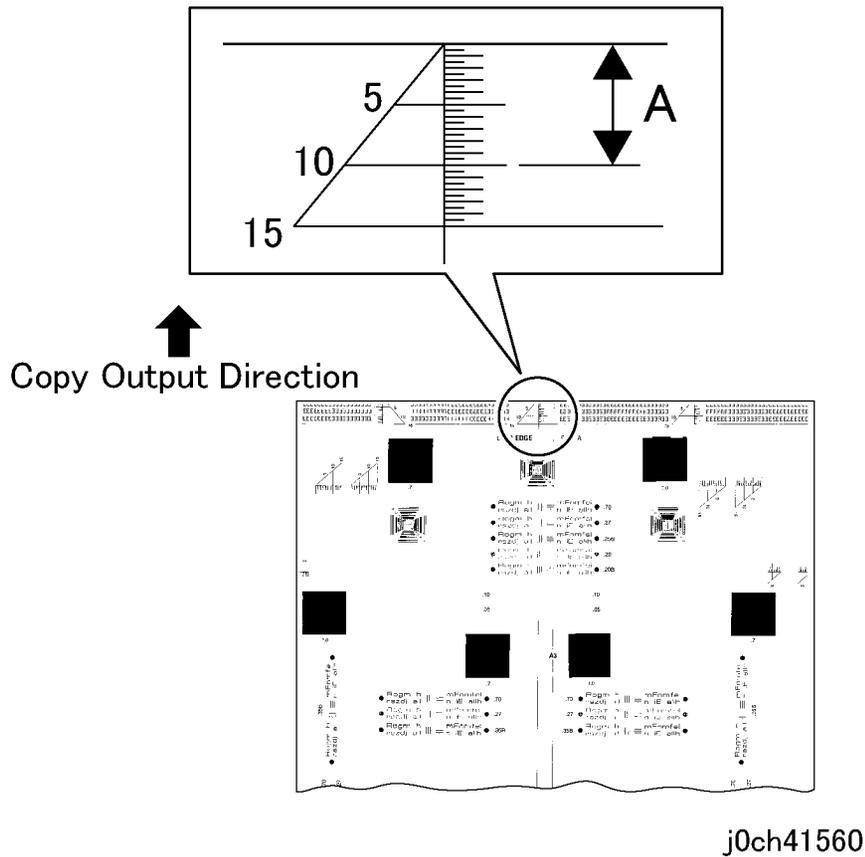


Figure 1 DADF/ADF Lead Edge Registration Targets

Table 1 Lead Edge Specification

Item	Simplex	Duplex
Lead Edge	10 +/- 2.2mm	10 +/- 3.0mm

## Adjustment

1. Prepare to adjust DADF/ADF Lead Edge Registration.
  - a. Enter Diagnostic Mode (refer to Entering Diagnostic Mode).
  - b. Enter CE Settings (refer to CE Settings).
  - c. Select **MFC** and press the **Enter** button.
  - d. Select **Regist** and press the **Enter** button.
2. Adjust the Lead Edge (A) using the following function so that the measured value falls within the specifications.
  - a. Enter appropriate Func number (Table 2) and press the **Enter** button to display current setting.
  - b. Press the **C** button to delete the current setting.
  - c. Enter a new setting and press the **Enter** button.
    - i. For Side 1 (ADF/DADF), if the reg measurement is short enter a smaller number by selecting + or - and then entering the new number.  
 For Side 1 (ADF/DADF), if the reg measurement is long enter a larger number by selecting + or - and then entering the new number.  
 For Side 2 (DADF), if the reg measurement is short enter a larger number by selecting + or - and then entering the new number.  
 For Side 2 (DADF), if the reg measurement is long enter a smaller number by selecting + or - and then entering the new number.
    - ii. Press the **Enter** button to load the new number.
  - d. Exit Diagnostics (refer to Exiting Diagnostic Mode).

Table 2 DADF/ADF Lead Edge Registration Adjustment

Func No.	Name	Min.	Initial	Max	Increment
104	ADF Slow Scan Feed Position Adjustment	-40	0	40	10=1mm
107	DADF Slow Scan Feed Position Adjustment (Side1)	-40	0	40	10=1mm
108	DADF Slow Scan Feed Position Adjustment (Side2)	-50	0	50	10=1mm

3. Go to step 5 of the Check.



## Adjustment

1. Prepare to adjust DADF/ADF Side Edge Registration.
  - a. Enter Diagnostic Mode (refer to Entering Diagnostic Mode).
  - b. Enter CE Settings (refer to CE Settings).
  - c. Select **MFC** and press the **Enter** button.
  - d. Select **Regist** and press the **Enter** button.
2. Adjust the Side Edge (B) using the following function so that the measured value falls within the specifications (Figure 1) (Table 2).
  - a. Enter appropriate Func number (Table 2) and press the **Enter** button to display current setting.
  - b. Press the **C** button to delete the current setting.
  - c. Enter a new setting and press the **Enter** button.
    - i. For Side 1 (ADF/DADF), if the reg measurement is short enter a larger number by selecting + or - and then entering the new number.  
For Side 1 (ADF/DADF), if the reg measurement is long enter a smaller number by selecting + or - and then entering the new number.  
For Side 2 (DADF), if the reg measurement is short enter a smaller number by selecting + or - and then entering the new number.  
For Side 2 (DADF), if the reg measurement is long enter a larger number by selecting + or - and then entering the new number.
    - ii. Press the **Enter** button to load the new number.
  - d. Exit Diagnostics (refer to Exiting Diagnostic Mode).

**Table 2 DADF/ADF Side Edge Registration Adjustment**

Func No.	Name	Min.	Initial	Max	Increment
103	ADF Fast Scan Feed Position Adjustment	-72	0	72	25=1mm
105	DADF Fast Scan Feed Position Adjustment (Side1)	-72	0	72	25=1mm
106	DADF Fast Scan Feed Position Adjustment (Side2)	-72	0	72	25=1mm

3. For ADF go to step 6 of the Check.  
For DADF go to step 9 of the Check.

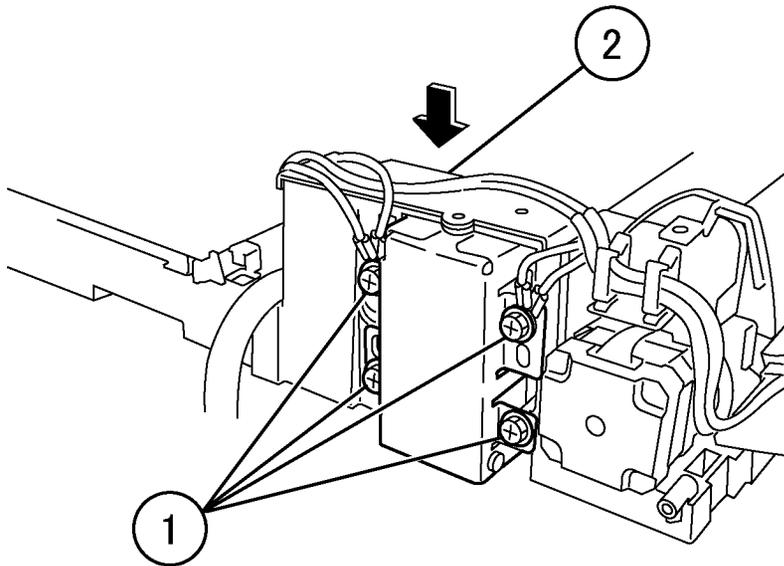
## ADJ 15.1.4 Counterbalance

### Purpose

The purpose is to ensure the rear of the DADF is at the correct height.

### Adjustment

1. Adjust the Counterbalance (Figure 1).
  1. Loosen the Screws (4) just enough so the DADF can move up and down within the screw slots.
  2. Ensure the DADF is down against the platen glass.
  3. Tighten the screws.
  4. Perform adjustment on other counterbalance.



j0ch41573

Figure 1 Adjusting Counterbalance (j0ch41573)

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# Introduction

## Overview

The Parts List section identifies all part numbers and the corresponding location of all spared subsystem components.

## Organization

### Parts Lists

Each item number in the part number listing corresponds to an item number in the related illustration. All the parts in a given subsystem of the machine will be located in the same illustration or in a series of associated illustrations.

### Electrical Connectors and Fasteners

This section contains the illustrations and descriptions of the plugs, jacks, and fasteners used in the machine. A part number listing of the connectors is included.

### Common Hardware

The common hardware is listed in alphabetical order by the letter or letters used to identify each item in the part number listing and in the illustrations. Dimensions are in millimeters unless otherwise identified.

### Part Number Index

This index lists all the spared parts in the machine in numerical order. Each number is followed by a reference to the parts list on which the part may be found.

## Other Information

### Abbreviations

Abbreviations are used in the parts lists and the exploded view illustrations to provide information in a limited amount of space. The following abbreviations are used in this manual:

**Table 1**

Abbreviation	Meaning
<b>A3</b>	297 x 594 Millimeters
<b>A4</b>	210 x 297 Millimeters
<b>A5</b>	148 x 210 Millimeters
<b>AD</b>	Auto Duplex
<b>AWG</b>	American Wire Gauge
<b>EMI</b>	Electro Magnetic Induction
<b>GB</b>	Giga Byte
<b>KB</b>	Kilo Byte
<b>MB</b>	Mega Byte
<b>MM</b>	Millimeters
<b>MOD</b>	Magneto Optical Drive
<b>NOHAD</b>	Noise Ozone Heat Air Dirt
<b>PL</b>	Parts List
<b>P/O</b>	Part of

**Table 1**

Abbreviation	Meaning
<b>R/E</b>	Reduction/Enlargement

**Table 2 Operating Companies**

Abbreviation	Meaning
<b>AO</b>	Americas Operations
<b>NASG - US</b>	North American Solutions Group - US
<b>NASG - Canada</b>	North American Solutions Group - Canada
<b>XE</b>	Xerox Europe

## Symbology

Symbology used in the Parts List section is identified in the Symbology section.

## Service Procedure Referencing

If a part or assembly has an associated repair or adjustment procedure, the procedure number will be listed at the end of the part description in the parts lists e.g. (REP 5.1.1, ADJ 11.1.1)

## Subsystem Information

### Use of the Term “Assembly”

The term “assembly” will be used for items in the part number listing that include other itemized parts in the part number listing. When the word “assembly” is found in the part number listing, there will be a corresponding item number on the illustrations followed by a bracket and a listing of the contents of the assembly.

### Brackets

A bracket is used when an assembly or kit is spared, but is not shown in the illustration. The item number of the assembly or kit precedes the bracket; the item numbers of the piece parts follow the bracket.

### Tag

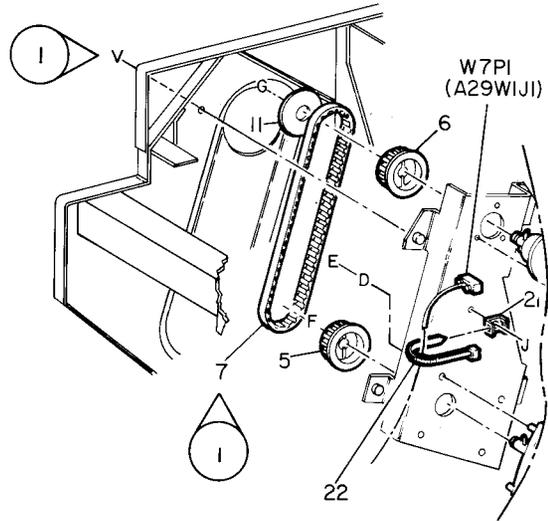
The notation “W/Tag” in the parts description indicates that the part configuration has been updated. Check the change Tag index in the General Information section of the Service Data for the name and purpose of the modification.

In some cases, a part or assembly may be spared in two versions: with the Tag and without the Tag. In those cases, use whichever part is appropriate for the configuration of the machine on which the part is to be installed. If the machine does not have a particular Tag and the only replacement part available is listed as “W/Tag”, install the Tag kit or all of the piece parts. The Change Tag Index tells you which kit or piece parts you need.

Whenever you install a Tag kit or all the piece parts that make up a Tag, mark the appropriate number on the Tag matrix.

## Symbology

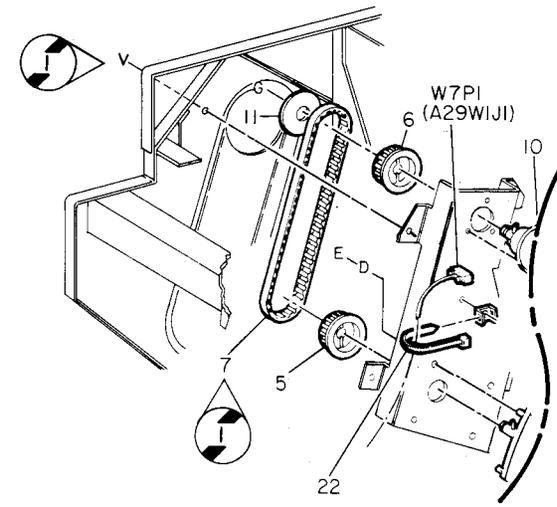
A Tag number within a circle pointing to an item number shows that the part has been changed by the tag number within the circle (Figure 1). Information on the modification is in the Change Tag Index.



0	Z004	A
850	PL	M I

Figure 1 With Tag Symbol.(0z004a)

A Tag number within a circle having a shaded bar and pointing to an item number shows that the configuration of the part shown is the configuration before the part was changed by the Tag number within the circle (Figure 2).



0	Z005	A
850	PL	M I

Figure 2 Without Tag Symbol.(0z005a)

A tag number within a circle with no apex shows that the entire drawing has been changed by the tag number within the circle (Figure 3). Information on the modification is in the Change Tag Index.

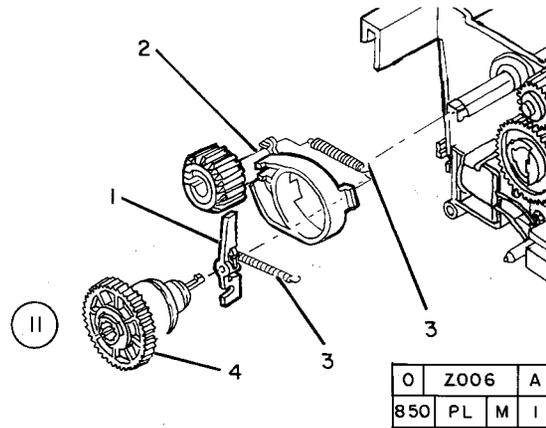


Figure 3 Entire Drawing With Tag Symbol.(0z006a)

A tag number within a circle with no apex and having a shaded bar shows that the entire drawing was the configuration before being changed by the tag number within the circle (Figure 4).

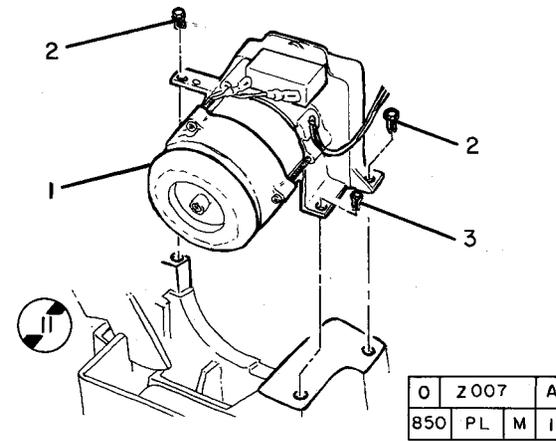


Figure 4 Entire Drawing Without Tag Symbol.(0z007a)

Below square colored black with number informs you that adjustment procedure for the parts is described in Section 4 Repairs and Adjustments. (Figure 5)

Below square with number informs you that repair procedure for the parts is described in Section 4 Repairs and Adjustments. (Figure 6)

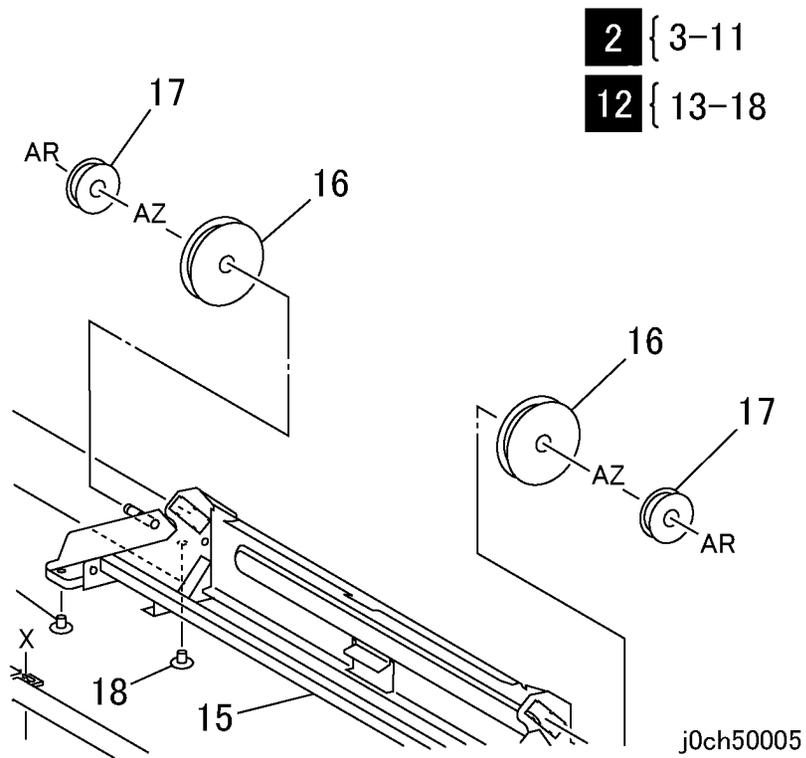


Figure 5 Adjustments procedure with item number.(j0ch50005)

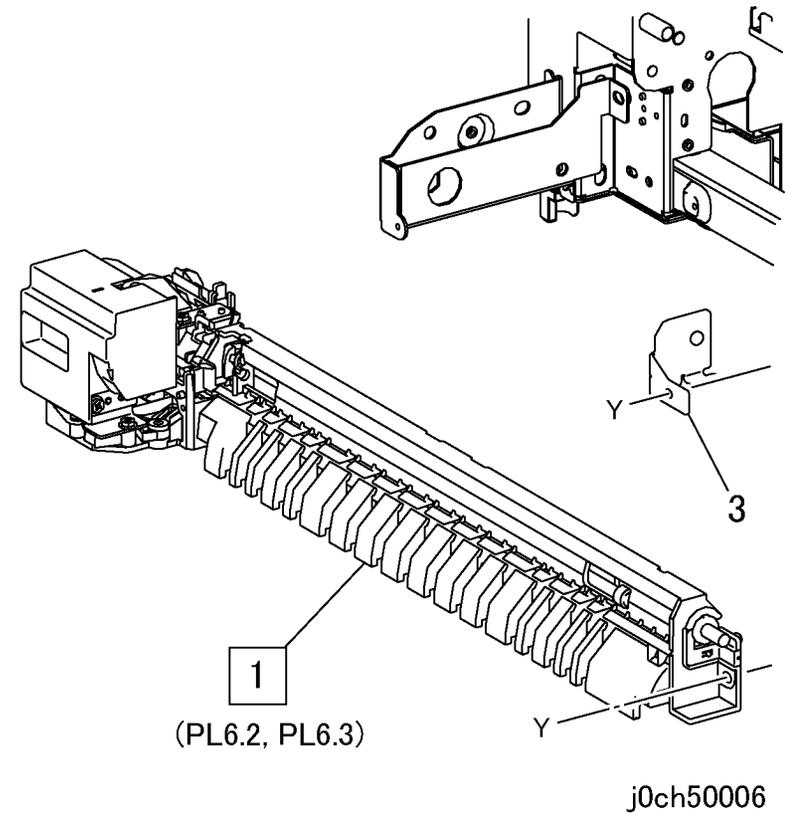


Figure 6 Repair procedure with item number.(j0ch50006)

Below double square colored black with number informs you that repair/adjustment procedure for the parts is described in Section 4 Repairs and Adjustments. (Figure 7)

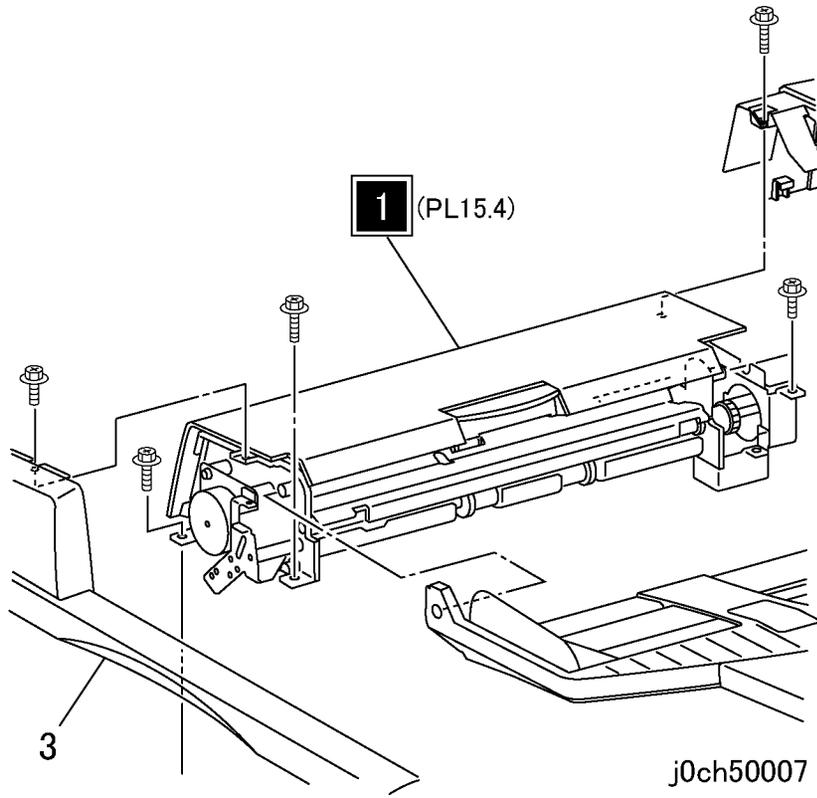
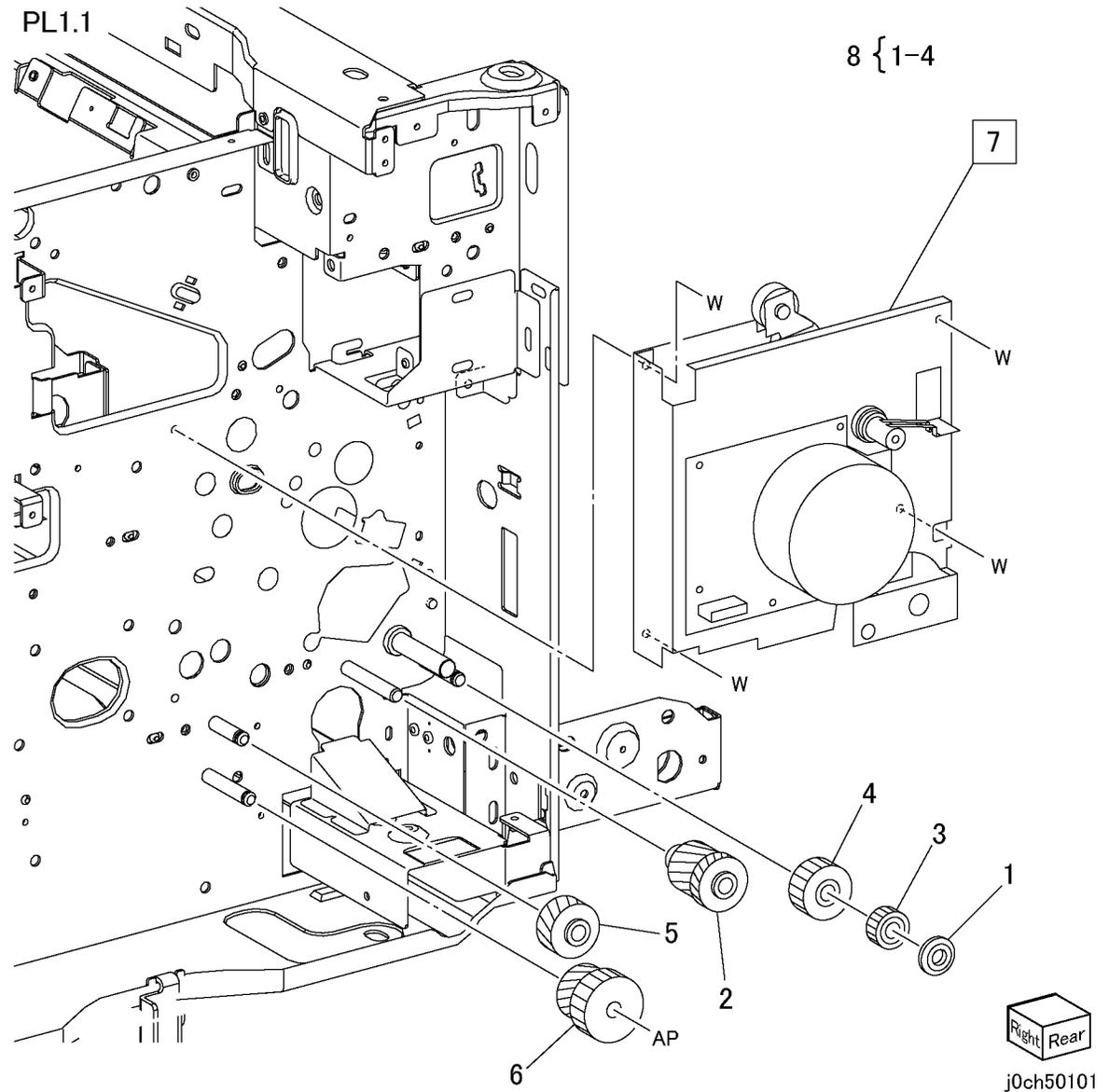


Figure 7 Repair & Adjustments procedure with item number.(j0ch50007)

## PL 1.1 Main Drive

Item	Part	Description
1	-	Collar (P/O PL 1.1 Item 8)
2	-	Gear (21T/21T) (P/O PL 1.1 Item 8)
3	-	Gear (18T) (P/O PL 1.1 Item 8)
4	-	Gear (28T) (T/A) (P/O PL 1.1 Item 8)
5	007E79140	Gear (28T) (Feeder)
6	007E79150	Gear (19T/32T) (Feeder)
7	007K88574	Main Drive Assembly (REP 1.1.1)
8	604K20500	Drive Gear Kit



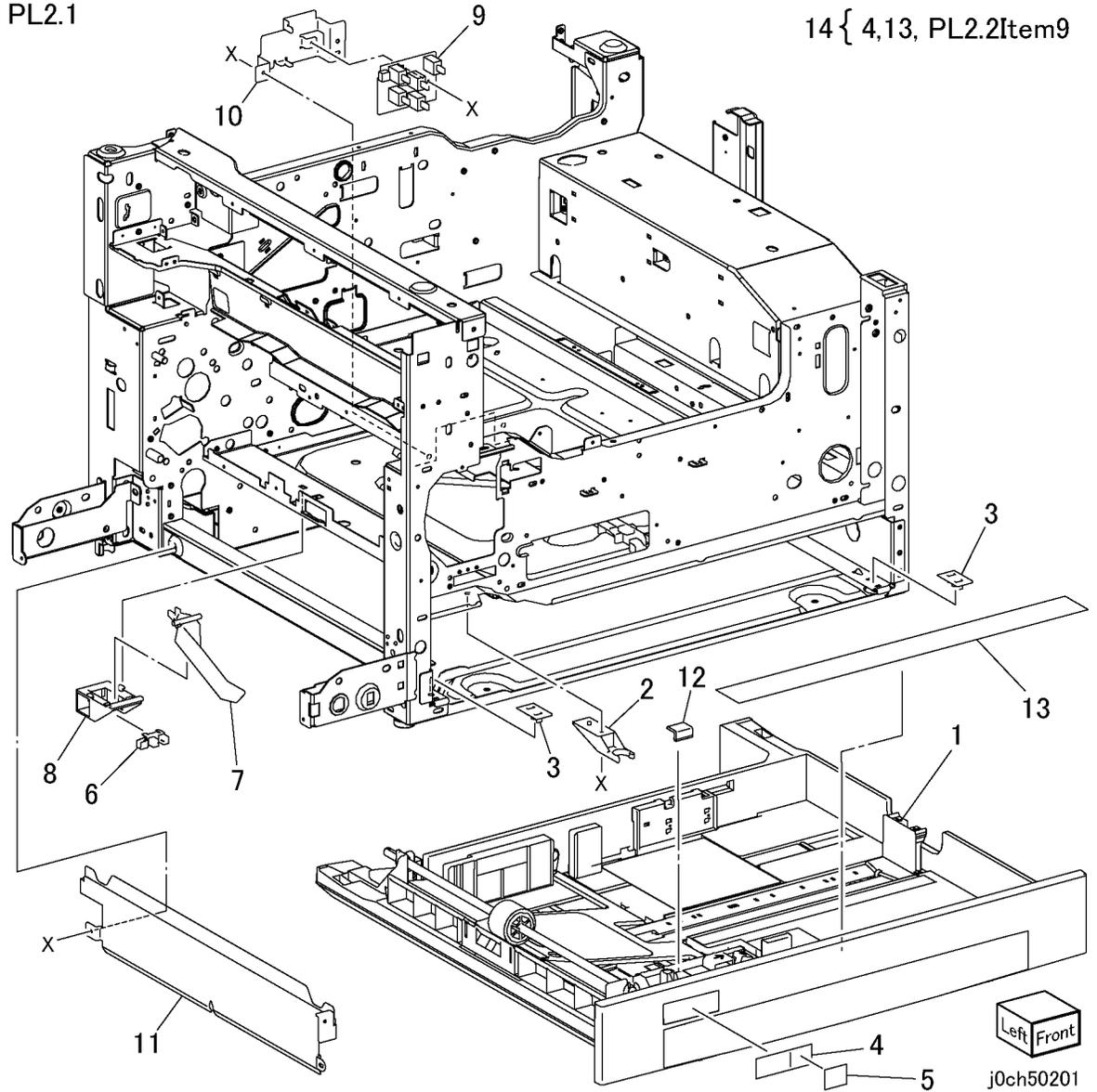
## PL 2.1 Tray 1

Item	Part	Description
------	------	-------------

1	050K50150	Tray 1 (PL 2.2)
2	003E60950	Front Tray Stopper
3	014E45350	Spacer
4	893E16030	Tray 1 Label (P/O PL 2.1 Item 14)
5	893E23040	Size Label
6	930W00103	Tray1 No Paper Sensor
7	120E23790	Actuator
8	-	Holder (Not Spared)
9	110K11680	Tray1 Paper Size Switch
10	-	Bracket (Not Spared)
11	054K26190	Paper Chute Assembly
12	-	Cap (Not Spared)
13	-	Label (Instruction) (Not Spared) (P/O PL 2.1 Item 14)
14	604K20550	Tray Label Kit

PL2.1

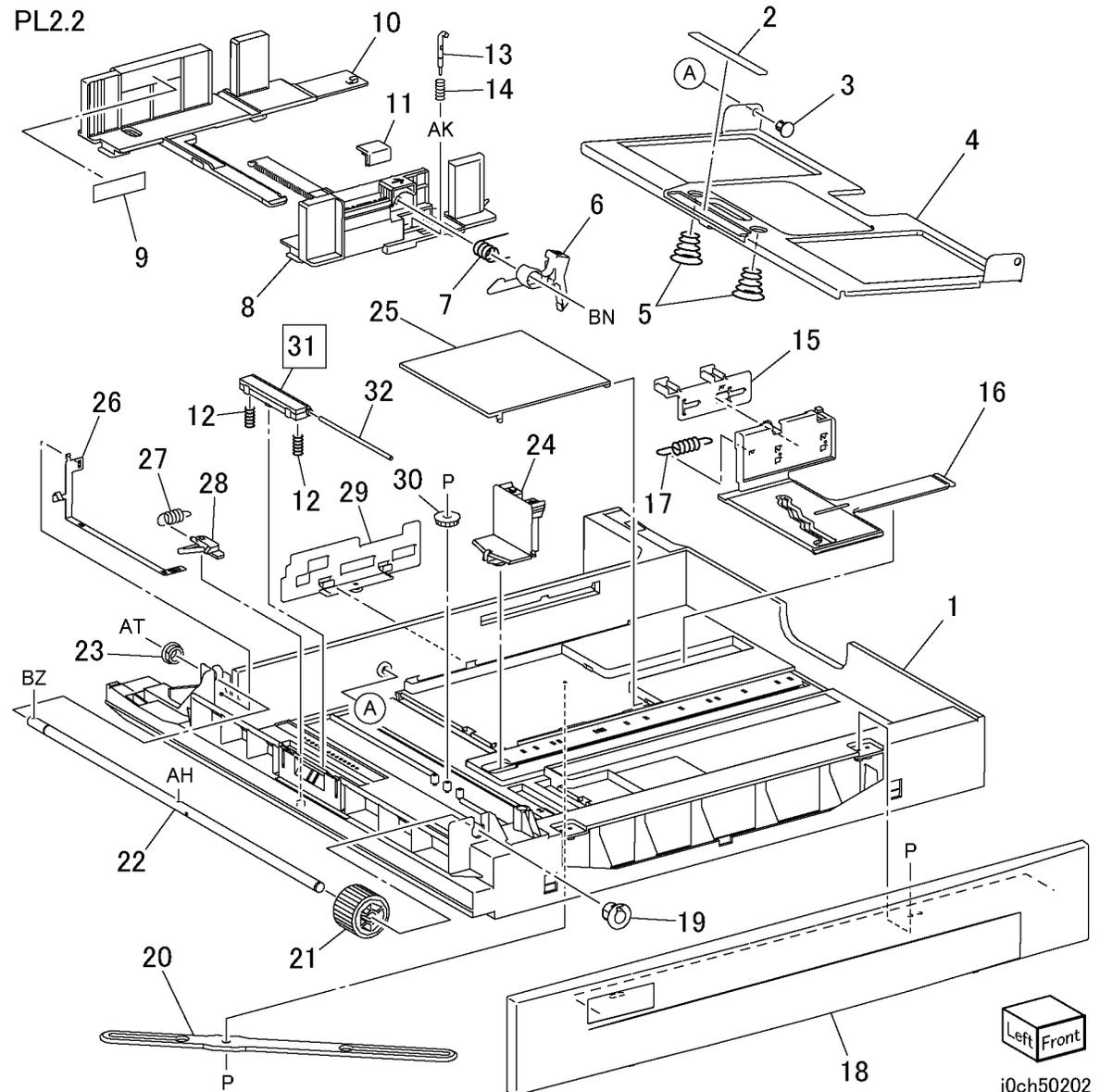
14 { 4,13, PL2.2Item9



## PL 2.2 Tray

Item	Part	Description
1	-	Cassette (P/O PL 2.1 Item 1)
2	019E57700	Pad
3	-	Pivot (P/O PL 2.1 Item 1)
4	-	Bottom Plate (P/O PL 2.1 Item 1)
5	-	Spring (P/O PL 2.1 Item 1)
6	-	Knob (P/O PL 2.1 Item 1)
7	-	Spring (P/O PL 2.1 Item 1)
8	-	Side Guide (Front) (P/O PL 2.1 Item 1)
9	-	Label (Max) (P/O PL 2.1 Item 14)
10	-	Side Guide (Rear) (P/O PL 2.1 Item 1)
11	-	Slide (P/O PL 2.1 Item 1)
12	809E27650	Spring
13	-	Pin (P/O PL 2.1 Item 1)
14	-	Spring (P/O PL 2.1 Item 1)
15	-	Actuator (P/O PL 2.1 Item 1)
16	-	Actuator (P/O PL 2.1 Item 1)
17	-	Spring (P/O PL 2.1 Item 1)
18	-	Cassette Cover (P/O PL 2.1 Item 1)
19	-	Bearing (P/O PL 2.1 Item 1)
20	-	Link (P/O PL 2.1 Item 1)
21	059K32772	Feed Roll
22	806E04191	Shaft
23	-	Bearing (P/O PL 2.1 Item 1)
24	-	End Guide (P/O PL 2.1 Item 1)
25	-	Cover (P/O PL 2.1 Item 1)
26	-	Earth Plate (P/O PL 2.1 Item 1)
27	-	Spring (P/O PL 2.1 Item 1)
28	-	Stopper (P/O PL 2.1 Item 1)
29	-	Actuator (P/O PL 2.1 Item 1)
30	-	Pinion Gear (P/O PL 2.1 Item 1)
31	019K98722	Retard Pad (REP 2.2.1)
32	-	Shaft (P/O PL 2.1 Item 1)

PL2.2

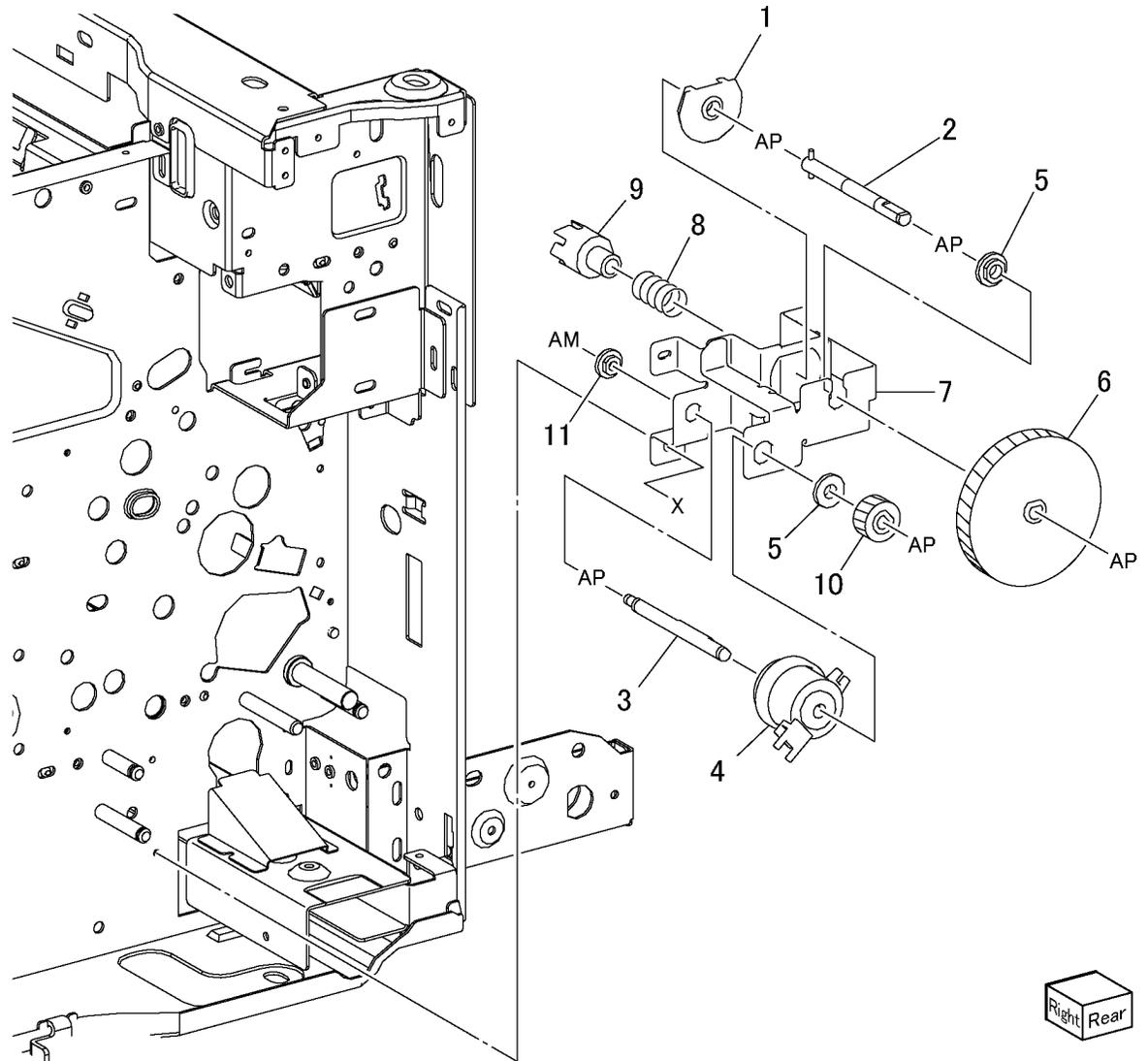


j0ch50202

## PL 2.3 Tray 1 Drive

Item	Part	Description
1	-	Bearing (Not Spared)
2	-	Shaft (Not Spared)
3	-	Shaft (Not Spared)
4	121K32581	Tray1 Feed Clutch
5	-	Bearing (Not Spared)
6	-	Gear (75T) (Not Spared)
7	-	Bracket (Not Spared)
8	-	Spring (Not Spared)
9	-	Coupling (Not Spared)
10	-	Gear (18T) (Not Spared)
11	-	Bearing (Not Spared)

PL2.3

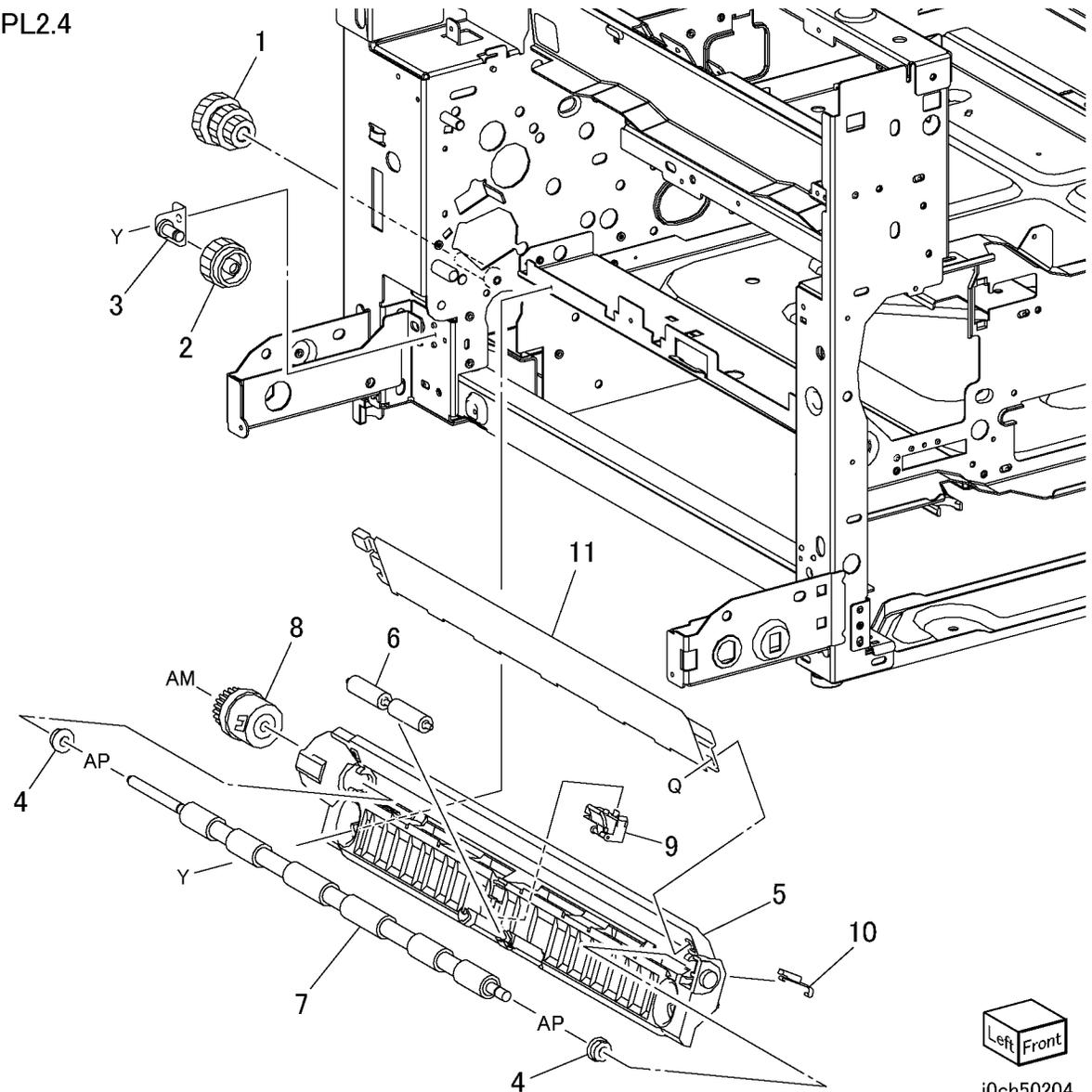


j0ch50203

## PL 2.4 Registration

Item	Part	Description
1	-	Gear (29-26-19T) (Not Spared)
2	-	Gear (31T) (Not Spared)
3	-	Bracket (Not Spared)
4	-	Bearing (Not Spared)
5	054E23940	Registration Chute
6	-	Idler Roll (Not Spared)
7	059K31021	Registration Roll
8	121K32660	Registration Clutch
9	130K64270	Registration Sensor
10	-	Earth Plate (Not Spared)
11	054K23940	Chute Assembly

PL2.4



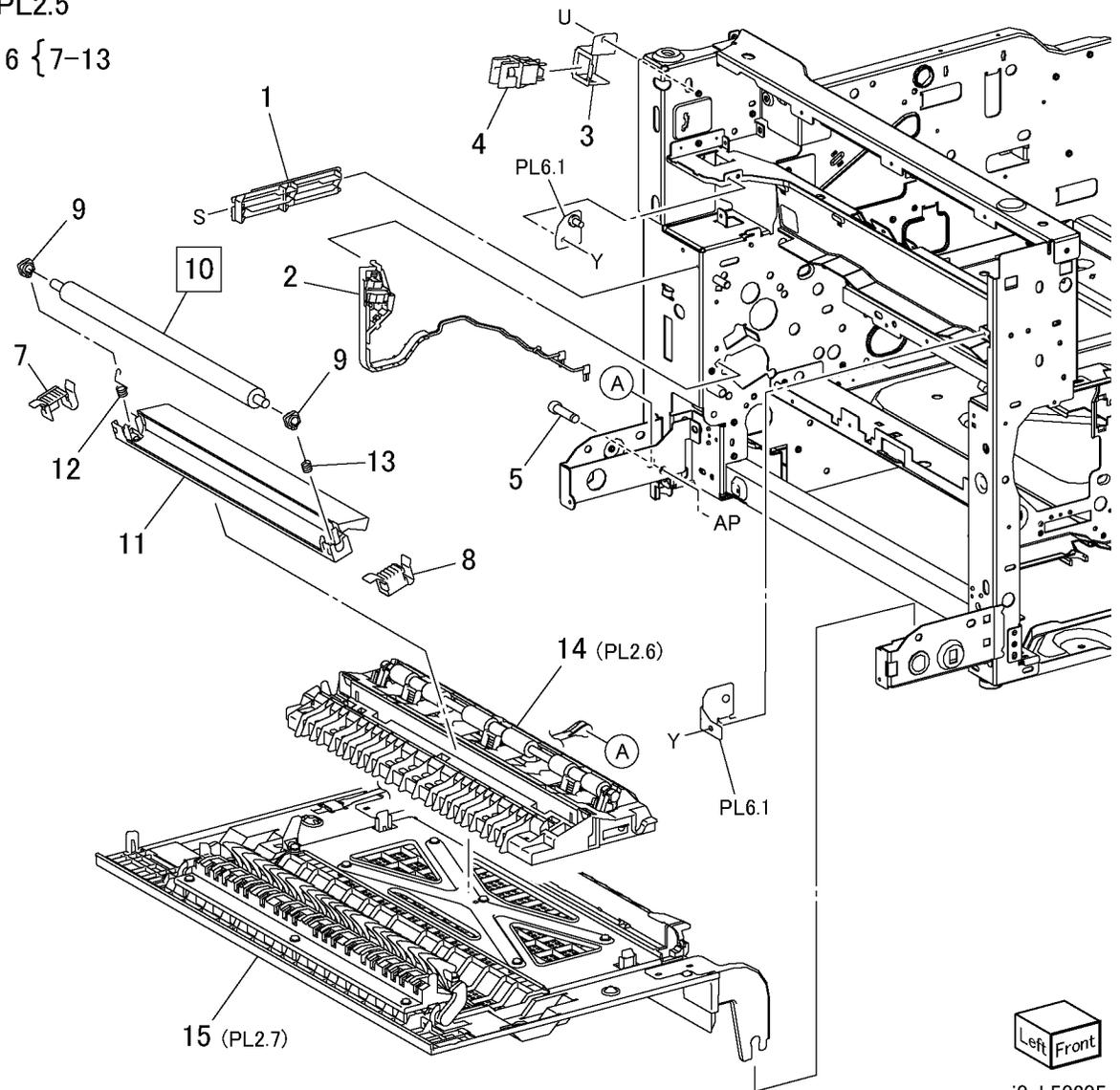
j0ch50204

## PL 2.5 Vertical Transport Unit

Item	Part	Description
1	-	Link Assembly (Not Spared)
2	802K49240	Wire Harness
3	-	Bracket (Not Spared)
4	110E94770	Left Cover Interlock Switch
5	-	Stud (Not Spared)
6	802K56094	BTR Assembly
7	-	Lever (Rear) (P/O PL 2.5 Item 6)
8	-	Lever (Front) (P/O PL 2.5 Item 6)
9	-	Bearing (P/O PL 2.5 Item 6)
10	-	BTR (REP 2.5.2) (P/O PL 2.5 Item 6)
11	-	BTR Housing (P/O PL 2.5 Item 6)
12	-	Spring (P/O PL 2.5 Item 6)
13	-	Spring (P/O PL 2.5 Item 6)
14	054K24051	Chute Assembly (PL 2.6)
15	802K63590	Left Cover Assembly (PL 2.7)

PL2.5

6 { 7-13



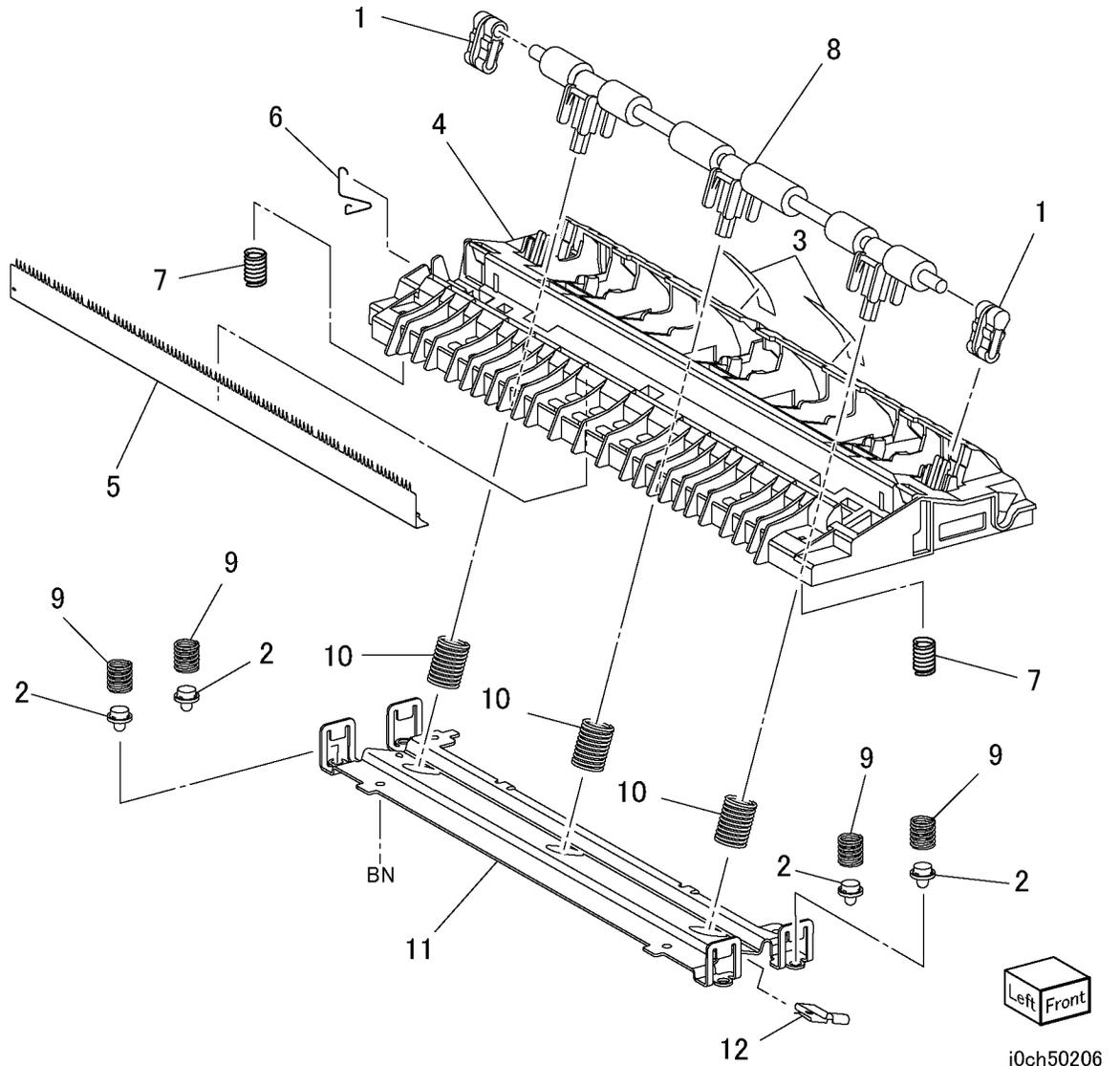
Left Front

j0ch50205

## PL 2.6 Transfer Cover

Item	Part	Description
1	–	Pinch Bearing (P/O PL 2.5 Item 14)
2	–	Guide (P/O PL 2.5 Item 14)
3	–	Guide (P/O PL 2.5 Item 14)
4	–	Chute (P/O PL 2.5 Item 14)
5	–	Eliminator (P/O PL 2.5 Item 14)
6	–	Spring (P/O PL 2.5 Item 14)
7	–	Spring (P/O PL 2.5 Item 14)
8	–	Pinch Roll (P/O PL 2.5 Item 14)
9	–	Spring (P/O PL 2.5 Item 14)
10	–	Spring (P/O PL 2.5 Item 14)
11	–	Plate (P/O PL 2.5 Item 14)
12	–	Earth Plate (P/O PL 2.5 Item 14)

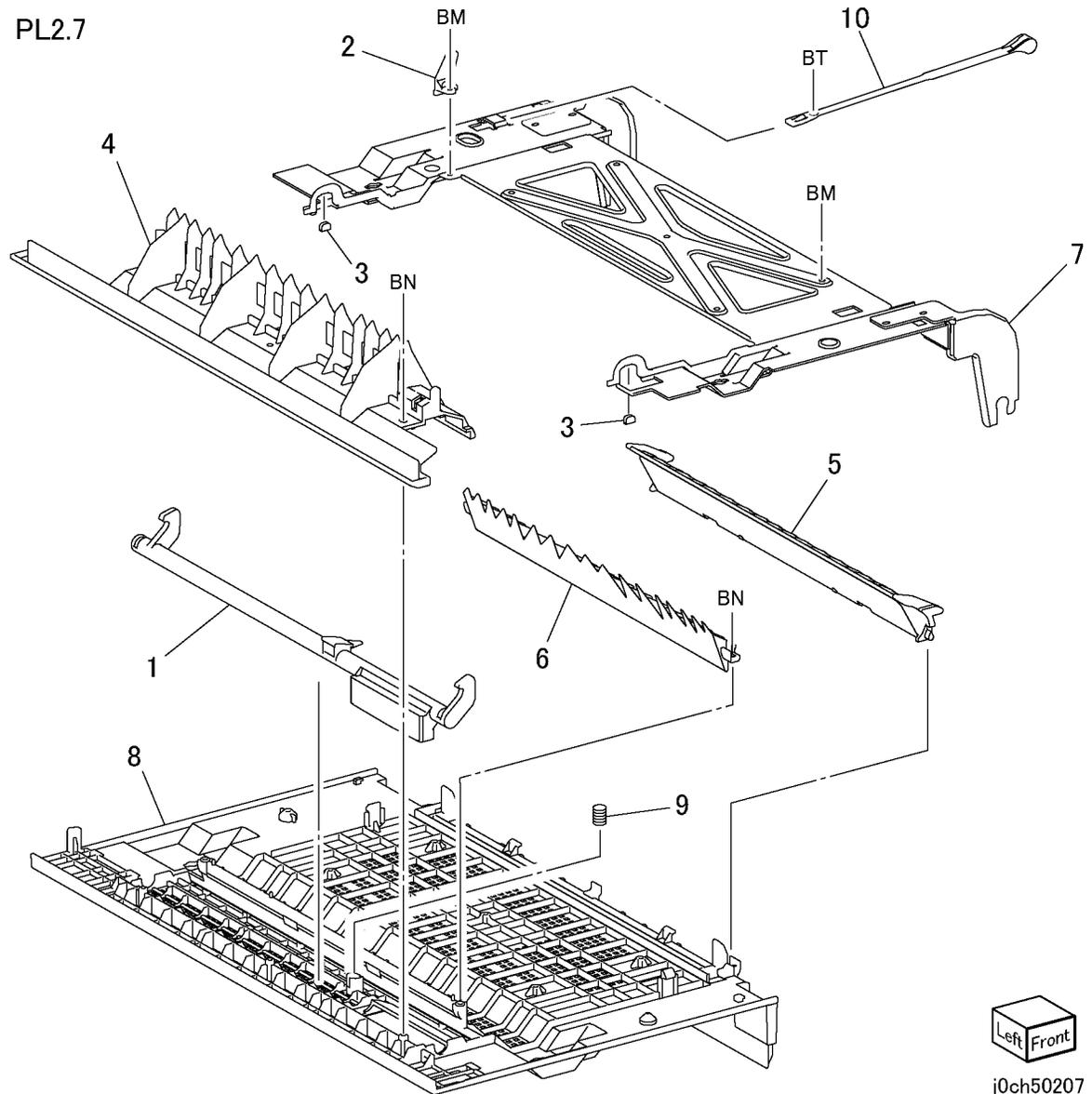
PL2.6



## PL 2.7 Left Cover Assembly

Item	Part	Description
1	-	Handle (P/O PL 2.5 Item 15)
2	-	XERO/Developer Cartridge Shutter Rod (P/O PL 2.5 Item 15)
3	-	Handle Guide (P/O PL 2.5 Item 15)
4	-	Chute (P/O PL 2.5 Item 15)
5	054K24060	Chute Assembly
6	054K26150	Exit Chute Assembly
7	-	Frame Assembly (P/O PL 2.5 Item 15)
8	-	Left Cover (P/O PL 2.5 Item 15)
9	-	Spring (P/O PL 2.5 Item 15)
10	849E13981	Support

PL2.7



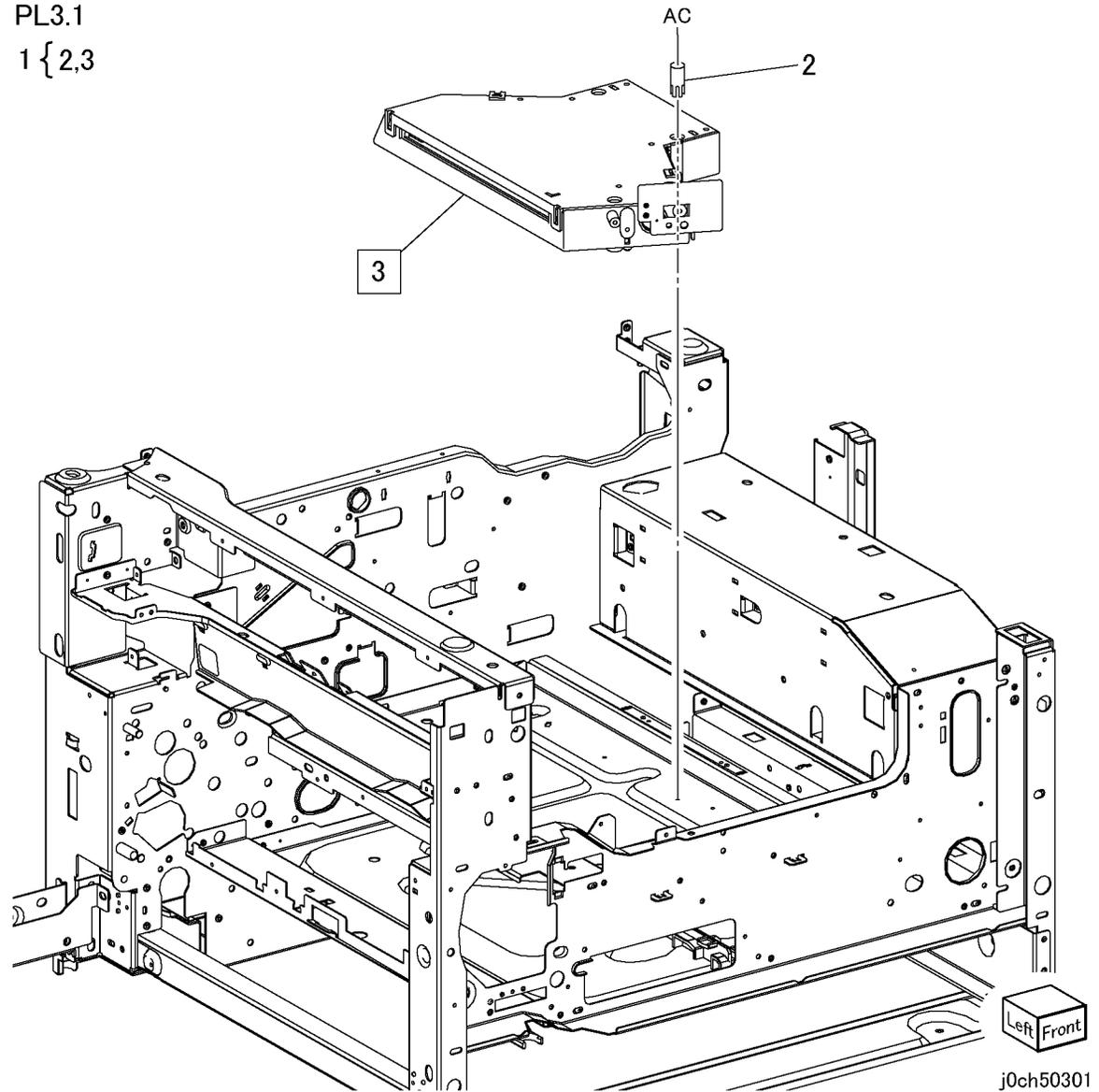
Left Front

j0ch50207

## PL 3.1 ROS

Item	Part	Description
1	604K20910	ROS Kit
2	-	Attachment (P/O PL 3.1 Item 1)
3	-	ROS Unit (REP 3.1.1 ) (P/O PL 3.1 Item 1)

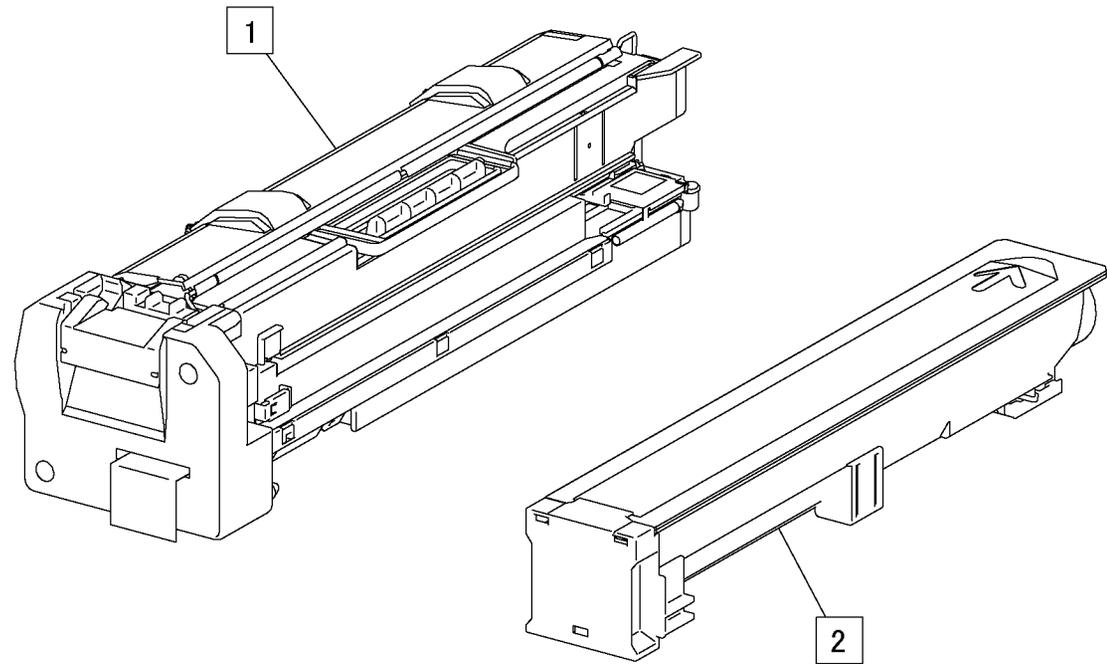
PL3.1  
1 { 2,3



## PL 4.1 XERO/Developer

Item	Part	Description
1	-	Xero/Developer Cartridge (REP 4.1.1) (Not Spared)
2	-	Toner Cartridge (REP 4.1.2) (Not Spared)

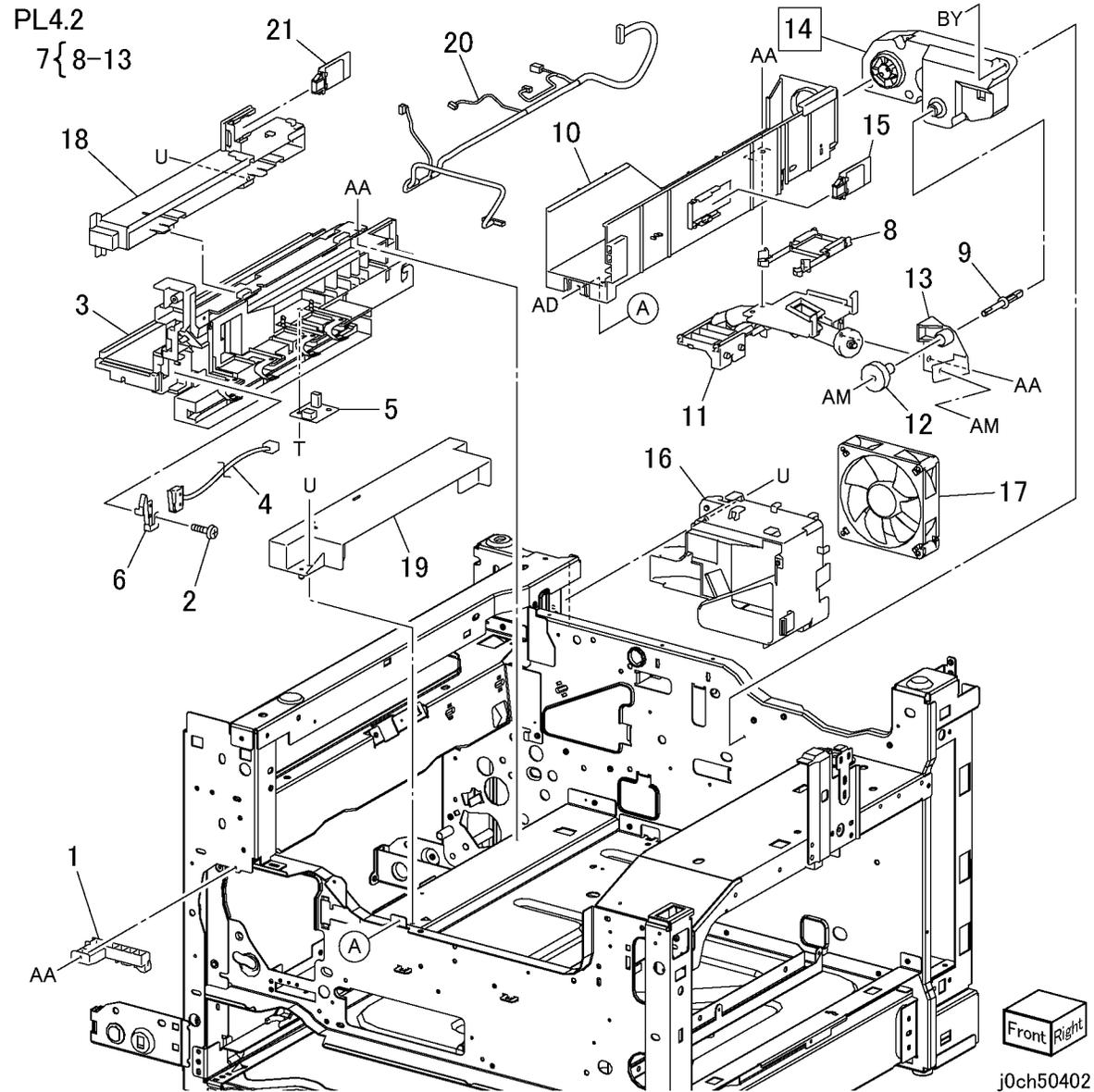
PL4.1



j0ch50401

## PL 4.2 Toner System

Item	Part	Description
1	-	Block (Not Spared)
2	-	Screw (Not Spared)
3	-	Guide Assembly (Not Spared)
4	110K11810	Xero Interlock Switch
5	130K61530	Hum and Temp Sensor
6	-	Interlock Switch Plate (Not Spared)
7	032K96921	Toner Guide Assembly
8	-	Toner Stopper (P/O PL 4.2 Item 7)
9	-	Drive Shaft (P/O PL 4.2 Item 7)
10	-	Toner Housing (P/O PL 4.2 Item 7)
11	-	Dispense Assembly (REP 4.2.1) (P/O PL 4.2 Item 7)
12	-	Gear (13T) (P/O PL 4.2 Item 7)
13	-	Support (P/O PL 4.2 Item 7)
14	127K39470	Dispense Motor (REP 4.2.1)
15	160K95830	Toner CRUM PWB
16	-	Fuser Duct (Not Spared)
17	127K39430	Fuser Fan
18	-	Housing (Not Spared)
19	-	ROS Cover (Not Spared)
20	-	Harness J403-J610 (Not Spared)
21	160K95830	XERO CRUM PWB

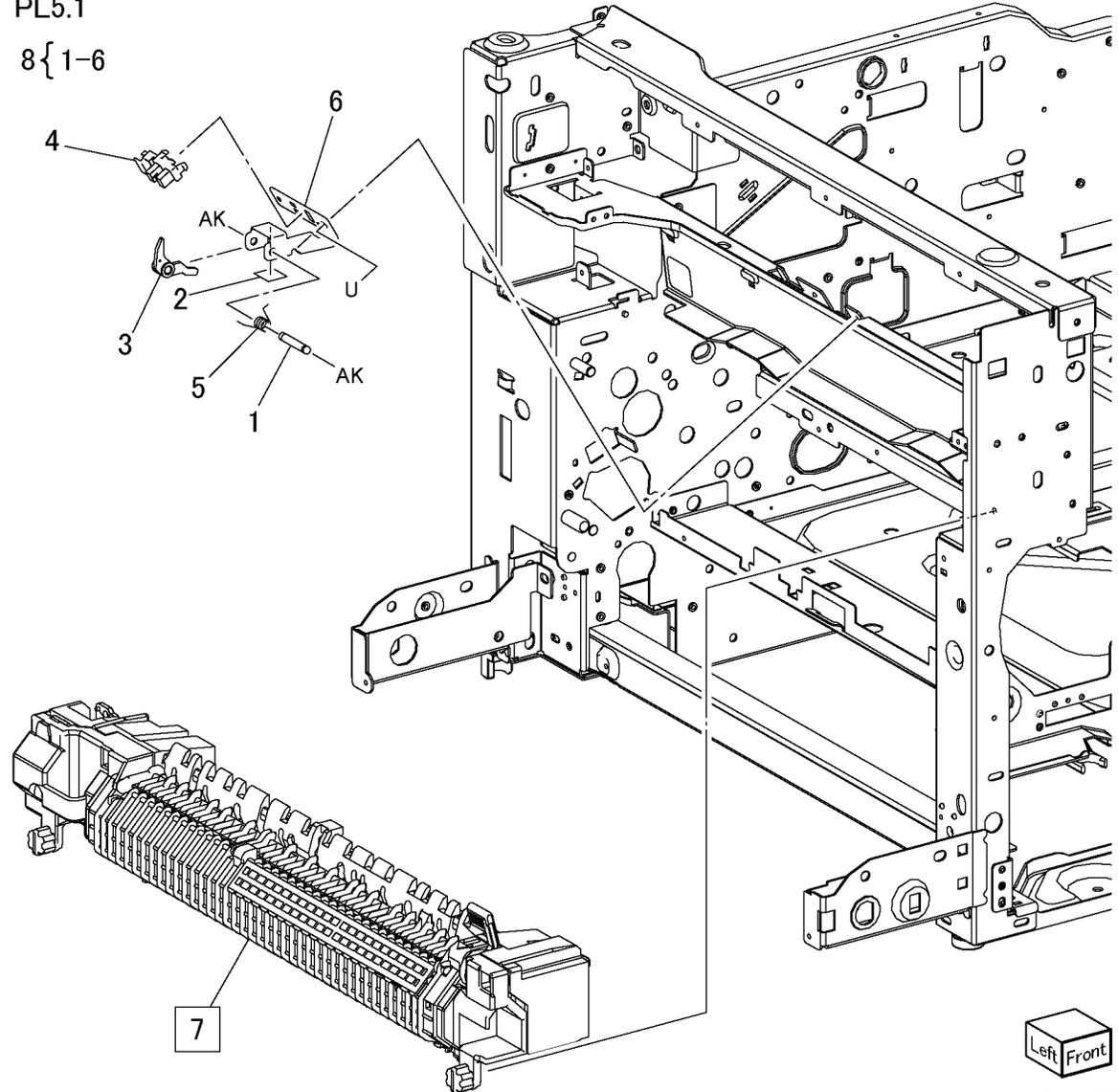


## PL 5.1 Fuser

Item	Part	Description
1	-	Actuator Shaft (P/O PL 5.1 Item 8)
2	-	Insulator (P/O PL 5.1 Item 8)
3	120E22121	Exit Actuator
4	130E82740	Fuser Exit Sensor
5	809E42201	Actuator Spring
6	-	Exit Sensor Bracket (P/O PL 5.1 Item 8)
7	126K16451	Fuser Assembly (120V) (REP 5.1.1)
-	126K16461	Fuser Assembly (220V) (REP 5.1.1)
8	-	Fuser Exit Sensor Assembly

PL5.1

8 { 1-6



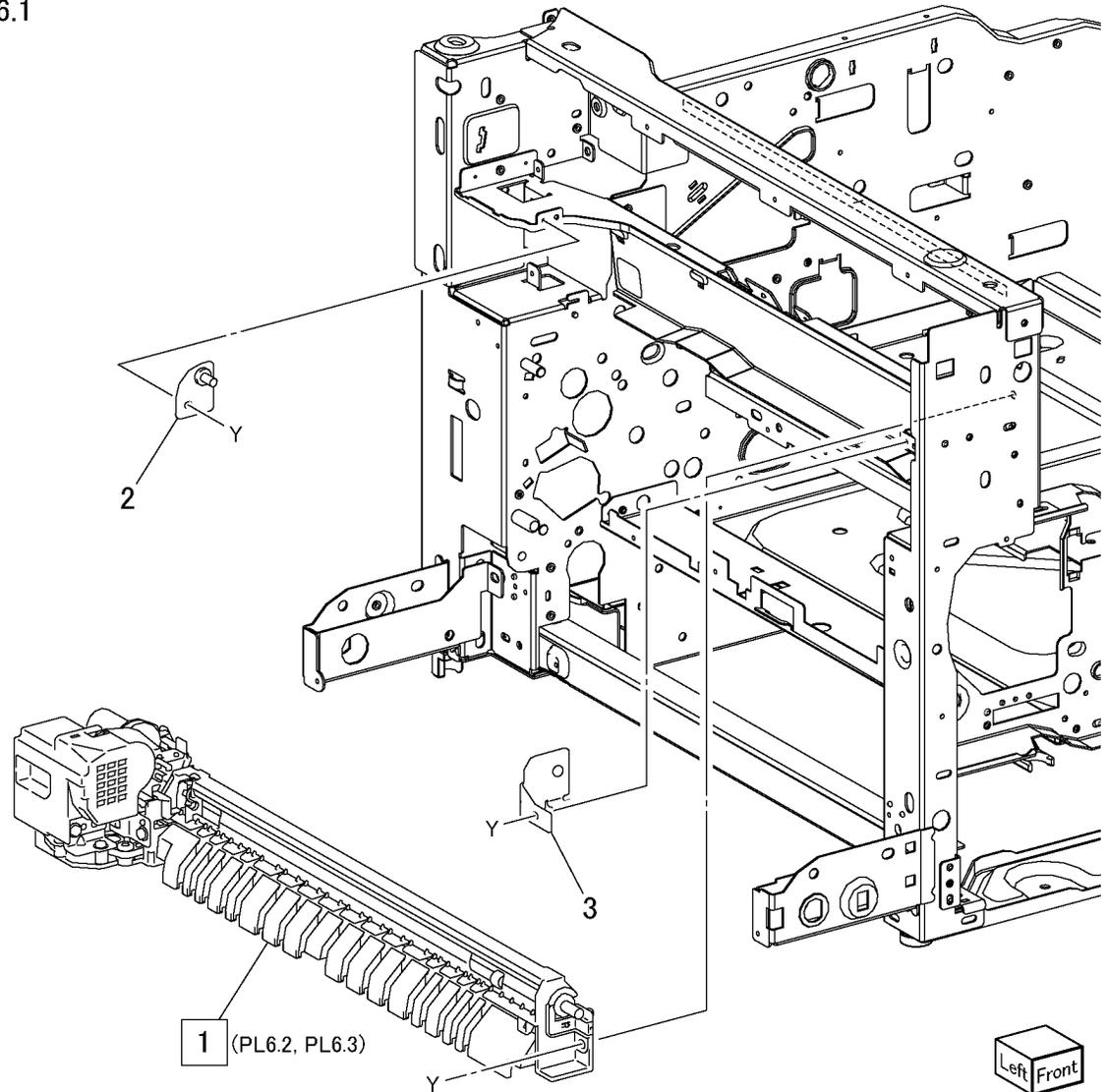
Left Front

j0ch50501

## PL 6.1 Exit Assembly

Item	Part	Description
1	059K33550	Exit Assembly (PL 6.2)
-	059K33030	Exit + OCT Assembly (PL 6.3) (REP 6.1.1)
2	-	Stopper (Not Spared)
3	-	Stopper (Not Spared)

PL6.1



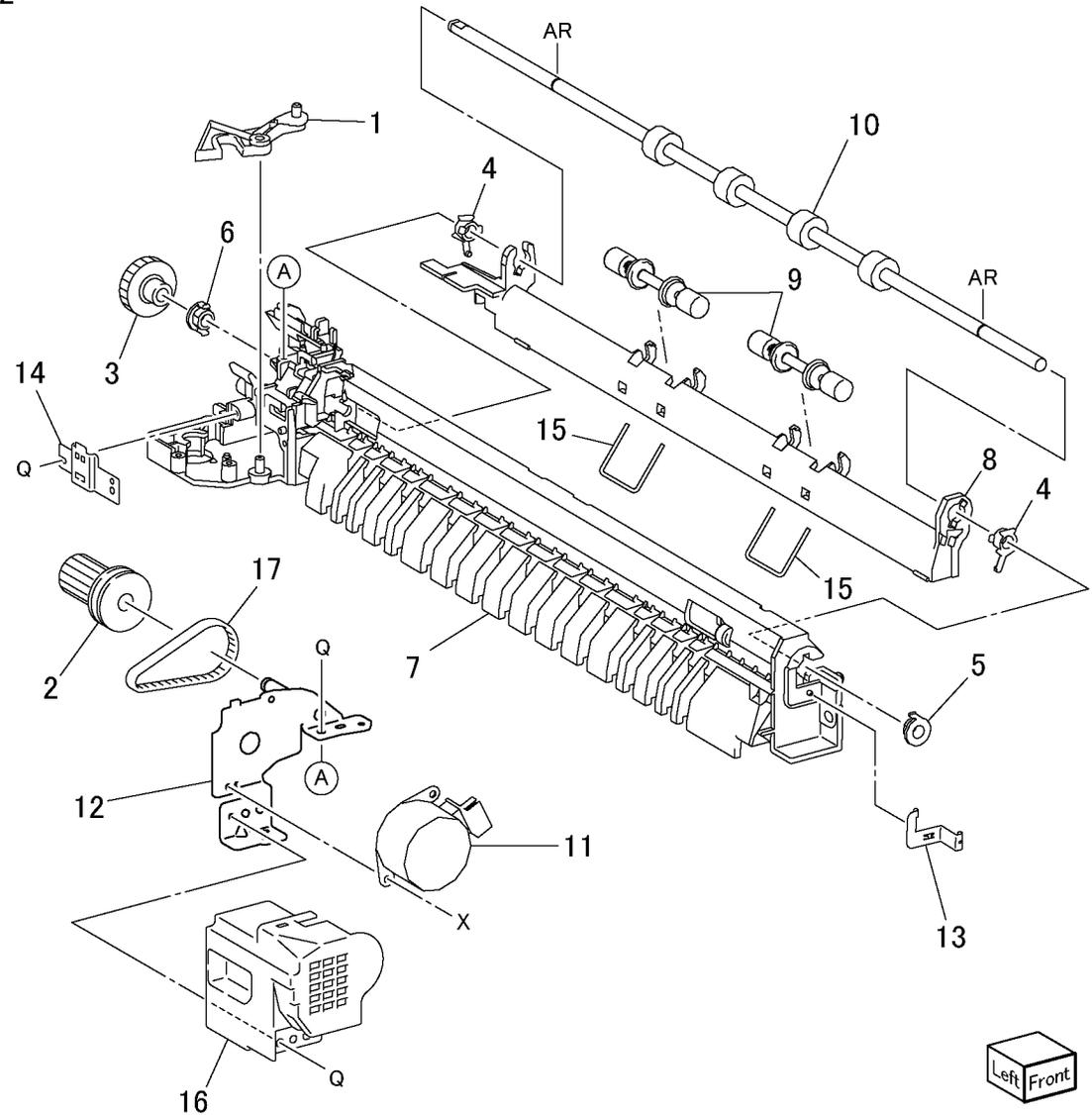
Left Front

j0ch50601

## PL 6.2 Exit Assembly

Item	Part	Description
1	-	Offset Gear (P/O PL 6.1 Item 1)
2	-	Gear Pulley (P/O PL 6.1 Item 1)
3	-	Gear (24T) (P/O PL 6.1 Item 1)
4	-	Bearing (P/O PL 6.1 Item 1)
5	-	Bearing (P/O PL 6.1 Item 1)
6	-	Bearing (P/O PL 6.1 Item 1)
7	-	Lower Chute (P/O PL 6.1 Item 1)
8	-	OCT Chute (P/O PL 6.1 Item 1)
9	-	Pinch Roll (P/O PL 6.1 Item 1)
10	-	OCT Roll (P/O PL 6.1 Item 1)
11	127K37961	Exit Motor
12	-	Frame (P/O PL 6.1 Item 1)
13	-	Earth Plate (P/O PL 6.1 Item 1)
14	-	Bracket (P/O PL 6.1 Item 1)
15	-	Spring (P/O PL 6.1 Item 1)
16	-	Motor Cover (P/O PL 6.1 Item 1)
17	-	Belt (P/O PL 6.1 Item 1)

PL6.2



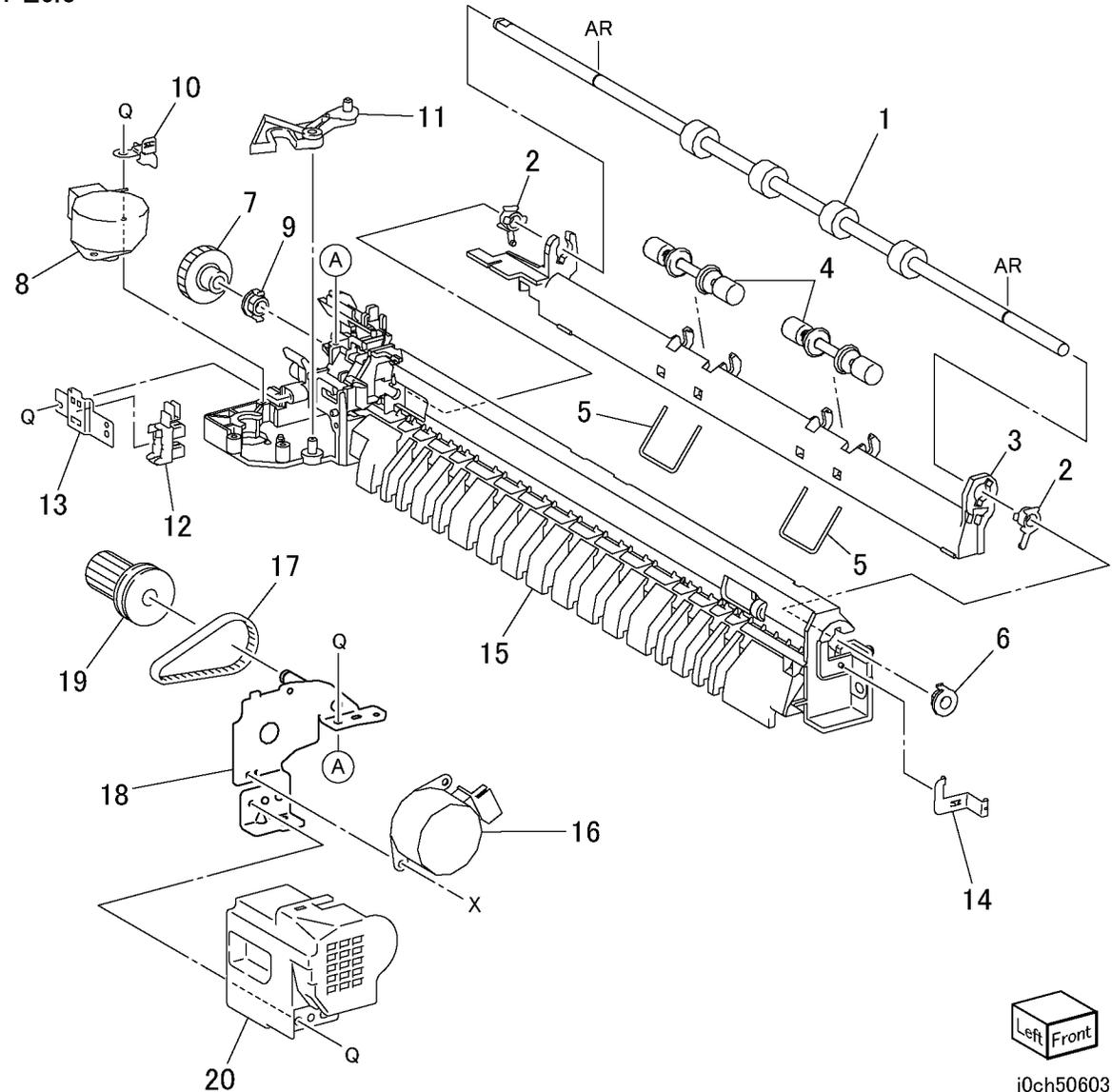
Left  
Front

j0ch50602

## PL 6.3 Exit + OCT Assembly

Item	Part	Description
1	-	OCT Roll (P/O PL 6.1 Item 1)
2	-	Bearing (P/O PL 6.1 Item 1)
3	-	OCT Chute (P/O PL 6.1 Item 1)
4	-	Pinch Roll (P/O PL 6.1 Item 1)
5	-	Spring (P/O PL 6.1 Item 1)
6	-	Bearing (P/O PL 6.1 Item 1)
7	-	Gear (24T) (P/O PL 6.1 Item 1)
8	127K39460	Offset Motor
9	-	Bearing (P/O PL 6.1 Item 1)
10	-	Earth Plate (P/O PL 6.1 Item 1)
11	-	Offset Gear (P/O PL 6.1 Item 1)
12	930W00103	Offset Home Sensor
13	-	Bracket (P/O PL 6.1 Item 1)
14	-	Earth Plate (P/O PL 6.1 Item 1)
15	-	Lower Chute (P/O PL 6.1 Item 1)
16	127K37961	Exit Motor
17	-	Belt (P/O PL 6.1 Item 1)
18	-	Bracket (P/O PL 6.1 Item 1)
19	-	Gear Pulley (P/O PL 6.1 Item 1)
20	-	Motor Cover (P/O PL 6.1 Item 1)

PL6.3



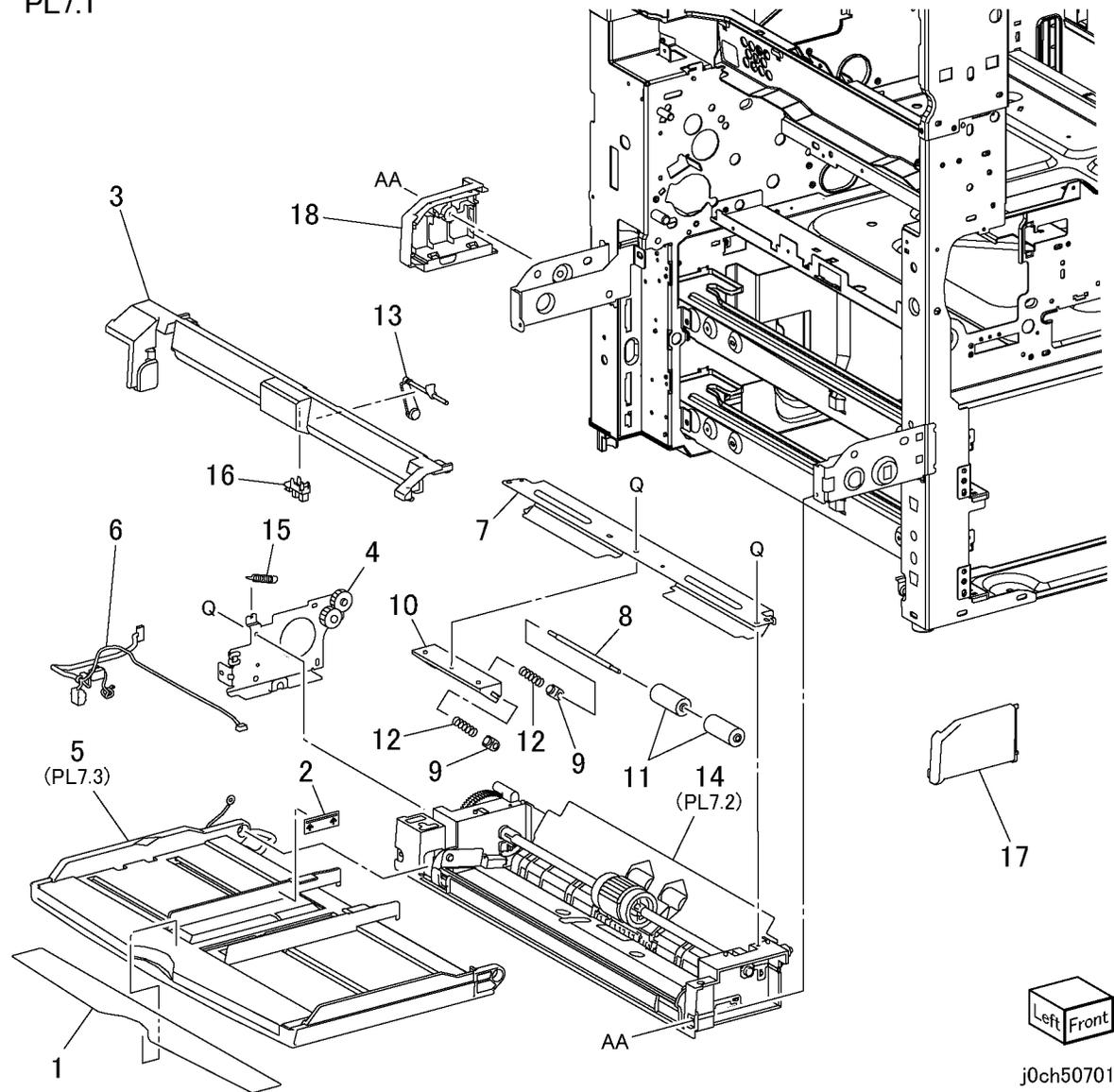
Left Front

j0ch50603

# PL 7.1 MPT Unit

Item	Part	Description
1	-	Label (Not Spared)
2	-	Label (Max) (Not Spared)
3	-	Upper Frame (Not Spared)
4	-	Gear Assembly (Not Spared)
5	050K49741	MPT Tray Assembly (PL 7.3)
6	962K13120	Wire Harness
7	-	Pinch Chute (Not Spared)
8	-	Shaft (Not Spared)
9	-	Spacer (Not Spared)
10	-	Guide (Not Spared)
11	-	Pinch Roll (Not Spared)
12	-	Spring (Not Spared)
13	-	Actuator (Not Spared)
14	801K05762	Lower Frame Assembly (PL 7.2)
15	809E38160	MPT Spring
16	930W00103	MPT No Paper Sensor
17	802E55770	MPT Front Cover
18	802E55211	MPT Rear Cover

PL7.1



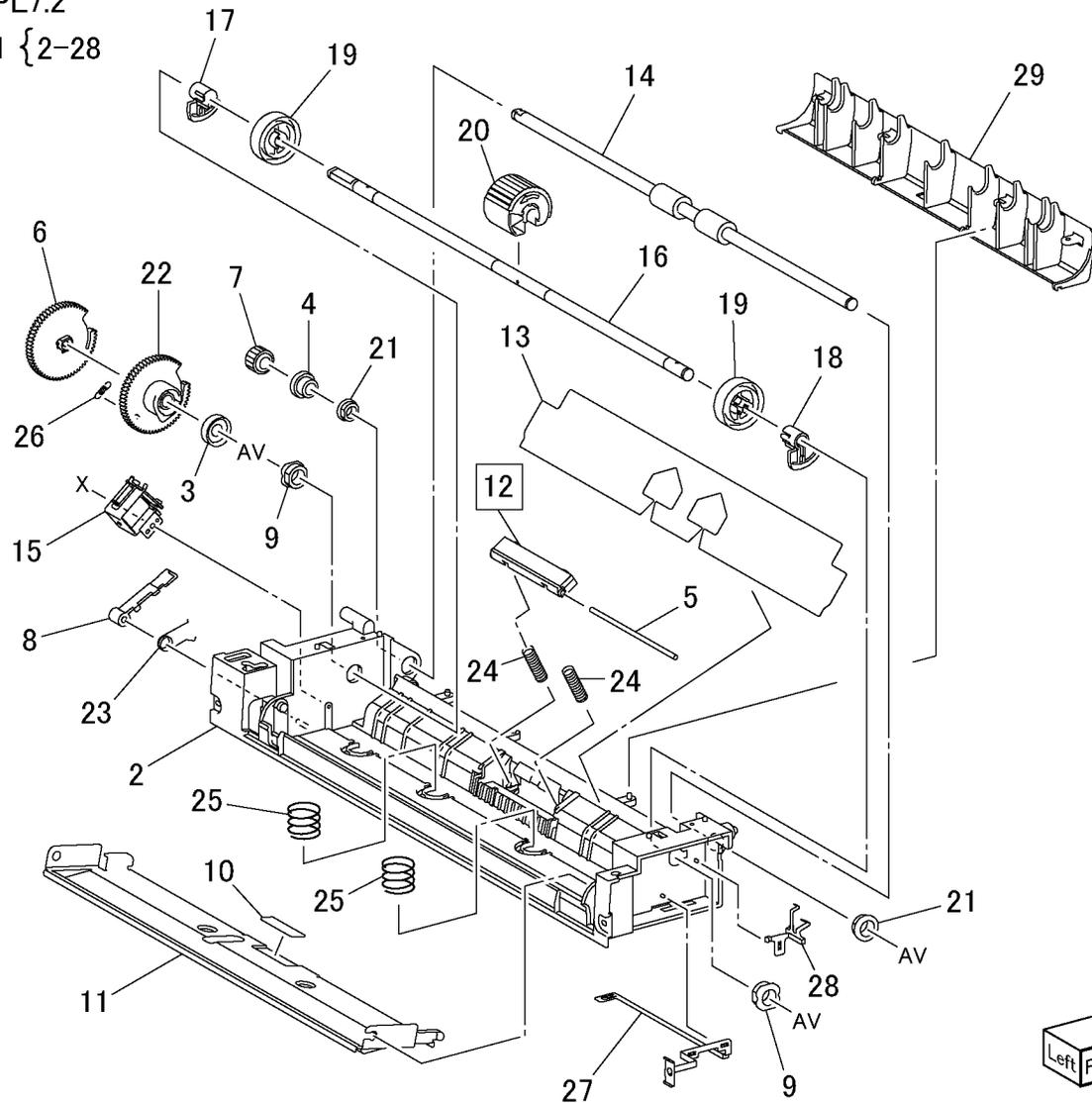
Left Front

j0ch50701

# PL 7.2 Lower Frame Assembly

Item	Part	Description
1	801K05762	Lower Frame Assembly
2	-	Lower Frame (P/O PL 7.2 Item 1)
3	-	Stopper Lever (P/O PL 7.2 Item 1)
4	-	Collar (P/O PL 7.2 Item 1)
5	-	Shaft (P/O PL 7.2 Item 1)
6	-	Pick Up Gear (P/O PL 7.2 Item 1)
7	007E79710	Gear (18T) (P/O PL 7.2 Item 1)
8	011E15150	Gear Lever (P/O PL 7.2 Item 1)
9	-	Bearing (8) (P/O PL 7.2 Item 1)
10	019E56551	Bottom Pad
11	-	Bottom Plate (P/O PL 7.2 Item 1)
12	019K98722	MPT Retard Pad (REP 7.2.1) (P/O PL 7.2 Item 1)
13	032E21060	MPT Paper Guide (P/O PL 7.2 Item 1)
14	059K27141	Drive Roll Assembly
15	121E92780	MPT Feed Solenoid
16	-	Pick Up Shaft Assembly (P/O PL 7.2 Item 1)
17	-	Pick Up Cam (Rear) (P/O PL 7.2 Item 1)
18	-	Pick Up Cam (Front) (P/O PL 7.2 Item 1)
19	-	Roll Core (P/O PL 7.2 Item 1)
20	059K27150	MPT Feed Roll
21	-	Sleeve Bearing (P/O PL 7.2 Item 1)
22	-	Cam Gear (P/O PL 7.2 Item 1)
23	-	Lever Gear Spring (P/O PL 7.2 Item 1)
24	-	Pad Spring (P/O PL 7.2 Item 1)
25	-	Spring (P/O PL 7.2 Item 1)
26	-	Gear Cam Spring (P/O PL 7.2 Item 1)
27	-	Earth Plate (P/O PL 7.2 Item 1)
28	-	Earth Plate (P/O PL 7.2 Item 1)
29	-	Lower Chute (Not Spared)

PL7.2  
1 {2-28

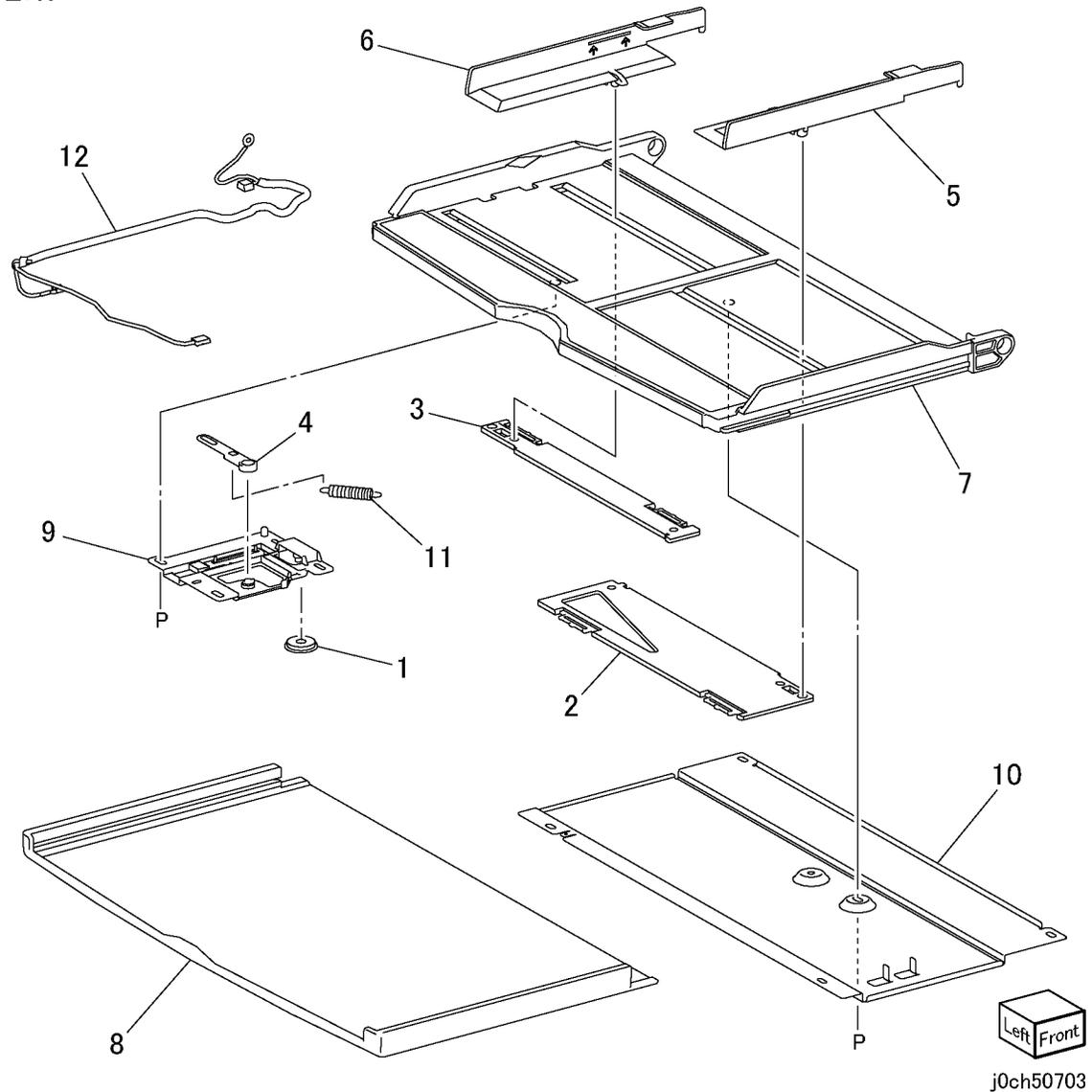


j0ch50702

## PL 7.3 MPT Tray Assembly

Item	Part	Description
1	-	Pinion (P/O PL 7.1 Item 5)
2	-	Front Rack (P/O PL 7.1 Item 5)
3	-	Rear Rack (P/O PL 7.1 Item 5)
4	-	Link (P/O PL 7.1 Item 5)
5	-	Front Guide (P/O PL 7.1 Item 5)
6	-	Rear Guide (P/O PL 7.1 Item 5)
7	-	MPT Tray (P/O PL 7.1 Item 5)
8	-	Exit Tray (P/O PL 7.1 Item 5)
9	-	MPT Paper Size Sensor (P/O PL 7.1 Item 5)
10	-	Tray Cover (P/O PL 7.1 Item 5)
11	-	Spring (P/O PL 7.1 Item 5)
12	-	Wire Harness (P/O PL 7.1 Item 5)

PL7.3

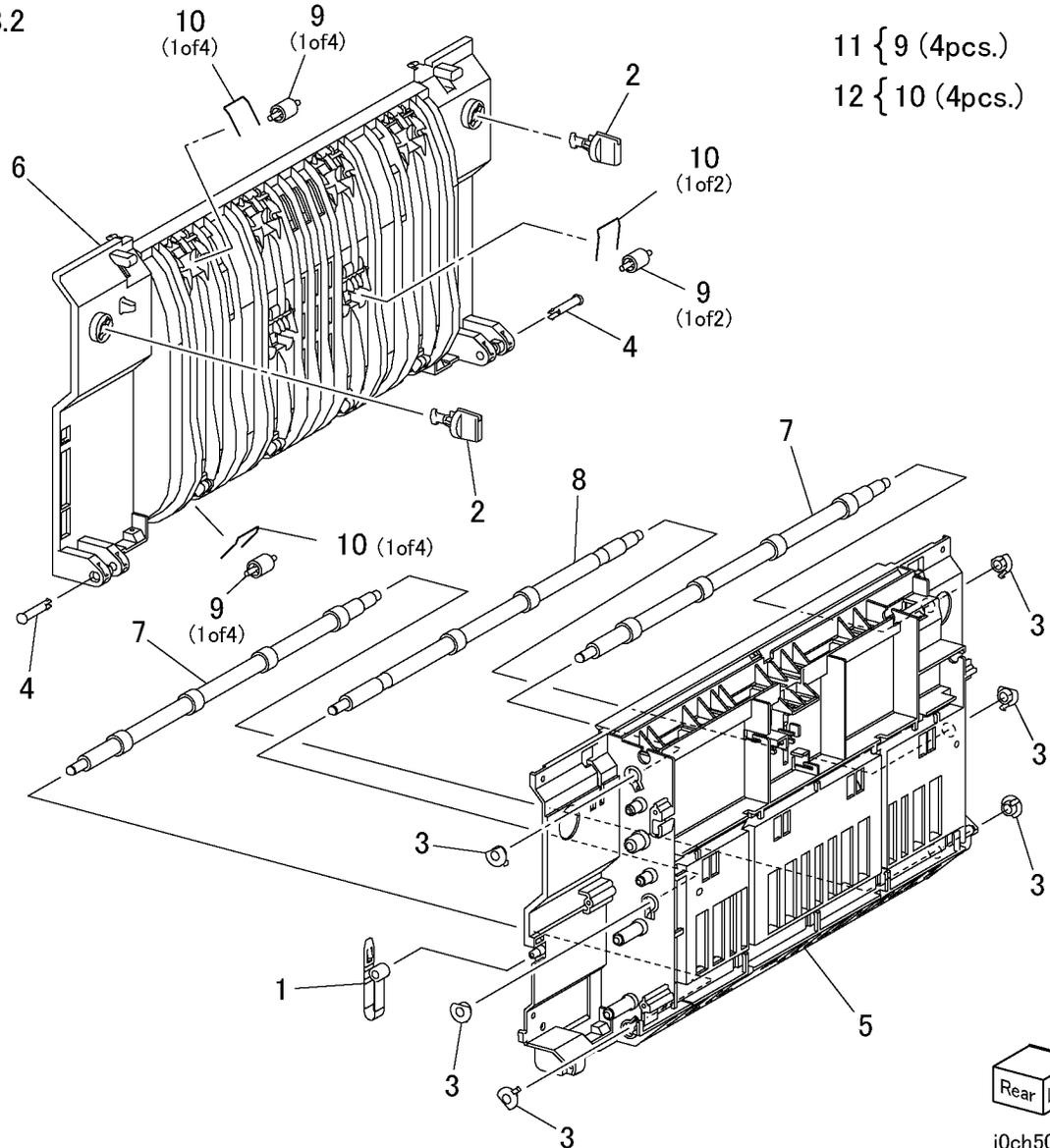




## PL 8.2 Chute Assembly

Item	Part	Description
1	-	Stopper (P/O PL 8.1 Item 22)
2	-	Lock (P/O PL 8.1 Item 22)
3	-	Bearing (P/O PL 8.1 Item 22)
4	-	Pin (P/O PL 8.1 Item 22)
5	-	Outer Chute (P/O PL 8.1 Item 22)
6	-	Inner Chute (P/O PL 8.1 Item 22)
7	-	Roll (P/O PL 8.1 Item 22)
8	-	Roll (P/O PL 8.1 Item 22)
9	-	Pinch Roll (P/O PL 8.2 Item 11)
10	-	Spring (P/O PL 8.2 Item 12)
11	604K20460	Kit 4 Roller
12	604K20470	Kit 4 Spring

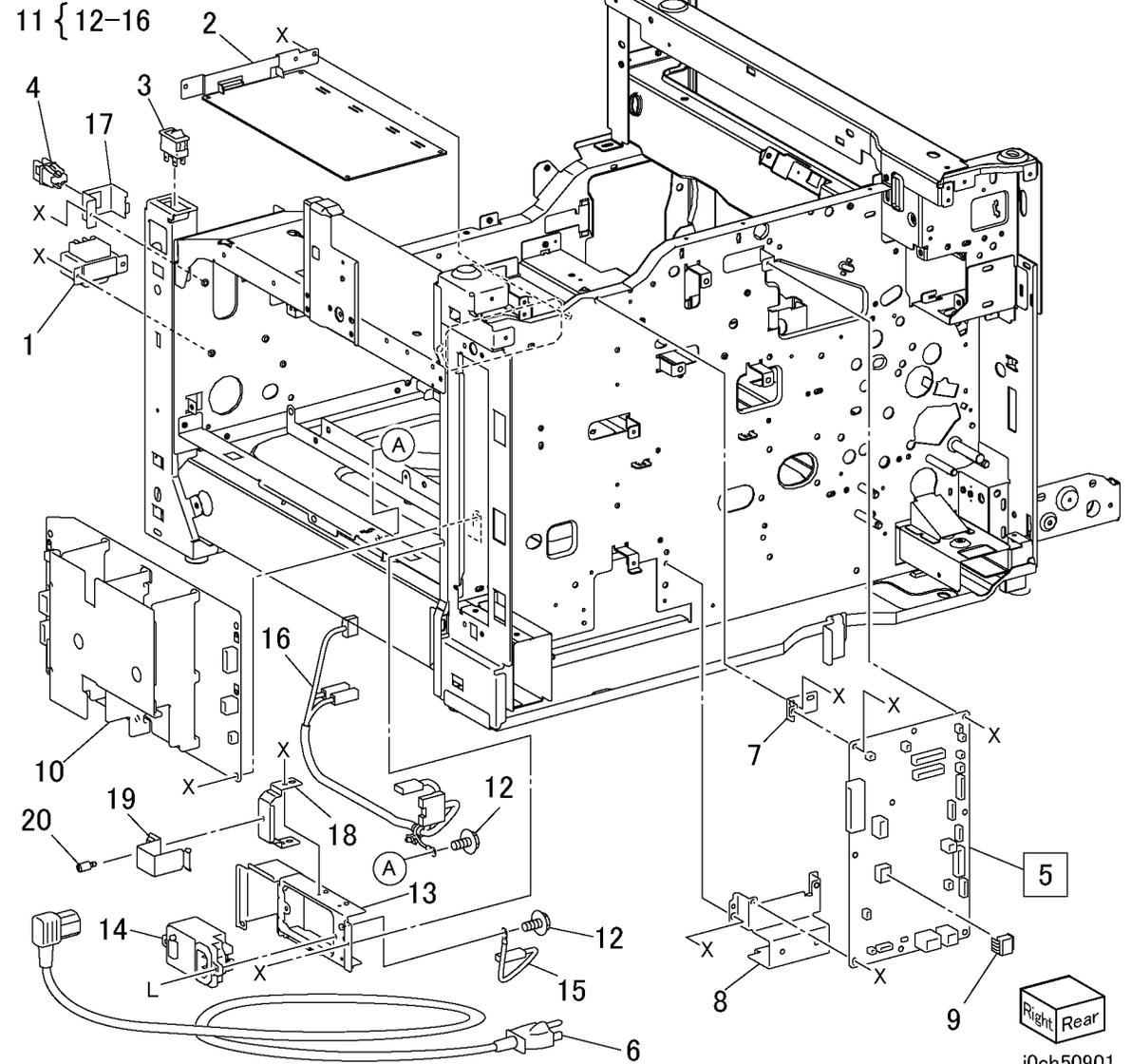
PL8.2



# PL 9.1 Electrical

Item	Part	Description
1	104E94080	Choke Coil
2	105E11410	HVPS
3	110E11320	Power Switch
4	110E94770	Front Cover Interlock Switch
5	160K95827	MCU PWB (REP 9.1.1)
6	117E23870	110V Power Cord (US/Canada/etc.)
-	117E22550	110V Power Cord (DMO-W)
-	117E10550	220V Power Cord (DMO-W)
-	152S06001	220V Power Cord (UK)
-	152S06000	220V Power Cord (Europe Generic)
-	152S06003	220V Power Cord (Switzerland)
-	152S06002	220V Power Cord (Denmark)
7	-	MCU Bracket (Not Spared)
8	-	MCU Strain Bracket (Not Spared)
9	-	EP ROM(XC) (Not Spared)
-	-	EP ROM(ESG) (Not Spared)
10	105E11660	Power Unit 110V
-	105E11670	Power Unit 220V
11	101K45550	Chassis Assembly GFI 110V
-	101K46340	Chassis Assembly GFI 220V
12	-	Screw (P/O PL 9.1 Item 11)
13	-	Bracket GFI (P/O PL 9.1 Item 11)
14	-	GFI Breaker (P/O PL 9.1 Item 11)
15	-	Wire Harness FG (P/O PL 9.1 Item 11)
16	-	Wire Harness J50-J11 (P/O PL 9.1 Item 11)
17	-	Bracket (P/O PL 9.1 Item 11)
18	-	Bracket (P/O PL 9.1 Item 11)
19	-	Holder (P/O PL 9.1 Item 11)
20	-	Screw (P/O PL 9.1 Item 11)

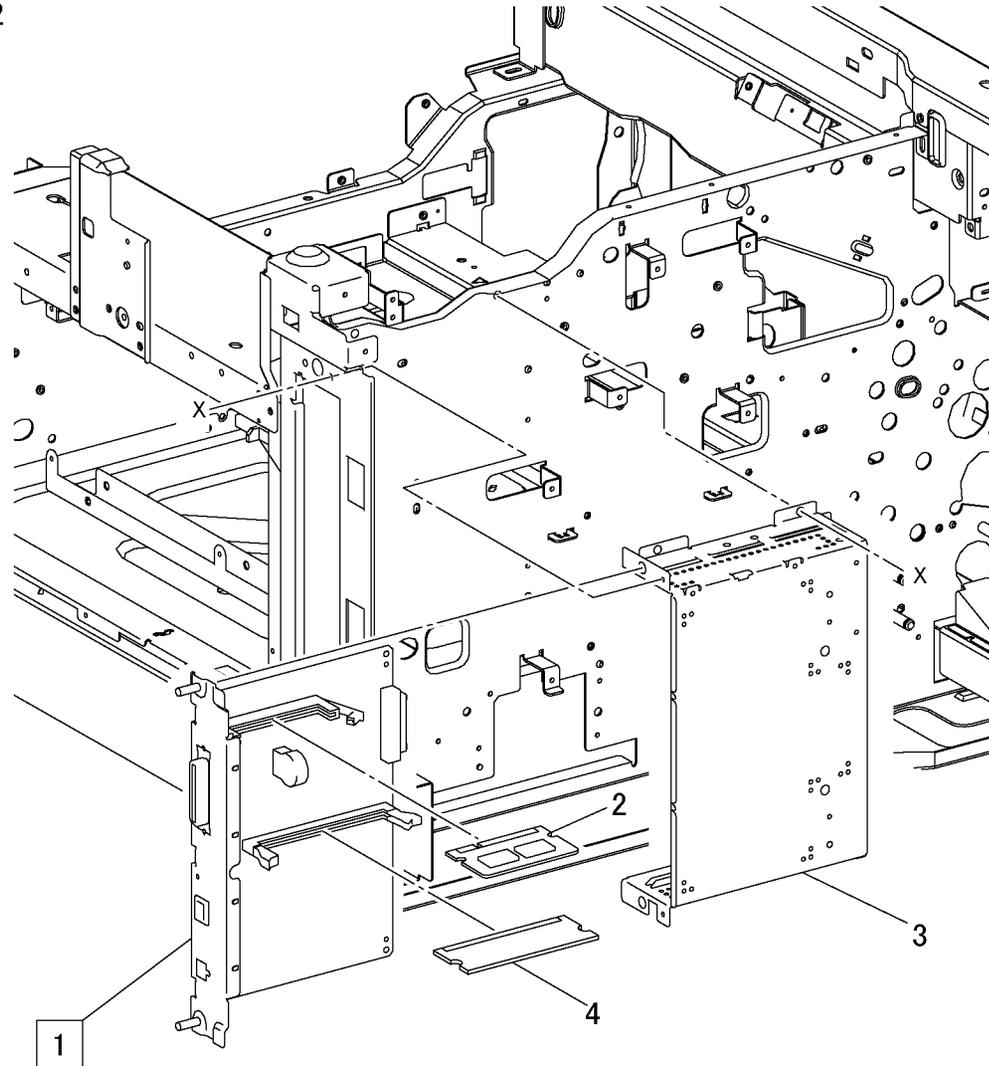
## PL9.1



## PL 9.2 ESS

Item	Part	Description
1	160K99145	ESS PWB (REP 9.2.1)
2	537K68431	PS G1 PS-DIMM
3	—	ESS Cover
4	133K23850	DDR DIMM 128MB (DUMMY)

PL9.2

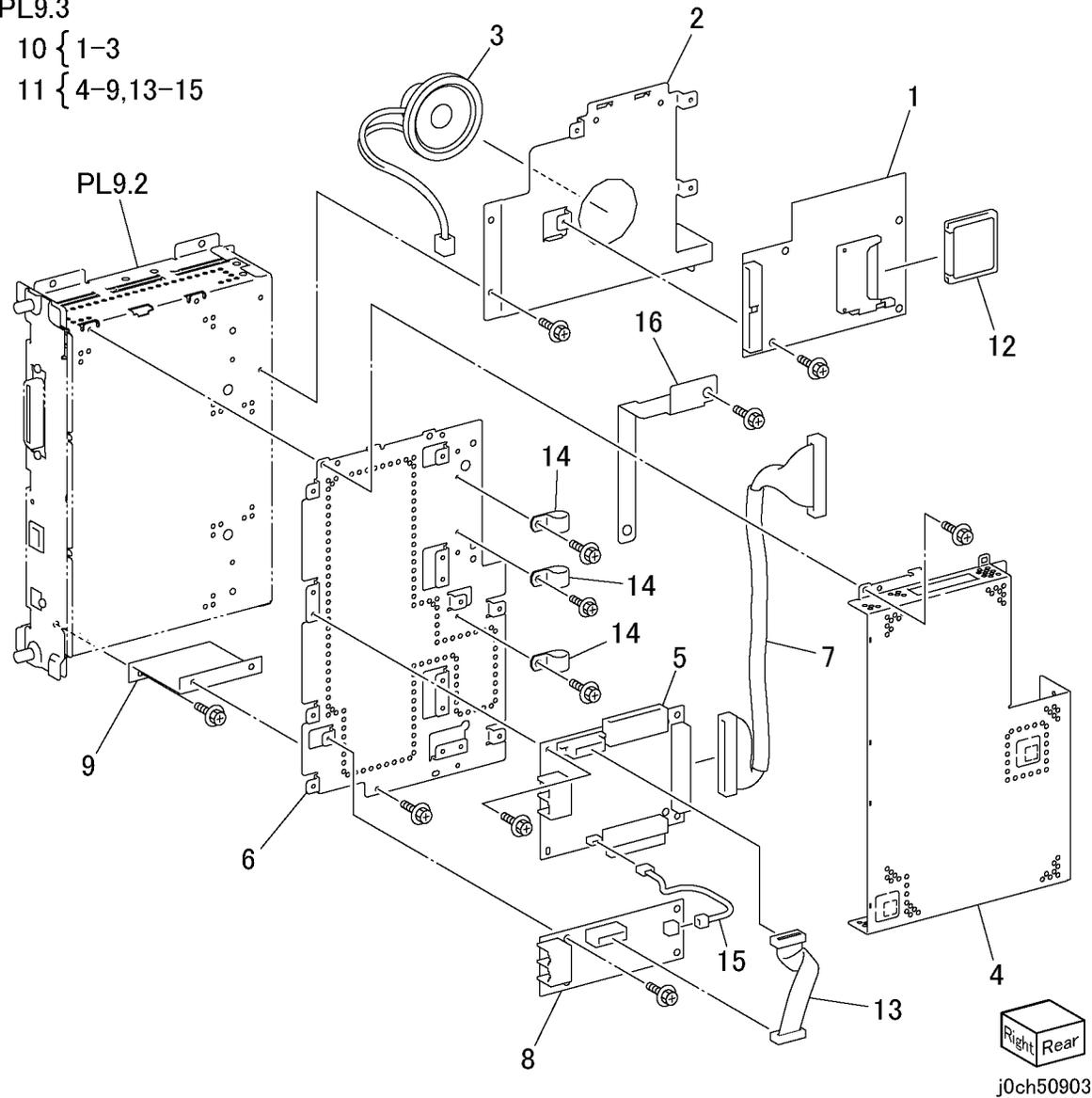


j0ch50902

# PL 9.3 FAX

Item	Part	Description
1	-	ADC PWB (P/O PL 9.3 Item 10)
2	-	Bracket (P/O PL 9.3 Item 10)
3	-	Speaker (P/O PL 9.3 Item 10)
4	-	Fax Cover (P/O PL 9.3 Item 11)
5	-	Fax PWB (P/O PL 9.3 Item 11)
6	960K02580	Fax PWB Assembly
7	-	Wire Harness (P/O PL 9.3 Item 11)
8	-	N TEL PWB (P/O PL 9.3 Item 11)
9	-	Bracket (P/O PL 9.3 Item 11)
10	960K02590	ADC Bracket Assembly
11	101K46120	Chassis Assembly FAX (XC)
12	537K68980	Compact Flash (XC/EU) G1
-	537K69530	Compact Flash (EU) G2
13	962K30590	Flat Cable (P/O PL 9.3 Item 11)
14	-	Clamp (P/O PL 9.3 Item 11)
15	-	Wire Harness (P/O PL 9.3 Item 11)
16	-	Bracket (Not Spared)

PL9.3  
 10 { 1-3  
 11 { 4-9,13-15

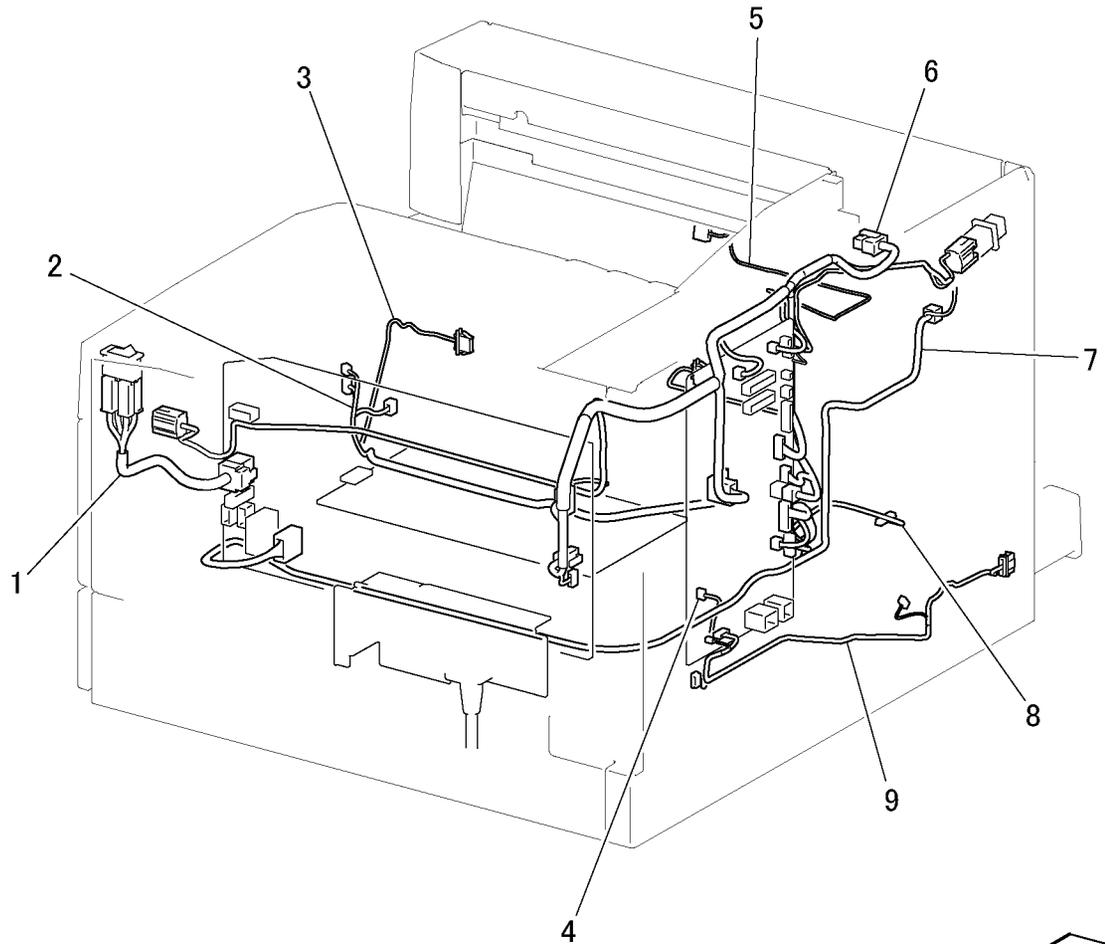


j0ch50903

## PL 9.4 Wire Harness

Item	Part	Description
1	962K18940	Wire Harness J1-J56
2	962K15270	Wire Harness J406-J409
3	962K15350	Wire Harness J414-J126
4	962K15300	Wire Harness J412-J109
5	962K15290	Wire Harness J421-J125
6	962K15321	Wire Harness J216-J720
7	962K19000	Wire Harness J6-J600
8	962K15280	Wire Harness J408-J214
9	962K15311	Wire Harness J411-P605

PL9.4



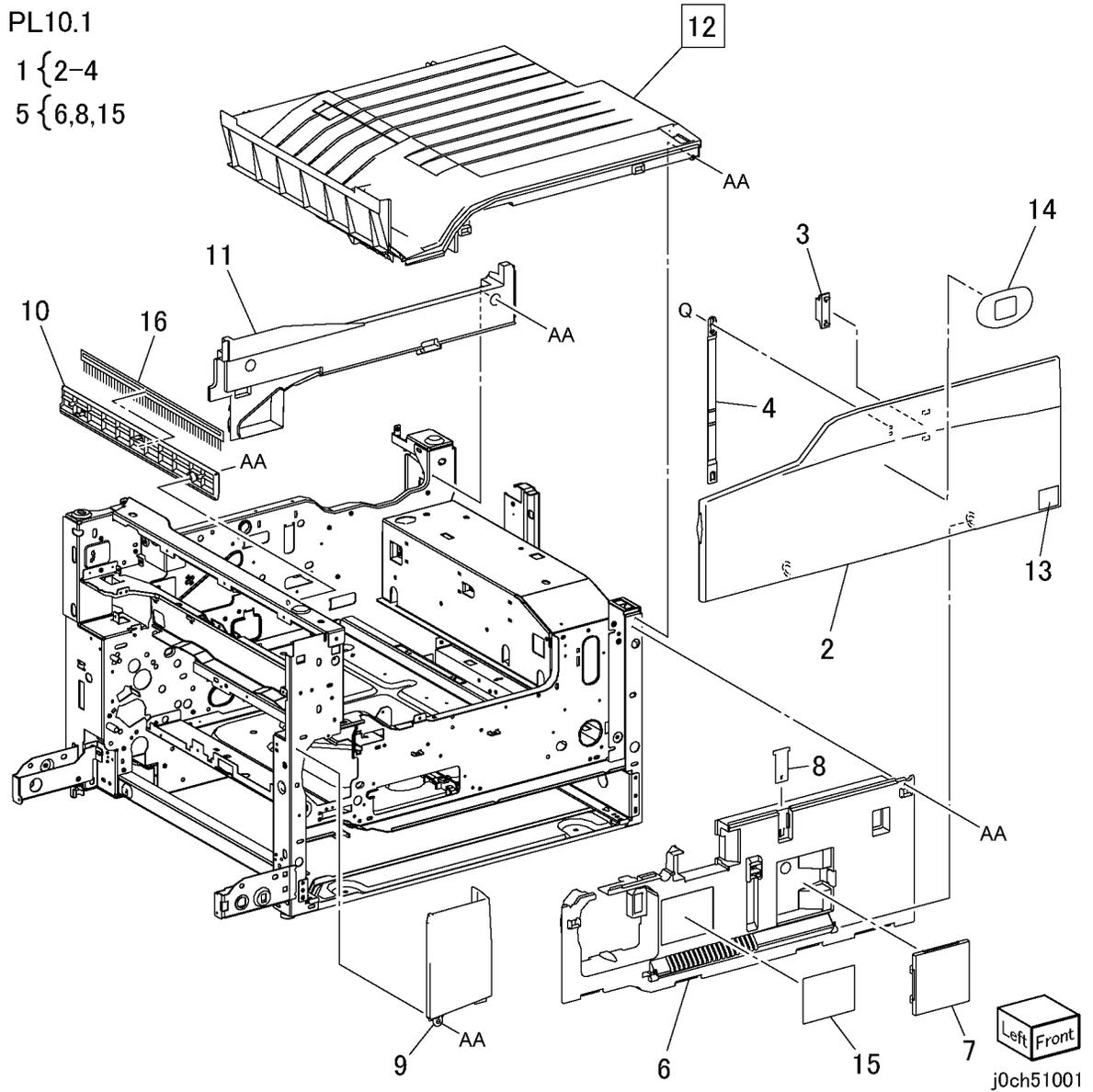
j0ch50904

# PL 10.1 Font, Left

Item	Part	Description
1	802K56160	Front Cover Assembly
2	-	Front Cover (P/O PL 10.1 Item 1)
3	-	Magnet (P/O PL 10.1 Item 1)
4	-	Strap (P/O PL 10.1 Item 1)
5	802K56170	Inner Cover Assembly
6	-	Inner Cover (P/L PL 10.1 Item 5)
7	-	Cap (Not Spared)
8	-	Plate (P/L PL 10.1 Item 5)
9	-	Front Left Cover (Not Spared)
10	-	Exit Cover (Not Spared)
11	-	Top Rear Cover (Not Spared)
12	802K64860	Top Cover (REP 10.1.1)
13	-	Star Label (Not Spared)
14	802K62050	Logo Label (XC)
15	-	Label (XERO/Developer Cartridge) (P/L PL 10.1 Item 5)
16	-	Eliminator (Not Spared)

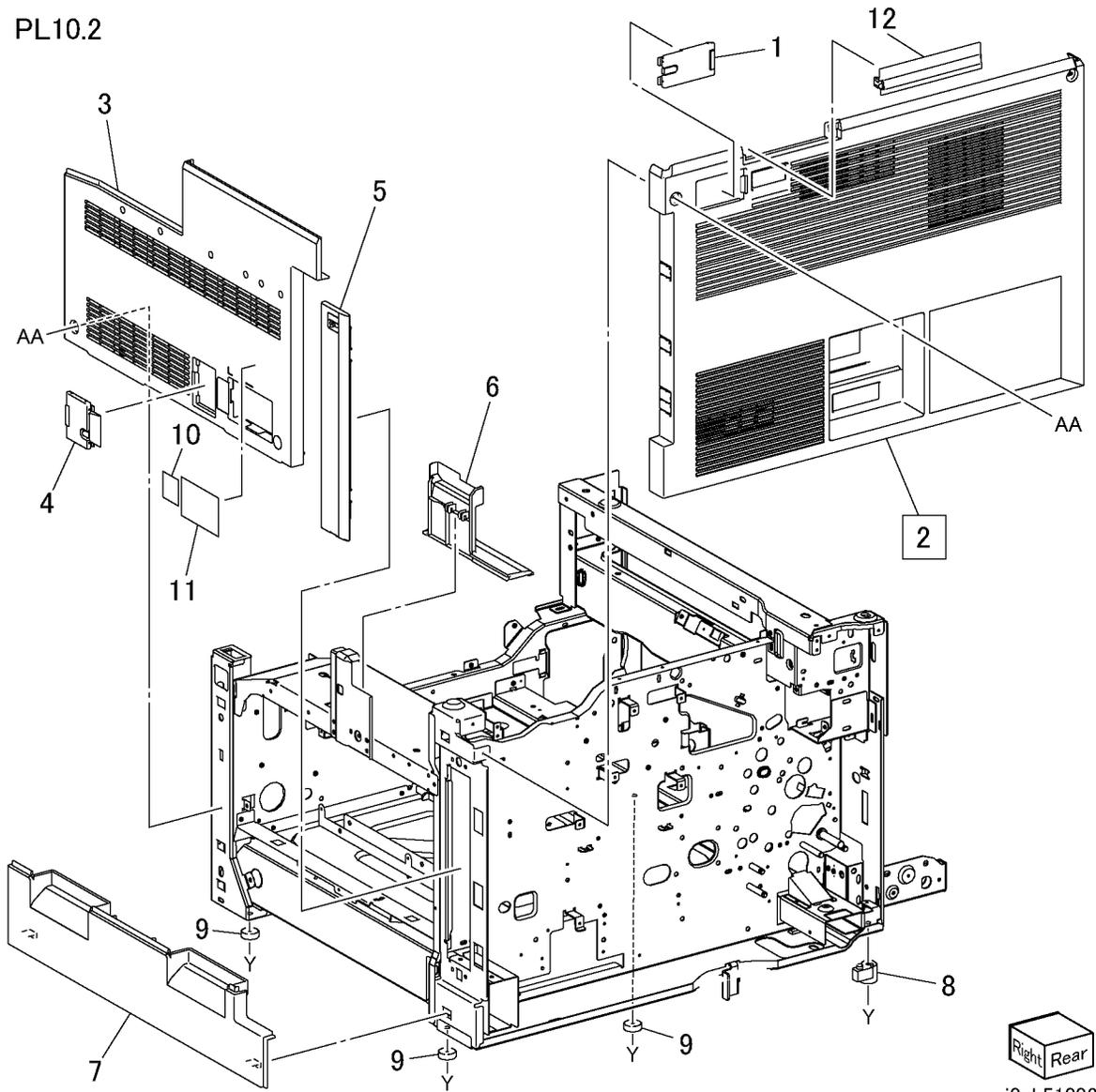
PL10.1

1 { 2-4  
5 { 6,8,15



## PL 10.2 Rear, Right

Item	Part	Description
1	802E62590	Cover
2	802E55815	Rear Cover (REP 10.2.1)
3	802E55780	Right Upper Cover
4	802E55820	Cover
5	802E55800	ESS Cover
6	802E55731	Right Top Cover </td
7	802E55791	Right Lower Cover
8	—	Foot (Not Spared)
9	—	Foot (Not Spared)
10	—	Label (Not Spared)
11	—	Label (Not Spared)
12	—	Memory Cover (Not Spared)

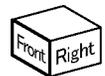
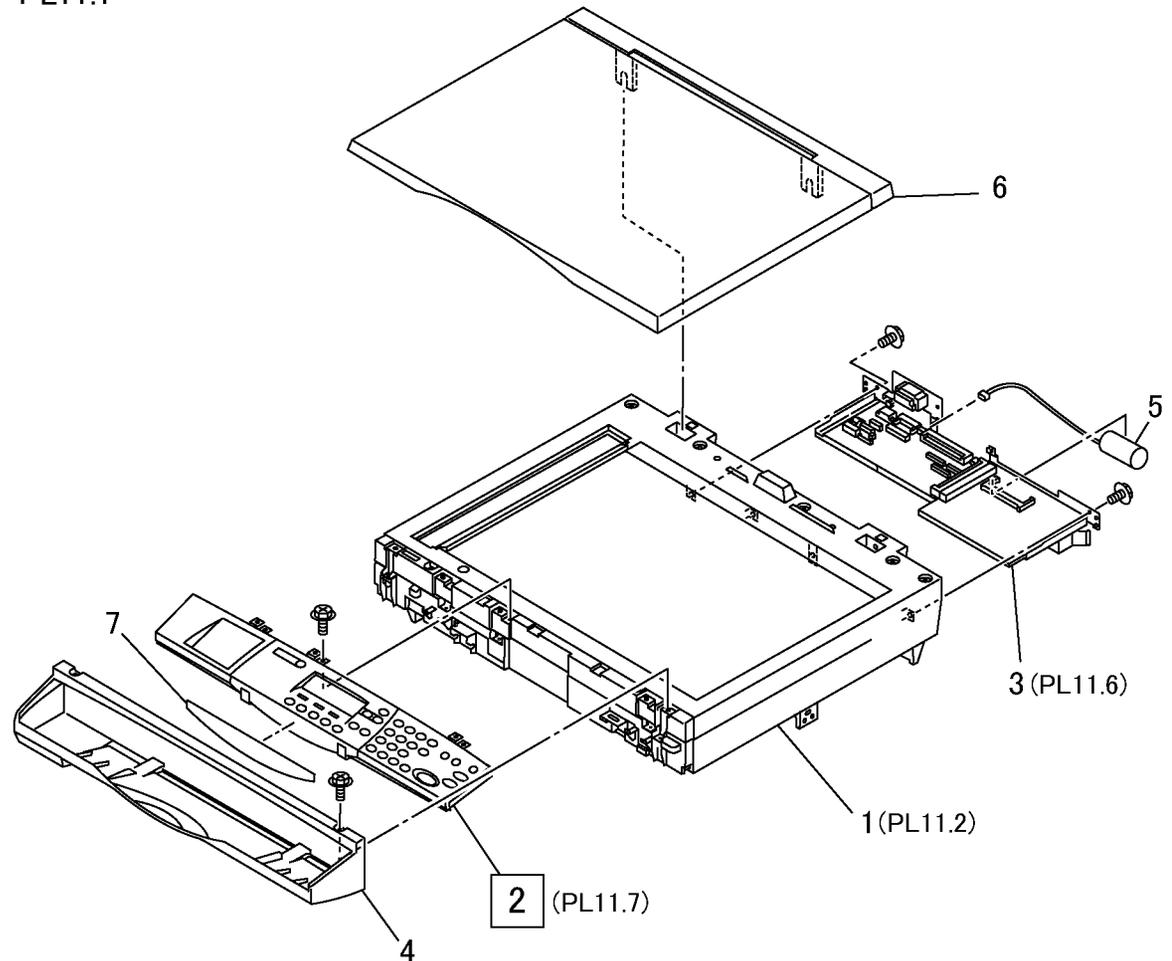


j0ch51002

## PL 11.1 IIT Assembly

Item	Part	Description
1	062K15270	IIT Unit (PL 11.2)
2	802K66230	Control Panel (DC) (English) (PL 11.7) (REP 11.1.1)
-	802K74150	Control Panel (WF) (PL 11.7) (REP 11.1.1)
3	068K24540	MFC and EXT PWB Box (PL 11.6)
4	-	IIT Front Cover (Not Spared)
5	105E12930	Battery
6	802K66240	Platen Cover (Sheet)
7	893E17540	Label (COPY CENTRE C118)
-	893E17550	Label (WORK CENTRE M118)
-	893E30150	Label (WORK CENTRE M118i)

PL11.1

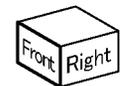
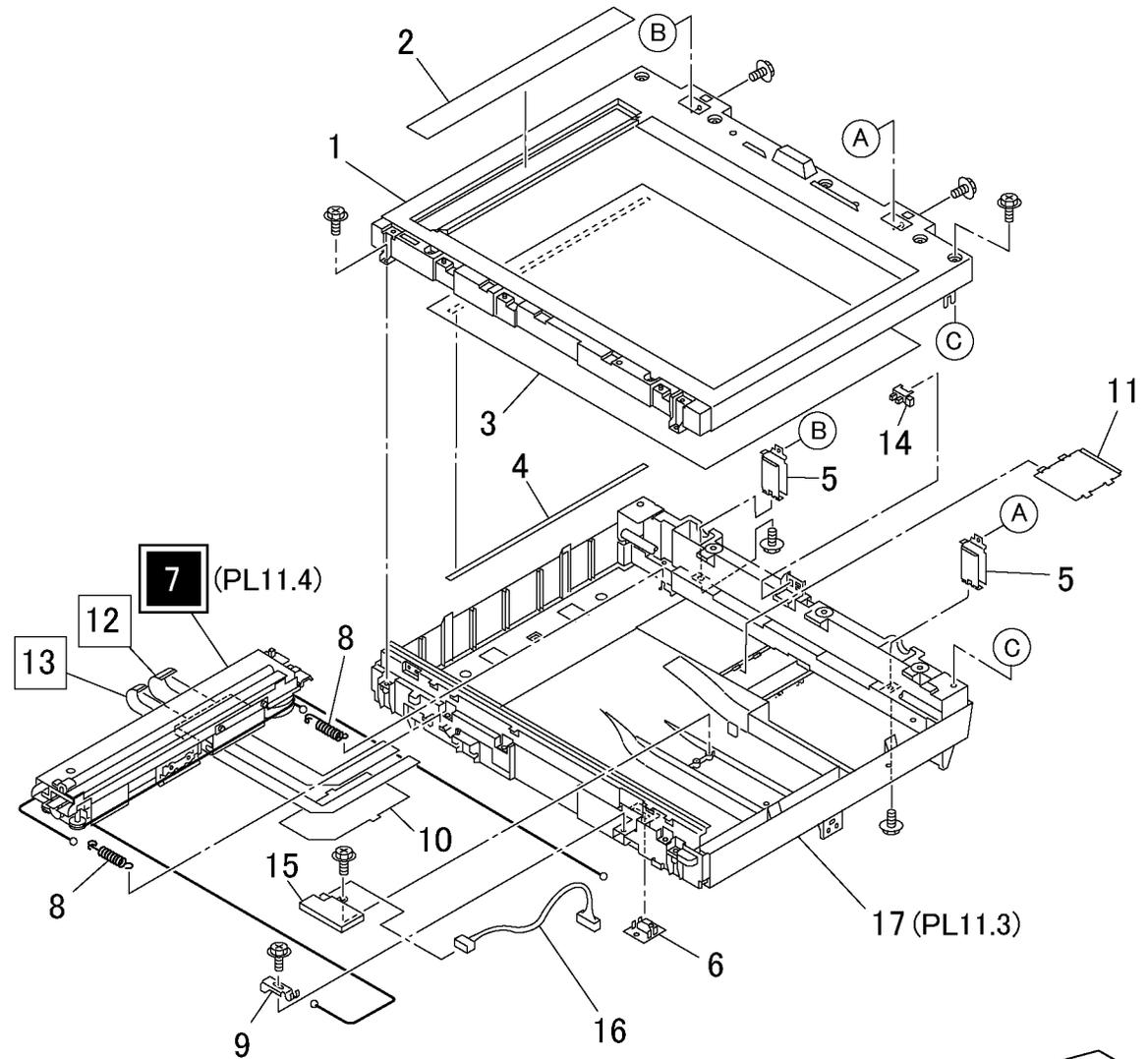


j0ch51101

## PL 11.2 IIT Unit

Item	Part	Description
1	802K71880	IIT Upper Cover (with Item2-4)
2	090E02380	DADF Platen Glass
3	090E91720	Sheet Platen Glass
4	815E08650	White Reference
5	-	Sleeve (P/O PL 11.1 Item 1)
6	-	Carriage Lock (P/O PL 11.1 Item 1)
7	041K94690	IIT Carriage Assembly (PL 11.4) (REP 11.2.1) (ADJ 11.1.1)
8	-	Cable Spring (P/O PL 11.1 Item 1)
9	-	Cable Bracket (P/O PL 11.1 Item 1)
10	962K28290	Flexible Print Cable
11	-	Flexible Print Cable Cover (P/O PL 11.1 Item 1)
12	-	NBCR-Host Cable (REP 11.2.2) (P/O PL 11.1 Item 1)
13	-	NBCR-Power Cable (REP 11.2.2) (P/O PL 11.1 Item 1)
14	110E11560	Platen Angle Sensor
15	130E87050	APS Sensor
16	-	Wire Harness (P/O PL 11.1 Item 1)
17	-	IIT Under Assembly (PL 11.3) (P/O PL 11.1 Item 1)

## PL11.2

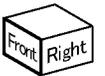
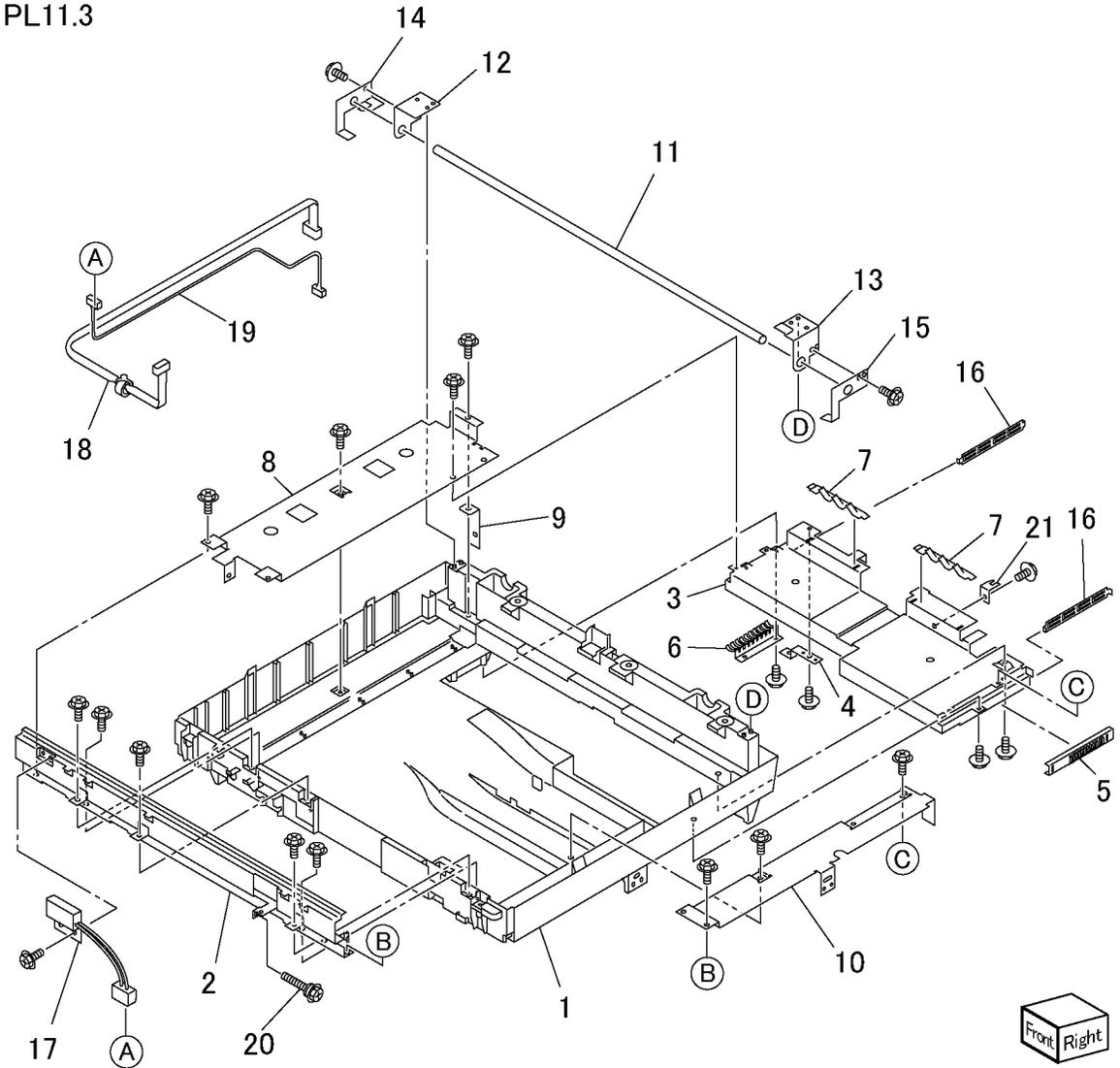


j0ch51102

# PL 11.3 IIT Under Cover Assembly

Item	Part	Description
1	-	IIT Under Cover (P/O PL 11.2 Item 17)
2	001E66190	IIT Front Rail (P/O PL 11.2 Item 17)
3	-	Box (P/O PL 11.2 Item 17)
4	-	Plate (P/O PL 11.2 Item 17)
5	-	EME Spring Plate (P/O PL 11.2 Item 17)
6	-	EME Spring Plate (P/O PL 11.2 Item 17)
7	-	EME Spring Plate (P/O PL 11.1 Item 1)
8	-	Left Plate (P/O PL 11.2 Item 17)
9	-	Plate (P/O PL 11.2 Item 17)
10	-	Right Plate (P/O PL 11.2 Item 17)
11	806E04920	IIT Rear Rail (P/O PL 11.2 Item 17)
12	-	Left Rail Bracket (P/O PL 11.2 Item 17)
13	-	Right Rail Bracket (P/O PL 11.2 Item 17)
14	-	Left Rail FG Bracket (P/O PL 11.2 Item 17)
15	-	Right Rail FG Bracket (P/O PL 11.2 Item 17)
16	-	Shield (P/O PL 11.2 Item 17)
17	110E11550	Platen Open Switch
18	-	Flat Cable (Control Panel) (P/O PL 11.2 Item 17)
19	-	Wire Harness (Platen Open Switch) (P/O PL 11.2 Item 17)
20	-	Adjust Screw (P/O PL 11.2 Item 17)
21	-	Lock Bracket (Inventory Location) (P/O PL 11.2 Item 17)

PL11.3

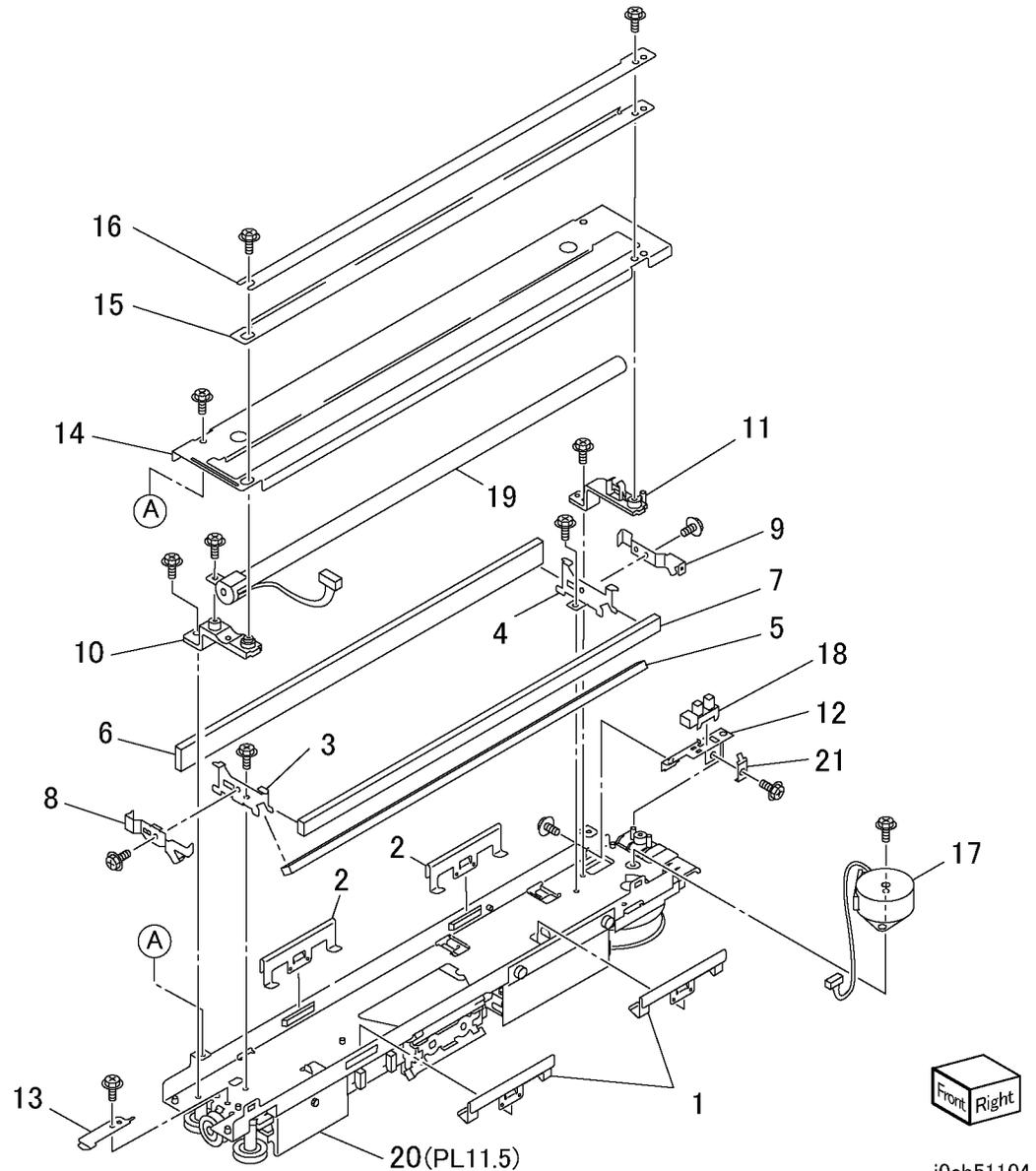


j0ch51103

# PL 11.4 Module Assembly

Item	Part	Description
1	-	Mirror Damper (3) (P/O PL 11.2 Item 7)
2	-	Mirror Damper (2) (P/O PL 11.2 Item 7)
3	-	Front Mirror Frame (P/O PL 11.2 Item 7)
4	-	Rear Mirror Frame (P/O PL 11.2 Item 7)
5	-	Mirror (1) (P/O PL 11.2 Item 7)
6	-	Mirror (2) (P/O PL 11.2 Item 7)
7	-	Mirror (3) (P/O PL 11.2 Item 7)
8	-	Front Mirror Clip (P/O PL 11.2 Item 7)
9	-	Rear Mirror Clip (P/O PL 11.2 Item 7)
10	-	Front Lamp Holder (P/O PL 11.2 Item 7)
11	-	Rear Lamp Holder (P/O PL 11.2 Item 7)
12	-	Sensor Plate (P/O PL 11.2 Item 7)
13	-	Rail Contact (P/O PL 11.2 Item 7)
14	-	IIT Carriage Cover (P/O PL 11.2 Item 7)
15	-	Reflector (P/O PL 11.2 Item 7)
16	-	Reflector Cover (P/O PL 11.2 Item 7)
17	127K40070	Carriage Motor
18	130E87070	Carriage Sensor
19	019E58440	Exposure Lamp (REP 11.4.1)
20	-	Center Plate Assembly (PL 11.5) (P/O PL 11.2 Item 7)
21	-	Plate Spring (P/O PL 11.2 Item 7)

PL11.4

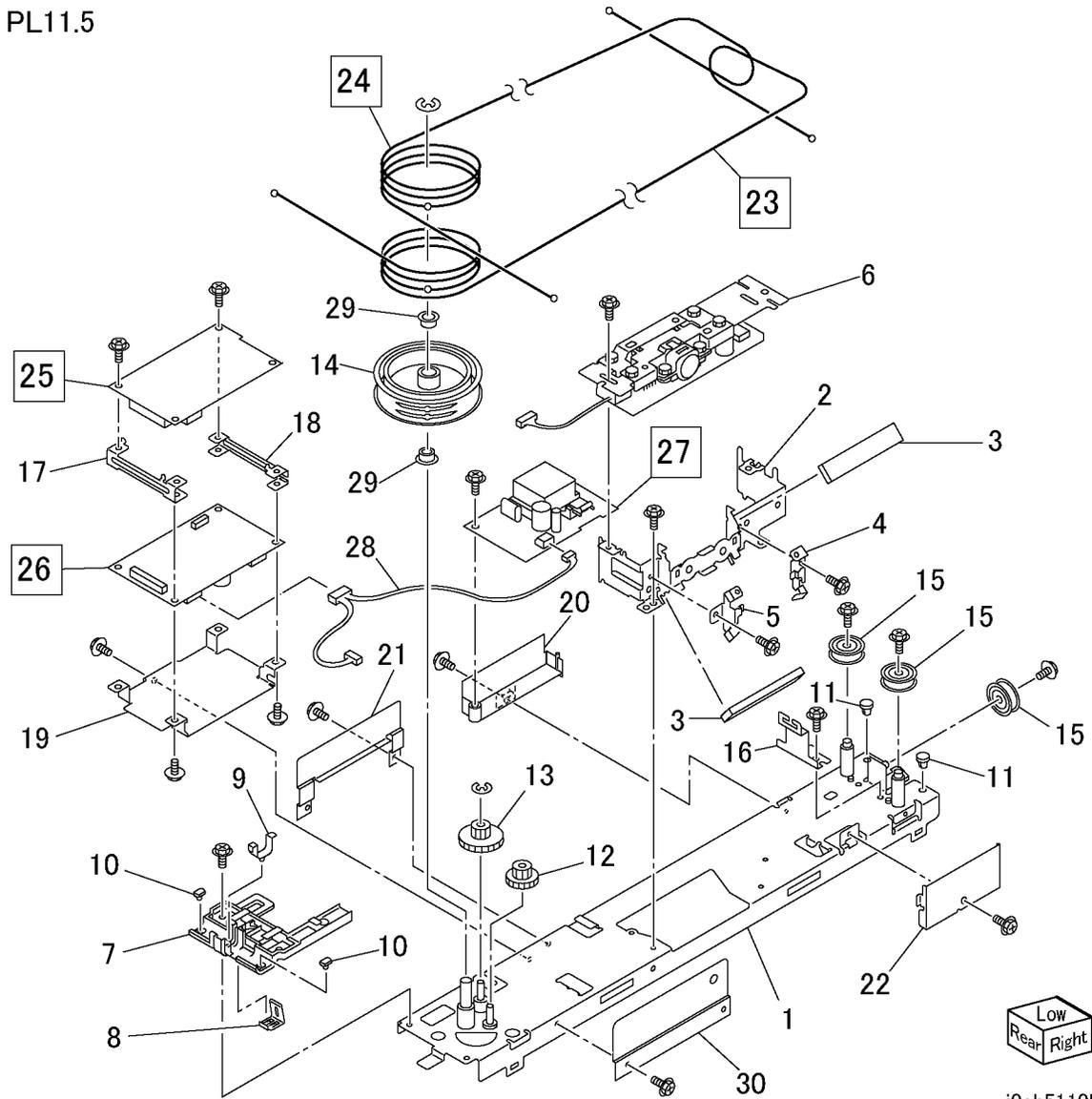


j0ch51104

# PL 11.5 Center Plate Assembly

Item	Part	Description
1	-	Center Plate (P/O PL 11.4 Item 20)
2	-	Mirror Frame (P/O PL 11.4 Item 20)
3	-	Mirror (4) (P/O PL 11.4 Item 20)
4	-	Front Mirror Clip (P/O PL 11.4 Item 20)
5	-	Rear Mirror Clip (P/O PL 11.4 Item 20)
6	-	Lens Assembly (P/O PL 11.4 Item 20)
7	-	Shaft Slider (P/O PL 11.4 Item 20)
8	-	Shaft Contact (P/O PL 11.4 Item 20)
9	-	Side Slider (P/O PL 11.4 Item 20)
10	-	Top Slider (P/O PL 11.4 Item 20)
11	-	Front Slider (P/O PL 11.4 Item 20)
12	-	Gear (P/O PL 11.4 Item 20)
13	-	Gear (P/O PL 11.4 Item 20)
14	-	IIT Drum (P/O PL 11.4 Item 20)
15	-	Pulley (P/O PL 11.4 Item 20)
16	-	Hook (P/O PL 11.4 Item 20)
17	-	NSC Bracket (1) (P/O PL 11.4 Item 20)
18	-	NSC Bracket (2) (P/O PL 11.4 Item 20)
19	-	NBCR Bracket (P/O PL 11.4 Item 20)
20	-	INV Bracket (1) (P/O PL 11.4 Item 20)
21	-	Bracket (P/O PL 11.4 Item 20)
22	-	INV Bracket (2) (P/O PL 11.4 Item 20)
23	177E91820	Front Carriage Cable (REP 11.5.1)
24	177E91830	Rear Carriage Cable (REP 11.5.1)
25	-	NBCR PWB (REP 11.5.2) (P/O PL 11.2 Item 7)
26	-	NSC PWB (REP 11.5.2) (P/O PL 11.2 Item 7)
27	-	INV PWB (REP 11.5.3) (P/O PL 11.2 Item 7)
28	-	Wire Harness (P/O PL 11.4 Item 20)
29	-	Bearing (P/O PL 11.4 Item 20)
30	-	Bracket (P/O PL 11.4 Item 20)

PL11.5

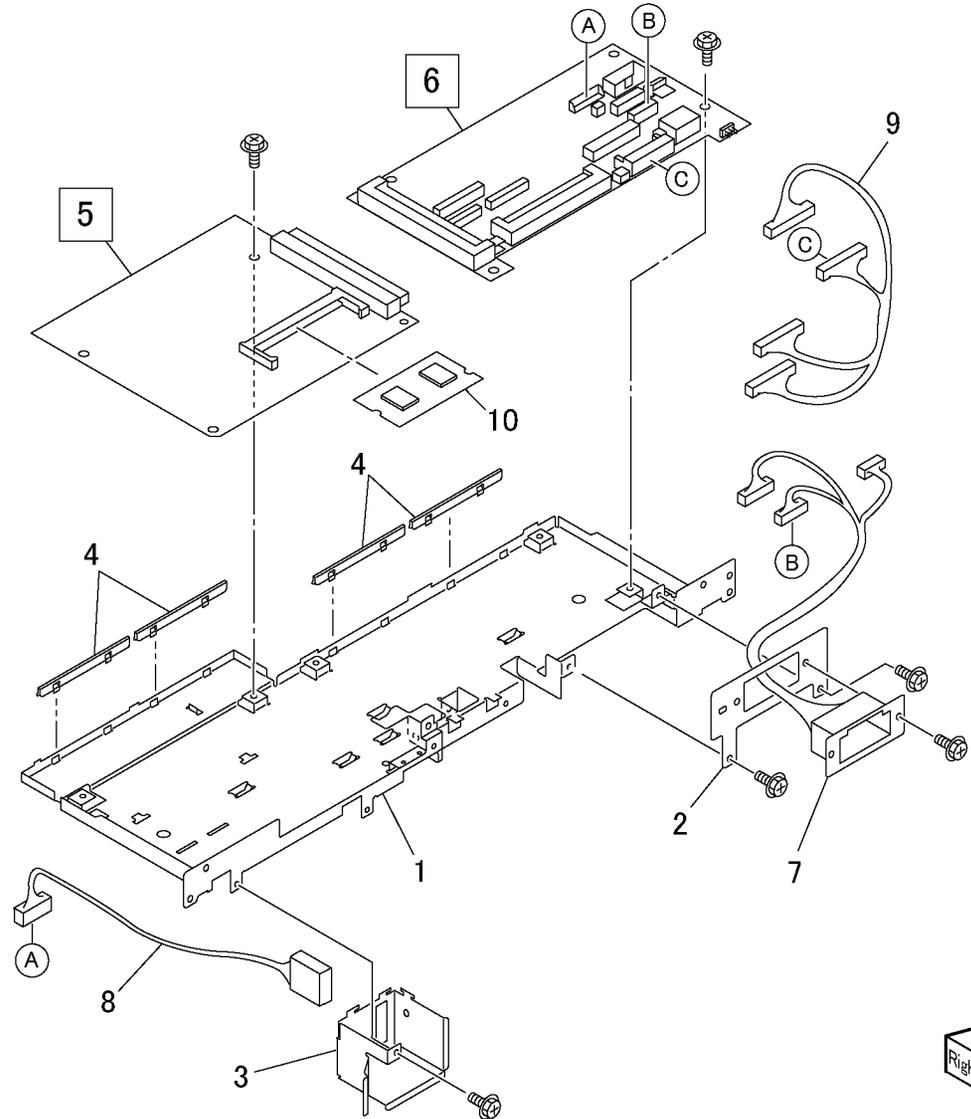


j0ch51105

# PL 11.6 MFC and EXT PWB Box

Item	Part	Description
1	-	PWB Box (P/O PL 11.1 Item 3)
2	-	Connector Bracket (P/O PL 11.1 Item 3)
3	-	EP SV Connector Bracket (P/O PL 11.1 Item 3)
4	-	Shield (P/O PL 11.1 Item 3)
5	960K05230	MFC PWB (XC/EU) GI (REP 11.6.1)
-	960K05240	MFC PWB (EU) G2 (REP 11.6.1)
6	960K02720	EXT PWB (G1)(REP 11.6.1)
-	960K06520	EXT PWB (G2)
7	-	EXT-Lattice Wire Harness (P/O PL 11.1 Item 3)
8	-	EXT-EP SV Wire Harness (P/O PL 11.1 Item 3)
9	-	MCU-EXT Wire Harness (P/O PL 11.1 Item 3)
10	960K08770	64M Memory

PL11.6

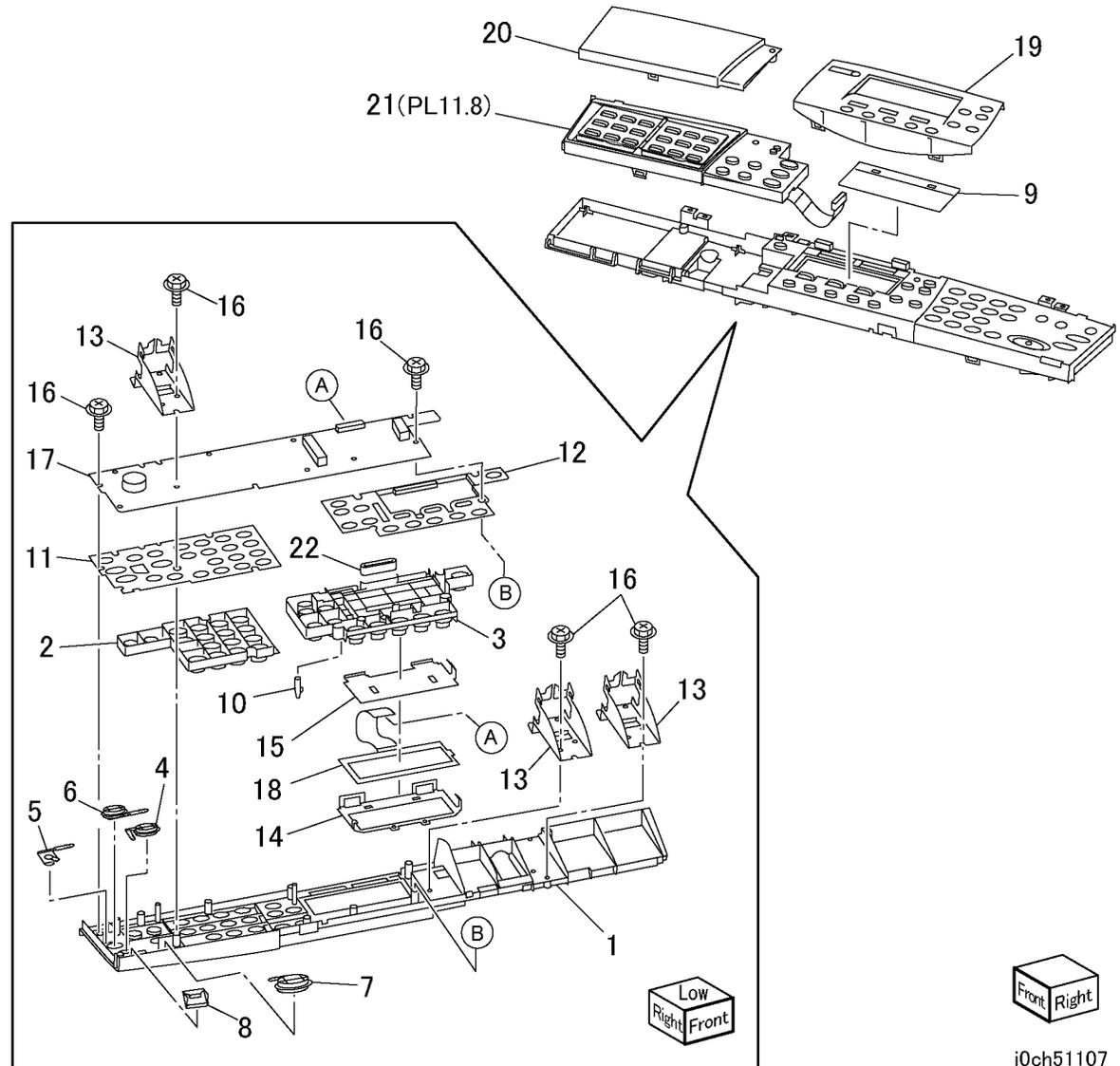


j0ch51106

## PL 11.7 Control Panel

Item	Part	Description
1	802K66570	Control Panel Case (Eng) (P/O PL 11.1 Item 2)
-	802K71860	Control Panel Case (WF) (P/O PL 11.1 Item 2)
2	-	Ten key (P/O PL 11.1 Item 2)
3	-	Function Key (P/O PL 11.1 Item 2)
4	-	Stop Key (P/O PL 11.1 Item 2)
5	-	Power Save Key (P/O PL 11.1 Item 2)
6	-	Reset Key (P/O PL 11.1 Item 2)
7	-	Start Key (P/O PL 11.1 Item 2)
8	-	Alarm Cover (P/O PL 11.1 Item 2)
9	-	LCD Panel (P/O PL 11.1 Item 2)
10	-	LED Lens (P/O PL 11.1 Item 2)
11	-	Right Contact Rubber (P/O PL 11.1 Item 2)
12	-	Center Contact Rubber (P/O PL 11.1 Item 2)
13	-	Panel Support (P/O PL 11.1 Item 2)
14	-	Upper LCD Shield (P/O PL 11.1 Item 2)
15	-	Under LCD Shield (P/O PL 11.1 Item 2)
16	-	Tapping Screw (P/O PL 11.1 Item 2)
17	960K02730	Control Panel PWB
18	-	LCD (P/O PL 11.1 Item 2)
19	802E68620	LCD Cover DC (Eng) (P/O PL 11.1 Item 2)
-	802E64120	LCD Cover MF (Eng)
20	-	Clip Tray (P/O PL 11.1 Item 2)
21	802K64640	One Touch Panel (PL 11.8)
22	-	Core (P/O PL 11.1 Item 2)

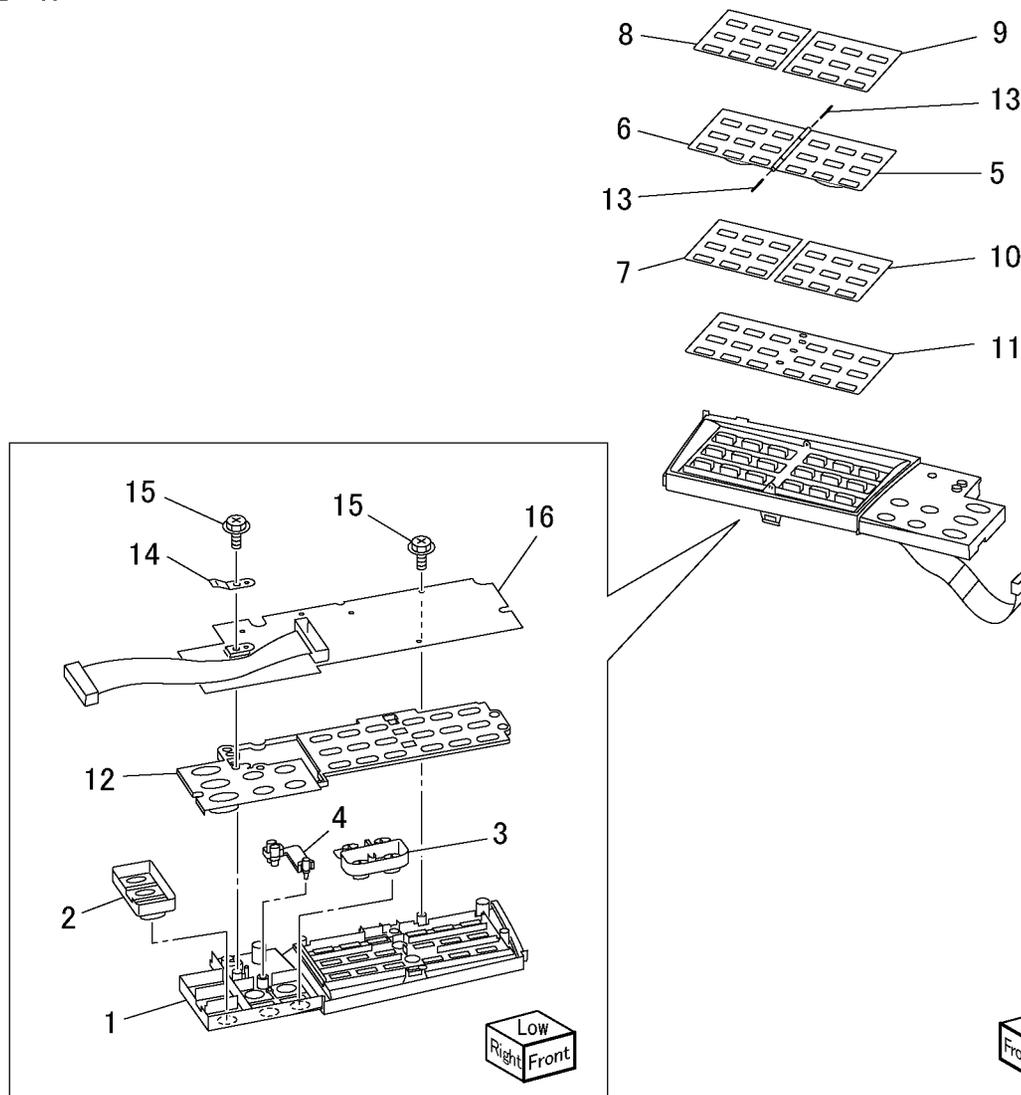
PL11.7



## PL 11.8 Fax Unit Control Panel

Item	Part	Description
1	-	Fax Unit Control Panel Case (P/O PL 11.7 Item 21)
2	-	Copy/Fax/E-Mail Key (P/O PL 11.7 Item 21)
3	-	Option Key (P/O PL 11.7 Item 21)
4	-	LED Lens (P/O PL 11.7 Item 21)
5	-	Right Flip Card (P/O PL 11.7 Item 21)
6	-	Left Flip Card (P/O PL 11.7 Item 21)
7	-	One Touch Sheet (10-18) (P/O PL 11.7 Item 21)
8	-	One Touch Sheet (19-27) (P/O PL 11.7 Item 21)
9	-	One Touch Sheet (28-36) (P/O PL 11.7 Item 21)
10	-	One Touch Sheet (37-45) (P/O PL 11.7 Item 21)
11	-	One Touch Panel (P/O PL 11.7 Item 21)
12	-	Contact Rubber (P/O PL 11.7 Item 21)
13	-	Flip Shaft (P/O PL 11.7 Item 21)
14	-	Earth Plate (P/O PL 11.7 Item 21)
15	-	Tapping Screw (P/O PL 11.7 Item 21)
16	-	FAX Unit Control Panel PWB (P/O PL 11.7 Item 21)

PL11.8



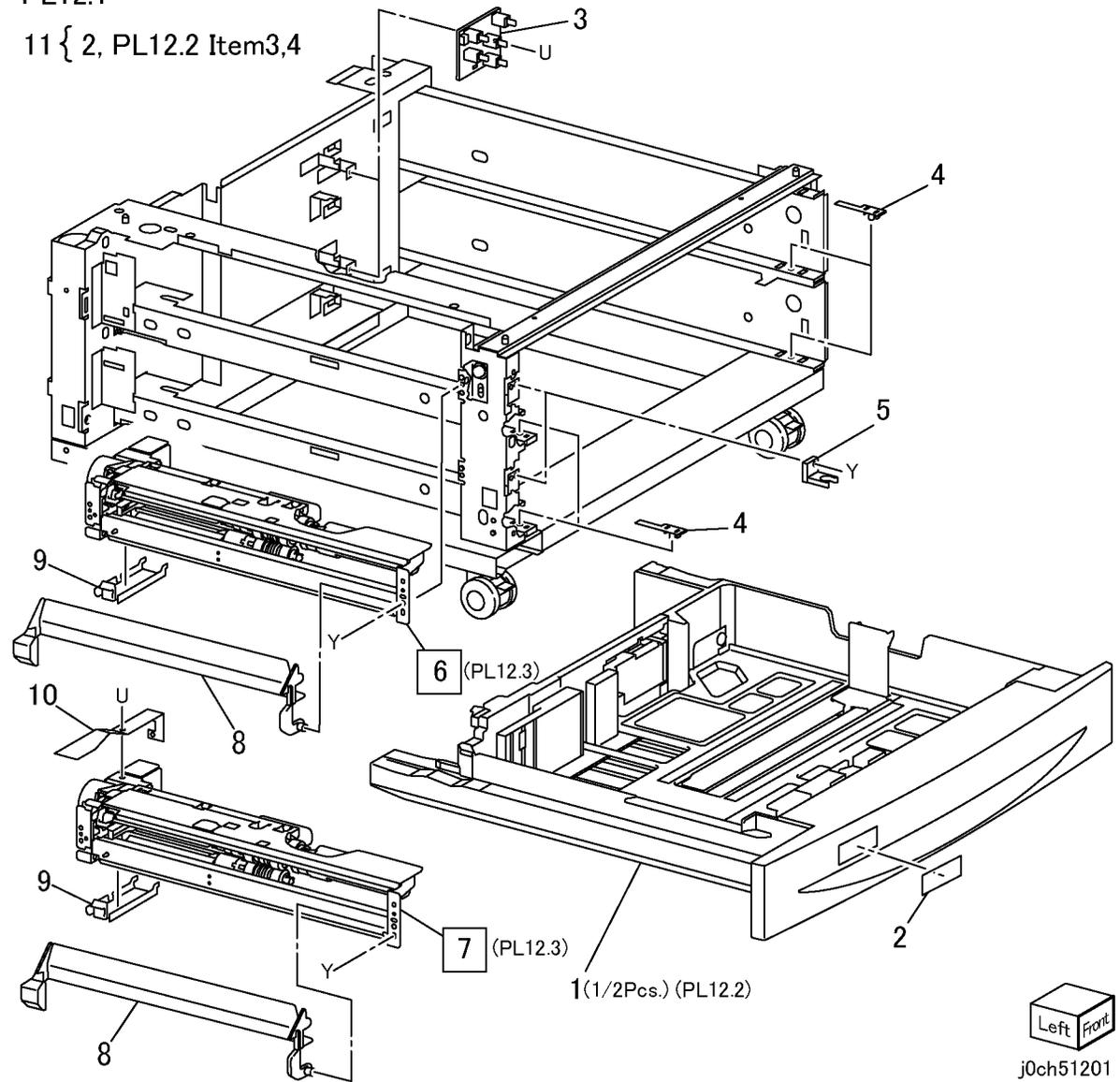
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# PL 12.1 Tray, Feeder Assembly-2Tray

Item	Part	Description
1	050K49840	Tray 3/4 Assembly (PL 12.2)
2	-	Label (No.3) (P/O PL 12.1 Item 11)
-	-	Label (No.4) (P/O PL 12.1 Item 11)
3	110K11680	Tray 3/4 Paper Size Switch
4	014E51110	Tray Spacer
5	003E61510	Tray Stopper
6	059K29553	Tray 3 Feeder (REP 12.1.1)
7	059K29553	Tray 4 Feeder (REP 12.1.2)
8	054E22622	Feed Out Chute
9	-	Sensor Cover (Not Spared)
10	-	Cover (Not Spared)
11	604K20550	Tray Label Kit

PL12.1

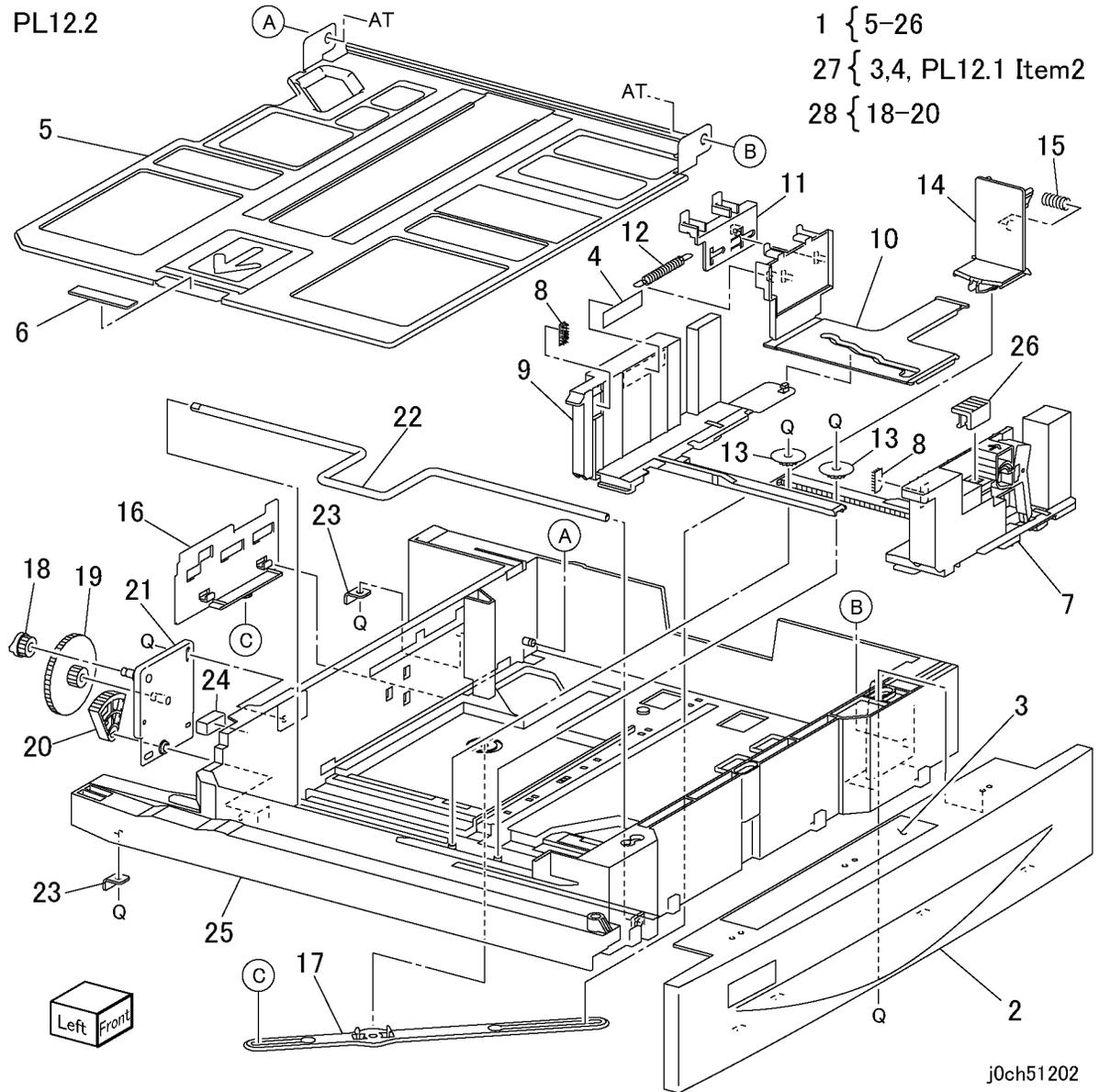
11 { 2, PL12.2 Item3,4



Left Front  
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## PL 12.2 Tray 3/4 Assembly-2Tray

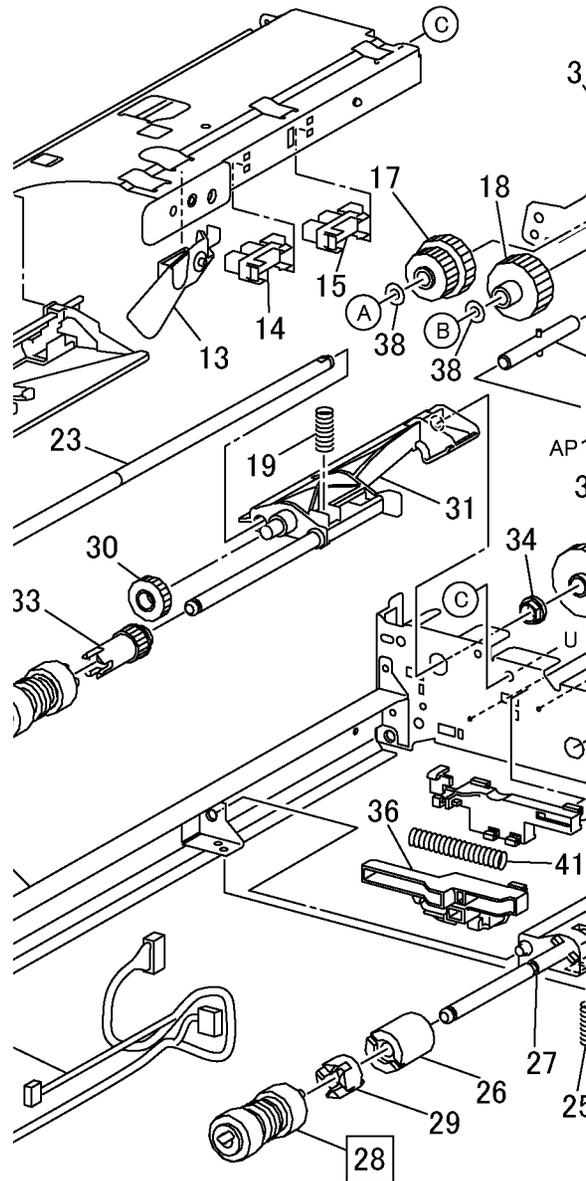
Item	Part	Description
1	-	Tray Assembly (P/O PL 12.1 Item 1)
2	-	Tray Cover (P/O PL 12.1 Item 1)
3	-	Label (Instruction) (P/O PL 12.2 Item 27)
4	-	Label (Max) (P/O PL 12.2 Item 27)
5	-	Bottom Plate (P/O PL 12.2 Item 1)
6	-	Bottom Pad (P/O PL 12.2 Item 1)
7	-	Front Side Guide (P/O PL 12.2 Item 1)
8	-	Tray Pad (P/O PL 12.2 Item 1)
9	-	Rear Side Guide (P/O PL 12.2 Item 1)
10	-	Side Guide Actuator (P/O PL 12.2 Item 1)
11	-	Guide Actuator (P/O PL 12.2 Item 1)
12	-	Spring (P/O PL 12.2 Item 1)
13	-	Pinion Gear (P/O PL 12.2 Item 1)
14	-	End Guide (P/O PL 12.2 Item 1)
15	-	Spring (P/O PL 12.2 Item 1)
16	-	End Guide Actuator (P/O PL 12.2 Item 1)
17	-	Link (P/O PL 12.2 Item 1)
18	-	Coupling Gear (13T) (P/O PL 12.2 Item 28)
19	-	Gear (13T/60T) (P/O PL 12.2 Item 28)
20	-	Sector Gear (60T) (P/O PL 12.2 Item 28)
21	-	Bracket (P/O PL 12.2 Item 1)
22	-	Lift Up Shaft (P/O PL 12.2 Item 1)
23	-	Stopper (P/O PL 12.2 Item 1)
24	-	Seal (P/O PL 12.2 Item 1)
25	-	Tray (P/O PL 12.2 Item 1)
26	010E93341	Slide Lock
27	604K20550	Tray Label Kit
28	604K20540	Tray Gear Kit



## PL 12.3 Tray 3/4 Feeder-2Tray

Item	Part	Description			Description
1	–	Upper Frame (P/O PL 12.1 Item 6, PL 12.1 Item 7)	29	–	Spacer (P/O PL 12.1 Item 6, PL 12.1 Item 7)
2	127K38170	Tray 3/4 Feed/Lift Up Motor	30	–	Gear (13T) (P/O PL 12.1 Item 6, PL 12.1 Item 7)
3	–	Bracket (P/O PL 12.1 Item 6, PL 12.1 Item 7)	31	–	Support Assembly (P/O PL 12.1 Item 6, PL 12.1 Item 7)
4	014E44770	Spacer (P/O PL 12.1 Item 6, PL 12.1 Item 7)	32	–	Nudger Roll (REP 12.3.1) (P/O PL 12.3 Item 42)
5	–	Gear (31T) (P/O PL 12.1 Item 6, PL 12.1 Item 7)	33	–	Gear (25T) (P/O PL 12.1 Item 6, PL 12.1 Item 7)
6	–	Spring (P/O PL 12.1 Item 6, PL 12.1 Item 7)	34	–	Bearing (P/O PL 12.1 Item 6, PL 12.1 Item 7)
7	–	One way Clutch (P/O PL 12.1 Item 6)	35	–	Gear (34T) (P/O PL 12.1 Item 6, PL 12.1 Item 7)
8	–	One way Gear (P/O PL 12.1 Item 6)	36	–	Lever (P/O PL 12.1 Item 6, PL 12.1 Item 7)
9	–	Gear (33T) (P/O PL 12.1 Item 6, PL 12.1 Item 7)	37	–	Bearing (P/O PL 12.1 Item 6, PL 12.1 Item 7)
10	–	Bearing (P/O PL 12.1 Item 6, PL 12.1 Item 7)	38	–	Washer (P/O PL 12.1 Item 6, PL 12.1 Item 7)
11	–	Shaft (P/O PL 12.1 Item 6, PL 12.1 Item 7)	39	–	Lower Frame (P/O PL 12.1 Item 6, PL 12.1 Item 7)
12	–	Front Chute (P/O PL 12.1 Item 6, PL 12.1 Item 7)	40	–	Holder (P/O PL 12.1 Item 6, PL 12.1 Item 7)
13	120E22481	Actuator (P/O PL 12.1 Item 6, PL 12.1 Item 7)	41	–	Spring (P/O PL 12.1 Item 6, PL 12.1 Item 7)
14	930W00103	Tray 3/4 Level Sensor	42	604K20530	Tray Feed Roller Kit
15	930W00103	Tray 3/4 No Paper Sensor	43	059K29553	Screw
16	962K19692	Wire Harness (P/O PL 12.1 Item 6, PL 12.1 Item 7)			
17	–	Gear (28T/21T) (P/O PL 12.1 Item 6, PL 12.1 Item 7)			
18	–	Gear (29T) (P/O PL 12.1 Item 6, PL 12.1 Item 7)			
19	–	Spring (P/O PL 12.1 Item 6, PL 12.1 Item 7)			
20	–	Feed Roll (REP 12.3.1) (P/O PL 12.3 Item 42)			
21	005K05890	Oneway Clutch			
22	005K06760	Oneway Gear (22T)			
23	–	Shaft (P/O PL 12.1 Item 6, PL 12.1 Item 7)			
24	–	Chute (P/O PL 12.1 Item 6, PL 12.1 Item 7)			
25	–	Spring (P/O PL 12.1 Item 6, PL 12.1 Item 7)			
26	005K05890	Friction Clutch			
27	–	Support Assembly (P/O PL 12.1 Item 6, PL 12.1 Item 7)			
28	–	Retard Roll (REP 12.3.1) (P/O PL 12.3 Item 42)			

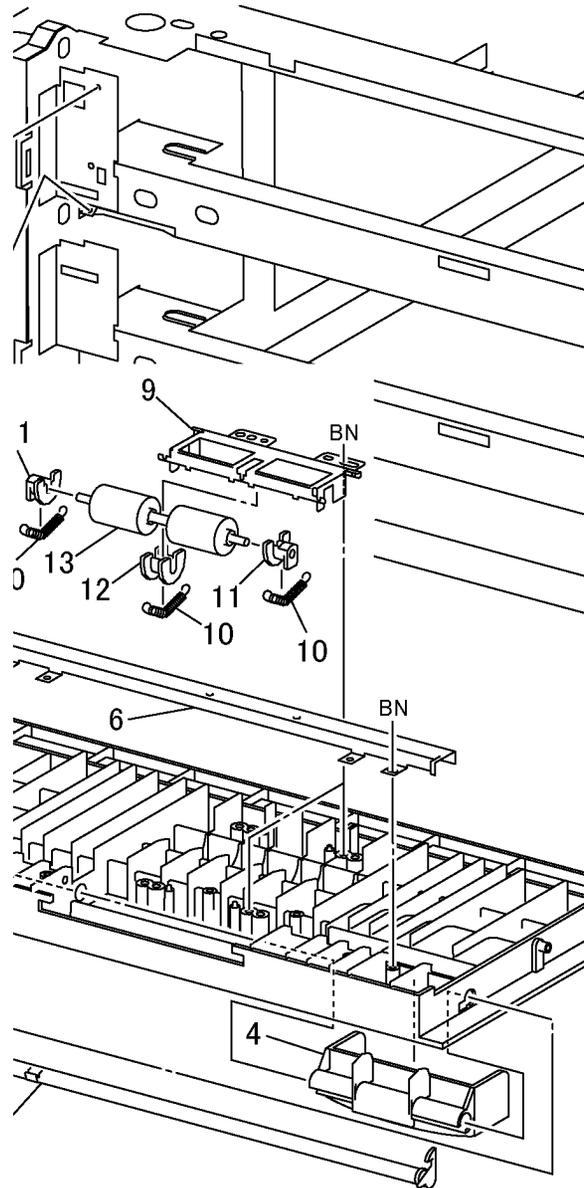
## PL 12.4 Left Cover-2Tray



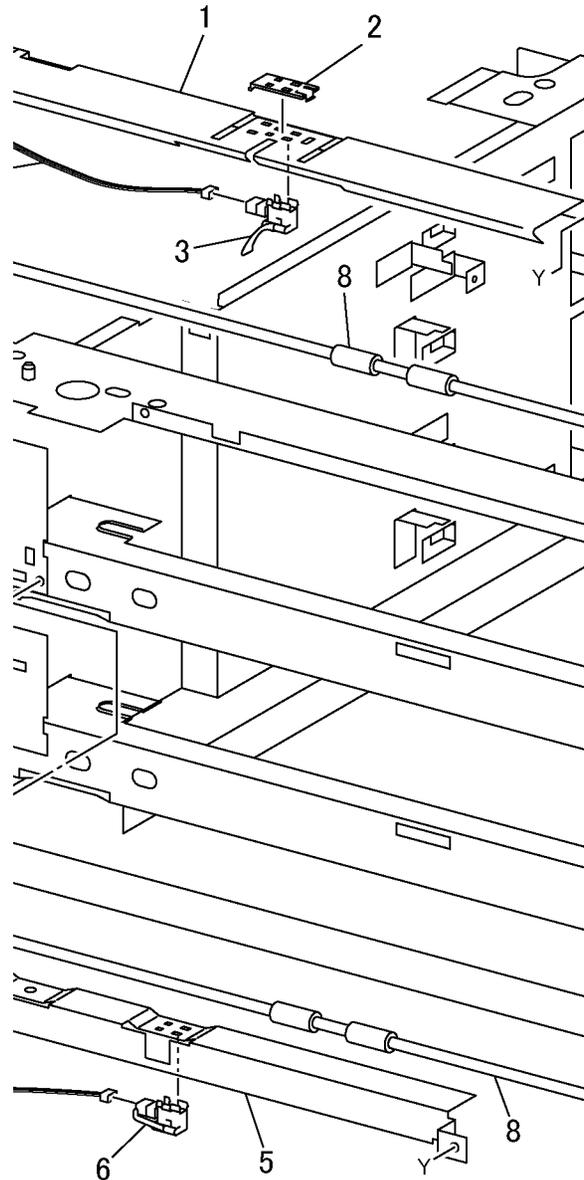
Item	Part	Description
1	802K53505	Cover Assembly LH 2TM
2	-	Latch (P/O PL 12.4 Item 1)
3	-	Hook (P/O PL 12.4 Item 1)
4	-	Handle (P/O PL 12.4 Item 1)
5	-	Left Cover (P/O PL 12.4 Item 1)
6	-	Chute (P/O PL 12.4 Item 1)
7	-	Actuator (P/O PL 12.4 Item 1)
8	-	Spring (P/O PL 12.4 Item 1)
9	-	Bracket (P/O PL 12.4 Item 1)
10	-	Spring (P/O PL 12.4 Item 1)
11	-	Bearing (P/O PL 12.4 Item 1)
12	-	Bearing (P/O PL 12.4 Item 1)
13	059E98190	Pinch Roll
14	830E45710	Support
15	110E10620	2Tray Module Left Cover Switch
16	-	Bracket Assembly (Not Spared)
17	-	Bracket (Not Spared)

## PL 12.5 Takeaway Roll-2Tray

Item	Part	Description
1	-	Chute (Not Spared)
2	-	Cover (Not Spared)
3	130K64121	Tray 3 Feed Out Sensor
4	962K18171	Wire Harness
5	-	Chute (Not Spared)
6	130K64471	Tray 4 Feed Out Sensor
7	962K18900	Wire Harness
8	059K26250	Takeaway Roll Assembly
9	-	Bearing (P/O PL 12.5 Item 10)
10	604K20720	2TM Bearing Kit (4pcs)



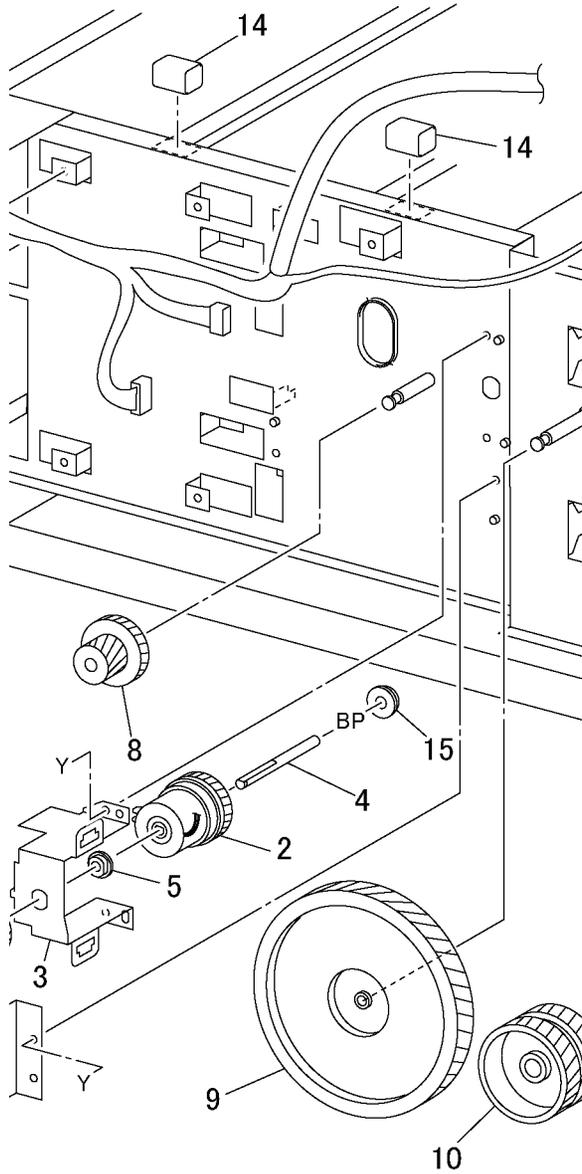
## PL 12.6 Electrical-2Tray

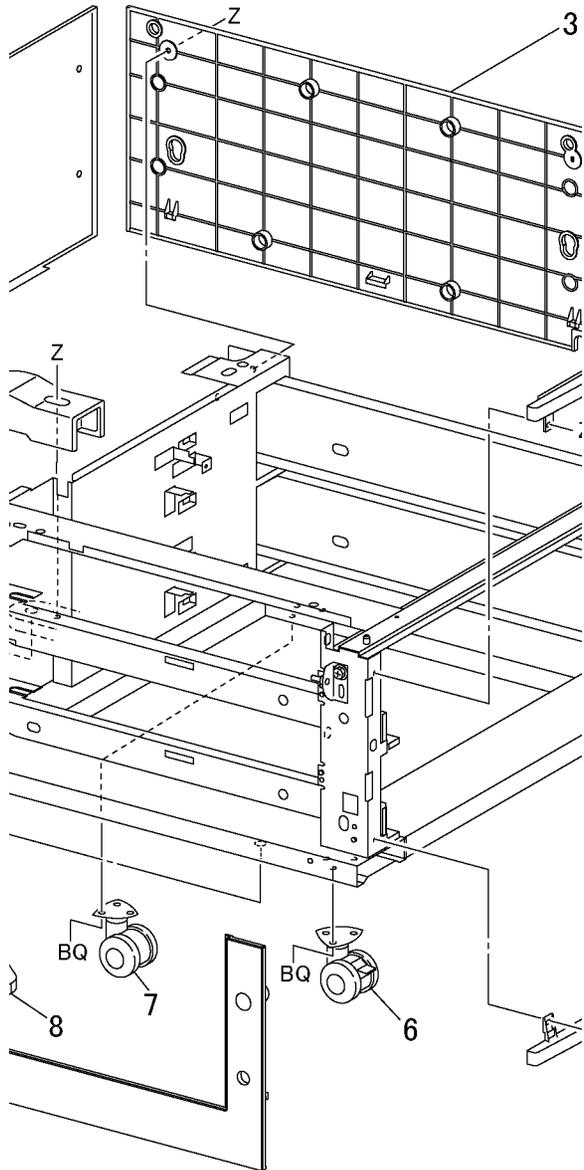


Item	Part	Description
1	160K97490	PWB Assembly TM
2	121K31530	2Tray Module Takeaway Roll Clutch
3	-	Bracket (Not Spared)
4	-	Shaft (Not Spared)
5	-	Bearing (Not Spared)
6	-	Gear (38T) (Not Spared)
7	007K88721	2Tray Module Takeaway Motor
8	-	Gear (22T/40T) (Not Spared)
9	-	Gear (126T) (Not Spared)
10	-	Gear (60T) (Not Spared)
11	-	Gear (37T) (Not Spared)
12	-	Gear (32T) (Not Spared)
13	-	Wire Harness (Not Spared)
14	-	Gasket (Not Spared)
15	-	Bearing (P/O PL 12.6 Item 16)
16	604K20720	2TM Bearing Kit (4pcs)

## PL 12.7 Cover-2Tray

Item	Part	Description
1	-	Top Cover (Not Spared)
2	-	Foot Cover (Not Spared)
3	802E54750	Right Cover
4	802E54762	Left Lower Cover (REP 12.7.1)
5	802E54771	Rear Cover
6	-	Caster (Stopper) (Not Spared)
7	-	Caster (Not Spared)
8	-	Foot (Not Spared)
9	-	Foot Cover (Not Spared)

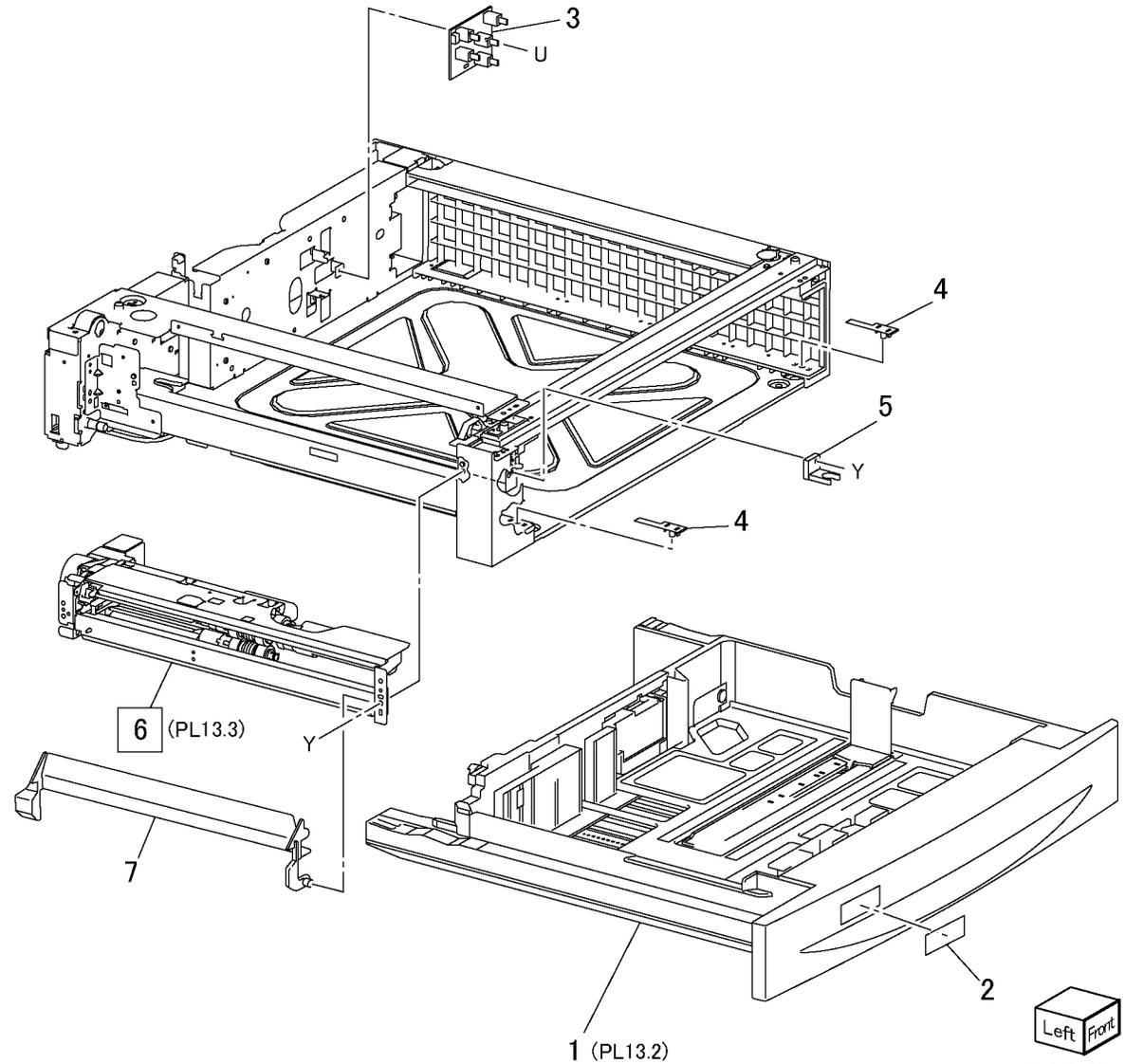




# PL 13.1 Tray, Feeder Assembly-Single Tray

Item	Part	Description
1	050K49840	Tray Assembly (PL 13.2)
2	893E20820	Label (No.2)
3	110K11680	Tray 2 Paper Size Switch
4	014E51110	Tray Spacer
5	003E61510	Tray Stopper
6	059K29553	Tray 2 Feeder (REP 13.1.1)
7	054E22621	Feed Out Chute

PL13.1

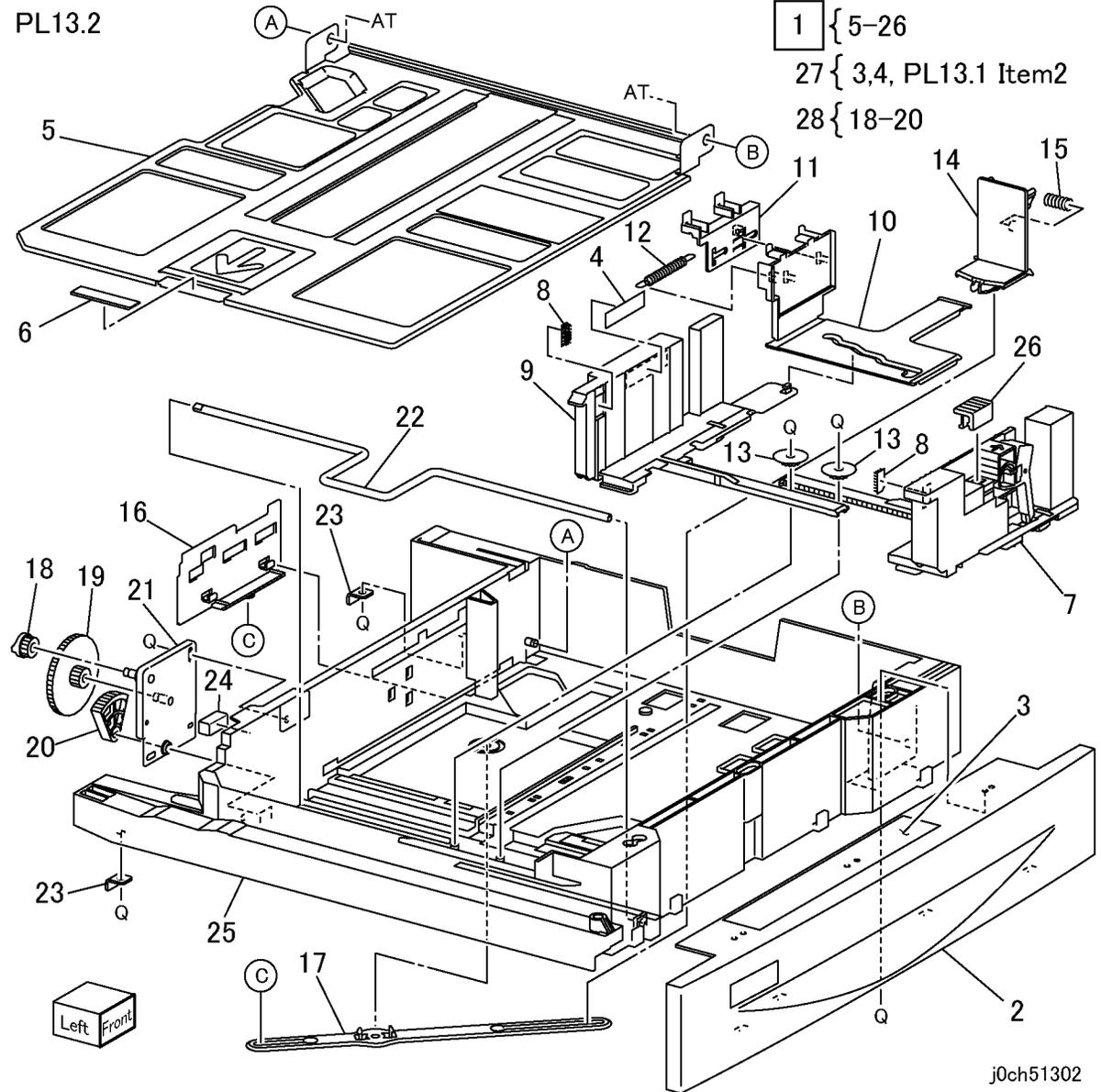


Left Front

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# PL 13.2 Tray Assembly-Single Tray

Item	Part	Description
1	-	Tray Assembly (P/O PL 13.2 Item 1)
2	-	Tray Cover (P/O PL 13.2 Item 1)
3	-	Label (Instruction) (P/O PL 13.2 Item 27)
4	-	Label (Max) (P/O PL 13.2 Item 27)
5	-	Bottom Plate (P/O PL 13.2 Item 1)
6	-	Bottom Pad (P/O PL 13.2 Item 1)
7	-	Front Side Guide (P/O PL 13.2 Item 1)
8	-	Tray Pad (P/O PL 13.2 Item 1)
9	-	Rear Side Guide (P/O PL 13.2 Item 1)
10	-	Side Guide Actuator (P/O PL 13.2 Item 1)
11	-	Guide Actuator (P/O PL 13.2 Item 1)
12	-	Spring (P/O PL 13.2 Item 1)
13	-	Pinion Gear (P/O PL 13.2 Item 1)
14	-	End Guide (P/O PL 13.2 Item 1)
15	-	Spring (P/O PL 13.2 Item 1)
16	-	End Guide Actuator (P/O PL 13.2 Item 1)
17	-	Link (P/O PL 13.2 Item 1)
18	-	Coupling Gear (13T) (P/O PL 13.2 Item 28)
19	-	Gear (13T/60T) (P/O PL 13.2 Item 28)
20	-	Sector Gear (60T) (P/O PL 13.2 Item 28)
21	-	Bracket (P/O PL 13.2 Item 1)
22	-	Lift Up Shaft (P/O PL 13.2 Item 1)
23	-	Stopper (P/O PL 13.2 Item 1)
24	-	Seal (P/O PL 13.2 Item 1)
25	-	Tray (P/O PL 13.2 Item 1)
26	010E93341	Slide Lock
27	604K20550	Tray Label Kit
28	604K20540	Tray Gear Kit

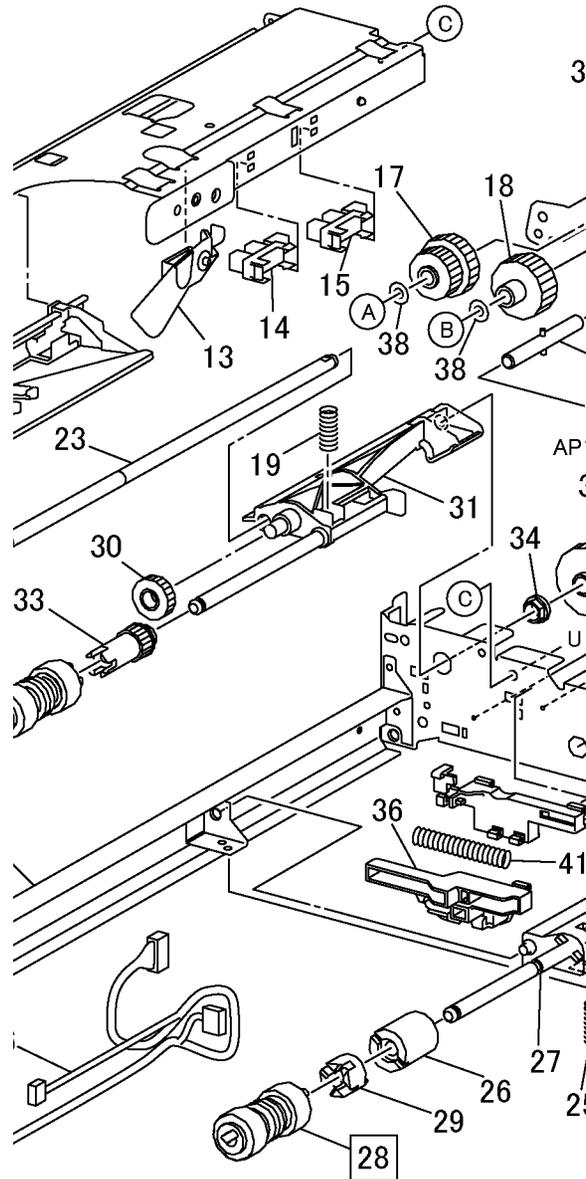


**PL 13.3 Tray Feeder-Single Tray**

43 059K29553 Screw

Item	Part	Description
1	059K26293	Feeder Assembly (Item 2-41)
2	127K38170	Tray 2 Feed/Lift Up Motor
3	—	Bracket (P/O PL 13.1 Item 6)
4	014E44770	Spacer
5	—	Gear (31T) (P/O PL 13.1 Item 6)
6	—	Spring (P/O PL 13.1 Item 6)
7	—	Oneway Clutch (P/O PL 13.3 Item 1)
8	—	Oneway Gear (P/O PL 13.3 Item 1)
9	—	Gear (33T) (P/O PL 13.1 Item 6)
10	—	Bearing (P/O PL 13.1 Item 6)
11	—	Shaft (P/O PL 13.1 Item 6)
12	—	Front Chute (P/O PL 13.1 Item 6)
13	—	Actuator (P/O PL 13.1 Item 6)
14	930W00103	Tray 2 Level Sensor
15	930W00103	Tray 2 No Paper Sensor
16	962K19691	Wire Harness
17	—	Gear (28T/21T) (P/O PL 13.1 Item 6)
18	—	Gear (29T) (P/O PL 13.1 Item 6)
19	—	Spring (P/O PL 13.1 Item 6)
20	—	Feed Roll (REP 13.3.1 ) (P/O PL 13.3 Item 42)
21	005K05890	One way Clutch
22	005K06760	One way Gear (22T)
23	—	Shaft (P/O PL 13.1 Item 6)
24	—	Chute (P/O PL 13.1 Item 6)
25	—	Spring (P/O PL 13.1 Item 6)
26	005K07010	Friction Clutch
27	—	Support Assembly (P/O PL 13.1 Item 6)
28	—	Retard Roll (REP 13.3.1 ) (P/O PL 13.3 Item 42)
29	—	Spacer (P/O PL 13.1 Item 6)
30	—	Gear (13T) (P/O PL 13.1 Item 6)
31	—	Support Assembly (P/O PL 13.1 Item 6)
32	—	Nudger Roll (REP 13.3.1 ) (P/O PL 13.3 Item 42)
33	—	Gear (25T) (P/O PL 13.1 Item 6)
34	—	Bearing (P/O PL 13.1 Item 6)
35	—	Gear (34T) (P/O PL 13.1 Item 6)
36	—	Lever (P/O PL 13.1 Item 6)
37	—	Bearing (P/O PL 13.1 Item 6)
38	—	Washer (P/O PL 13.1 Item 6)
39	—	Lower Frame (P/O PL 13.1 Item 6)
40	—	Holder (P/O PL 13.1 Item 6)
41	—	Spring (P/O PL 13.1 Item 6)
42	604K20530	Tray Feed Roller Kit

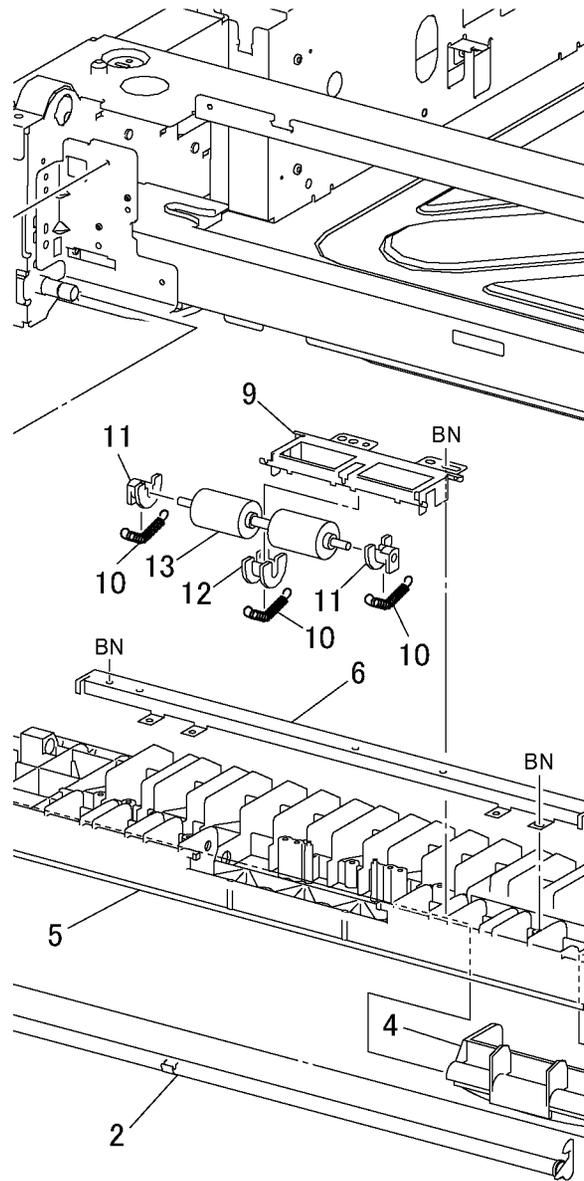
## PL 13.4 Left Cover-Single Tray



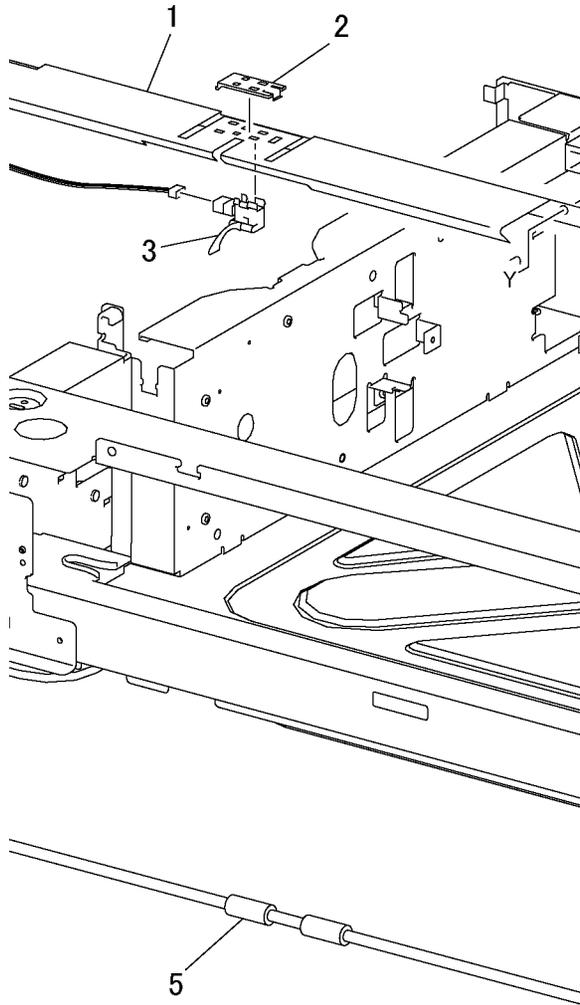
Item	Part	Description
1	802K57023	Cover Assembly LH STM
2	-	Latch (P/O PL 13.4 Item 1)
3	-	Hook (P/O PL 13.4 Item 1)
4	-	Handle (P/O PL 13.4 Item 1)
5	-	Left Cover (P/O PL 13.4 Item 1)
6	-	Chute (P/O PL 13.4 Item 1)
7	-	Actuator (P/O PL 13.4 Item 1)
8	-	Spring (P/O PL 13.4 Item 1)
9	-	Bracket (P/O PL 13.4 Item 1)
10	-	Spring (P/O PL 13.4 Item 1)
11	-	Bearing (P/O PL 13.4 Item 1)
12	-	Bearing (P/O PL 13.4 Item 1)
13	-	Pinch Roll (P/O PL 13.4 Item 1)
14	110E10620	Single Tray Module Left Cover Switch
15	-	Bracket Assembly (Not Spared)

## PL 13.5 Takeaway Roll-Single Tray

Item	Part	Description
1	-	Chute (Not Spared)
2	-	Cover (Not Spared)
3	130K64121	Tray 2 Feed Out Sensor
4	-	Wire Harness
5	059K26250	Takeaway Roll Assembly
6	-	Bearing (P/O PL 12.5 Item 10)



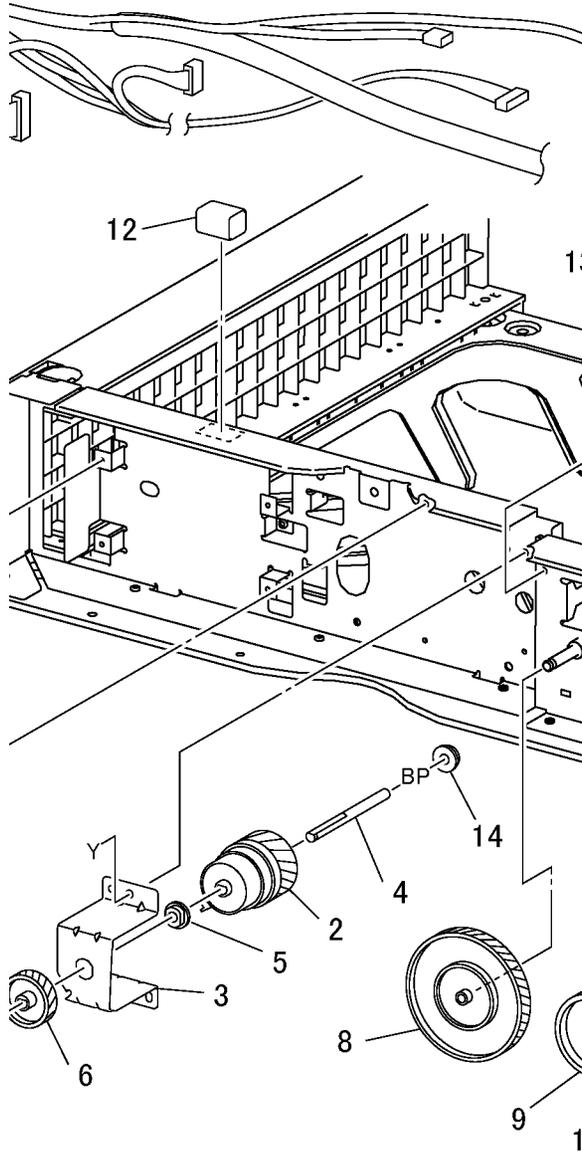
## PL 13.6 Electrical-Single Tray

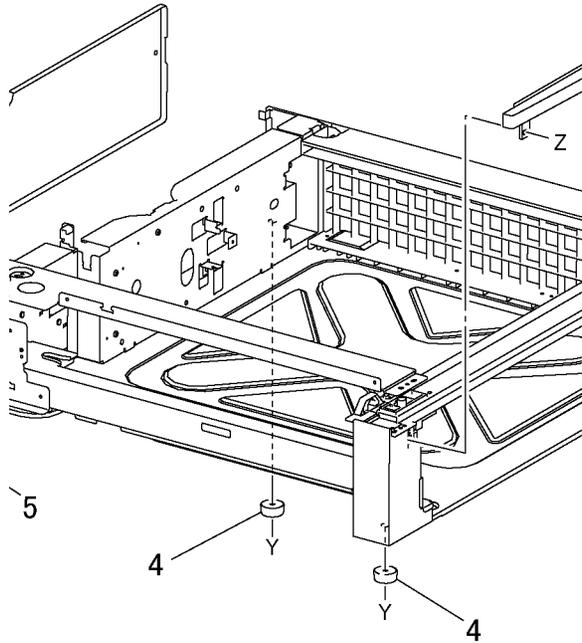


Item	Part	Description
1	960K07500	PWBA Entry STM
2	121K31530	Single Tray Module Takeaway Roll Clutch
3	—	Bracket (Not Spared)
4	—	Shaft (Not Spared)
5	—	Bearing (Not Spared)
6	—	Gear (Not Spared)
7	007K88711	Gear Assembly Main STM
8	—	Gear (Not Spared)
9	—	Gear (Not Spared)
10	—	Gear (Not Spared)
11	—	Wire Harness
12	—	Gasket
13	—	Docking Bracket (Not Spared)
14	—	Bearing (P/O PL 12.6 Item 16)

## PL 13.7 Cover-Single Tray

Item	Part	Description
1	-	Top Cover (Not Spared)
2	-	Left Cover (Not Spared)
3	-	Rear Cover (Not Spared)
4	-	Foot (Not Spared)
5	-	Foot Rear (Not Spared)

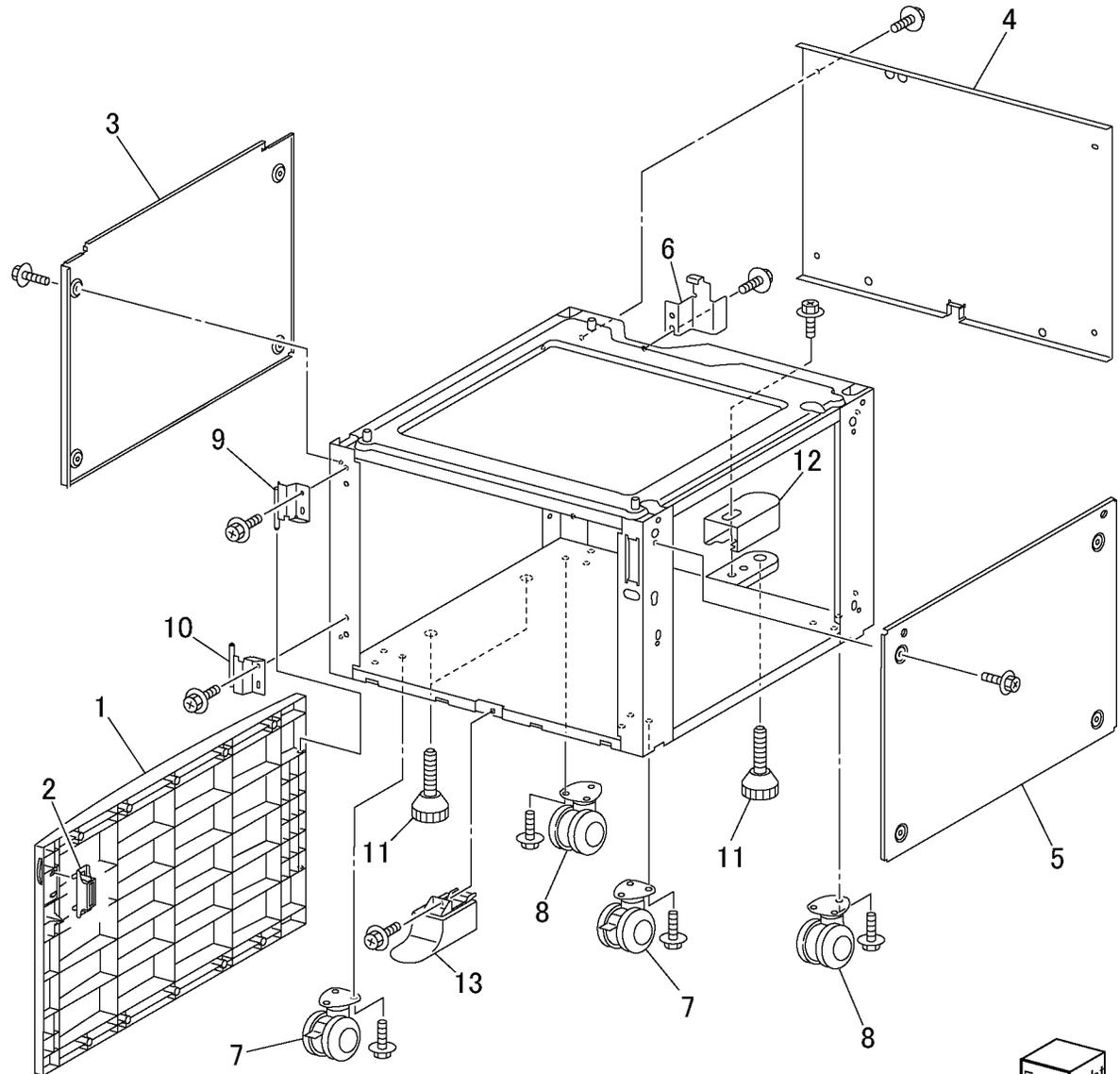




# PL 14.1 Mobile Stand

Item	Part	Description
1	-	Front Cover (Not Spared)
2	-	Magnet (Not Spared)
3	-	Left Cover (Not Spared)
4	-	Rear Cover (Not Spared)
5	-	Right Cover (Not Spared)
6	-	Bracket (Not Spared)
7	-	Caster (s) (Not Spared)
8	-	Caster (Not Spared)
9	-	Upper Hinge (Not Spared)
10	-	Lower Hinge (Not Spared)
11	-	Foot (Not Spared)
12	-	Foot Cover (Not Spared)
13	-	Stopper (Not Spared)

PL14.1

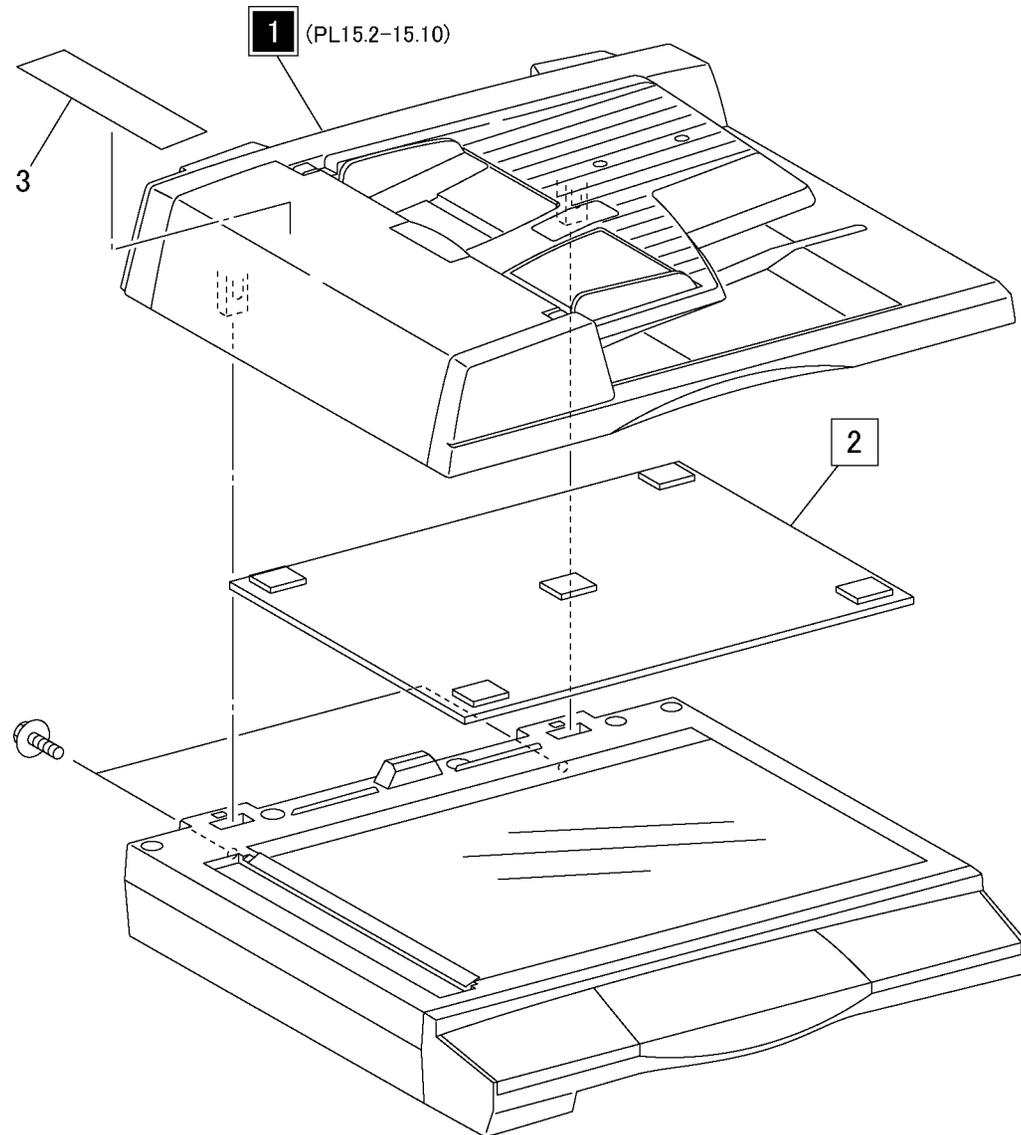


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## PL 15.1 DADF/ADF Assembly

Item	Part	Description
1	022K67680	DADF Assembly (with Item 2) (REP 15.1.1) (ADJ 15.1.1)
-	022K67690	ADF Assembly (with Item 2) (REP 15.1.1) (ADJ 15.1.1)
2	004E14200	Platen Cushion (REP 15.1.2)
3	-	Label (Instruction) (Not Spared)

PL15.1

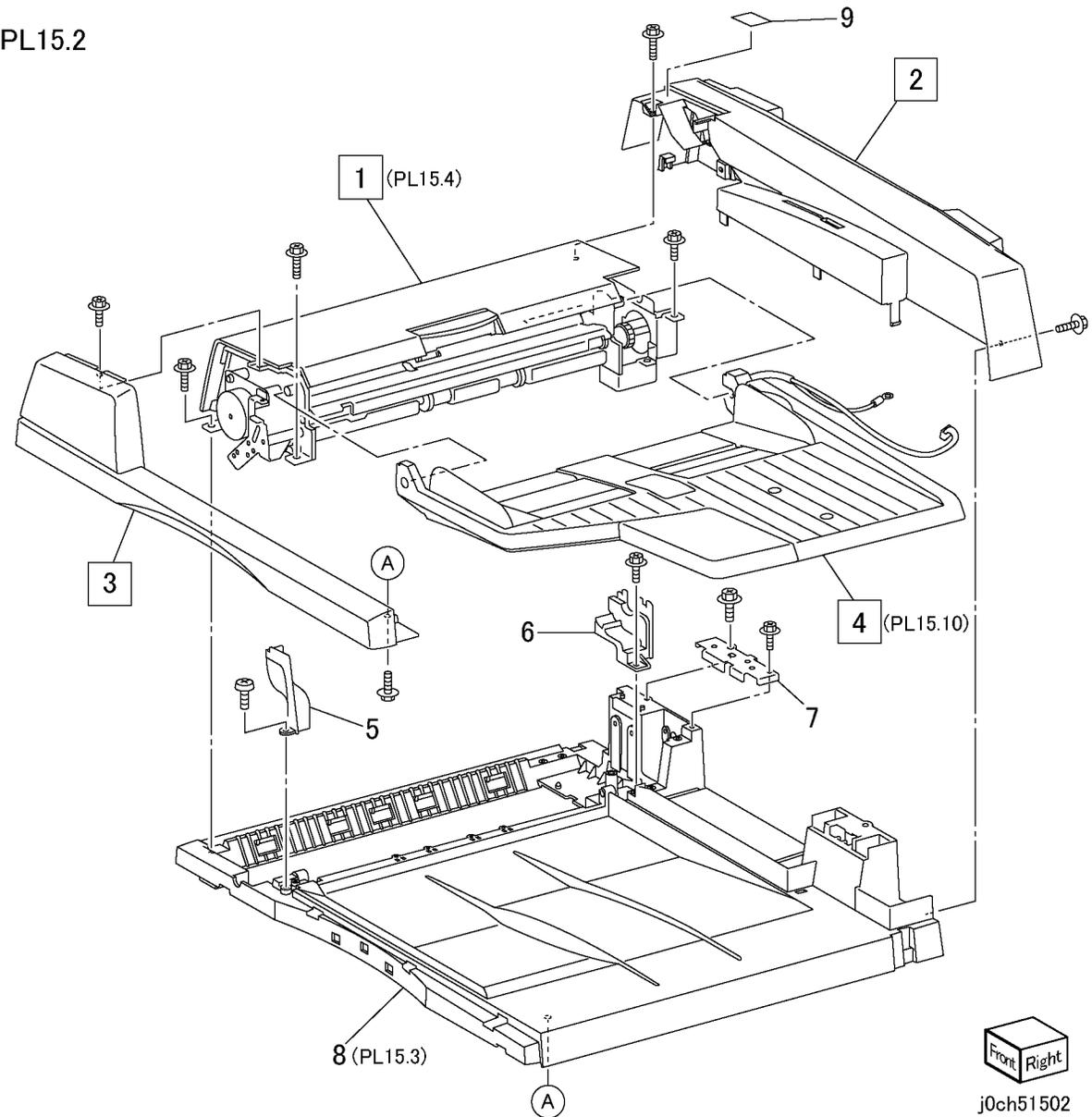


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# PL 15.2 DADF/ADF Component, Cover

Item	Part	Description
1	059K33880	DADF Feeder Assembly (PL 15.4) (REP 15.2.2)
-	059K33890	ADF Feeder Assembly (PL 15.4) (REP 15.2.2)
2	802E68630	Rear Cover (REP 15.2.4)
3	802E68640	Front Cover (REP 15.2.3)
4	050K51140	Document Tray Assembly (PL 15.10) (REP 15.2.1)
5	-	Front Blind Cover (P/O PL 15.1 Item 1)
6	-	Rear Blind Cover (P/O PL 15.1 Item 1)
7	-	Support Bracket (P/O PL 15.1 Item 1)
8	801K15460	Base Cover Assembly (PL 15.3)
9	-	Label

PL15.2

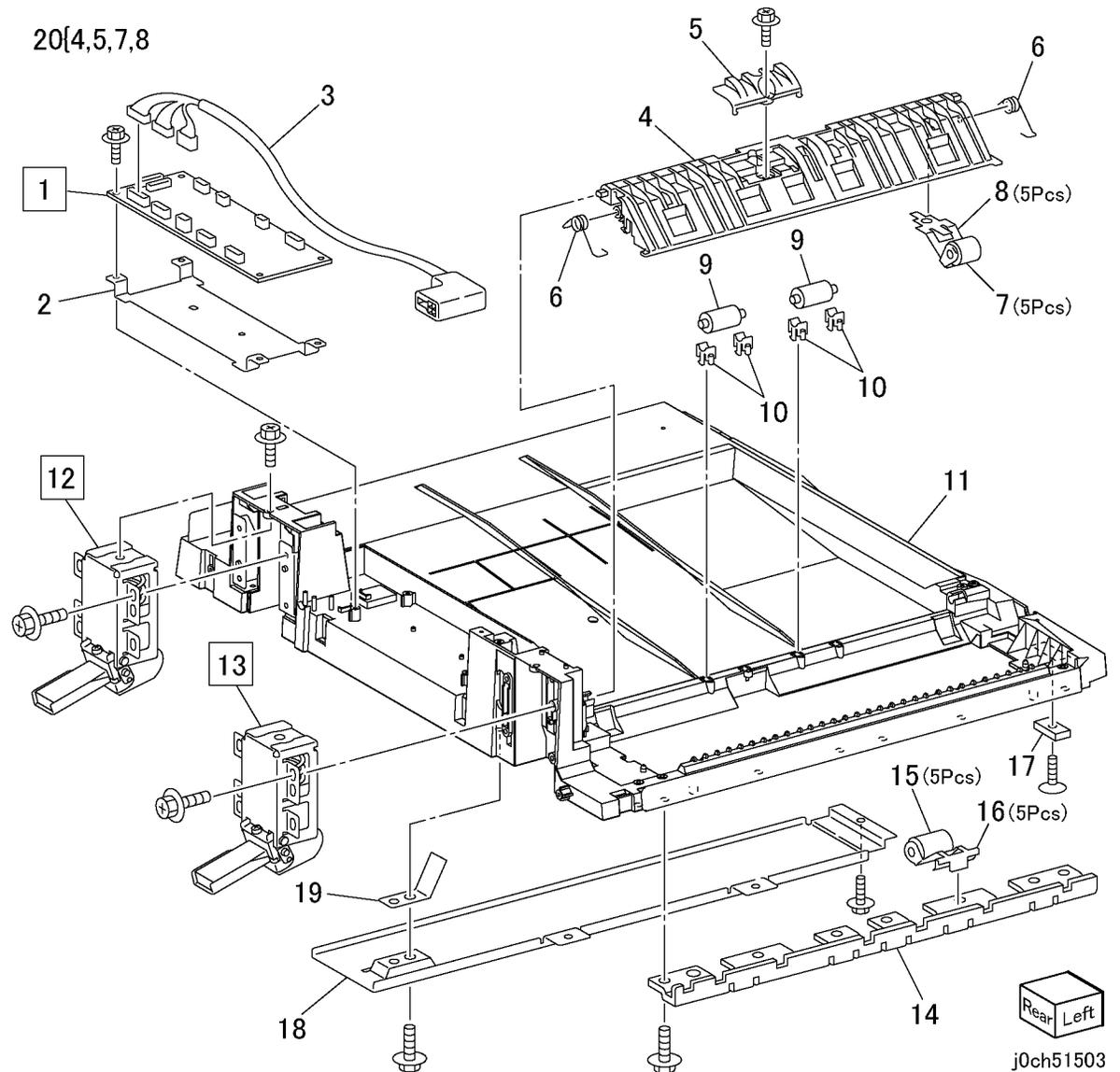


# PL 15.3 DADF/ADF Base Cover Component

Item	Part	Description
1	960K02740	DADF/ADF PWB (REP 15.3.1)
2	-	Bracket
3	962K25030	DADF/ADF - IIT Cable
4	-	Exit Chute (P/O PL 15.3 Item 20)
5	-	Stamp Cover (P/O PL 15.3 Item 20)
6	-	Exit Chute Spring (Coil) (P/O PL 15.3 Item 20)
7	-	Read In Pinch Roller (P/O PL 15.1 Item 1)
8	-	Spring Plate (Read In) (P/O PL 15.1 Item 1)
9	-	Exit Pinch Roller (P/O PL 15.1 Item 1)
10	-	Bush (P/O PL 15.3 Item 8)
11	-	Base Cover Assembly (With 20) (P/O PL 15.1 Item 1)
12	003K13550	Right Counter Balance (REP 15.3.3)
13	003K13560	Left Counter Balance (REP 15.3.2)
14	-	Pinch Roll Bracket (P/O PL 15.3 Item 8)
15	-	Read Out Pinch Roller (P/O PL 15.1 Item 1)
16	-	Spring Plate (Read Out) (P/O PL 15.3 Item 8)
17	-	Interlock Magnet (P/O PL 15.3 Item 8)
18	-	Bottom Plate (P/O PL 15.3 Item 8)
19	-	DADF Earth Spring (P/O PL 15.3 Item 8)
20	-	Exit Assembly (P/O PL 15.1 Item 1)

PL15.3

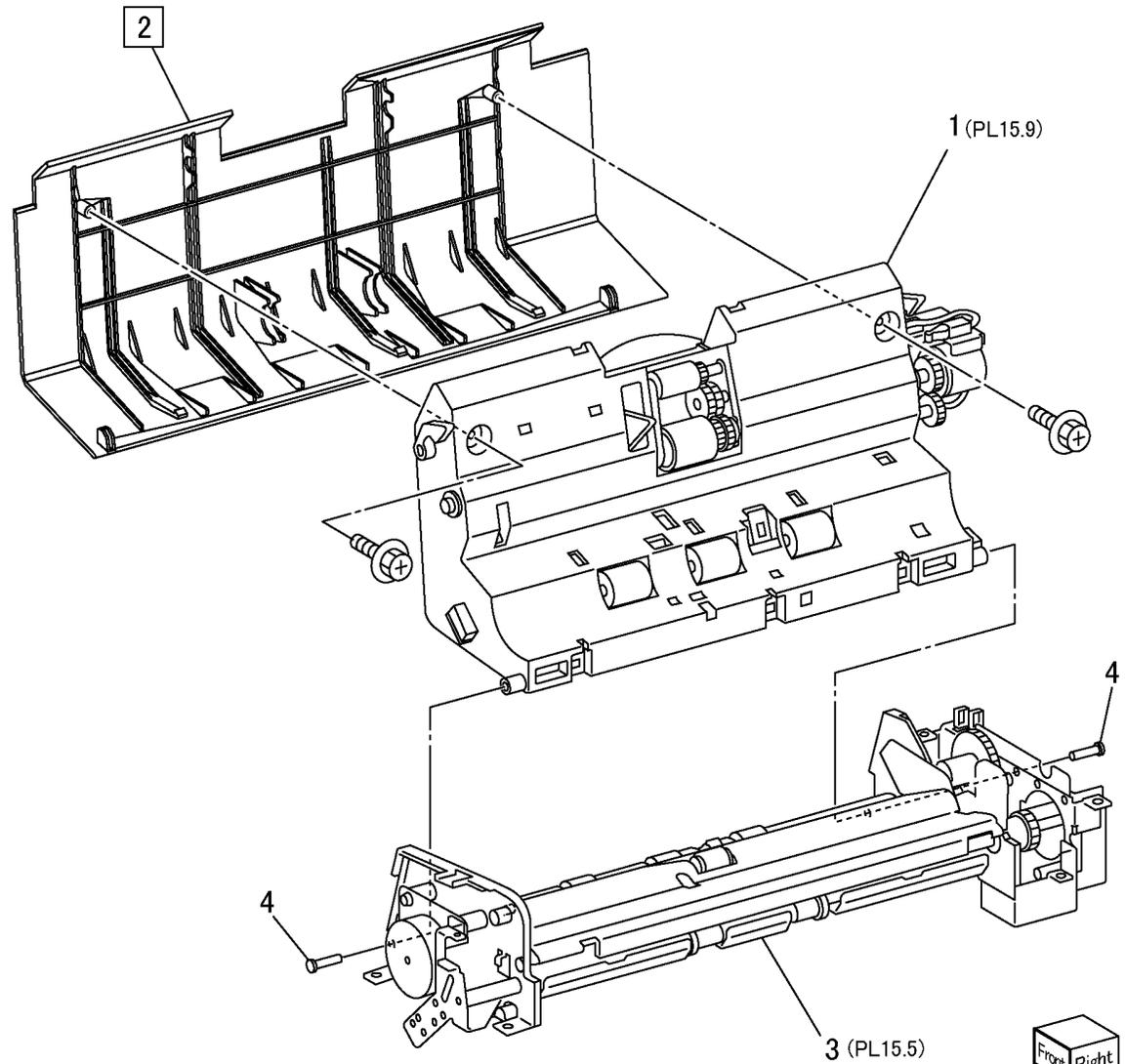
20{4,5,7,8}



# PL 15.4 DADF/ADF Feeder Component

Item	Part	Description
1	059K35890	Upper Feeder Assembly (PL 15.9)
2	802E68680	Top Cover (REP 15.4.1)
3	059K35910	DADF Lower Feeder Assembly (PL 15.5)
-	059K35920	ADF Lower Feeder Assembly (PL 15.5)
4	-	Pin (P/O PL 15.2 Item 1)

PL15.4

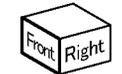
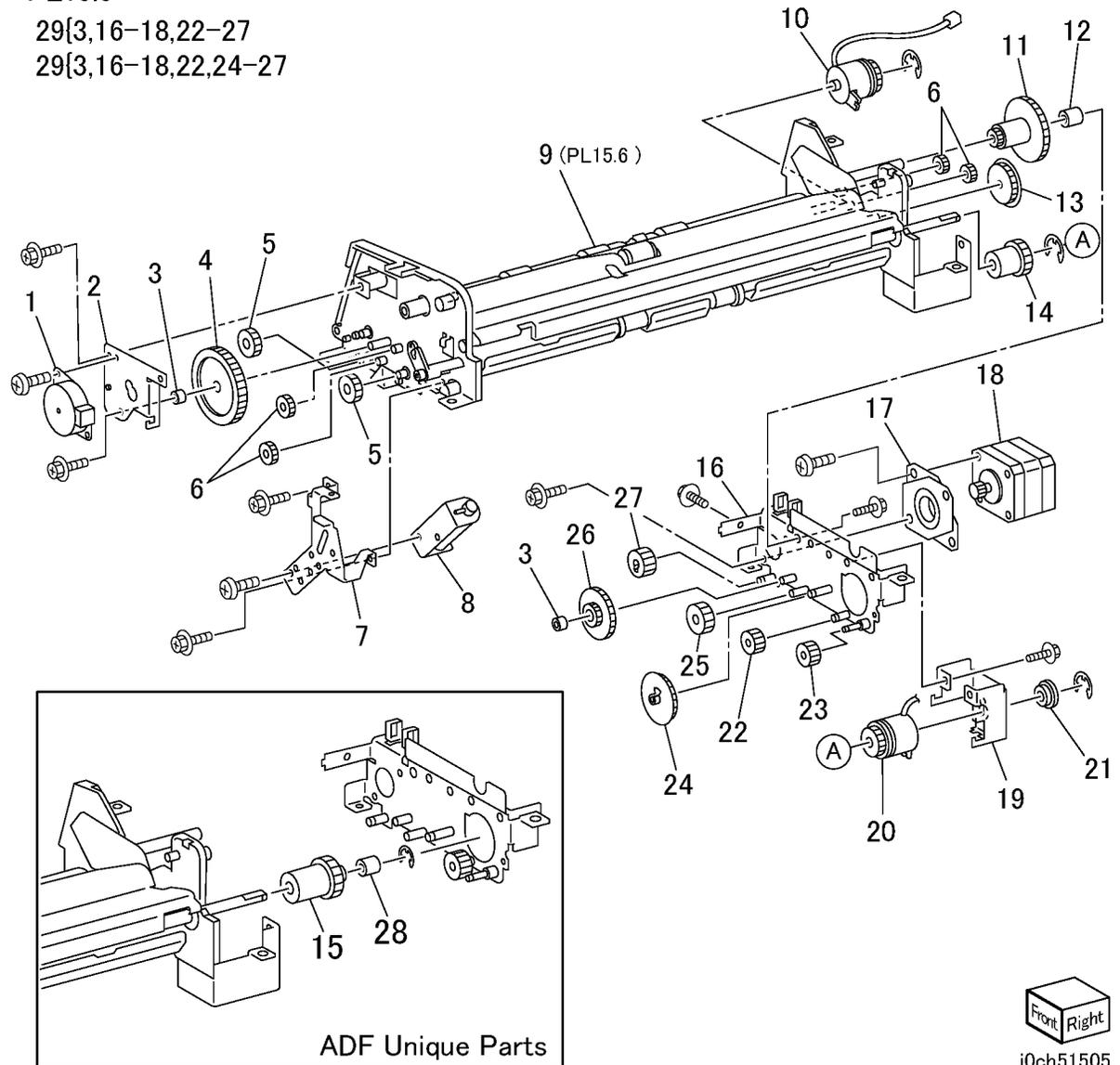


Front Right  
j0ch51504

# PL 15.5 DADF/ADF Lower Feeder Component

Item	Part	Description
1	127K40110	Document Read Motor
2	-	Bracket (P/O PL 15.4 Item 3)
3	-	Bearing (Oil less) (P/O PL 15.5 Item 29)
4	-	Gear (101T-16T) (P/O PL 15.4 Item 3)
5	-	Gear (22T) (P/O PL 15.4 Item 3)
6	-	Gear (20T) (P/O PL 15.4 Item 3)
7	-	Bracket (P/O PL 15.4 Item 3)
8	121K34450	Exit Reverse Solenoid (DADF Only)
9	-	DADF Lower Feeder Assembly (PL 15.6) (P/O PL 15.4 Item 3)
-	-	ADF Lower Feeder Assembly (PL 15.6) (P/O PL 15.4 Item 3)
10	121K34460	Document Registration Clutch
11	-	Gear (51T-17T) (P/O PL 15.4 Item 3)
12	-	Bearing (Oil less) (P/O PL 15.4 Item 3)
13	-	Gear (39T) (P/O PL 15.4 Item 3)
14	005K07190	Torque Limiter (DADF Only)
15	-	Gear (24T) (ADF Only) (P/O PL 15.4 Item 3)
16	-	Bracket (P/O PL 15.5 Item 29)
17	-	Damper (P/O PL 15.5 Item 29)
18	127K40120	Document Drive Motor
19	-	Bracket (P/O PL 15.4 Item 3)
20	121K34460	Exit Reverse Clutch (DADF Only)
21	-	Bearing (Oil less) (P/O PL 15.4 Item 3)
22	-	Gear (23T) (P/O PL 15.4 Item 3)
23	-	Gear (23T) (DADF Only) (P/O PL 15.4 Item 3)
24	-	Gear (39T) (P/O PL 15.4 Item 3)
25	-	Gear (29T) (P/O PL 15.4 Item 3)
26	-	Gear (60T-27T) (P/O PL 15.4 Item 3)
27	-	Gear (29T) (P/O PL 15.4 Item 3)
28	-	Bearing (Oil less) (ADF Only) (P/O PL 15.4 Item 3)
29	-	DADF Document Drive Motor Assembly (P/O PL 15.4 Item 3)
-	-	ADF Document Drive Motor Assembly (P/O PL 15.4 Item 3)

PL15.5  
29{3,16-18,22-27  
29{3,16-18,22,24-27

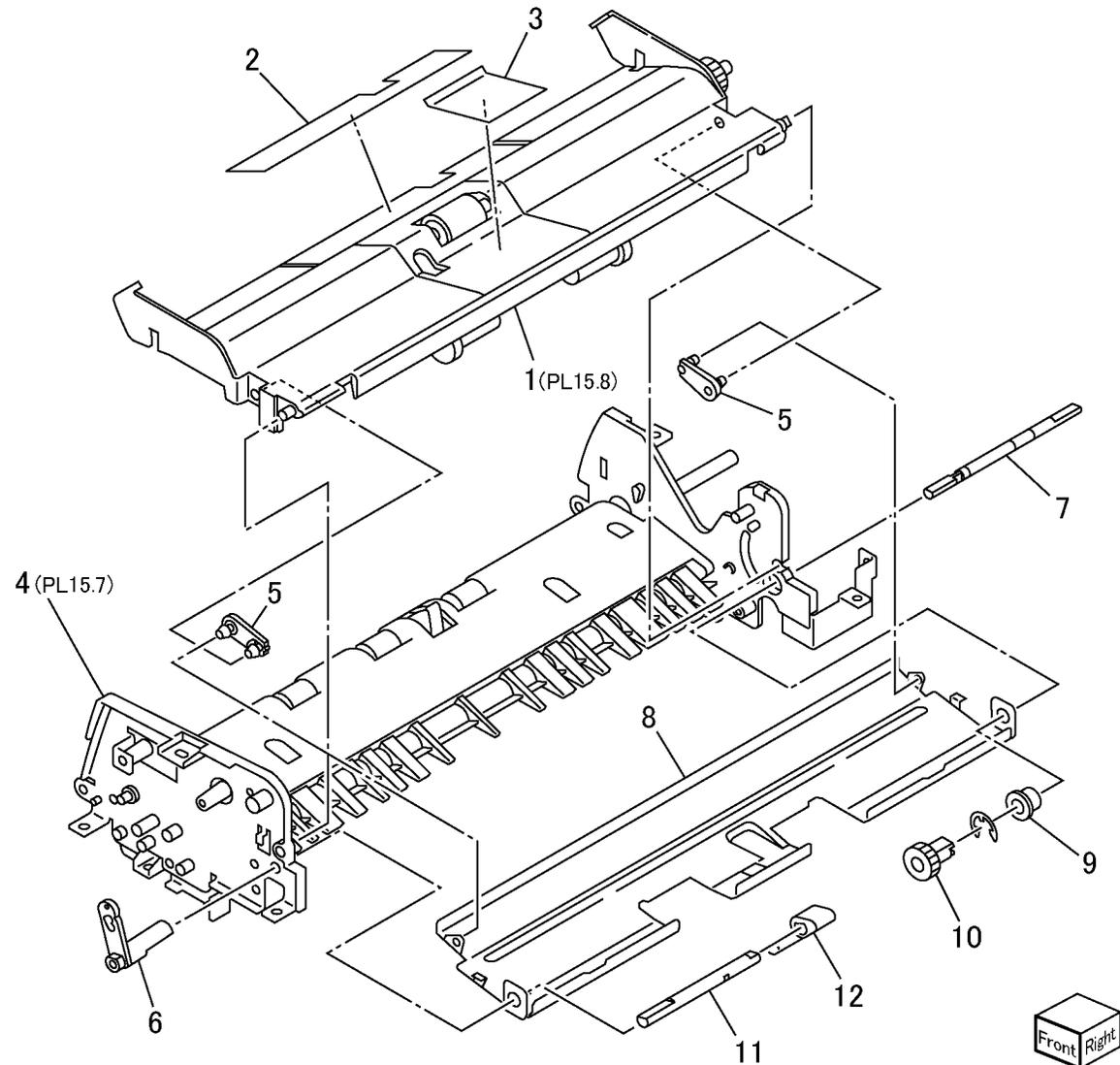


j0ch51505

# PL 15.6 DADF/ADF Retard Roll Component

Item	Part	Description
1	059K35940	Retard Roll Assembly (with 2,3) (PL 15.8)
2	-	Registration Mylar (P/O PL 15.5 Item 9)
3	-	Retard Mylar (P/O PL 15.5 Item 9)
4	-	Base Lower Feeder Assembly (PL 15.7) (P/O PL 15.5 Item 9)
5	-	Arm Pin (P/O PL 15.5 Item 9)
6	-	Solenoid Arm (P/O PL 15.5 Item 9)
7	-	Shaft (P/O PL 15.5 Item 9)
8	-	Paper Guide Plate (P/O PL 15.5 Item 9)
9	-	Bearing (Oil less) (P/O PL 15.5 Item 9)
10	-	Gear (15T) (P/O PL 15.5 Item 9)
11	-	Lift Shaft (P/O PL 15.5 Item 9)
12	-	Lift (DADF Only) (P/O PL 15.5 Item 9)

PL15.6



Front  
Right  
j0ch51506

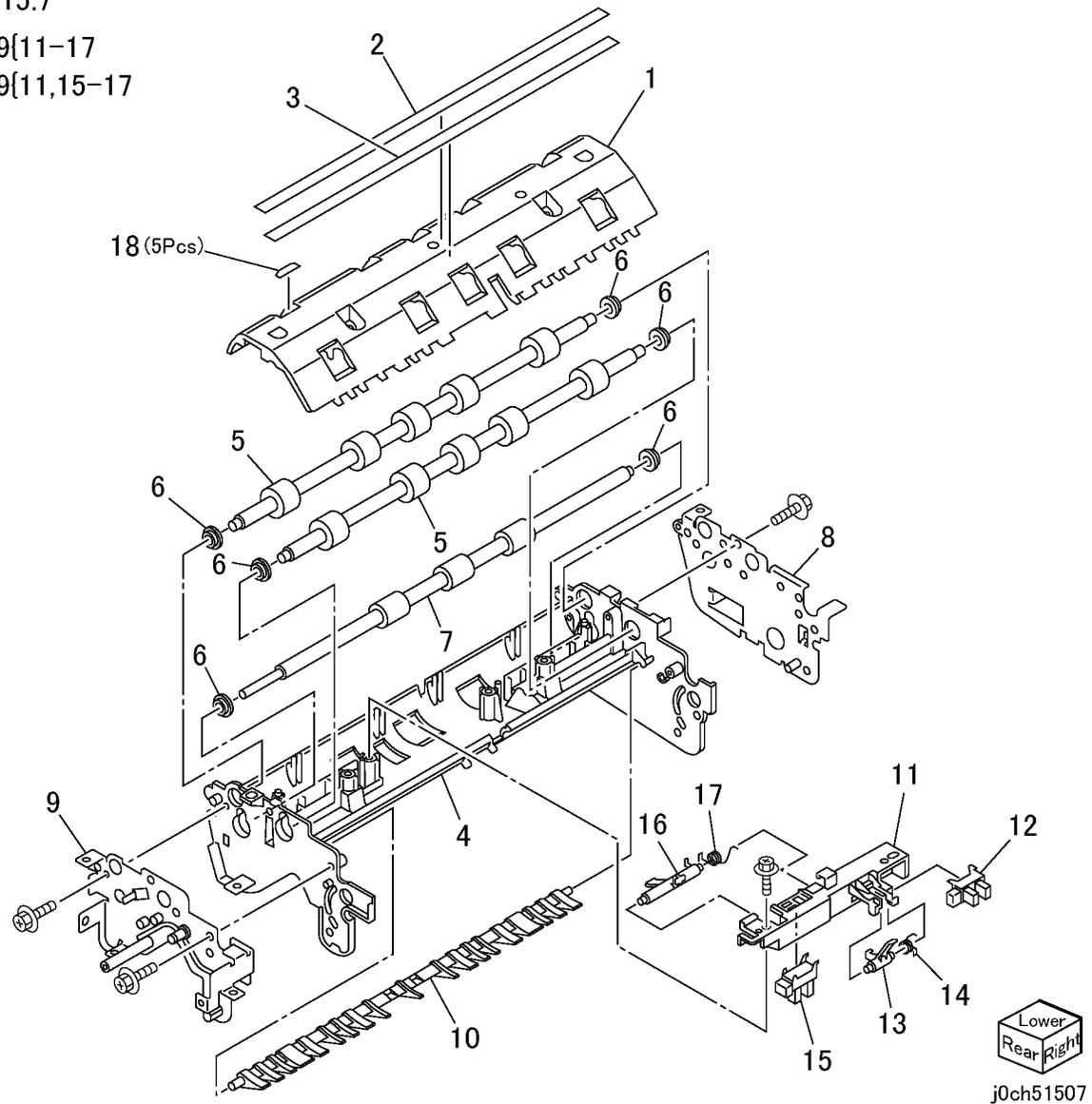
# PL 15.7 DADF/ADF Lower Feeder Assembly

Item	Part	Description
1	-	Bottom Chute (with Item 18) (P/O PL 15.6 Item 4)
2	-	White Sheet (P/O PL 15.6 Item 4)
3	-	Bottom Sheet (P/O PL 15.6 Item 4)
4	-	Base Frame (P/O PL 15.6 Item 4)
5	-	Read In/Out Roller (P/O PL 15.6 Item 4)
6	-	Bearing (Oil less) (P/O PL 15.6 Item 4)
7	-	Registration Roller (P/O PL 15.6 Item 4)
8	-	Front Bracket (P/O PL 15.6 Item 4)
9	-	Rear Bracket (P/O PL 15.6 Item 4)
10	-	DADF Invert Gate (P/O PL 15.6 Item 4)
11	-	Sensor Holder (P/O PL 15.7 Item 19)
12	-	Invert Sensor (DADF Only) (P/O PL 15.6 Item 4)
13	-	Invert Sensor Actuator (DADF Only) (P/O PL 15.6 Item 4)
14	-	Spring (DADF Only) (P/O PL 15.7 Item 19)
15	-	Document Lead Edge Sensor (P/O PL 15.6 Item 4)
16	-	Document Lead Edge Sensor Actuator (P/O PL 15.7 Item 19)
17	-	Spring (P/O PL 15.7 Item 19)
18	-	Seal (P/O PL 15.6 Item 4)
19	-	Registration Sensor Assembly (DADF) (P/O PL 15.6 Item 4)
-	-	Registration Sensor Assembly (ADF) (P/O PL 15.6 Item 4)

PL15.7

19{11-17

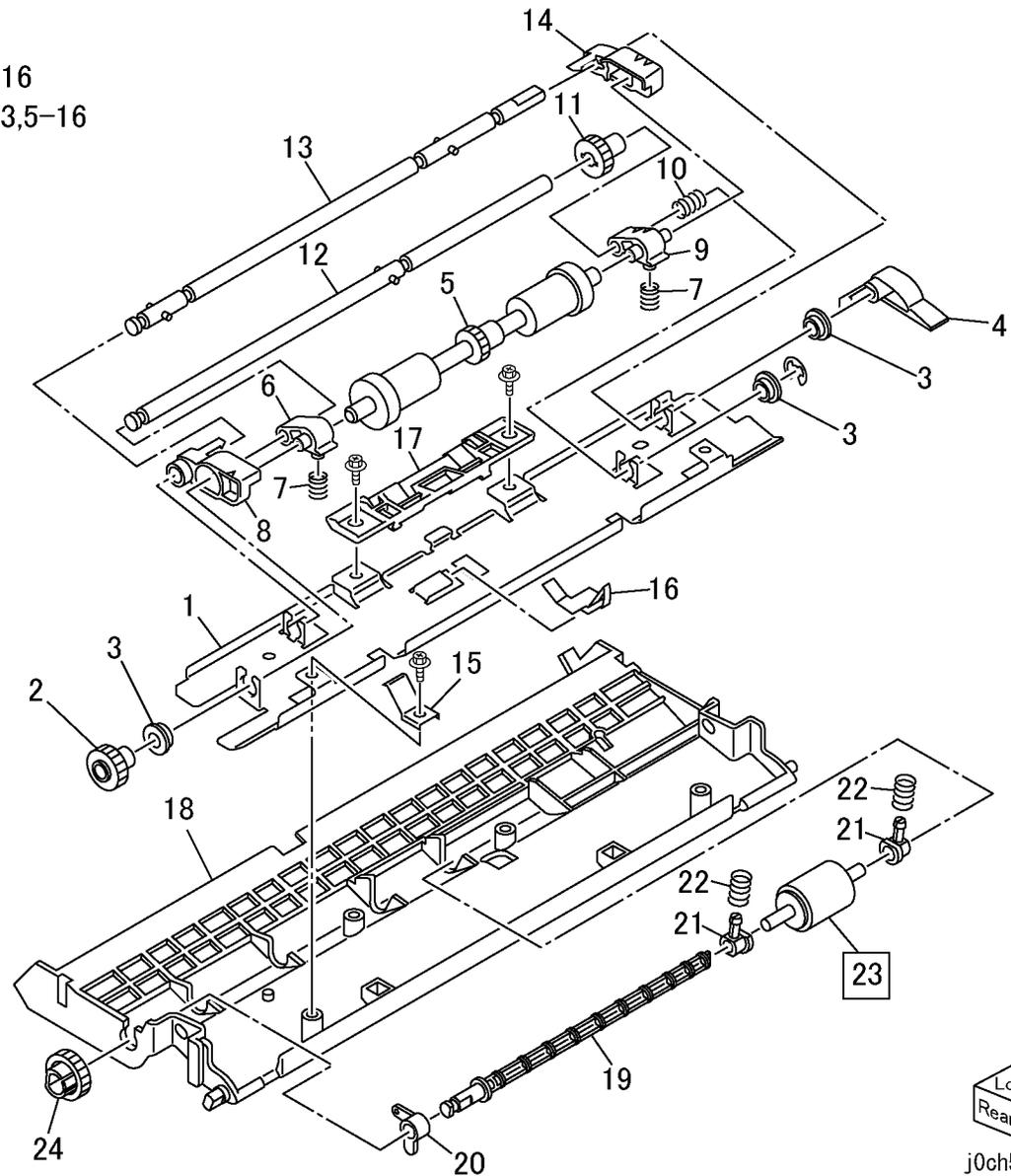
19{11,15-17



# PL 15.8 DADF/ADF Retard Roll Assembly

Item	Part	Description
1	-	Plate (P/O PL 15.8 Item 25)
2	-	Gear (18T) (P/O PL 15.8 Item 25)
3	-	Bearing (P/O PL 15.8 Item 25)
4	-	Lift Arm (DADF Only) (P/O PL 15.8 Item 25)
5	-	Exit Roller (P/O PL 15.8 Item 25)
6	-	Rear Exit Arm (P/O PL 15.8 Item 25)
7	-	Spring (Coil) (P/O PL 15.8 Item 25)
8	-	Rear Release Arm (P/O PL 15.8 Item 25)
9	-	Front Exit Arm (P/O PL 15.8 Item 25)
10	-	Spring (Coil) (P/O PL 15.8 Item 25)
11	-	Gear (18T) (P/O PL 15.8 Item 25)
12	-	Exit Roll Drive Shaft (P/O PL 15.8 Item 25)
13	-	Release Shaft (P/O PL 15.8 Item 25)
14	-	Front Release Arm (P/O PL 15.8 Item 25)
15	-	Spring Plate (P/O PL 15.8 Item 25)
16	-	Spring Plate (P/O PL 15.8 Item 25)
17	-	Plate (P/O PL 15.6 Item 1)
18	-	Retard Roll Chute (REP 15.8.1) (P/O PL 15.6 Item 1)
19	-	Retard Roll Drive Shaft (P/O PL 15.6 Item 1)
20	-	Bush (P/O PL 15.6 Item 1)
21	-	Bush (P/O PL 15.6 Item 1)
22	-	Spring (Coil) (P/O PL 15.6 Item 1)
23	-	Retard Roll (REP 15.8.1) (P/O PL 15.6 Item 1)
24	-	Gear (20T) (P/O PL 15.6 Item 1)
25	-	Exit Roll Assembly (DADF Only) (P/O PL 15.6 Item 1)
-	-	Exit Roll Assembly (ADF Only) (P/O PL 15.6 Item 1)

PL15.8  
25{1-16  
25{1-3,5-16



Lower  
Rear Right  
j0ch51508

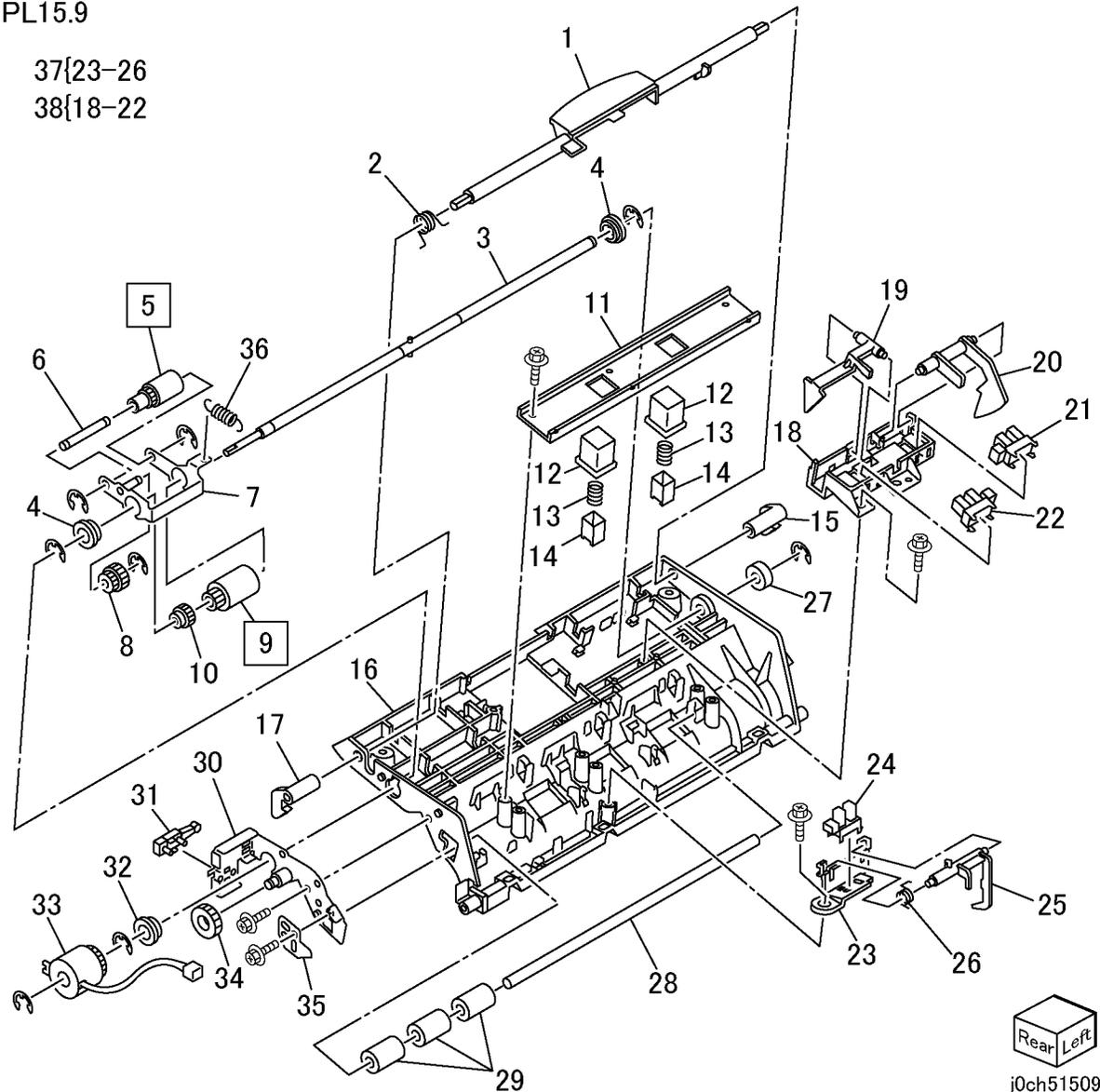
# PL 15.9 Upper Feeder Assembly

Item	Part	Description
1	-	Lock Lever (P/O PL 15.4 Item 1)
2	-	Spring (P/O PL 15.4 Item 1)
3	-	Main Shaft (P/O PL 15.4 Item 1)
4	-	Bearing (P/O PL 15.4 Item 1)
5	-	Pickup Roll (REP 15.9.1) (P/O PL 15.4 Item 1)
6	-	Pickup Roll Shaft (P/O PL 15.4 Item 1)
7	-	Housing (P/O PL 15.4 Item 1)
8	-	Gear (18T-22T) (P/O PL 15.4 Item 1)
9	-	Feed Roll (REP 15.9.1) (P/O PL 15.4 Item 1)
10	-	Gear (22T) (P/O PL 15.4 Item 1)
11	-	Plate (P/O PL 15.4 Item 1)
12	-	Spring Box (P/O PL 15.4 Item 1)
13	-	Spring (Coil) (P/O PL 15.4 Item 1)
14	-	Spring Housing (P/O PL 15.4 Item 1)
15	-	Front Lock Arm (P/O PL 15.4 Item 1)
16	-	Top Frame (P/O PL 15.4 Item 1)
17	-	Rear Lock Arm (P/O PL 15.4 Item 1)
18	-	Sensor Holder (P/O PL 15.9 Item 38)
19	-	Document Set Sensor Actuator (P/O PL 15.9 Item 38)
20	-	Document Feeder Width Sensor Actuator (P/O PL 15.9 Item 38)
21	-	Document Feeder Width Sensor (P/O PL 15.4 Item 1)
22	-	Document Set Sensor (P/O PL 15.9 Item 38) (P/O PL 15.4 Item 1)
23	-	Sensor Holder (P/O PL 15.9 Item 37)
24	-	Document Feed Sensor (P/O PL 15.4 Item 1)
25	-	Document Feed Sensor Actuator (P/O PL 15.9 Item 37)
26	-	Spring (P/O PL 15.9 Item 37)
27	-	Bearing (One Way) (P/O PL 15.4 Item 1)
28	-	Shaft (P/O PL 15.4 Item 1)
29	-	Registration Pinch Roller (P/O PL 15.4 Item 1)
30	-	Plate (P/O PL 15.4 Item 1)
31	-	DADF/ADF Top Cover Switch (P/O PL 15.4 Item 1)
32	-	Bearing (P/O PL 15.4 Item 1)
33	121K34460	Document Feed Clutch
34	-	Gear (20T) (P/O PL 15.4 Item 1)
35	-	Adjust Plate (P/O PL 15.4 Item 1)
36	-	Spring (P/O PL 15.4 Item 1)
37	-	Read Sensor Assembly (P/O PL 15.4 Item 1)
38	-	Document Set Sensor Assembly (P/O PL 15.4 Item 1)

PL15.9

37{23-26

38{18-22

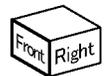
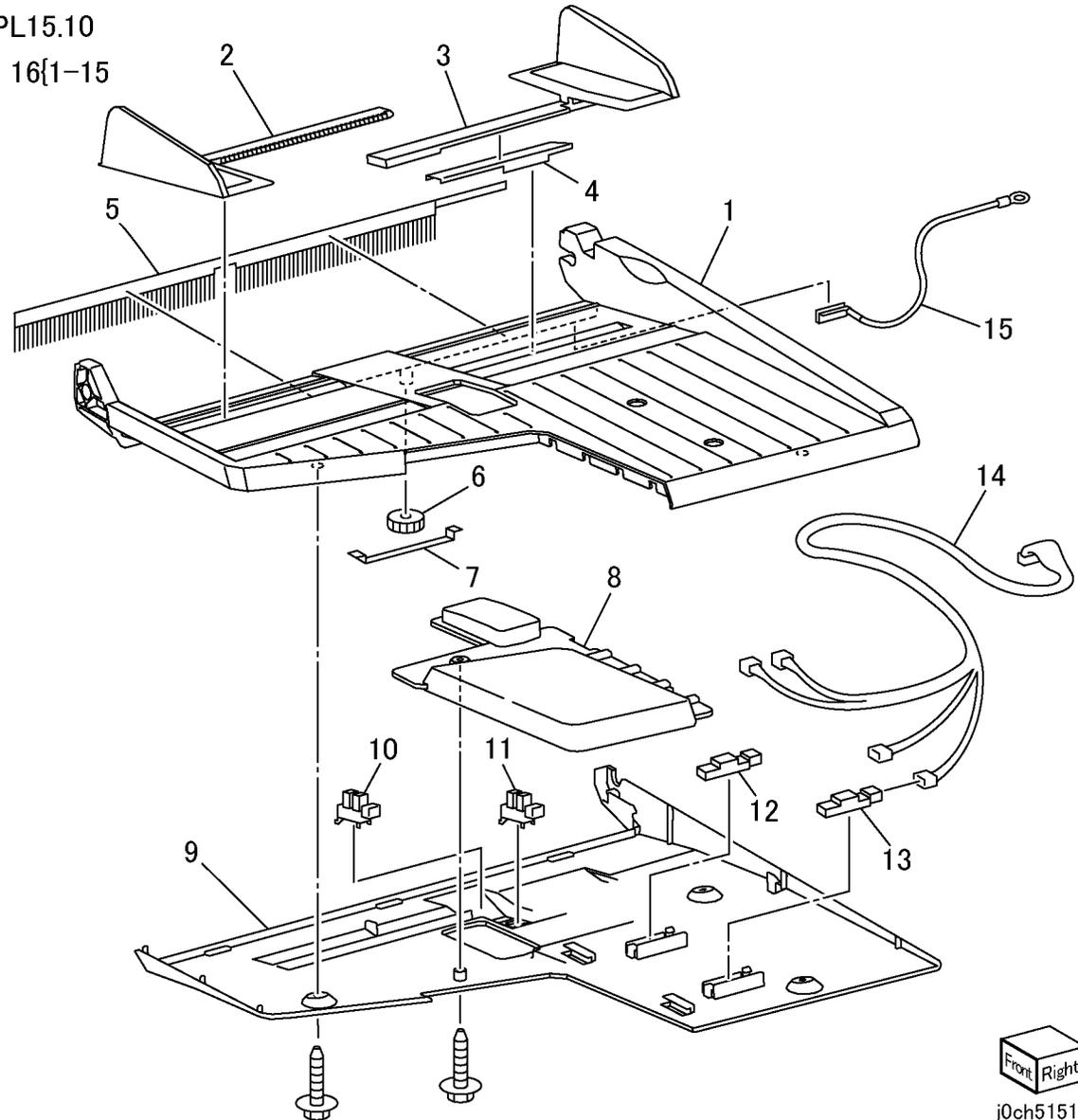


j0ch51509

# PL 15.10 DADF/ADF Document Tray

Item	Part	Description
1	-	Upper Document Tray (P/O PL 15.10 Item 16)
2	-	Front Side Guide (P/O PL 15.10 Item 16)
3	-	Rear Side Guide (P/O PL 15.10 Item 16)
4	-	Width Sensor Actuator (P/O PL 15.10 Item 16)
5	-	Eliminator (P/O PL 15.10 Item 16)
6	-	Pinion Gear (P/O PL 15.10 Item 16)
7	-	Pinion Spring (P/O PL 15.10 Item 16)
8	-	Clear Cover (P/O PL 15.10 Item 16)
9	-	Lower Document Tray (P/O PL 15.10 Item 16)
10	-	Document Tray Width Sensor 1 (P/O PL 15.10 Item 16)
11	-	Document Tray Width Sensor 2 (P/O PL 15.10 Item 16)
12	-	Document Tray Length Sensor 1 (P/O PL 15.10 Item 16)
13	-	Document Tray Length Sensor 2 (P/O PL 15.10 Item 16)
14	-	Wire Harness (P/O PL 15.10 Item 16)
15	-	Earth Plate (P/O PL 15.10 Item 16)
16	050K51140	Document Tray Assembly

PL15.10  
16[1-15]



j0ch51510

## Common Hardware

Item	Part	Description
A	112W27677	Screw (Red) (M3x6)
B	112W27678	Screw (M3x6)
C	112W27851	Screw (M3x8)
D	112W27898	Screw (M3x8)
E	113W15488	Screw (M2x4)
F	113W20678	Screw (M3x6)
G	113W20857	Screw (M3x8)
H	113W21278	Screw (M3x12)
J	113W21778	Screw (M3x18)
K	113W27688	Screw (M3x6)
L	113W36278	Screw (M4x12)
M	114W27678	Screw (M3x6)
N	141W35651	Setscrew (M4x6)
P	153W17688	Tapping Screw (M3x6)
Q	153W17888	Tapping Screw (M3x8)
R	153W18088	Tapping Screw (M3x10)
S	153W27678	Tapping Screw (M3x6)
T	153W27878	Tapping Screw (M3x8)
U	158W27655	Screw (M3x6)
V	158W27663	Screw (M3x6)
W	158W27677	Screw (Red) (M3x6)
X	158W27678	Screw (M3x6)
Y	158W27855	Screw (M3x8)
Z	158W27863	Screw (M3x8)
AA	158W27878	Screw (M3x8)
AB	158W28078	Screw (M3x10)
AC	158W28255	Screw (M3x12)
AD	158W28278	Screw (M3x12)
AE	158W35678	Screw (M4x6)
AF	220W21278	Nut (M3)
AG	271W21250	Dowel Pin (2.5x12)
AH	285W16251	Spring Pin (2x12)
AJ	285W28051	Spring Pin (3x10)
AK	354W15251	E-Clip (2)
AL	354W15278	E-Clip (2)
AM	354W21251	E-Clip (3)
AN	354W21278	E-Clip (3)
AP	354W24251	E-Clip (4)
AQ	354W24254	KL-Clip (4)
AR	354W24278	E-Clip (4)
AS	354W26278	E-Clip (5)
AT	354W27251	E-Clip (6)
AU	354W27254	KL-Clip (6)
AV	354W27278	E-Clip (6)
AW	354W28278	E-Clip (7)
AX	354W29251	E-Clip (8)
AY	354W29278	E-Clip (8)
AZ	251W21278	Washer (3) (t 0.5)
BA	113W27651	Screw (M3x6)
BB	112W27659	Screw (M3x6)
BC	113W16051	Screw (M2x10)
BD	113W20688	Screw (M2.5x6)
BE	113W27551	Screw (M3x5)
BF	141W27451	Setscrew (M3x4)
BG	153W15888	Tapping Screw (M4x12)
BH	153W16288	Tapping Screw (M4x12)
BJ	158W35878	Screw (M4x8)
BK	271W16050	Dowel Pin (2x10)
BL	285W16051	Spring Pin (2x10)
BM	153W17655	Tapping Screw (M3x6)
BN	153W17855	Tapping Screw (M3x8)
BP	252W29450	Nylon Washer (8) (t 1)
BQ	158W36255	Screw (M4x12)
BR	354W26251	E-Clip (5)
BS	153W27855	Tapping Screw (M3x8)
BT	113W20457	Screw (M3x4)
BU	113W27451	Screw (M3x4)
BV	113W20657	Screw (M3x6)
BW	112W35651	Screw (M4x6)
BX	112W27859	Screw (M3x8)
BY	158W28678	Screw (M3x16)
BZ	285W21851	Spring Pin (2.5x20)

# Part Number Index

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001E 66190	PL 11.3
003E 60950	PL 2.1
003E 61510	PL 12.1
	PL 13.1
003K 13550	PL 15.3
003K 13560	PL 15.3
004E 14200	PL 15.1
005K 05890	PL 12.3
	PL 12.3
	PL 13.3
005K 06760	PL 12.3
	PL 13.3
005K 07010	PL 13.3
005K 07190	PL 15.5
007E 79140	PL 1.1
007E 79150	PL 1.1
007E 79710	PL 7.2
007K 88574	PL 1.1
007K 88711	PL 13.6
007K 88721	PL 12.6
010E 93341	PL 12.2
	PL 13.2
011E 14582	PL 8.1
011E 14590	PL 8.1
011E 15150	PL 7.2
014E 44770	PL 12.3
	PL 13.3
014E 45350	PL 2.1
014E 51110	PL 12.1
	PL 13.1
019E 56551	PL 7.2
019E 57700	PL 2.2
019E 58440	PL 11.4
019K 98722	PL 2.2
	PL 7.2
022K 67680	PL 15.1
022K 67690	PL 15.1
032E 21060	PL 7.2
032K 96921	PL 4.2

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Part Number	Part List
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050K 49741	PL 7.1
050K 49840	PL 12.1
	PL 13.1
050K 50150	PL 2.1
050K 51140	PL 15.2
	PL 15.10
054E 22621	PL 13.1
054E 22622	PL 12.1
054E 23940	PL 2.4
054K 23940	PL 2.4
054K 24051	PL 2.5
054K 24060	PL 2.7
054K 26150	PL 2.7
054K 26190	PL 2.1
059E 98190	PL 12.4
059K 26250	PL 12.5
	PL 13.5
059K 26293	PL 13.3
059K 27141	PL 7.2
059K 27150	PL 7.2
059K 29553	PL 12.1
	PL 12.1
	PL 12.3
	PL 13.1
	PL 13.3
059K 31021	PL 2.4
059K 32772	PL 2.2
059K 33023	PL 8.1
059K 33030	PL 6.1
059K 33550	PL 6.1
059K 33880	PL 15.2
059K 33890	PL 15.2
059K 35890	PL 15.4
059K 35910	PL 15.4
059K 35920	PL 15.4
059K 35940	PL 15.6
062K 15270	PL 11.1
068K 24540	PL 11.1
090E 02380	PL 11.2
090E 91720	PL 11.2

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101K 46120	PL 9.3
101K 46340	PL 9.1
104E 94080	PL 9.1
105E 11410	PL 9.1
105E 11660	PL 9.1
105E 11670	PL 9.1
105E 12930	PL 11.1
110E 10620	PL 12.4
	PL 13.4
110E 11320	PL 9.1
110E 11550	PL 11.3
110E 11560	PL 11.2
110E 93440	PL 8.1
110E 94770	PL 2.5
	PL 9.1
110K 11680	PL 2.1
	PL 12.1
	PL 13.1
110K 11810	PL 4.2
117E 10550	PL 9.1
117E 22550	PL 9.1
117E 23870	PL 9.1
120E 21261	PL 8.1
120E 22121	PL 5.1
120E 22481	PL 12.3
120E 23790	PL 2.1
121E 92780	PL 7.2
121K 31530	PL 12.6
	PL 13.6
121K 32581	PL 2.3
121K 32660	PL 2.4
121K 34450	PL 15.5
121K 34460	PL 15.5
	PL 15.5
	PL 15.9
126K 16451	PL 5.1
126K 16461	PL 5.1
127K 37961	PL 6.2
	PL 6.3
127K 37970	PL 8.1

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127K 39430	PL 4.2
127K 39460	PL 6.3
127K 39470	PL 4.2
127K 40070	PL 11.4
127K 40110	PL 15.5
127K 40120	PL 15.5
130E 82740	PL 5.1
130E 87050	PL 11.2
130E 87070	PL 11.4
130K 61530	PL 4.2
130K 64121	PL 12.5
	PL 13.5
130K 64270	PL 2.4
130K 64471	PL 12.5
133K 23850	PL 9.2
152S 06000	PL 9.1
152S 06001	PL 9.1
152S 06002	PL 9.1
152S 06003	PL 9.1
160K 94225	PL 8.1
160K 95827	PL 9.1
160K 95830	PL 4.2
	PL 4.2
160K 97490	PL 12.6
160K 99145	PL 9.2
177E 91820	PL 11.5
177E 91830	PL 11.5
537K 68431	PL 9.2
537K 68980	PL 9.3
537K 69530	PL 9.3
604K 20460	PL 8.2
604K 20470	PL 8.2
604K 20500	PL 1.1
604K 20530	PL 12.3
	PL 13.3
604K 20540	PL 12.2
	PL 13.2
604K 20550	PL 2.1
	PL 12.1

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604K 20910	PL 3.1
801K 05762	PL 7.1
	PL 7.2
801K 15460	PL 15.2
802E 54750	PL 12.7
802E 54762	PL 12.7
802E 54771	PL 12.7
802E 55172	PL 8.1
802E 55211	PL 7.1
802E 55731	PL 10.2
802E 55770	PL 7.1
802E 55780	PL 10.2
802E 55791	PL 10.2
802E 55800	PL 10.2
802E 55815	PL 10.2
802E 55820	PL 10.2
802E 62590	PL 10.2
802E 64120	PL 11.7
802E 68620	PL 11.7
802E 68630	PL 15.2
802E 68640	PL 15.2
802E 68680	PL 15.4
802K 49240	PL 2.5
802K 53505	PL 12.4
802K 56094	PL 2.5
802K 56160	PL 10.1
802K 56170	PL 10.1
802K 57023	PL 13.4
802K 62050	PL 10.1
802K 63590	PL 2.5
802K 64640	PL 11.7
802K 64860	PL 10.1
802K 66230	PL 11.1
802K 66240	PL 11.1
802K 66570	PL 11.7
802K 71860	PL 11.7
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809E 27650	PL 2.2
809E 37170	PL 8.1
809E 38160	PL 7.1
809E 42201	PL 5.1
815E 08650	PL 11.2
830E 45710	PL 12.4
849E 13981	PL 2.7
893E 16030	PL 2.1
893E 17540	PL 11.1
893E 17550	PL 11.1
893E 20820	PL 13.1
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893E 30150	PL 11.1
930W 00103	PL 2.1
	PL 6.3
	PL 7.1
	PL 8.1
	PL 12.3
	PL 12.3
	PL 13.3
	PL 13.3
960K 02580	PL 9.3
960K 02590	PL 9.3
960K 02720	PL 11.6
960K 02730	PL 11.7
960K 02740	PL 15.3
960K 05230	PL 11.6
960K 05240	PL 11.6
960K 06520	PL 11.6
960K 07500	PL 13.6
960K 08770	PL 11.6
962K 13120	PL 7.1
962K 15270	PL 9.4
962K 15280	PL 9.4
962K 15290	PL 9.4
962K 15300	PL 9.4
962K 15311	PL 9.4
962K 15321	PL 9.4

**Table 1 Part Number Index**

<b>Part Number</b>	<b>Part List</b>
962K 15350	PL 9.4
962K 18171	PL 12.5
962K 18900	PL 12.5
962K 18940	PL 9.4
962K 19000	PL 9.4
962K 19691	PL 13.3
962K 19692	PL 12.3
962K 25030	PL 15.3
962K 28290	PL 11.2
962K 30590	PL 9.3

# 6 General Procedures Information

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## Entering Diagnostic Mode

### Procedure

- Press and hold the **0** button and then press the **Start** button.

**NOTE:** The colors on the display are reversed to indicate Diagnostic Mode.

If diagnostics cannot be entered, press the **Clear All** button, then perform this procedure again.

Copies can be made from this screen.

## Exiting Diagnostic Mode

### Procedure

- Switch the power off and on.

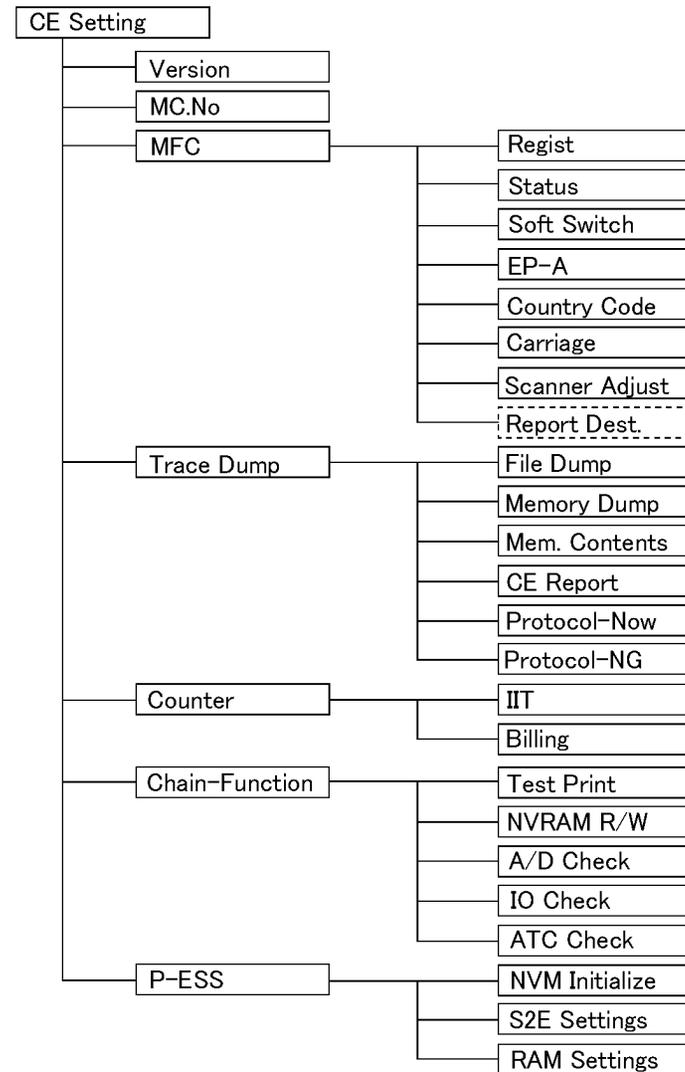
## CE Settings

CSE diagnostic activities can be selected from the CE Settings screen.

### Procedure

1. Enter Diagnostic Mode (refer to Entering Diagnostic Mode ).
2. Press the **Log in/Out** button.
3. Select **System Settings**.
4. Select **CE Settings** and press the **Enter** button.

**NOTE:** Map of routines within CE Settings (Figure 1).



j0ch61010

Figure 1 Diagnostic Menu (j0ch61010)

## Version

The following software versions are displayed on the UI.

Ref.: The following items are stated on CE Report as well.

**Table 1**

Display Name	Description	Example of Display
MFC	Displays a MFC version.	043
MCU	Displays a MCU version.	1101
DUP	Displays a Duplex Tray Module version.	1102
STM	Displays a Single Tray Module version.	0902
2TM	Displays a Two-Tray Module version.	0902
Language	Displays a Language ROM version.	AAAAAAAAAA

## MC. No

The MC No. of IOT is displayed.

Ref.: The following items are stated on CE Report as well.

**Table 1**

Item Name	Description	Example of Display
MC No.	Serial No.	180007TL200141
MC Code	Product Code	TL200141

\* An entry is made in a specific Chain-Func



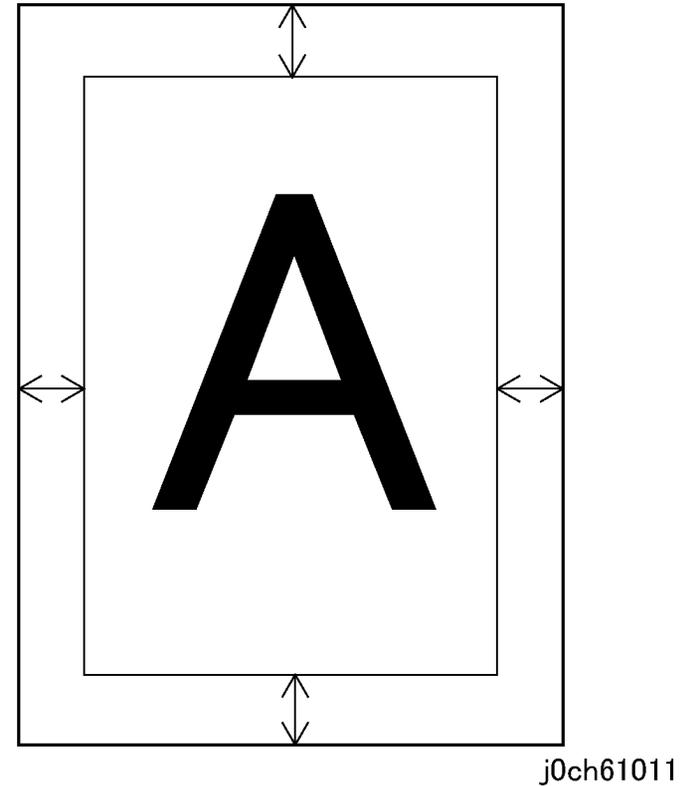
## Regist

The function of adjusting the scanner (IIT)

Each of the Platen, ADF and DADF has the regist correction function and the magnification correction function. The adjustment is reflected in all the copy, fax and scanner functions.

Enter an appropriate Func No. and adjust the value, using +/-.

1. See Regist Correction ADJ 11.1.2, ADJ 15.1.2, and ADJ 15.1.3.  
Regist Correction adjusts a scanning position.  
DADF has settings for side 1 and side 2 each.
  - Platen:
  - ADF:
  - DADF:
2. See Magnification Correction ADJ 11.1.3.  
Magnification Correction adjusts a scanning magnification ratio.
  - Platen:
  - ADF:
  - DADF:
3. Regist Loop Amount Adjustment  
The function of adjusting a document loop amount when ADF or DADF scans a document.
  - ADF:  
Regist Loop Amount Adjustment
  - DADF:  
Regist Loop Amount Adjustment (simplex)  
Regist Loop Amount Adjustment (duplex)
4. Document Erase Width Adjustment  
The function of adjusting an erase amount on every side based on a preset value, in order to erase the shadow of a document.  
“<- ->” shows the width of each side to be erased.  
The gray zone is available for scanning.



**Figure 1 Document Erase (j0ch61011)**

Document Erase Amount Adjustments in Platen, ADF and DADF are performed following the adjustment ranges.

The adjustment is reflected in the Copy, Fax and Scan To E-mail functions.

## Status

Device Configuration Display

This displays how the device is configured, it includes which options are installed or not.

**Table 1**

Func	Name	DC	C+P	C+F	C+P+F	Display	Remarks
011	Memory	O	O	O	O	NNN	Displayed in MB (mega-bytes)(The unit of MB not stated)
012	IIT	O	O	O	O	0/1/2	Not installed / ADF / DADF
013	Duplex Record Unit	O	O	O	O	0/1	Not installed / Installed
014	Additional Tray 2	O	O	O	O	0/1	Not installed / Installed
015	Additional Tray 3	O	O	O	O	0/1	Not installed / Installed
016	Additional Tray 4	O	O	O	O	0/1	Not installed / Installed
017	OCT	O	O	O	O	0/1	Not installed / Installed
018	MSI	O	O	O	O	0/1	Not installed / Installed
019	P-ESS	X	O	X	O	0/1	Not installed / Installed
020	Printer Speed	O	O	O	O	NN	Displayed in ppm.
031	Stamp Option	X	X	O	O	0/1	Not installed / Installed
032	Fax Option	X	X	O	O	0/1	Unavailable / Available

\*N stands for a number.

\*The items marked with "x" in the models are also displayed, with "0" fixed.

Scanner (IIT) Sensors Check

The function of checking that the sensors of IIT are in normal condition.

The status of each sensor is displayed in 0/1.

**Table 2 IIT has the following sensors.**

Func	Scanner (IIT) Name	Sensor Name	Display	Remarks
041	ADF/DADF	Document Set Sensor	0/1	0:OFF/1:ON
042	ADF/DADF	Document Feeder Width Sensor 1	0/1	0:OFF/1:ON
043	ADF/DADF	Document Tray Width Sensor 1	0/1	0:OFF/1:ON
044	ADF/DADF	Document Tray Width Sensor 2	0/1	0:OFF/1:ON
045	ADF/DADF	Document Tray Length Sensor 1	0/1	0:OFF/1:ON
046	ADF/DADF	Document Tray Length Sensor 2	0/1	0:OFF/1:ON

**Table 2 IIT has the following sensors.**

Func	Scanner (IIT) Name	Sensor Name	Display	Remarks
051	ADF/DADF	Document Feed Sensor	0/1	0:OFF/1:ON
052	ADF/DADF	Document Lead Edge Sensor	0/1	0:OFF/1:ON
053	ADF/DADF	Invert Sensor	0/1	0:OFF/1:ON DADF only (ADF:"0")
054	ADF/DADF	DADF/ADF Top Cover Switch	0/1	0:OFF/1:ON
055	Platen	Carriage Sensor	0/1	0:OFF/1:ON
056	Platen	Platen Open Switch	0/1	0:OFF/1:ON
057	Platen	Platen Angle Sensor	0/1	0:OFF/1:ON

## Soft Switch (IOT/IIT/FAX)

The function of changing functional settings which do not normally require to be changed. Soft Switch setting is displayed for every mode.

Select a specific mode you want to make a change to and make the change in Bit (Hex is unavailable).

The value available for entry is "0" or "1".

## Procedure

1. Enter CE Settings > MFC > Soft Switch, then select [MODE] and enter MODE No.
2. Select [Bit], then move [V] to the appropriate Bit No. using the arrow button.
3. Enter 1 or 0 using the Key button.  
The location of [V] is moved from larger Bit No. to smaller one.
4. Push the Enter button.

**Table 1 Soft Switch**

MODE	Bit	Name	DC/CP	CF/CFP	KO/CO	Remarks
000	7~0	Auto Clear	0	0	0	Enables/disables auto clear and sets the time after copying or after the last operation before auto clear. 00000000: Disable, 00000001: 1min, 00000010: 2min, 00000011: 3min, 00000100: 4min
001	7~0	Notification Tone - Duration	0	0	0	Sets the time to notify before auto clear or entering Sleep mode. 00000001: 1sec to 00000101: 5sec to 00001010: 10sec
002	7~0	Scanning Timer	0	0	0	Sets the time for displaying whether there is a next page during Platen Scan. Supported operations: Fax/Copy/Scan. 00000001: 1sec to 00000100: 4sec to 00010100: 20sec
003	7~0	Time before repeating operation	0	0	0	Sets the time before repeating operations (the time from the first Bit to the second Bit) when the button is pressed. 1Bit=100ms increments. 00000011: 3x(100ms) to 11001000: 200x(100ms)
004	7~0	Interval before repeating operation	0	0	0	Sets the interval between repeating operations (the time from the second Bit to the next Bit) when the button is pressed. 1Bit=100ms increments. 00000001: 1x100ms to 11001000: 200x100ms
005	0	Sleep mode message	0	0	0	Sets whether to display a message before entering Sleep mode. 0: Do not display, 1: Display
005	1	Auto Clear message	0	0	0	Sets whether to display a message before Auto Clear. 0: Do not display, 1: Display
005	4~2	Panel Alert Tone	0	0	-	Sets Panel Alert tone on/off. Panel Alert tone applies when an invalid control panel button is pressed. 000: Off, 001: On
005	7~5	Panel Select Tone	0	0	-	Sets Panel Select tone on/off. Panel Select tone applies: (1) When a valid control panel button is pressed. (2) When an original is detected. 000: Off, 001: On
006	0	Repeating Operation	0	0	0	Sets whether to enable repeating operations. This applies to the following buttons: [->][<-] (left/right direction keys). Copy/ Reduce/Enlarge Screen. Copy/Enlarge Screen. Copy/Reduce Screen. System Settings/Copy Settings - Reduce/Enlarge Screen. Edit Screen. [^][v] (up/down. direction keys). FAX/ Speed Dial. FAX/Bulletin Board. FAX/Mailbox. E-mail/Sender. FAX Registration/Destination. FAX Registration/FAX Program. FAX Registration/Bulletin Board. FAX Registration/Mailbox. System Settings/ Auditorion Administration/Confirmation. System Settings/FAX Settings - System Administrator Transfer - Forward to System Settings/FAX Settings - Receive Settings - Transfer Document - Forward to System Settings/FAX Settings - Incoming F Code - Incoming F Code System Settings/FAX Settings - Incoming F Code - Transfer Document. 0: Disable, 1: Enable
006	3	Machine Ready Tone	0	0	0	Sets Machine Ready tone on/off. Machine Ready tone applies when the machine is ready to copy. 0: Off, 1: On
006	4	Job Complete Tone	0	0	0	Sets Job Complete tone on/off. Job Complete tone applies when Copy or FAX jobs are completed successfully. 0: Off, 1: On
006	5	Base Tone	0	0	0	Sets base tones on/off. Base tones apply: (1) When default settings are restored in a toggle menu. (2) When restoring from Power Saver mode. (3) When changing modes. 0: Off, 1: On
007	4	Alert (Loud) (Alert Tone)	0	0	0	Sets alert tone on/off. Alert tone applies: (1) When jams occur or toner requires replacement. (2) When communications have ended abnormally. 0: Off, 1: On
007	6	Alert 2 (Soft) (Low Toner Alert)	0	0	0	Sets low toner alert on/off. Low toner alert applies when toner level is low. 0: Off, 1: On
007	7	Alert 1 (Soft) (Notification Tone)	0	0	0	Sets notification tone on/off. Notification tone applies when notifying before auto clear and before entering Power Saver mode. 0: Off, 1: On

Table 1 Soft Switch

MODE	Bit	Name	DC/CP	CF/CFP	KO/CO	Remarks
008	7~0	Sleep mode	O	O	O,1~239min	Sets the time before entering Sleep mode in Low Power mode. 1min increments. The 0min (Off) setting is only available in Power Conserve mode. Set the time such that the combined time for Low Power mode and Sleep mode is 240min. 00000000: 0min (Off), 00000001: 1min to 11101111: 239min
009	7~0	Low Power mode	O	O	O,1~60min	Sets the time before entering Low Power mode when the machine is idle. 1min increments. The 0min (Off) setting is only available in Power Conserve mode. Set the time such that the combined time for Low Power mode and Sleep mode is 240min. 00000000: 0min (Off), 00000001: 1min, 00001110: 14min, 00111100: 60min
010	2~0	Screen Contrast	O	O	O	Sets the contrast of the control panel LCD. 000: Lighten, 001: Light, 010: Standard, 011: Dark, 100: Darken
019	0	Country Code	O	O	O	Sets whether to display the Country Code on the Common Settings for the customer. 0: Do not display 1: Display
019	4	Billing Meter	O	O	-	Sets whether to display the Billing Meter. If this is set at [1: Do not display], MODE019 Bit5 [Previous Meter Reading] will not be displayed. 0: Display, 1: Do not display
019	5	Previous Meter Reading	O	O	-	Sets whether to display the previous meter reading in the meter display screen during EP-A connection. This setting is available only when MODE019 Bit4 [Billing Meter] is set at [0: Display]. 0: Display, 1: Do not display
023	0	A4/Letter Switch	O	O	-	Sets whether to display A series or inches series first when selecting paper supply, i.e. to display A4 (A5) or 8.5x11" (8.5x5.5") for fixed ratios and reports printing. 0: A4, 1: Letter
023	1	mm/inch Entry Switch	O	O	-	Sets whether to enter measurements in mm or inches for manual feeding. 0: mm, 1: inch
023	3	Original Detection Size Switch H	O	O	-	Sets whether to detect a B5LEF original as [B5LEF] or [K16LEF] during DADF/ADF scan, mixed-size original scans or when retrieving FAX documents. 0: B5LEF, 1: K16LEF
023	4	Original Detection Size Switch F	O	O	-	Sets whether to detect a B4SEF original as [B4SEF] or [K8SEF] during DADF/ADF scan, mixed-size original scans or when retrieving FAX documents. 0: B4SEF, 1: K8SEF
023	5	Original Detection Size Switch B	O	O	-	Sets whether to detect Legal as [8.5x13"] or [8.5x14"] when setting detection size [inch13-1] in IIT (Inch) in Platen mode. 0: 8.5x13", 1: 8.5x14"
023	6	Original Detection Size Switch A	O	O	-	Sets whether to detect an original as [A5SEF(5.5x8.5"SEF)] or [PostCard L] in Platen mode. 0: A5SEF/5.5x8.5"SEF, 1: PostCard L
026	1	Password Display Method	O	O	-	Sets whether to display password as "*" or display the password as entered when entering password in the UI or in reports. 0: Display "*", 1: Display password
032	3	Automatic Tray (ATS)	O	O	O	Sets whether to enable automatic output using paper of the same size, quality and direction when the designated tray is out of paper. 0: Disable, 1: Enable
033	7~3	Reduce/Enlarge	O	O	O	Sets the initial values for Reduce/Enlarge during copy. If this is set to "Auto", the machine will automatically set Reduce/Enlarge according to the original. When setting Preset Reduce/Enlarge, follow the value set in [MODE034, Bit7-0]. 00000: Auto, 00001: 100%, 00010: Preset Reduce/Enlarge, 00100: 70%, 00101: 81%, 00110: 86%, 01000: 115%, 01001: 122%, 01010: 141%
032	7~4	Paper Supply (APS)	O	O	O	Sets the initial settings for the output tray when selecting paper supply. If this is set to "Auto", the machine will select the most appropriate size. 0000: Auto, 0001: Tray1, 0010: Tray2, 0011: Tray3, 0100: Tray4
034	7~0	Preset Reduce/Enlarge	O	O	O	Sets Preset Reduce/Enlarge. 00110010: 50% to 01100100: 100% to 11001000: 200%
035	0	Offset Stacking	O	O	-	0: Disable when OCT is installed, 1: Enable when OCT is installed
035	1	Image Rotation	O	O	O	Sets whether to enable automatic image rotation copying according to the original. 0: Disable, 1: Enable
035	3~2	Auto Level Adjustment	O	O	O	Adjusts the density set in "Auto" for copy print density. 00: Darken, 01: Standard, 11: Lighten

Table 1 Soft Switch

MODE	Bit	Name	DC/CP	CF/CFP	KO/CO	Remarks
035	7~4	Density Adjustment (Manual Adjust - Copy Settings)	○	○	○	Sets copy print density. If this is set to "Auto", the machine will automatically set a copy print density according to the original. 0000: Auto, 0001: Density 1 (Lighten), 0010: Density 2 (Light), 0011: Density 3 (Normal), 0100: Density 4 (Dark), 0101: Density 5 (Darken)
036	3~0	Original Type	○	○	○	Sets initial settings for original type. 0000: Text & Photo, 0100: Text, 1000: Photo
036	5~4	2 Sided Copy Setting	○	○	○	Sets the initial setting for 2 sided copies. 01/11: If the DUP (2 sided Registration Unit) is unavailable, setting is prohibited. 10/11: If the DADF is unavailable, setting is prohibited. 00: 1->1 Sided, 01: 1->2 Sided, 10: 2->1 Sided, 11: 2->2 Sided
036	7~6	Output	○	○	○	Sets the initial setting for sorting multiple sets. If this is set to "Auto", in both ADF (DADF) and Platen mode, it will be set to [Collate]. 00: Auto, 01: Disable, 10: Enable
037	0	Special Density Adjustment (Copy)	○	○	-	Sets whether to enable special density adjustment. (When this is set with Image Quality set to [Text] and Density set to [Dark], the machine will scan according to the value set in MODE038 Bit7-0.) 0: Disable, 1: Enable
037	1	ADF Copy Image Quality Setting (Black Streak Adjustment)	○	○	-	Sets whether to enable black streak adjustment for DADF/ADF scans. 0: Standard (Black streak adjustment disabled), 1: Enable
038	7~0	TRP (Tracing Paper) Value	○	○	-	Special Density setting when MODE037 Bit0 (Special Density Adjustment ) is set to [1: Enable]. 00000000: [00h] to 10000000: [80h] to 11111111: [FFh]
055	1	Redial Attempt Setting (From UI)	-	○	-	Sets whether to enable customized redial attempt settings. 0: Disable customized settings, 1: Enable customized settings  Note: If this is set to [0], KO settings for MODE 194 Bit7-4 and MODE195 Bi7-4 will not be available. XC: Initial value: [0]
055	2	TSI/CSI Registration Screen	-	○	-	Sets whether to enable customized local terminal number settings. 0: Enable customized settings, 1: CE mode settings only (Customized settings disabled)  Note: If this setting is changed to "CE mode settings only", the KO settings screen will not be displayed and this operation will only be available in CE mode. XC: Initial value: [1]
056	1~0	Priority Screen	-	○	○	Sets mode to display when starting up. (Not including restoring from Sleep mode) 00: FAX, 01: COPY
057	5	Daylight Savings	-	○	○	Sets Daylight Savings operation on/off. If this is set to [1: Enable], set the start and end date in the UI. 0: Disable, 1: Enable
057	7~6	Date/Time	-	○	○	Sets the Date/Time display for MFC UI, reports and sender information. 00: y/m/d, 10: d/m/y, 11: m/d/y
066	7~5	Line Monitor Volume	-	○	○	Sets Line Monitor Volume on/off. Line Monitor Volume applies when dialing and establishing communications. The value set in MODE120 Bit4 determines the monitor gradations. 000: Off, 001: On
072	1	Multiple-Up Send Size	-	○	-	Sets whether to send 2 Up originals in A4 or send according to detected size. 0: Auto reduction, 1: Original size
072	2	F Code Capability	-	○	-	Sets whether to enable F Code capabilities during G3 communications. 0: Disable, 1: Enable
072	7~5	Dialed ID Display Order Setting	-	○	-	Sets the display/print order of destination IDs in screens/reports. 1: One-touch dial names, 2: One-touch dial numbers, 3: Dialed number (full number), 6: Standard ID (TSI/CIG number), 000: Display pattern 1: 1->2->3->6, 001: Display pattern 2: 6->1->2->3, 010: Display pattern 3: 1->2->3->6, 011: Displays [CSI]->[Dialed number], 100: Display pattern 4: 3->2->1->6, 101~: Setting is prohibited
074	0	Receive in Memory Setting	-	○	-	Sets whether to receive in memory. This setting is only available when MODE075 Bit1 and MODE075 Bit0 are set to [1: Enable]. 0: Disable, 1: Enable
075	0	Toner Empty Receive in Memory	-	○	-	Sets whether to receive (in memory) after toner empty notification. 0: Disable, 1: Enable
075	1	Drum Life Notification Receive in Memory	-	○	-	Sets whether to receive (in memory) when drum life notification occurs. 0: Disable, 1: Enable

**Table 1 Soft Switch**

MODE	Bit	Name	DC/CP	CF/CFP	KO/CO	Remarks
077	0	Received Fax Print Setting	-	0	-	Sets when to start printing received faxes. 0: Start printing after receiving the first page, 1: Start printing after receiving all pages
078	5~4	Status Report for System Administrator Transfer	-	0	-	Sets whether to enable status report output for system administrator transfer when MODE078 Bit078 is set to [Enable (1)]. 00: Do not print, 01: Print if unsuccessful, 10: Always print
078	7	System Administrator Transfer	-	0	0	Sets whether to enable system administrator transfer. 0: Disable, 1: Enable
080	0	Delayed Start	-	0	0	0: Set, 1: Do not set
080	1	Send	-	0	0	0: Send from memory (Quick send), 1: Direct send
080	5~4	Sender and Attachments Setting	-	0	0	Sets whether there is a sender and attachment locations. 00: Disable attachments, 10: Enable attachments (Outside document), 11: Enable attachments (Inside document)
080	7~6	Stamp	-	0	0	Sets stamp position and stamp on/off. 00: Off, 10: On (Top and back ends), 11: On (Back end only)
081	0	Recipient Name	-	0	0	0: Do not insert, 1: Insert
081	3~1	Default Settings for Document Density (FAX)	-	0	0	Sets the initial setting for document send density. 000: Lighten, 001: Light, 010: Normal, 011: Dark, 100: Darken
081	7~4	Default Settings for Image Quality (FAX)	-	0	0	Sets the initial setting for the quality of a fax document. 0001: Text, 0010: Fine, 0100: Super Fine, 0101: Halftone, 0111: Super Halftone, 1000: Superfine Halftone
083	6~0	Limit Recipient Print Sets	-	0	-	Sets a sender defined restriction on the number of sets printed by the recipient. 0000001: 1 set to 1100011: 99 sets
086	1~0	G3 FAX Mode: Print Received Date/Time	-	0	0	00: Do not print, 10: Print (Inside document), 11: Print (Outside document)
087	3~0	Sender Initial Settings	-	0	0	Sets initial settings for additional senders. 0000: Sender Name 1, 0001: Sender Name 2
088	0	Print Start/Stop Timer	-	0	0	0: Timer OFF, 1: Timer ON
090	4	Receive Multiple-Up	-	0	0	0: Do not receive 2 Up, 1: Receive 2 Up
090	6~5	Image Rotation (Receive)	-	0	0	00: Do not log rotation, 01: Log rotation
090	7	Image Rotation (Send)	-	0	0	0: Disable, 1: Enable
091	5~4	2 Sided Originals Binding Location	-	0	0	00: Head to toe, 01: Head to head
092	1	Accumulative Parameter Limit for Memory Send	-	0	-	Sets whether to limit the accumulative parameter for memory sending. Do not limit: Resolution: All functions enabled, Image size; Fast scan direction: A3, Slow scan direction: Unrestricted. Limit: When adjusting midway through processing, if reception in the destination machine is not complete, the data will be saved in A4 for both fast and slow scans. In machines that have completed reception of the data, but do not have 16x15.4" capabilities, data will be saved as 8x7.7". 0: Do not limit, 1: Limit
092	2	FAX Memory Near Full Capacity	-	0	-	Sets the value to detect as FAX memory near full. Values below the set value are detected as near full. 0: 256Kb, 1: 512Kb
092	3	Reduce Setting for Ledger/Letter FAX Scan	-	0	-	Sets to reduce when Ledger (11x17") is scanned to Letter T (8.5x11") during FAX. 0: Reduce by 64%, 1: Reduce by 77%
094	1	Log Repeated Text	-	0	-	Set whether to enable repeated text. All repeated text is set at 4mm thick. This switch is only available in FAX printing. 0: Disable repeated text, 1: Enable repeated text
097	4	Facsimile Log Selection Restriction (Level 4)	-	0	0	0: Restrict, 1: Allow
097	5	Facsimile Log Selection Restriction (Level 3)	-	0	0	0: Restrict, 1: Allow
097	6	Facsimile Log Selection Restriction (Level 2)	-	0	0	0: Restrict, 1: Allow
101	7~5	Received Log Paper Size	-	0	-	000: Disable, 001: Auto, 010: A4, 011: B4, 100: A3, 101: Enable Auto Rotation

**Table 1 Soft Switch**

MODE	Bit	Name	DC/CP	CF/CFP	KO/CO	Remarks
102	1	Log Process - Auto Reduce On (Reduce) / Off (Cut Off Tail Edge)	-	O	O	0: Enable reduce (Reduce and cut off), 1: Disable reduce (Cut off)
102	4~2	Upper Limit of Reduce Ratio for Received Image	-	O	O	000: 100%, 001: 95%, 010: 90%, 011: 85%, 100: 80%, 101: 65%, 110: 60%
102	7~5	Preset Tail Edge Cut Off Length Limit	-	O	O	000: 0mm , 001: 8mm, 010: 12mm, 011: 14mm, 100: 18mm, 101: 20mm, 110: 24mm
103	6~3	Received Image Log Paper Size Selection	-	O	O	0000: Standard, 0100: Disable large widths, 1000: Same width only
103	7	Received FAX Log Detection	-	O	O	Sets whether to process according to log order or cassette order when selecting the Received Log Paper Size. The following is a description of the above settings. (1) Log order Detects whether there is a log. (2) Cassette order Regardless of whether there is a log, the machine detects according to the designated cassette sizes or detects the most recent log. This switch is available only in FAX printing. 0: Log order, 1: Cassette order
120	3	Error Code Display (LCD, Report)	-	O	-	Sets whether to display error codes in LCD or reports. If this is set to [Do not display], 6 Digits error codes will not be displayed in reports. Error codes with names such as "No response" will always be displayed. 0: Do not display, 1: Display
120	4	Line Monitor Gradation	-	O	-	Sets the gradation for line monitor processing during G3 communications. 0: Phase A, 1: All phases
122	2	Managing History for Broadcast	-	O	-	Sets whether to display status for each individual recipient or combine all histories into one report when broadcasting activity and status reports. 0: Combined, 1: Individual
122	3	Power Off Report Output	-	O	O	Sets whether to print a Power Off Report. 0: Do not print, 1: Print
122	6~5	Transmission Report Output	-	O	O	Sets the conditions to print a Transmission Report after every operation. If nothing is set by the operator, this switch will determine whether to print a Transmission Report after sending. 00: Do not print , 01: Print if unsuccessful, 10: Always print
122	7	Auto Activity Report Output	-	O	O	Sets whether to automatically print an Activity Report (send/receive) for every 50 messages. 0: Disable, 1: Enable
123	3	Merged Image Transmission Report	-	O	O	Sets whether to process merging for reports with merged images. 0: Restrict, 1: Allow
123	7~6	Transmission Report for Broadcast	-	O	O	Sets the conditions to print a Transmission Report for every operation during broadcast. If this is set to [As Transmission Report settings], either MODE122 Bit6-5 or the operator will determine the setting. Otherwise, this switch will determine the setting. 00: Do not print, 01: Print if unsuccessful, 10: Always print, 11: As Transmission Report settings
130	3~1	Default Settings for Density (E-mail)	-	O	O	000: Lighten, 001: Light, 010: Normal, 011: Dark, 100: Darken
130	7~4	Default Settings for Resolution (E-mail)	-	O	O	0010: Text 200dpi, 0100: Text 400dpi, 0101: Photo 200dpi, 0111: Photo 400dpi, 1000: Text/Photo 400dpi , 1010: Text 600dpi, 1100: Photo 600dpi, 1110: Text/Photo 600dpi
131	4~0	Scan Size (E-mail)	-	O	O	00000: Auto, 00001: A3SEF, 00010: B4SEF, 00011: A4SEF, 00100: A4LEF, 00101: B5SEF, 00110: B5LEF, 00111: A5SEF, 01000: A5LEF, 01001: B6SEF, 01010: A6SEF, 10001: 11x17" SEF, 10010: 8.5x14" SEF, 10011: 8.5x13" SEF, 10100: 8.5x11" SEF, 10101: 8.5x11" LEF, 10110: 5.5x8.5" SEF, 10111: 5.5x8.5" LEF, 11001: 8K SEF , 11010: 16K LEF, 11011: Executive LEF
131	5	Reduce/Enlarge (E-mail)	-	O		0: 64%, 1: 78%
131	7~6	File Format	-	O	O	00: TIFF, 01: PDF, 10: XDW
132	3	Merged Image Transmission Report	-	O	O	0: Restrict, 1: Allow
132	5~4	Transmission Report for Broadcast (E-mail)	-	O	O	00: Do not print, 01: Print if unsuccessful, 10: Always print, 11: As Status Report settings

Table 1 Soft Switch

MODE	Bit	Name	DC/CP	CF/CFP	KO/CO	Remarks
132	7~6	Transmission Report (E-mail)	-	O	O	00: Do not print, 01: Print if unsuccessful, 10: Always print, 11: Disable
156	2	Facsimile Network Contract (PSTN1)	-	O	-	0: No, 1: Yes
156	4	Extension/Outside Line (PSTN1)	-	O	-	0: Extension, 1: Outside line
156	7~5	Tone/Pulse Switch (PSTN1)	-	O	O	000: Pulse (10pps), 001: Tone, 010: Pulse (20pps)
159	5~2	Outside Line Dial Numbers (PSTN1)	-	O	O	0000: 0, 0001: 1, 0010: 2, 0011: 3, 0100: 4, 0101: 5, 0110: 6, 0111: 7, 1000: 8, 1001: 9, 1010~: Setting is prohibited
159	6	Outside Line Dial Detection Method (PSTN1)	-	O	-	0: Dialed numbers search, 1: Pause search
159	7	Send Method (PSTN1)	-	O	-	0: Insert pause after connecting outside line, 1: Insert pause after first dial
192	7~3	Auto Receive - Access Attempt	-	O	O	Sets the ring count for auto receive. The ring count is the number of times the machine will ring before it automatically receives the call. There is a break between every ring. 00001: 1 times to 10100: 20 times
193	3	Limit for Number of Rings Before Auto Receive	-	O	-	PTT compatible function This setting also applies to automatic receiving. 0: Do not limit (1~20 rings), 1: Limit (2~4 rings)
194	3~0	Redial Interval 2	-	O	-	0001: 1min, 0010: 2min, 0011: 3min, 0100: 4min, 0101: 5min, 0110: 6min, 0111: 7min, 1000: 8min, 1001: 9min, 1010: 10min, 1011: 11min, 1100: 12min, 1101: 13min, 1110: 14min, 1111: 15min
194	7~4	Redial Interval 1	-	O	O	0001: 1min, 0010: 2min, 0011: 3min, 0100: 4min, 0101: 5min, 0110: 6min, 0111: 7min, 1000: 8min, 1001: 9min, 1010: 10min, 1011: 11min, 1100: 12min, 1101: 13min, 1110: 14min, 1111: 15min
195	3~0	Redial Attempt Setting 2	-	O	-	0000: 0, 0001: 1 time, 0010: 2 times, 0011: 3 times, 0100: 4 times, 0101: 5 times, 0110: 6 times, 0111: 7 times, 1000: 8 times, 1001: 9 times, 1010: 10 times, 1011: 11 times, 1100: 12 times, 1101: 13 times, 1110: 14 times, 1111: 15 times
195	7~4	Redial Attempt Setting 1	-	O	O	0000: 0, 0001: 1 time, 0010: 2 times, 0011: 3 times, 0100: 4 times, 0101: 5 times, 0110: 6 times, 0111: 7 times, 1000: 8 times, 1001: 9 times, 1010: 10 times, 1011: 11 times, 1100: 12 times, 1101: 13 times, 1110: 14 times, 1111: 15 times
198	7~6	Resend Document Attempt Setting	-	O	-	00: 0, 01: 1 time, 10: 2 times, 11: 3 times
209	1	External Telephone mode	-	O	-	Enable/disable [Start] button when external telephone is busy. 0: Enable [Start], 1: Disable [Start]
269	7~0	Tone High/Low Level Setting	-	O	-	Sets the gap for tones between high and low levels. 00000000: 2.0dB, 11111111: 2.5dB
432	7~6	Pulse Make % (PSTN1)	-	O	-	Sets the Make % of the pulse signal. 00: 33%, 01: 40%
433	0	Pulse Make % Setting Switch	-	O	-	Set this Bit to 1 when pulse Make % fine tuning is required. 0: Use default settings (MODE432 Bit7-6), 1: Use adjusted settings (MODE434, 435)
434	7~0	Make Time (Make/Break Adjustment) (PSTN1)	-	O	-	Sets the Make Time in increments of 1/2400sec. 10PPS: Make % 33%=10100000, 20PPS: Make % 33%=01010000, 10PPS: Make % 40%=01100000, 20PPS: Make % 40%=00110000, 00000001: 0.417msec to 00101000: 16.6msec 20PPS 33% to 11111111: 106.2msec
435	7~0	Break Time (Make/Break Adjustment) (PSTN1)	-	O	-	Sets the Break Time in increments of 1/2400sec. 10PPS: Make % 33%=01010000, 20PPS: Make % 33%=00101000, 10PPS: Make % 40%=10010000, 20PPS: Make % 40%=01001000, 00000001: 0.417msec to 01010000: 33.3msec 20PPS 67% to 11111111: 106.2msec
438	7~0	Minimum Pause Duration (PSTN1)	-	O	-	Sets the minimum pause duration. This switch is only available in PSTN1. 00000001: 10msec to 01010001: 810msec to 11111111: 2550msec
440	7~0	Estimated Time to Connect (PSTN1)	-	O	-	Sets the estimated time to connect. This switch is only available in PSTN1. 00000000: 0sec, 00000001: 0.5sec to 00100011: 17.5sec to 01111001: 127.5sec
442	3	Disconnect (Polarity Reversal) Detection (PSTN1)	-	O	-	Sets whether to detect polarity reversal in disconnection after establishing communications with another machine in auto dial. 0: Do not detect, 1: Detect

**Table 1 Soft Switch**

MODE	Bit	Name	DC/CP	CF/CFP	KO/CO	Remarks
442	5	Busy Tone Detection (PSTN1)	-	O	-	Sets whether to detect busy tone. 0: Do not detect, 1: Detect using phase B
444	5~2	Tone Output Level	-	O	-	On: 100msec (Fixed), On: 120msec (Fixed), 0000: -1dBm, 0001: -2dBm, 0010: -3dBm, 0011: -4dBm, 0100: -5dBm, 0101: -6dBm, 0110: -7dBm, 0111: -8dBm, 1000: -9dBm, 1001: -10dBm, 1010: -11dBm, 1011: -12dBm, 1100: -13dBm, 1101: -14dBm, 1110: -15dBm, 1111: -16dBm
445	7~4	Send Level (PSTN1)	-	O	-	Sets the level of send signals besides tones. 1000: -9dBm, 1001: -10dBm, 1010: -11dBm, 1011: -12dBm, 1100: -13dBm, 1101: -14dBm, 1110: -15dBm, 1111: -16dBm
446	7~6	Receiver Attenuator (PSTN1)	-	O	-	Turn this switch on when the connection is bad and you want to reduce the sensitivity of the receiver. This switch controls 1300Hz, tone, V29, V27terV21 signal detection and all tonal signals. This switch is only available in PSTN1. 00: 0dB (-48dBm), 01: 5dB (-43dBm), 10: 10dB (-38dBm), 11: 15dB (-33dBm)
447	5~3	Ring Detection Frequency (PSTN1)	-	O	-	Sets the frequency to be detected as a ring. 000: 10~27.5Hz, 001: 10~75Hz, 010: 10~90Hz, 011: 10~200Hz
447	7~6	Continuous Ring Detection (PSTN1)	-	O	-	Sets whether to detect continuous ring and continuous ringing time. 00: Do not detect, 01: 1.8sec, 10: 3.0sec, 11: 10sec
453	2	Received Order Eco-measures (PSTN1)	-	O	-	Sets whether to set an interval of 500msec between DIS Receive and sending the Received Order signal (DCS). 0: Disable, 1: Enable
453	3	CED Eco-measures (PSTN1)	-	O	-	Sets whether to start CED Eco-measures (where the processing interval between CED and initial detection is set at 500msec). 0: Disable, 1: Enable
453	7~6	CED Start Send Timing (PSTN1)	-	O	-	Sets the interval between connection closure and CED sending. This switch is only available in PSTN1. (7sec is for the second call) 00: 0msec, 01: 2000msec, 10: 2500msec, 11: 7sec

## EP-A

This enables specifying whether or not a “connected EP-A (EP-SV or EP related)” exists.

The setting is automatically rewritten from “not connected” to “connected” as an EP-A related product is actually connected.

Password Auditron and Card Auditron (EP-A) do not coexist.

If EP-A is connected with Password Auditron enabled, a device failure will be declared.

While EP-A is connected, Password Auditron setting cannot be changed to “Enabled” (guarded on the UI screen).

**NOTE:** *Even if an actually connected EP-A related product is disconnected, the setting will not automatically be rewritten.*

## Country Code

Country Code is displayed.

After “Changing the Country Code” is performed, the machine setting is configured to the specific country. (Refer to GP 4)

## Carriage

Lock: Moving a carriage locking position

This is used to secure the carriages during a transport.

Press the button down until the carriages move to the position where they should be secured.

Maintenance: Moving carriages to the maintenance position

The function of moving the carriages to the position fixed for maintenance.

Press the button down until the carriages move to the maintenance position.

## Scanner Adjust

The function of adjusting a threshold for the Platen Scan Size Detection Sensor

Through an operation on the UI, the Scan Size Detection Sensor automatically calculates a threshold and saves the value. (There is no function of changing a threshold manually.)

For the adjustment, see ADJ 11.1.4 APS Sensor.



## **File Dump**

Only the Fax configured device shall be capable of outputting File Dump.

RAM data on the part of MFC is displayed (number specification)

The hexadecimal system is used to express values.

The following file can be output:

- Trace file

## **Memory Dump**

Only the Fax configured device shall be capable of outputting Memory Dump.

Output of a report on RAM data on the part of MFC (absolute addressing)

The hexadecimal system is used to express values.

## Mem. Contents

This displays RAM data on the part of MFC in hexadecimal numerals on the operation panel when a certain address is specified (absolute addressing).

## CE Reports (Fax only)

Only the Fax configured device shall be capable of outputting CE Report. The contents for description are as follows:

- **Soft Ware Version**  
The content for display is the same as the one on UI.
- **Location**  
The contents for display are "Country Code," "Language," "Paper Size Detect," "Default Input Medium Size" and "Default Measure Unit."
- **Status**  
The content for display is the same as the one on UI.
- **Regist**  
The content for display is the same as the one on UI.
- **Jam History / Fatal Error History**  
Jam history is described. The contents for display are Jam Code and Occurrence Date & Time (month, date, hour and minute)  
(The number of jams/errors per history: 10)  
\*On the DC or C+P configured device, this information is checked in "Mem. Contents" because either does not output any reports.  
Furthermore, in that case, billing meter values instead of occurrence dates & times are recorded and displayed.
- **Fax Error History**  
This records communication errors. The contents for description are Communication Error Code and Occurrence Date & Time (month, date, hour and minute).  
(The number of errors per history: 10)
- **Soft Switch**  
Soft Switch List is displayed in hex for every mode.  
If the Soft Switch List has a different value from the default, the mode will be marked with "\*" .

## Protocol-Now, Protocol-NG (Fax only)

This outputs the following when instructed to after a fax communication. (protocol trace)

1. How to output  
 Protocol-Now: output of the last communication log  
 Protocol-NG: output of the latest communication error log  
 If the last communication failed, the last communication log is the same as the latest communication error log.
2. FCF Signal Names to be stated

**Table 1 FCF Signal Names to be stated**

Signal Name	Description
CSI	Called Subscriber Identification
CIG	CallinG subscriber Identification
TSI	Transmitting Subscriber Identification
NSF	Non Standard Facilities
NSC	Non Standard facilities Command
NSS	Non Standard facilities Set-up
DIS	Digital Identification Signal
DTC	Digital Transmit Command
DCS	Digital Command Signal
CFR	ConFirmation Receive
FTT	Failure To Train
MPS	Multi Page Signal
EOM	End Of Message
EOP	End Of Procedure
PRI_MPS	PRocedure Interrupt_Multi Page Signal
PRI_EOM	PRocedure Interrupt_End Of Message
PRI_EOP	PRocedure Interrupt_End Of Procedure
PPS_MPS	Partial Page Signal_Multi Page Signal
PPS_EOM	Partial Page Signal_End Of Message
PPS_EOP	Partial Page SignalEnd Of Procedure
PPS_PRI_MPS	Partial Page Signal_PRocedure Interrupt_Multi Page Signal
PPS_PRI_EOM	Partial Page Signal_PRocedure Interrupt_End Of Message
PPS_PRI_EOP	Partial Page Signal_PRocedure Interrupt_End Of Procedure
PPS_NULL	Partial Page Signal_NULL
EOR_MPS	End Of Retransmission_Multi Page Signal
EOR_EOM	End Of Retransmission_End Of Message
EOR_EOP	End Of Retransmission_End Of Procedure
EOR_PRI_MPS	End Of Retransmission_PRocedure Interrupt_Multi Page Signal
EOR_PRI_EOM	End Of Retransmission_PRocedure Interrupt_End Of Message
EOR_PRI_EOP	End Of Retransmission_PRocedure Interrupt_End Of Procedure
MCF	Message ConFirmation

**Table 1 FCF Signal Names to be stated**

Signal Name	Description
RTP	ReTrain Positive
RTN	ReTrain Negative
PIP	Procedure Interrupt Positive
PIN	Procedure Interrupt Negative
CRP	Command RePeat
DCN	DisCoNnect
I	Identification
CTC	Continue To Correct
CTR	Response to Continue To correct
EOR	End Of Retransmission
ERR	Response to End of Retransmission
PPR	Partial Page Request
RNR	Receive Not Ready
RR	Receive Ready
SEP	SElected Poring
SUB	SUB address
PWD	PassWorD
PWD1	PassWorD1
CM	Calling Menu
CJ	
CI2	
JM	

3. Signal sender  
 Before a FCF signal is a certain display indicating which of the fax sender and the fax receiver sent it out.



## IIT

Counter data for IIT is counted when Copy/Fax/Scan to E-mail is used.

Platen:

Scanning one page on the platen makes the counter count one.

Feed:

Simplex: scanning one sheet (one page) makes the counter count one.

Duplex: scanning one sheet (two pages) makes the counter count three.

(When a page passes the Lead Sensor, the counter will count up. In the case of duplex scanning, not only the operation of scanning a document (two sides) but also the operation of feeding it out to eject it is performed. At that time the sheet passes the Lead Sensor again; therefore the counter counts one more though no scanning operation is performed.)

Feed (Dup): Scanning a single two-sided document makes the counter count two.

(When the document runs through the duplex path in DADF and passes the Lead Sensor, the counter will count up.)

## Billing

The following are displayed:

Backup2

Backup1

Master

Master, Backup 1 and Backup 2 normally show the same value.

Counter data consists of the following:

Print: print and printer report

Copy: copy and IOT test print in the diagnostic mode

Fax: print of a fax received message, list report (the CE mode included) (report from MFC), and print of a document in memory

Reference

## Billing Meter

The [Machine Status] button > [Billing Meter] leads to a calculation and display of the above-mentioned counter data.

CE can change the setting on whether or not Billing Meter should be displayed.

However, billing meter is always displayed in the CE mode.

Billing meter contents for display are as follows:

- Serial No.: IOT Serial No.
- Total: a total number of printed pages to be billed for.
- Print Jobs: the number of printed pages
- Non-print Jobs: the number of copied/faxed pages

## Restore

Three pieces of counter data on Billing including backup data are verified. If either of them shows a different value, the counter will be restored to proper state.

### 1. Counter data verification

Counter data is verified at the following timings:

At Power ON (Reboot and Warm Restart are included.)

After the clearance of Power Save

After IOT cycle down (IOT stops)

### 2. Restoring Counter Automatically

If of three pieces of counter data on Billing including backup data, two values are the same and the other one is different, the counter will automatically be restored to proper state.

In the event of an auto restoration, no message is displayed for the user.

In some cases, however, even if two pieces of counter data are the same, no automatic restoration is performed and a failure notice is displayed, prompting the user to manually restore the counter.

### 3. Restoring Counter Manually

If three pieces of counter data are different from each other, the machine will stop with System Fail declared.

In that state, all the pieces of counter data are displayed in the CE mode. This makes it possible to select one as the base from the three pieces of counter data. The other pieces of counter data are rewritten into the base value.

**Table 1**

Base counter data	Counter data to be rewritten
Master	BackUp1 / BackUp2
BackUp1	Master / BackUp2
BackUp2	Master / BackUp1

[Restriction] During a print job, no restoration of the counter shall be possible.

## Test Print

Enter Chain-Func :23-10 and press "Start" down.

The test Pattern that is set by IOT ROS NVM Chain-Func : 23-23 will print out.

## NVRAM R/W

### Purpose

Reads, sets or changes the NVM data.

### Procedure

#### Module Selection

1. Enter **Diagnostics**. Refer to [Entering Diagnostic Mode].
2. Select **Chain-Func** in the CE Setting Screen by using Select button then press the Enter button.
3. Select **NVRAM R/W**.

**Table 1 Module Selection**

Module item	Chain number allocation
Billing	29
CRU	27,30,31,50
Drive	50
ESS IF	20, 60, 61
Exit	20, 23, 50
Fuser	37,38,50
General	20,23
HFSI	21,29,30
MC Code	60
Nohad	50
PH	20,23,26,62
Procon	16,23,27,42,43,45,46,48,49,52,53
Recycle	30
ROS	6
Tray	7,20,50
Xero	26,50,53,54,55,56,57

#### Reading NVM

1. Enter Chain No. by using the numeric Keypad on the control panel.  
Select Func by using Select button.  
Enter Func No. then press the Start Button.  
The current value will be read in the **Read** column.

#### Writing NVM

1. Press the Select button at Read column to switch to Write.
2. To change a value, enter a new value in the **Write** column and press **Start** button. When a new value is entered, the old value is moved up.
3. Select **Write NVM**.
  - a. If the input value is valid (within the range), the system writes the new NVM value in the NVM location in the machine.  
information screen, **The given NVM value is out of range. NVM was not changed.**

b. If the input value is invalid, the system displays the following message in the infor-

## Billing

**Table 2 Billing**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
29-1	Last 2Dig Total Copy Counter(8 Digits)	0~99	0		O	X	X	
29-2	Last 2Dig Total Fax Counter(8 Digits)	0~99	0		O	X	X	
29-3	Last Two Digits of Total Print Counter(8 Digits)	0~99	0	1	O	X	X	
29-11	5th&6thDig Total Copy Counter(8 Digits)	0~99	0		O	X	X	
29-12	5th&6thDig Total Fax Counter(8 Digits)	0~99	0		O	X	X	
29-13	Fifth and Sixth Digits of Total Print Counter(8 Digits)	0~99	0	1	O	X	X	
29-21	3rd&4thDig Total Copy Counter(8 Digits)	0~99	0		O	X	X	
29-22	3rd&4thDig Total Fax Counter(8 Digits)	0~99	0		O	X	X	
29-23	Third and Fourth Digits of Total Print Counter(8 Digits)	0~99	0	1	O	X	X	
29-31	First 2Dig Total Copy Counter(8 Digits)	0~99	0		O	X	X	
29-32	First 2Dig Total Fax Counter(8 Digits)	0~99	0		O	X	X	
29-33	First Two Digits of Total Print Counter(8 Digits)	0~99	0	1	O	X	X	
30-63	Billing Counter MAX Over	0~1	0	1	O	X	X	It is shown whether the Billing Counter Number NVM was written more than 4000000 times.  0: not exceed  1: exceeded

## CRU

**Table 3 CRU**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
27-5	Toner Filling 0	0~255	-	-	O	X	X	TONER: The filling up quantity of the toner bottle (the 0th byte).
27-6	Toner Filling 1	0~255	-	-	O	X	X	TONER: The filling up quantity of the toner bottle (the 1st byte).
27-7	Toner Capacity	0~255	-	-	O	X	X	TONER: The capacity of the toner bottle
30-2	Last Two Digits of Drum Rotation Time(Cycle Count)(8 Digits)	0~255	0	1	O	X	X	
30-12	Fifth and Sixth Digits of Drum Rotation Time(Cycle Count)(8 Digits)	0~255	0	1	O	X	X	
30-22	Third and Fourth Digits of Drum Rotation Time(Cycle Count)(8 Digits)	0~255	0	1	O	X	X	

**Table 3 CRU**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
30-32	First Two Digits of Drum Rotation Time(Cycle Count)(8 Digits)	0~255	0	1	O	X	X	
31-2	Return Normal CRU MODE	0~1	0	-	O	O	X	Return Normal CRU MODE

**ESS IF**

**Table 4 ESS IF**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
20-57	Check System Data Set up	0~99	0	-	O	O	O	Controller will write in the optional value when System Data setting is completed.
60-1	MCU VERSION	0~1	-	-	O	X	X	
60-2	MCU Release Number	0~99	-	-	O	X	X	
60-3	MCU Patch Level	0~99	-	-	O	X	X	
60-4	DM ROM Version	0~99	-	-	O	X	X	
60-5	DM ROM Release Number	0~99	-	-	O	X	X	
60-6	STM-Version	0~99	-	-	O	X	X	
60-7	STM-Release Number	0~99	-	-	O	X	X	
60-10	TM-Version	0~99	-	-	O	X	X	
60-11	TM-Release Number	0~99	-	-	O	X	X	

**EXIT**

**Table 5 EXIT**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
50-15	Enable OCT & Inverter	0~2	1	-	O	O	O	0:Disable 1:Inverter+OCT 2:Inverter Only

**FUSER**

**Table 6 FUSER**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
37-3	FSR Case1 MotOnTmp(T1)	0~99	85	1degree	O	O	O	Nominal=185 deg.C

**Table 6 FUSER**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
37-4	FSR Stby Lamp ON Temp	0~99	55	1degree	O	O	O	Nominal=155 deg.C Note:Set the same value of Chain-Func 38-35
37-9	FSR Stby LampOFF Temp	0~99	65	1degree	O	O	O	Nominal=165 deg.C Note:Set the same value of Chain-Func 38-36
37-52	FSR C1 Rdy Tmp(T-READY)	0~90	85	1degree	O	O	O	Nominal=185 deg.C
37-56	FSR Case1Ready PcycT	0~99	0	40ms	O	O	O	Nominal=0sec
37-57	FSR Case2 MotOnTmp(TR)	0~99	55	1degree	O	O	O	Nominal=155 deg.C
38-35	FSR LowPowM Lp On(T45)	0~99	55	1degree	O	O	O	Nominal=155 deg.C Note:Set the same value of Chain-Func 37-4
38-36	FSR LowPowM Lp Off(T46)	0~99	65	1degree	O	O	O	Nominal=165 deg.C Note:Set the same value of Chain-Func 37-9
38-44	FSR SmearPrevMainMot TM	0~75	5	40ms	O	O	O	Nominal=200ms
50-20	FSR Reset FuserOverTemp	0~99	0	-	O	O	O	0:reset,  1:FS1 Detected over temp  2:FS2 Detected over temp  3:On time Fail  5: Cold Sagging Fail(Only reset is possible in the diagnostics mode.)

**HFSI**

**Table 7 HFSI**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
21-9	Last2 of Fuser discharging Number	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
21-19	5rd 6th Fuser discharging Number	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
21-29	3rd 4th Fuser discharging Number	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
21-39	First2 of Fuser discharging Number	0~3	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-4	Tray1 Last Two Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-5	Tray2 Last Two Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-6	Tray3 Last Two Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)

Table 7 HFSI

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
29-7	Tray4 Last Two Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-9	MPT Last Two Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-14	Tray1 Fifth and Sixth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-15	Tray2 Fifth and Sixth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-16	Tray3 Fifth and Sixth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-17	Tray4 Fifth and Sixth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-19	MPT Fifth and Sixth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-24	Tray1 Third and Fourth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-25	Tray2 Third and Fourth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-26	Tray3 Third and Fourth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-27	Tray4 Third and Fourth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-29	MPT Third and Fourth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-34	Tray1 First Two Digits of Feed Capacity (8 Digits)	0~3	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-35	Tray2 First Two Digits of Feed Capacity (8 Digits)	0~3	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-36	Tray3 First Two Digits of Feed Capacity (8 Digits)	0~3	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-37	Tray4 First Two Digits of Feed Capacity (8 Digits)	0~3	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
29-39	MPT First Two Digits of Feed Capacity (8 Digits)	0~3	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
30-41	Last Two Digits of the number of Sheets Reaching BIAS transfer Roll(8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
30-42	Fifth and Sixth Digits of the number of Sheets Reaching BIAS transfer Roll(8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)
30-43	Third and Fourth Digits of the number of Sheets Reaching BIAS transfer Roll(8 Digits)	0~99	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)

**Table 7 HFSI**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
30-44	First Two Digits of the number of Sheets Reaching BIAS transfer Roll(8 Digits)	0~3	0	1	O	O	X	Only 0 clearance is possible in the write mode.("0 clearance" means all byte changes 0 at the same time.)

**MC Code**

**Table 8 MC Code**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
60-26	Serial Code1	0~254	0	1	O	O	X	
60-27	Serial Code2	0~254	0	1	O	O	X	
60-28	Serial Code3	0~254	0	1	O	O	X	
60-29	Serial Code4	0~254	0	1	O	O	X	
60-30	Serial Code5	0~254	0	1	O	O	X	
60-31	Serial Code6	0~254	0	1	O	O	X	
60-32	Serial Code7	0~254	0	1	O	O	X	Serial Code7~10 should be "0"
60-33	Serial Code8	0~254	0	1	O	O	X	
60-34	Serial Code9	0~254	0	1	O	O	X	
60-35	Serial Code10	0~254	0	1	O	O	X	
60-36	Product Code1	0~254	0	1	O	O	X	
60-37	Product Code2	0~254	0	1	O	O	X	
60-38	Product Code3	0~254	0	1	O	O	X	
60-39	Product Code4	0~254	0	1	O	O	X	
60-40	Product Code5	0~254	0	1	O	O	X	
60-41	Product Code6	0~254	0	1	O	O	X	
60-42	Product Code7	0~254	0	1	O	O	X	
60-43	Product Code8	0~254	0	1	O	O	X	

**NOHAD**

**Table 9 NOHAD**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
50-14	Condensation detection	0~1	-	1	O	X	X	0:Non-condensation mode 1:Condensation mode
50-16	Condensation improvement timer	0~120	0	1 min	O	O	O	The delay timer to the power save at the Condensation mode

Table 10 PH

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
20-1	LEAD REGI ADJUSTMENT - ALL TRAY	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased. Min(0)=-4.46mm, Max(66)=4.46mm, Initial(33)=0mm
20-8	TRAY1 for Thick-1 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-9	TRAY1 for Thick-2 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-10	TRAY2-4 for Thick-1 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-11	TRAY3-4 for Thick-2 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-12	MPT for Thick-1 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-13	MPT for Thick-2 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-14	TRAY1 for Thick-4 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-17	Enable Exit SNR1 short off check	0~1	0	-	O	O	O	0:Enable 1:Desable
20-18	TRAY2-4 for Thick-4 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-23	MPT for Thick-4 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-24	DUP ALL SIZE for Thick-4 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-27	DUP ALL SIZE for Thick-1 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-28	DUP ALL SIZE for Thick-2 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-29	TRAY2-4 for Thick-1 Paper- REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-30	TRAY3-4 for Thick-2 Paper- REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-31	MPT for Thick-1 Paper - REGI LOOP TIMER	0~66	23	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-32	MPT for Thick-2 Paper - REGI LOOP TIMER	0~66	23	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-33	DUP for Thick-1 Paper - REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-34	DUP for Thick-2 Paper - REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-35	TRAY1 for Thick-1 Paper - REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-36	TRAY1 for Thick-2 Paper - REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-37	TRAY1 for Thick-4 Paper - REGI LOOP TIMER	0~66	23	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-41	TRAY1 for Normal LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-42	TRAY2-4, for Normal LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.

Table 10 PH

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
20-43	MPT for Normal LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-45	DUP ALL SIZE for Normal LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
20-46	ALL TRAY - REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-47	TRAY1 for Normal Paper - REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-48	TRAY2-4 - REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-49	MPT for Normal Paper - REGI LOOP TIMER	0~66	11	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-51	DUP for Normal Paper - REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
20-52	REGI CLUTCH OFF TIMER - ALL TRAY	0~66	33	0.135mm	O	O	O	Clutch off is delayed 2ms when Set Value is increased.
20-53	INVERT TIMING - ALL TRAY	0~66	15	0.27mm	O	O	O	Invert timing is delayed 3msec when Set Value is increased. Min(0)=-8.91mm  Max(99)=8.91mm  Initial(33)=0mm
20-54	TOP SIGNAL OFFSET VALUE ADJUSTMENT	0~99	0	0.135mm	O	O	O	
23-20	Simplex/Duplex	0~1	0		O	O	O	0: Simplex 1: Duplex
23-21	Feed Tray	1~6	1		O	O	O	1: Tray1  2: Tray2  3: Tray3  4: Tray4  5: HCF  6: MPT
23-26	Test Print Run Length Low Byte	0~99	1		O	O	O	The Number of Test Print
23-27	Test Print Run Length High Byte	0~99	0		O	O	O	The Number of Test Print
26-8	TRAY2 for Thick-2 Paper - LEAD REGI ADJUSTMENT	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
26-11	TRAY1 for Thick-3 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
26-12	TRAY2-4 for Thick-3 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
26-13	MPT for Thick-3 LEAD REGI ADJUSTMENT	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.

**Table 10 PH**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
26-14	DUP ALL SIZE for Thick-3 LEAD REGI ADJ	0~66	33	0.135mm	O	O	O	Image input is delayed when Set Value is increased.
26-20	TRAY2 for Thick-2 Paper - REGI LOOP TIMER	0~66	33	0.405mm	O	O	O	Loop increases when Set Value is increased.
26-29	LAST TWO DIGITS OF DETECTED PAPER LENGTH	0~99	-	1mm	O	X	X	"98 ~ 432"="98mm ~ 432mm".  This is the paper size(mm) which was measured with the regi-sensor.
26-39	FIRST DIGIT OF DETECTED PAPER LENGTH	0~4	-	100mm	O	X	X	
62-1	Paper Path Sensor (Tray Module)	0~127	-	-	O	X	X	Bit4: FEED OUT#4 SENSOR  Bit5: FEED OUT#3 SENSOR  Bit6: FEED OUT#2 SENSOR  Bit7:  * The meaning of the bit  0: without paper
62-2	Paper Path Sensor (DM / EXIT/ IOT)	0~127	-	-	O	X	X	Bit2: DM WAIT SENSOR  Bit7: EXIT#1 SENSOR  Bit6: REGI SENSOR  * The meaning of the bit  0: without paper  1:with paper  The renewal precision is 10 ms

**Procon**

**Table 11 Procon**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
16-33	ATC Code	0~99	55	1	O	O	O	
16-45	Toner residual quantity [%]	0~200	-	1	O	X	X	
23-28	TC Up/Down PV	1~20	1	1	O	O	O	The number of Tone Up/Down diagnostics print.

Table 11 Procon

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
27-52	Toner Empty on Toner Cartridge(for CRUM Read)	0~1	0		O	X	X	0:Toner Cartridge is not Empty. 1:Toner Cartridge is Empty.
42-3	ATC Judge	0~1	0	1	O	O	O	ATC Sensor Judge  0:Normal 1:Abnormal
42-4	Hum Sensor Judge	0~1	-	1	O	X	X	
42-5	Temp Sensor Judge	0~1	-	1	O	X	X	
42-10	Toner Empty	0~1	0	1	O	O	O	0:Normal 1:Abnormal
42-14	Rate of supply toner [10mg/s]	0~254	20	1	O	O	O	
42-15	Toner Empty State(NVM. 0 to 3)	0~4	0	1	O	O	O	
42-26	Hum Now [%]	0~99	-	1	O	X	X	
42-44	Temp Now [deg.C]	0~99	-	1	O	X	X	
43-2	ATC Target Last Two Digits	00~99	-	1	O	X	X	
43-3	ATC OUT Last Two Digits	00~99	90	1	O	O	O	
43-9	Delta ATC manual Last Two Digits	0~99	0	1	O	O	O	ATC Manual Correction/Lower
43-11	Result of ATC Check judgement	0~4	-		O	X	X	0=Low, 1=Normal, 2=High, 3=Fail, 4=Abnormal end
43-12	ATC Target First Two Digits	00~19	-	1	O	X	X	
43-13	ATC OUT First Two Digits	00~19	3	1	O	O	O	
43-19	Delta ATC manual First Two Digits	49~50	50	1	O	O	O	ATC Manual Correction/Upper
43-21	Deve ICDC Last Two Digits(NVM)	0~99	0	1	O	O	O	
43-31	Deve ICDC First Two Digits(NVM)	0~99	0	1	O	O	O	
45-10	Old Toner Emp State	0~4	0	1	O	O	O	
46-3	LD2 Last Two Digits	00~99	-	1	O	X	X	
46-13	LD2 First Two Diagits	00~19	-	1	O	X	X	
48-49	LD manual Last Two Digits	00~99	00	1	O	O	O	
48-59	LD manual First Two Digits	47~52	50	1	O	O	O	
49-7	CRU ATC S Last Two Digits	0~99	80	1	O	O	O	
49-8	CRU ATC S First Two Digits	0~10	3	1	O	O	O	
49-63	CRU Recovery end(for CRUM Read)	0~1	0	1	O	O	O	
52-53	PreNear Threshold	0~254	118	1	O	O	O	
52-54	PR_VL	30~150	87	1	O	O	O	
53-1	Toner Empty(for CRUM Read)	0~1	0	1	O	X	X	
53-24	ATC OUT Last Two Digits(for CRUM Read)	00~255	90	1	O	X	X	
53-25	ATC OUT First Two Digits(for CRUM Read)	00~255	3	1	O	X	X	

**Table 11 Procon**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
53-31	Toner Empty State(for CRUM Read)	0~255	0	1	O	X	X	
53-36	ATC Code(for CRUM Read)	0~255	55	1	O	X	X	
53-38	ATC Judge(for CRUM Read)	0~1	0		O	X	X	For 42-3 storage CRUM
53-39	CRU New or Old(for CRUM Read)	0~1	0		O	X	X	For 42-3 storage CRUM49-63 Read 0:New, 1:Old

**Recycle**

**Table 12 Recycle**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
30-4	Last Two Digits of MPT Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-5	Last2 of IOT Starting Number	0~99	0	1	O	X	X	
30-6	Tray1 Last Two Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-7	Tray2 Last Two Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-8	Tray3 Last Two Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-9	Tray4 Last Two Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-14	Fifth and Sixth Digits of MPT Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-15	3rd 4th IOT Starting Number	0~99	0	1	O	X	X	
30-16	Tray1 Fifth and Sixth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-17	Tray2 Fifth and Sixth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-18	Tray3 Fifth and Sixth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-19	Tray4 Fifth and Sixth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-24	Third and Fourth Digits of MPT Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-25	First2 of IOT Starting Number	0~99	0	1	O	X	X	
30-26	Tray1 Third and Fourth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-27	Tray2 Third and Fourth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-28	Tray3 Third and Fourth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	

**Table 12 Recycle**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
30-29	Tray4 Third and Fourth Digits of Feed Capacity (8 Digits)	0~99	0	1	O	X	X	
30-34	First Two Digits of MPT Feed Capacity(8 Digits)	0~3	0	1	O	X	X	
30-36	Tray1 First Two Digits of Feed Capacity (8 Digits)	0~3	0	1	O	X	X	
30-37	Tray2 First Two Digits of Feed Capacity (8 Digits)	0~3	0	1	O	X	X	
30-38	Tray3 First Two Digits of Feed Capacity (8 Digits)	0~3	0	1	O	X	X	
30-39	Tray4 First Two Digits of Feed Capacity (8 Digits)	0~3	0	1	O	X	X	
30-61	Tray Feed Capacity MAX Over	0~1	0	1	O	X	X	It is shown whether the Recycle Tray Feed Capacity NVM was written more than 4000000 times. 0: not exceed 1: exceeded.
30-62	IOT Starting Number MAX Over	0~1	0	1	O	X	X	It is shown whether the IOT Starting Number NVM was written more than 1000000 times. 0: not exceed 1: exceeded.

**ROS**

**Table 13 ROS**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
6-20	ALL TRAY-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	O	
6-21	TRAY1-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	O	
6-22	TRAY2-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	X	
6-23	TRAY3-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	X	
6-24	TRAY4-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	X	
6-26	MPT-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	O	
6-28	DUP ALL TRAY-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	O	
6-29	DUP TRAY1-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	O	
6-30	DUP TRAY2-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	O	
6-31	DUP TRAY3-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	O	

**Table 13 ROS**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
6-32	DUP TRAY4-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	O	
6-34	DUP MPT-LASER SIDE REGI ADJUSTMENT	1~99	50	0.254mm	O	O	O	
6-52	IMAGE AREA	0~1	0	-	O	O	O	0: NORMAL IMAGE AREA 1: WIDE IMAGE AREA
6-57	Lead Edge ERASE OFFSET VALUE ADJUSTMENT	0~99	0	0.135mm	O	O	O	
6-58	Trail Edge ERASE OFFSET VALUE ADJUSTMENT	0~99	50	0.135mm	O	O	O	
6-59	SIDE NOMAL ERASE ADJUSTMENT	0~16	8	0.254mm	O	O	O	Nominal=2.032mm
6-60	Lead Edge NOMAL ERASE ADJUSTMENT	0~30	15	0.135mm	O	O	O	Nominal=2.025mm
6-63	Trail Edge NOMAL ERASE ADJUSTMENT	0~30	15	0.135mm	O	O	O	Nominal=2.025mm
23-23	Test Print Pattern	1~4	1		O	O	O	For setting the Test Pattern that output on CE Settings>Chain Func>Test Print.  1: STRIPE.  2: DARK DUSTING.  3: INTENTIONALLY BLANK COPY.  4: GRID.
23-24	IMAGE AREA	0~1	0		O	O	O	0: NORMAL IMAGE AREA 1: WIDE IMAGE AREA

**TRAY**

**Table 14 TRAY**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
7-29	LAST TWO DIGITS OF MPT SIDE GUIDE PAPER WIDTH DETECTION	0~99	-	1mm	O	X	X	"88 - 303"="88mm - 303mm".  This is the paper width(mm) calculated from MPT Side Guide position
7-37	MPT Last two digits of length Universal-size.	0~99	-	1mm	O	X	X	"98 - 432"="98mm - 432mm".  This is a temporary value specified from Controller. It is cleared when the power supply off or IOT resets.

Table 14 TRAY

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
7-38	MPT First digit of length of Universal-size	0~4	-	100mm	O	X	X	
7-39	FIRST DIGIT OF MPT SIDE GUIDE PAPER WIDTH DETECTION	0~3	-	100mm	O	X	X	
20-3	STM Lift-Up TIME Adjustment	0~50	5	10ms	O	O	O	The adjustment value of the Lift-Up time during loading paper
20-7	MPT Size Detection Offset Value (delta T)	0~30	15	1mm	O	O	O	See Diag 20-5 20-6 SMH Side Guide Adjustment Min(0)=0mm Max(30)=30mm Initial(15)=15mm
50-5	mm/inch select in detecting MPT size	0~2	1	-	O	O	O	0: mm 1: inch13 2: inch14
50-7	Enable Tray4	0~1	1	-	O	O	O	0: Disable Ttray4 1: Enable Tray4
50-21	Kind of the default plain paper	0~1	0	-	O	O	O	0:Thicker than 70gsm for multinational market 1:70gsm or under for domestic market
50-60	Select 8kai 16kai Size (GCO/TFX)	0~1	1	-	O	O	O	Select Which paper size to use. 0 : GCO 1 :TFX
50-61	Select 7.25*10.5L /(B5L or 16kaiL)	0~1	1	-	O	O	O	Select Which paper size to use. 0 : B5LEF or 16kaiLEF 1 : 7.25*10.5LEF
50-62	Select A5S/5.5*8.5S	0~1	1	-	O	O	O	Select Which paper size to use. 0 : A5SEF 1 : 5.5*8.5SEF

XERO

**Table 15 XERO**

Chain-Func	Name	Value	Initial Value	1 Count	CE access			Remarks
					R	W	Init	
50-42	Pre-Exposure Control	0~254	0	-	O	O	O	0:Off (Always)  254:On (Always)  1~253:On (Drum Cycle mode change)  For 1~253 pre-exposure(Drum Cycle mode change), 1Count is equivalent to 1Kcycle. The recommended value is 122(Kcycle).
53-45	Independent output for the component control	0~1	0	1	O	O	O	0:Simultaneous output (Independent output disabled) 1:Independent output
56-22	BTR descent start timing(TT3)	0~199	98	6ms	O	O	O	
56-23	BTR descent stop timing(TT4)	0~99	0	6ms	O	O	O	

**A/D Check**

Enter a specific Chain-Func and press "Start" down.

When "Start" is pressed down, the Chain-Func Code will be sent out to MCU to the effect that A/D Input Test is requested. Any response is waited for. If any response is sent back, the operation will be judged as complete, with a test result displayed on UI.

Only the value is displayed which indicates the state observed when "Start" is pressed down. (The value is not changed with state change.)

Result displaying value: 0000 to 9999 (four-digit decimal numeral)

If "Stop" is pressed down on the A/D Input Test screen, "0-0" will be sent out as a Chain-Func Code.

**Table 1 Analog Check List (Input)**

Chain-Func	Sub	Name	Min.	Max.	Description
7-1	TRAY	TRAY1 SIZE SENSOR	0	1023	Current Tray1 Size SNR AD Value, Monitor
7-2	TRAY	TRAY2 SIZE SENSOR	0	1023	Current Tray2 Size SNR AD Value, Monitor
7-3	TRAY	TRAY3 SIZE SENSOR	0	1023	Current Tray3 Size SNR AD Value, Monitor
7-4	TRAY	TRAY4 SIZE SENSOR	0	1023	Current Tray4 Size SNR AD Value, Monitor
7-6	TRAY	MSI SIZE SENSOR	0	1023	Current MSI Size SNR AD Value, Monitor
9-30	XERO	BTR MONITOR VOLTAGE INPUT	0	1023	
10-20	FUSER	FUSER CONTROL SENSOR (FS1)	0	1023	Standby Temp. Monitor
15-60	Procon	Temp Sensor	140	710	
15-61	Procon	Hum Sensor	36	400	
15-62	Procon	ATC Sensor	200	800	

## Input/Output Check

Enter a specific Chain-Func Code and press down "Start."

When "Start" is pressed down, the Chain-Func Code will be sent out to MCU to the effect that IO Check is requested. Any response is waited for.

If any response is sent back, the operation will be judged as complete, with a test result displayed on UI.

Only the value is indicated which indicates the state observed when "Start" is pressed down. (The value is not changed with state change.)

The result sent back from MCU is displayed as it is.

Result displaying value: 000 to 255 (three-digit decimal numeral)

If "Stop" is pressed down on the IO Check screen, "0-0" will be sent out as a Chain-Func Code.

Perform Special Test by using a Chain-Func Code of the Special Test List.

**Table 1 Output**

Chain-Func	Sub	Name	Connector Level	Meaning	Timer Off	Cyclic Operation	Remarks
4-1	PH	MAIN MOTOR ON	L		X	X	The BCR AC, BCR DC, DEVE DC and BTR output simultaneously.  * Switching CF=53-45(CL=751-560) to 1 (single output) enables independent outputs.
4-2	FUSER	FUSER FAN MOTOR (HIGH SPEED)	-	Fuser Fan changes from Low to High Rotation.	X	X	Not available
6-15	ROS	ROS MOTOR ON	L	ROS Motor Start & Stop	X	X	Not available
7-19	TRAY	TRAY2 LIFTER UP (FEED MOTOR Reverse)	-	Turn Lift Up Motor on for two seconds when Tray 2 Level Sensor is "L" (lowered down). Lifter Motor will not rotate when Tray 2 Level Sensor is "H" (lifted up).	O	X	Not available
7-20	TRAY	TRAY3 LIFTER UP (FEED MOTOR Reverse)	-	Turn Lift Up Motor on for two seconds when Tray 3 Level Sensor is "L" (lowered down). Lifter Motor will not rotate when Tray 3 Level Sensor is "H" (lifted up).	O	X	Not available
7-21	TRAY	TRAY4 LIFTER UP (FEED MOTOR Reverse)	-	Turn Lift Up Motor on for two seconds when Tray 4 Level Sensor is "L" (lowered down). Lifter Motor will not rotate when Tray 4 Level Sensor is "H" (lifted up).	O	X	Not available
8-1	PH	MAIN MOTOR ON	L		X	X	The BCR AC, BCR DC, DEVE DC and BTR output simultaneously.  * Switching CF=53-45(CL=751-560) to 1 (single output) enables independent outputs.
8-2	TRAY	T/A MOTOR	L		X	X	Not available
8-12	PH	TRAY1 FEED MOTOR CLUTCH	L		X	X	Not available
8-13	TRAY	TRAY2 FEED MOTOR	-		X	X	Not available
8-14	TRAY	TRAY3 FEED MOTOR	-		X	X	Not available
8-15	TRAY	TRAY4 FEED MOTOR	-		X	X	Not available
8-17	PH	SMH FEED CLUTCH	L		X	X	Not available
8-18	TRAY	TM T/A CL	L		X	X	Not available
8-24	TRAY	STM T/A CLUTCH	L		X	X	Not available
8-38	PHD	UPMOTOR	-	In high speed ( > process speed)	X	X	DM

**Table 1 Output**

Chain-Func	Sub	Name	Connector Level	Meaning	Timer Off	Cyclic Operation	Remarks
8-42	TRAY	HOT-LINE CHECK with alternative signal	-	Hot-Line Control  MCU toggles FEED-STOP signal alternatively in period of 400-600ms,  Tray Module toggles FEED-READY signal in period of 1900-2100ms.	O	X	Not available
8-44	TRAY	TRAY3 FEED MOTOR (Hot-Line)	L	Hot-Line Control	X	X	Not available
8-45	TRAY	TRAY4 FEED MOTOR (Hot-Line)	L	Hot-Line Control	X	X	Not available
8-46	TRAY	STM T/A MOTOR	L		X	X	Not available
8-50	PHD	UP MOTOR Rotate for sending paper out to regi	-	In low speed ( =process speed)	X	X	DM
9-1	XERO	MAIN MOTOR ON	L		X	X	The BCR AC, BCR DC, DEVE DC and BTR output simultaneously.  * Switching CF=53-45(CL=751-560) to 1 (single output) enables independent outputs.
9-23	XERO	BCR AC BIAS	-		X	X	The Main Motor, BCR DC, DEVE DC and BTR output simultaneously.  * Switching CF=53-45(CL=751-560) to 1 (single output) enables independent outputs.
9-24	XERO	BCR DC BIAS	-		X	X	The Main Motor, BCR AC, DEVE DC and BTR output simultaneously.  * Switching CF=53-45(CL=751-560) to 1 (single output) enables independent outputs.
9-27	XERO	DTS	<-		X	X	Not available
9-29	XERO	BTR(+) BIAS	-		X	X	The Main Motor, BCR AC, DEVE DC and BTR output simultaneously.  * Switching CF=53-45(CL=751-560) to 1 (single output) enables independent outputs.
9-33	XERO	Deve DC BIAS	-		X	X	The Main Motor, BCR AC, DEVE DC and BTR output simultaneously.  * Switching CF=53-45(CL=751-560) to 1 (single output) enables independent outputs.
9-36	XERO	BTR(-) BIAS	-		X	X	The Main Motor, BCR AC, DEVE DC and BTR output simultaneously.  * Switching CF=53-45(CL=751-560) to 1 (single output) enables independent outputs.

**Table 1 Output**

Chain-Func	Sub	Name	Connector Level	Meaning	Timer Off	Cyclic Operation	Remarks
10-1	PH	MAIN MOTOR	L		X	X	The BCR AC, BCR DC, DEVE DC and BTR output simultaneously.  * Switching CF=53-45(CL=751-560) to 1 (single output) enables independent outputs.
10-3	PH	OCT HOMING CHK	-		X	X	PH
10-4	FUSER	FUSER FAN MOTOR(HIGH SPEED)	-	Fuser Fan changes from Low to High Rotation.	X	X	Not available
10-5	PH	OCT RETURN & PRE-OFFSET MOVE	-		X	X	PH
10-8	PH	EXIT DRIVE MOTOR FORWARD (Eject Paper out)	-		X	X	Not available
10-9	PH	EXIT DRIVE MOTOR REVERSE (send paper into Dup)	-		X	X	Not available
10-10	PH	Exit Motor	-		X	X	PH
10-51	PH	EXIT GATE SOLENOID	H	Switch Gate to Exit2/FUT	X	X	Not available
10-61	PH	OFFSET MOTOR1 CENTORD ROTATION	-		X	X	PH
10-62	PH	OFFSET MOTOR1 FORWARD ROTATION	-		X	X	PH
10-63	PH	OFFSET MOTOR1 REVERSE ROTATION	-		X	X	PH
15-63	Procon	Dispense Motor	L		O	X	The Main Motor, BCR AC, BCR DC, DEVE DC and BTR output simultaneously.  * Switching CF=53-45(CL=751-560) to 1 (single output) enables independent outputs.

**Table 2 Input**

Chain-Func	Sub	Name	Connector Level	Meaning	Remarks
1-1	PH	L/H COVER	L	Cover is open (Interlock switch off)	Not available
1-10	TRAY	TRAY MODULE COVER	L	Cover is open (Interlock switch off)	Not available
1-11	PH	L/H Low COVER	H	Cover is open (Interlock switch off)	Not available
1-12	PH	FRONT COVER	L	Cover is open (Interlock switch off)	When the L/H Cover is open, as the Front Cover status cannot be detected by the hardware, the Front Cover status remains 'closed' regardless of whether it is open or closed.
7-5	TRAY	TRAY4 SIZE digital SENSOR	L	It is used for size detection auxiliary.	
7-7	TRAY	TRAY1 NO PAPER SENSOR	L	No paper	Not available
7-8	TRAY	TRAY2 NO PAPER SENSOR	L	No paper	Not available
7-9	TRAY	TRAY3 NO PAPER SENSOR	L	No paper	Not available
7-10	TRAY	TRAY4 NO PAPER SENSOR	L	No paper	Not available
7-12	TRAY	SMH/ENV NO PAPER SENSOR	L	No paper	Not available
7-14	TRAY	TRAY2 LEVEL SENSOR	L	Lifted up (Lifter is at paper feeding position)	Not available

**Table 2 Input**

Chain-Func	Sub	Name	Connector Level	Meaning	Remarks
7-15	TRAY	TRAY3 LEVEL SENSOR	L	Lifted up (Lifter is at paper feeding position)	Not available
7-16	TRAY	TRAY4 LEVEL SENSOR	L	Lifted up (Lifter is at paper feeding position)	Not available
7-26	TRAY	TRAY1 SIZE digital SENSOR	L	It is used for size detection auxiliary.	Not available
7-27	TRAY	TRAY2 SIZE digital SENSOR	L	It is used for size detection auxiliary.	Not available
7-28	TRAY	TRAY3 SIZE digital SENSOR	L	It is used for size detection auxiliary.	
8-5	PH	REGI SENSOR	L	Paper detected	Not available
8-6	TRAY	FEED OUT#2 SENSOR	L	Paper detected	Not available
8-8	TRAY	T/A F/O#3 SENSOR	L	Paper detected	Not available
8-9	TRAY	T/A F/O#4 SENSOR	L	Paper detected	Not available
8-31	PH	DUP WAIT SENSOR	L	Paper detected	DM
8-32	PH	REGI SENSOR (DM)	H	Paper detected  Sensor level detected by DM	DM
8-33	TRAY	DUP INTERLOCK	H	Open	Not available
8-35	PH	REGI CLUTCH (DM)	L	ON  Signal detected by DM MODULE	DM
8-47	TRAY	FEED READY SIGNAL	H	Level is high.  Hot-Line Control	Not available
8-48	TRAY	T/A F/O#3 SENSOR	L	Paper detected  Hot-Line Control	Not available
8-49	TRAY	T/A F/O#4 SENSOR	L	Paper detected  Hot-Line Control	Not available
9-2	XERO	DRUM DETECT	L	EP Cartridge installed	Not available
10-11	PH	OCT1 HOME POSITION SENSOR	L	OCT1 is at its home position	
10-23	PH	EXIT SENSOR	L	Paper detected	Not available

**Table 3 Special Test List**

Chain-Func	Name	Description	Remarks
20-5	MPT Side Guide Minimum Adjustment	MPT Side Guide value is stored in System Data (read C-F= 20-15) when executed with the MPT Side Guide at minimum width position.	Not available
20-6	MPT Side Guide Maximum Adjustment	MPT Side Guide value is stored in System Data (read Diag 20-16) when executed with the MPT Side Guide at maximum width position.	Not available
20-58	MCU NVM	Set Initial Value in MCU's System Data	Not available
23-10	Test Print	Execute test pattern printing.	Not available
23-11	No Paper Run	Execute No Paper Run test.	Not available
23-13	Tone Up	Execute Tone Up	Not available

Table 3 Special Test List

Chain-Func	Name	Description	Remarks
23-14	Tone Down	Execute Tone Down	Not available
43-1	ATC Check	A machine reads a ATC sensor, and stores a target value, output value and a result of a decision.	Not available

### ATC Check

1. The function of reading out below-mentioned data on ATC when "Start" is pressed down
2. The function of adjusting TONE (toner density) "UP" (darker) or "DOWN" (lighter)

**NOTE:** Data reading out should be performed before TONE UP/DOWN Adjustment. See ADJ 4.1.1 Toner Density Adjustment.

### P-ESS

Diagnostic Menu Adjustment is displayed.

The [->]button leads to a display of the Adjustment Menu below.

Select a desired item and perform it using the [->]button.

### NVM Initialization

### S2E Settings

### RAM Settings



## GP 1 Resetting the Administrator Password

### Purpose

The purpose of this procedure is to allow the CE to recover the Administrator Password in situations where the customer has changed the password from the default value, and subsequently lost or forgotten the password.

### Procedure

1. Enter Diagnostic. Refer to [Entering Diagnostic Mode].
2. Press the **Log on/Out** button on the Control Panel.
3. Select **System Settings**, then **Changing Pass Word**.
4. Press the Enter Button.
5. Set the default password (11111) .
6. Exit the Diagnostic mode.
7. Allow the Administrator to enter the a new number from User mode.

## GP 2 DIS/DTC and DCS

2000 ITU-T recommendation. FIF byte length : 14 byte(112 bit)

- Unless otherwise specified, bit 0=unavailable and 1=available
- For \*1~3 under "Description," see the description on the final page. "F CODE" indicates a specific item is used in G3 F Code Communication; "i-Fax" in Internet Fax; and "Color, Fax" in Color Fax. Items marked with "\*" are set to "0" because they are not used in normal G3 Fax communication.
- First convert a value (hex) recorded in FIF under DIS/DTC and DCS into a binary. Next check individual bit Nos. for their respective values. For the order of the Nos., see the table below. The example below shows that FIF shows "20EF..." (The bit numbers of the 3rd and subsequent bytes are arranged in the same manner as those of the 1st and 2nd bytes. Eight bits are in the reverse order on a single byte basis.)

	1st Byte (Head Byte of FIF)								2nd Byte				3rd Byte						
hex	2				0				E		F								
binary	0	0	1	0	0	0	0	0	1	1	1	0	1	1	1	1	1	1	...
bit No	8	7	6	5	4	3	2	1	16	15	14	13	12	11	10	9	24	23	...

j0ch61016

Figure 1 (j0ch61016)

Table 1

Bit	DIS/DTC	DCS	Description
1	i-Fax simple mode	i-Fax simple mode	i-Fax

Table 1

Bit	DIS/DTC	DCS	Description
2	Spare (Set up to "0")	Spare (Set up to "0")	
3	real time i-Fax	real time i-Fax	i-Fax
4	Spare (Set up to "0")	Spare (Set up to "0")	
5	Spare (Set up to "0")	Spare (Set up to "0")	
6	V.8 capability	Invalid (Set up to "0")	
7	Frame size (Octet = Byte) 0:256 Octet priority 1:64 Octet priority	Invalid (Set up to "0")	*
8	Spare (Set up to "0")	Spare (Set up to "0")	
9	Prepares doc.to send or polled doc. 0:No. doc. To send 1:Ready to send	Set up to "0"	
10	Receiving capability	Receiving capability	
14~11	transmission speed	transmission speed	
14~11	0000 V.27ter	2400bit/s V.27ter	
14~11	0010 V.27ter	4800bit/s V.27ter	
14~11	0001 V.29	9600bit/s V.29	
14~11	0011 V.27ter & V.29	7200bit/s V.29	
14~11	0100 Unused	Invalid	
14~11	0110 Spare	Invalid	
14~11	0101 Unused	Spare	
14~11	0111 Invalid	Spare	
14~11	1000 Unused	14400bit/s V.17	
14~11	1010 Spare	12000bit/s V.17	
14~11	1001 Unused	9600bit/s V.17	
14~11	1011 V.27ter & V.29 & V.17	7200bit/s V.17	
14~11	1100 Unused	Spare	
14~11	1110 Spare	Spare	
14~11	1101 Unused	Spare	
14~11	1111 Spare	Spare	

Table 1

Bit	DIS/DTC	DCS	Description
15	slow scan line density 0:3.85 l / mm (Normal) 1:7.7 l / mm (Fine)	slow scan line density 0:3.85 l / mm (Normal) 1:7.7 l / mm (Fine)	*2
16	Two Dimension Coding (MR) 0:MH 1:MH & MR	Two Dimension Coding (MR) 0:MH 1:MR	
18, 17	Max. Record Width	Max. Record Width	
18, 17	00 215mm (A4 width)	215mm (A4 width)	
18, 17	01 255mm (B4 width)	255mm (B4 width)	
18, 17	10 303mm (A3 width)	303mm (A3 width)	
18, 17	11 Invalid	Invalid	
20, 19	Max. Record Length	Max. Record Length	
20, 19	00 297mm (A4 length)	297mm (A4 length)	
20, 19	01 364mm (B4 length)	364mm (B4 length)	
20, 19	10 Unlimited length (Roll paper)	Unlimited length (Roll paper)	
20, 19	11 Invalid	Invalid	
23~21	min. scan line trans. time	min. scan line trans. time	
23~21	000 20ms(3.85 l / mm) T7.7=T3.85	20ms	
23~21	100 40ms(3.85 l / mm) T7.7=T3.85	40ms	
23~21	010 10ms(3.85 l / mm) T7.7=T3.85	10ms	*3
23~21	001 .5ms(3.85 l / mm) T7.7=T3.85	5ms	
23~21	100 10ms(3.85 l / mm) T7.7=1/ 2T3.85	Unused	
23~21	110 20ms(3.85 l / mm) T7.7=1/ 2T3.85	Unused	
23~21	101 40ms(3.85 l / mm) T7.7=1/ 2T3.85	Unused	

Table 1

Bit	DIS/DTC	DCS	Description
23~21	111 .0ms(3.85 l / mm) T7.7=T3.85	0ms	
24	Extend Field	Extend Field	*1
25	Spare (Set up to "0")	Spare (Set up to "0")	
26	Uncompressed Mode	Uncompressed Mode	*
27	ECM: Error Correction Mode	ECM: Error Correction Mode	
28	Set up to "0"	ECM Fram size 0:256 Octet 1:64 Octet	
29	Spare (Set up to "0")	Spare (Set up to "0")	
30	Spare (Set up to "0")	Spare (Set up to "0")	
31	T.6 Coding (MMR)	T.6 Coding (MMR)	
32	Extend Field	Extend Field	*1
33	Invalid field signal capability	Invalid field signal capability	*
34	F Code Multiple selection polling capability.	Set up to "0"	F Code
35	F Code Polling sub address capability.	Set up to "0"	F Code
36	Color Fax T.43 coding capability.	Color Fax T.43 encoding capability.	Color, Fax
37	Color Fax Plain interleave.	Color Fax Plain interleave.	Color, Fax
38	ADPCM capability	ADPCM capability	*
39	extended coding of file transfer mode	extended coding of file transfer mode	*
40	Extend Field	Extend Field	*1
41	8 x 15.4 l/mm (Super Fine)	8 x 15.4 l/mm (Super Fine)	
42	300 x 300 pixel/ 25.4mm(Super Fine)	300 x 300 pixel/ 25.4mm(Super Fine)	
43	16 x 15.4 l/mm or 400x400 pixel/25.4mm(Super Fine)	16 x 15.4 l/mm or 400 x 400 pixel/25.4mm(Super Fine)	*2

Table 1

Bit	DIS/DTC	DCS	Description
44	inch based resolution capability	resolution type 0:mm 1:inch	*2
45	Meteric Based Resolution Preferred	any for DCS	*2
46	MSL time in super fine IQ mode 0:T15.4=T7.7 1:T15.4=1/2T7.7	any for DCS	*3
47	F Code Selective polling capability.	Set up to "0"	F Code
48	Extend Field	Extend Field	*1
49	F Code Subaddress capability.	F Code Subaddress capability.	F Code
50	F Code Password capability.	Transmitter ID	F Code
51	Prepared doc of the data file transfer	Set up to "0"	*
52	Spare(Set up to "0")	Spare(Set up to "0")	
53	Binary file transfer	Binary file transfer	*
54	Document transfer	Document transfer	*
55	File transfer	File transfer	*
56	Extend Field	Extend Field	*1
57	basic transfer mode	basic transfer mode	*
58	Spare(Set up to "0")	Spare(Set up to "0")	
59	Prepared doc of the character mode	Set up to "0"	*
60	character mode	character mode	*
61	Spare(Set up to "0")	Spare(Set up to "0")	
62	mixed mode	mixed mode	*
63	Spare(Set up to "0")	Spare(Set up to "0")	
64	Extend Field	Extend Field	*1

Table 1

Bit	DIS/DTC	DCS	Description
65	processable mode	processable mode	*
66	digital network capability	digital network capability	*
67	Full duplex/Half duplex 0:Half duplex 1:Full duplex/Half duplex	Full duplex/Half duplex 0:Half duplex 1:Full duplex/Half duplex	*
68	Color Fax JPEG encoding capability.	Color Fax JPEG encoding capability.	Color, Fax
69	Color Fax Full-color capability.	Color Fax Full-color capability.	Color, Fax
70	Set up to "0"	Huffman code table indication.	Color, Fax
71	12-bit/pixel capability. 0:8 bits/pixel 1:12 bits/pixel	12-bit/pixel capability. 0:8bits/pixel 1:12bits/pixel	Color, Fax
72	Extend Field	Extend Field	*1
73	Color Fax No sub-sampling(L*,a*,b*) 0:(4:1:1) 1:(1:1:1)	Color Fax No sub-sampling(L*,a*,b*) 0:(4:1:1) 1:(1:1:1)	Color, Fax
74	Color Fax Nonstandard irradiation light. 0:Standard 1:Nonstandard	Color Fax Nonstandard irradiation light. 0:Standard 1:Nonstandard	Color, Fax
75	Color Fax Nonstandard Gamut range .0:Standard 1:Nonstandard	Color Fax Nonstandard Gamut range. 0:Standard 1:Nonstandard	Color, Fax
76	Letter (215.9 x 279.4mm)	Letter (215.9 x 279.4mm)	
77	Legal (245.9 x 355.6mm)	Legal (215.9x355.6mm)	
78	T.85 JBIG Basic capability	T.85 JBIG Basic capability	Color, Fax

Table 1

Bit	DIS/DTC	DCS	Description
79	T.85 JBIG Option capability	T.85 JBIG Option capability	*
80	Extend Field	Extend Field	*1
81	HKM key	HKM key	*
82	RSA key	RSA key	*
83	Override mode	Override mode	*
84	HFX	HFX	*
85	Spare(Set up to "0")	Spare(Set up to "0")	
86	Spare(Set up to "0")	Spare(Set up to "0")	
87	HFX40-I	HFX40-I	*
88	Extend Field	Extend Field	*1
89	Spare(Set up to "0")	Spare(Set up to "0")	
90	Spare(Set up to "0")	Spare(Set up to "0")	
91	Spare(Set up to "0")	Spare(Set up to "0")	
92	T.44	T.44	*
93	T.44	T.44	*
94	T.44	T.44	*
95	T.44	T.44	*
96	Extend Field	Extend Field	*1
97	Color Fax300x300 or 400x400 pixel/25.4mm capability	Color Fax300x300 or 400x400 pixel/25.4mm capability	Color, Fax
98	Color Fax100x100 pixel/ 25.4mm capability	Color Fax100x100 pixel/ 25.4mm capability	Color, Fax
99	Binary file transfer capability	Binary file transfer capability	*
100	Spare(Set up to "0")	Set up to "0"	
101	i-Fax selection polling	Set up to "0"	i-Fax
102	i-Fax routing address	i-Fax routing address	i-Fax
103	Spare(Set up to "0")	Spare(Set up to "0")	
104	Extend Field	Extend Field	*1
105	600 x 600 pixel/25.4mm capability	600 x 600 pixel/25.4mm capability	

**Table 1**

Bit	DIS/DTC	DCS	Description
106	1200 x 1200 pixel/25.4mm capability	1200 x 1200 pixel/25.4mm capability	
107	300 x 600 pixel/25.4mm capability	300 x 600 pixel/25.4mm capability	
108	400 x 800 pixel/25.4mm capability	400 x 800 pixel/25.4mm capability	
109	600 x 1200 pixel/25.4mm capability	600 x 1200 pixel/25.4mm capability	
110	Spare(Set up to "0")	Spare(Set up to "0")	
111	Spare(Set up to "0")	Spare(Set up to "0")	
112	Extend Field	Extend Field	*1

\*1, If the Extend Field is "1", the data is in the next Byte. So, the Extend Field of the last byte is "0".

\*2, The resolution by bit51& bits 43,44,45

**Table 2**

Bit15	Bit43	Bit45	Bit44	Resolution
1	0	0	0	Invalid
1	0	0	1	200 x 200pixel/25.4mm
1	0	1	0	8 x 7.7 l/mm
1	0	1	1	8 x 7.7 l/mm and 200 x 200pixel/25.4mm
0	1	0	0	Invalid
0	1	0	1	400 x 400pixel/25.4mm
0	1	1	0	16 x 15.4 l/mm
0	1	1	1	16 x 15.4 l/mm and 400 x 400pixel/25.4mm

\*3. min. scan line trans. time is the time required to print one line (fast scan) in a received document.

10ms (3.85 l/mm) T7.7=T3.85: Print time in normal mode and fine mode is the same, 10ms.

10ms (3.85 l/mm) T7.7=1/2T3.85: Print time in fine mode is half (5ms) of that in normal mode.

bit46: Scan time at high resolution (15.4 l/mm, 400, 600, and 1200 pixels/25.4mm)

1:T15.4=1/2T7.7: Print time at high resolution is half of that in fine mode.

When DIS T7.7 is 0ms or 5ms (bit 23, 22, 21 are 111/001/110), bit46 must be set to "0." (Setting to half the time is not allowed because it is not recommended to set to half of 5msec.)

NOTE:The Command sent from transmitter in F Code communication and the relation with DIS.

**Table 3**

Com-mand	Description	Relation with DIS
PWD	password	This may be sent only when DIS bit 50 is 1 at polling.
SEP	Selective polling	This may be sent only when DIS bit 47 is 1 at polling.
PSA	Polling address	This may be sent only when DIS bit 35 is 1 at polling.
SUB	Sub address	This may be sent only when DIS bit 49 is 1 at polling.
SID	Transmitter ID	This may be sent only when DIS bit 50 is 1 at polling.

## GP 3 System Clear

You can use System Clear by the following methods. Depending on the System Clear Function, the available functions differ.

### Procedure

#### Normal System Clear

- Enter the DIAG by the following procedure.  
At power-on, press 0+START at the timing of the "Xerox" Logo is appeared within the specified time after the machine completely starts up.
- Enter the Item No. of the clear (Refer the Table 1), select [Next] using Select button.
- The display is changed to CE Settings screen.
- Switch the power off and on.

**Table 1 System Clear Function List**

System Clear Function	Function Outline	Machine Model
1.Soft Switch Clear	Initializes the soft switches.	All models
2.User Data Clear	Clears local office and division data.	All models
3.Destination Data Clear	Clears destination data.	Model with fax
4.Image Data Clear	Clears image data.	Model with fax
5.Activity Log Clear	Clears communication management data.	Model with fax
6.Initialize Adj Setting	Initializes IIT adjustment data and values in the system data.	All models
7.Histroy Log Clear	Clears jam, fault, and communication error log data.	All models
8.IIT Counter Clear	Initializes the IIT counter.	All models
10.All Clear	Initializes data from 1 to 7 above at a time, excluding the IIT counter.	All models

## GP 4 Country Code changing

You can change the Country Code to configure the machine setting for the appropriate Country.

**NOTE:** The Country Code that does not exist in the Language ROM is inhibited.

### Procedure

- Enter the DIAG by the following procedure.  
At power-on, press 1+START at the timing of the "Xerox" Logo is appeared within the specified time after the machine completely starts up.
- The display is changed to Country Code screen.
- Enter the Country Code (Refer the Table 1) and press the [Enter] button.
- Switch the power off and on.
- Enter [CE Settings] >[MFC] >[Country Code] and Confirm the Country Code.

### Country Code

**Table 1 Country Code**

Country Name	Country	Country Code
Algeria	DZ	012
Angola	AO	024
Argentina	AR	032
Australia	AU	036
Austria	AT	040
Bahrain	BH	048
Belgium	BE	056
Botswana	BW	072
Brazil	BR	076
Bulgaria	BG	100
Burkina Faso	BF	854
Burundi	BI	108
Cameroon	CM	120
Canada	CA	124
Cape Verde	CV	132
CAR	CF	140
chad	TD	148
Chile	CL	152
Columbia	CO	170
Congo	CG	178
Cote d'Ivoire	CI	384
Cyprus	CY	196
Czech Republic	CZ	203
Denmark	DK	208
DR Congo	ZR	180
Egypt	EG	818

Table 1 Country Code

Country Name	Country	Country Code
Eritrea	ER	232
Ethiopia	ET	231
Falklands	FK	238
Finland	FI	246
France	FR	250
Gabon	GA	266
Gambia	GM	270
Germany	DE	276
Ghana	GH	288
Gibraltar	GI	292
Greece	GR	300
Hong Kong	HK	344
Hungary	HU	348
India	IN	356
Indonesia	ID	360
Iran	IR	364
Ireland	IE	372
Israel	IL	376
Italy	IT	380
Japan	JP	392
Jordan	JO	400
Kenya	KE	404
Korea	KR	410
Kuwait	KW	414
Lebanon	LB	422
Lesotho	LS	426
Madagascar	MG	450
Malawi	MW	454
Malaysia	MY	458
Mali	ML	466
Malta	MT	470
Mauritius	MU	480
Mexico	MX	484
Morocco	MA	504
Mozambique	MZ	508
Namibia	NA	516
Netherlands	NL	528
New Zealand	NZ	554
Niger	NE	562
Nigeria	NG	566
Norway	NO	578

Table 1 Country Code

Country Name	Country	Country Code
Oman	OM	512
Pakistan	PK	586
People's Republic of China	CN	156
Peru	PE	604
Philippines	PH	608
Poland	PL	616
Portugal	PT	620
Qatar	QA	634
Republic of Ecuador	EC	218
Republic of Trinidad and Tobago	TT	780
Romania	RO	642
Russia	RU	643
Rwanda	RW	646
Saudi Arabia	SA	682
Senegal	SN	686
Seychelles	SC	690
Sierra Leone	SL	694
Singapore	SG	702
Slovakia	SK	703
South Africa	ZA	710
Spain	ES	724
Sudan	SD	736
Swaziland	SZ	748
Sweden	SE	752
Switzerland	CH	756
Syria	SY	760
Taiwan	TW	158
Tanzania	TZ	834
Thailand	TH	764
Togo	TG	768
Tunisia	TN	788
Turkey	TR	792
UAE	AE	784
Uganda	UG	800
UK	GB	826
USA	US	840
Venezuela	VE	862
Vietnam	VN	704
Yemen	YE	887
Zambia	ZM	894
Zimbabwe	ZW	716



## Space Requirements

Installation space requirements are shown in CCC118, WCM118.

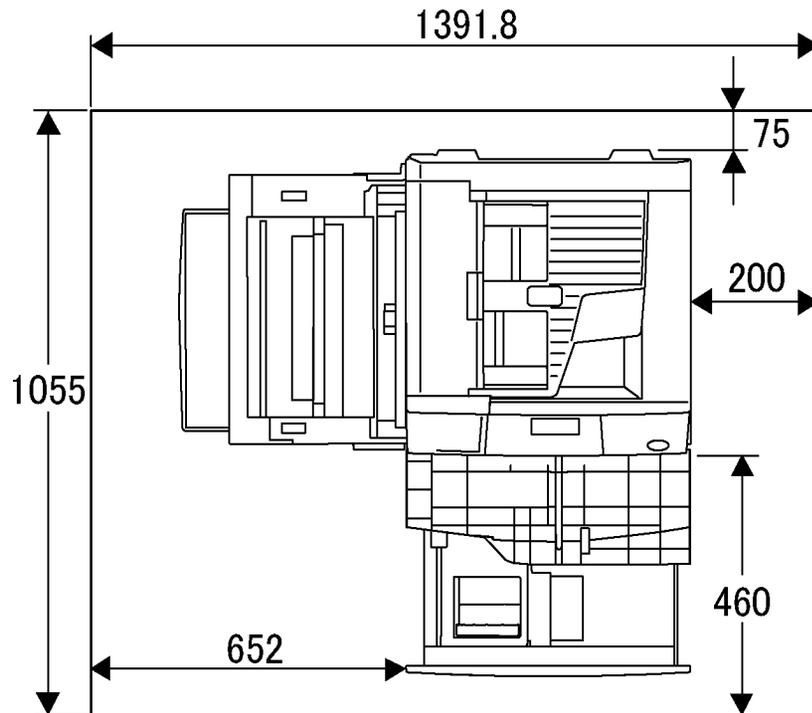


Figure 1 Space Requirement - CCC118,WCM118 (j0ch61003)

## Machine Size

IOT with Size MPT + PLATEN Cover

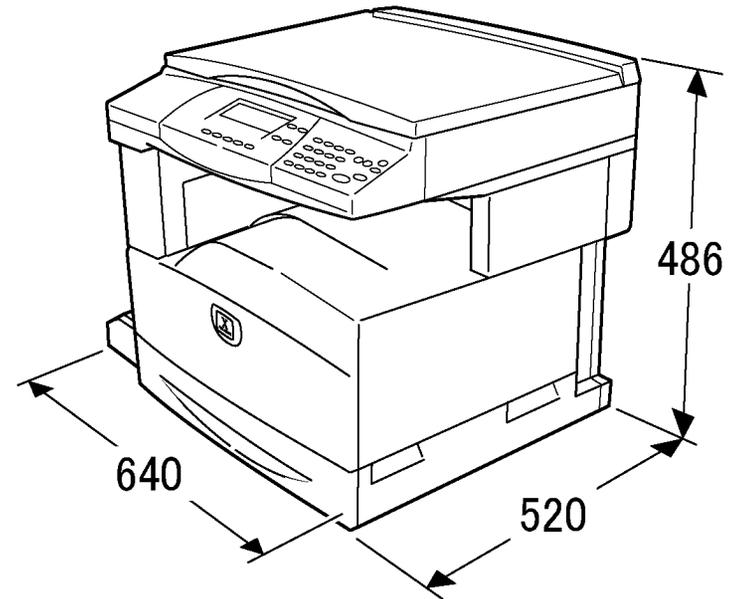


Figure 1 Standard Configuration (j0ch61001)

IOT with MPT + DADF (ADF) + STM + 2-tray module

## Product Specification

### Product Codes

Table 1 Product Codes CCC118

Item	Standard/Optional (std/opt)	Product Code
Base Processor		
IIT+IOT+250x1Tray+Standard Memory w	std	-
MPT	std	-
DUP	opt	EL200354
Input Option		
Platen Cover	opt	EL200361
ADF	opt	EL200360
DADF	opt	EL200359
Tray / Cabinet		
Add 500x1tray	opt	EL200513
Add 500x2tray	opt	EL200514
Mobile Stand	opt	EL200515
Exit/Output Option		
Exit+Inverter	std	-
Exit+OCT+Inverter	opt	EL200371
RAM		
Additional Memory 64M (Copy/Fax)	opt	EL200358
FAX Option		
FAX (XC)	opt	EL200373
FAX (EU)	opt	EL200416
Printer/Network Option		
PRT w NW	opt	EL200353
Printer Memory 128M	opt	EL200516
PS3 G1	opt	EL200355
Other Option		
Accessory I/F Kit (EP I/F)	std	-

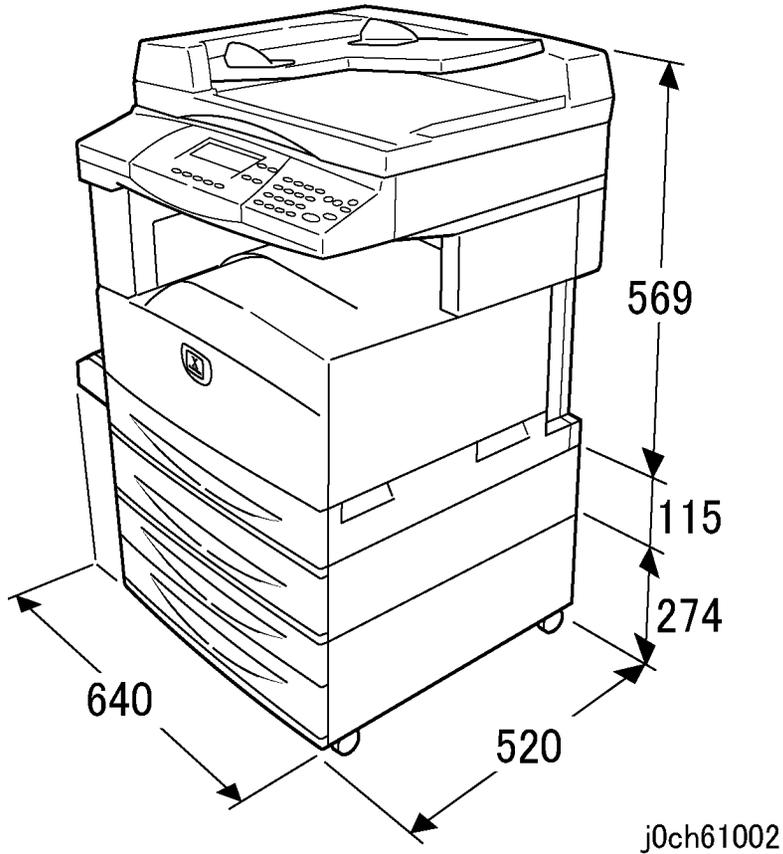


Figure 2 Standard with Optional Configuration (j0ch61002)

## Component Weights

**Table 2 Product Codes WCM118**

Item	Standard/Optional (std/opt)	Product Code
Base Processor		
IIT+IOT+250x1Tray+Standard Memory w	std	-
MPT	std	-
DUP	opt	EL200354
Input Option		
Platen Cover	opt	EL200361
ADF	opt	EL200360
DADF	opt	EL200359
Tray / Cabinet		
Add 500x1tray	opt	EL200513
Add 500x2tray	opt	EL200514
Mobile Stand	opt	EL200515
Exit/Output Option		
Exit+Inverter	std	-
Exit+OCT+Inverter	opt	EL200371
RAM		
Additional Memory 64M (Copy/Fax)	opt	EL200358
FAX Option		
FAX (XC)	opt	EL200373
FAX (EU)	opt	EL200416
Printer/Network Option		
PRT w NW	std	EL200353
Printer Memory 128M	opt	EL200516
PS3 G1	opt	EL200355
Other Option		
Accessory I/F Kit (EP I/F)	std	-

**Table 3 Component Weights**

Component	Weight (approx.)
DC	45 kg
CP	46 kg
CFP	53 kg
IOT	39.9 kg
IIT	7.5 kg
DADF/ADF	6 kg (lb.)
Platen Cover	1.6 kg
Add 1 Tray	11 kg
2TM	23 kg
Duplex	1.8 kg
Deve xero CRU 60K	1.5 kg
Toner Cartridge 9K	0.63 kg
Fax Unit	0.98 kg
Toner Cartridge (11K)	0.69 kg
Toner Cartridge (2.5K)	0.63 kg
Mobile Stand	15 kg

## Paper Capacities

**Table 4 Paper Capacities**

Specification	Paper Trays 1 - 4	Tray 5 (Bypass)
Paper Sizes	Tray 1 & 2 (STM); Tray 1 -4 (2TM) <ul style="list-style-type: none"> <li>Min: A5 SEF (148 x 210 mm)</li> <li>Max: A3/11 x 17 in.</li> </ul>	Paper <ul style="list-style-type: none"> <li>Min: 89 x 98.4 mm (Monarch (L))</li> <li>Max: 297 x 431.8 mm/11 x 17 in.</li> </ul>
Paper Weights	Optimum: 24 lb./90 gsm  Range: 60 - 90 gsm (Tray 1)  Range: 60 - 209 gsm (Tray 2, 2TM)	Range: 60 - 209 gsm
Capacities (80 gsm/Sheet)	<ul style="list-style-type: none"> <li>Tray 1: 250 sheets</li> <li>Tray 2: 500 sheets</li> <li>Tray 3: 500 sheets</li> <li>Tray 4: 500 sheets</li> </ul>	95 sheets

## Copy Speed

- B/W (plain paper; simplex; fed from Tray 1)
  - letter size LEF: 18 ppm

- letter size SEF: 10 ppm
- legal size: 7 ppm
- A3/11x17 in.: 10 ppm

### FCOT/FPOT

First Copy Output Time (original on platen); 8.5" x 11" (A4)LEF; Tray 1;

- 7.4 sec. max

First Print Output Time (does not include ESS process time for prints); 8.5" x 11" (A4)LEF; Tray 1;

- 15 sec. max

### Voltage Requirements

- Single phase (two wires plus ground)
- 110 - 127 VAC/60 Hz (100 - 135 VAC, 50/60 +/- 3 Hz)
- 220 - 240 VAC/50 Hz (198 - 254 VAC, 50/60 +/- 3 Hz)

### Power Consumption (5 minute average)

- Machine Running: 1.32 kVA - NASG; 1.92 kVA ESG max.
- Low Power: 42 watts max.
- Sleep Mode: 10 watts max.

### Environmental Data and Requirements

#### Ambient Temperature and Humidity requirement:

- Minimum: 10°C/50°F at 155% humidity
- Maximum: 35°C/99°F at 85% humidity

### IIT/DADF Specifications

**Table 5 DADF Specifications**

Document Size: Platen	Max size: 334 x 452 mm Max scannable area: 297 x 432 mm
Document Size: ADF	Max: 297 x 432 mm Min: 128 x 100 mm
Document Size: DADF	5.5" x 8.5" (A5) LEF to 11" x 17" SEF (A3) Max: 297 x 432 mm Min: 128 x 140 mm
Document Weight: DADF	Min: 38 gsm/16lb (50 gsm in Duplex mode) Max: 128 gsm/32lb
Document Capacity: DADF	50 sheets 81.4 gsm

**Table 5 DADF Specifications**

R/E Capability:	Variable Percentages: 25% to 400% in 1% increments  Preset Percentages: <ul style="list-style-type: none"> <li>• 25%</li> <li>• 50% (A3 to A5)</li> <li>• 64% (11 x17 in. to 8.5 x 11 in.)</li> <li>• 70% (A3 to A4; B4 to B5)</li> <li>• 100%</li> <li>• 129% (8.5 x 11 in. to 11 x17 in.)</li> <li>• 141% (A4 to A3; B5 to B4)</li> <li>• 400%</li> </ul> Presets can be changed in Tools mode
-----------------	---

## Common Tools

Table 1 Common Tools

Description	Part Number
Screw Driver (-) 3 x 50	600T 40205
Screw Driver (+) 6 x 100	600T 01989
Screw Driver (+) NO.1 (5 x 75)	499T 00356
Stubby Driver (+) (-)	600T 40210
Screw Driver (+) No.2 (6 x 100)	499T 00355
Spanner and Wrench 5.5 x 5.5	600T 40501
Spanner and Wrench 7x 7	600T 40502
Hex Key Set	600T 02002
Box Driver 5.5MM	600T 01988
Side Cutting Nipper	600T 40903
Round Nose Pliers	600T 40901
Digital Multi-meter, Fluke 87	600T 02020
Interlock Cheater	600T 91616
Silver Scale 150MM	600T 41503
CE Tool Case	600T 01901
Magnetic Screw Pick-up Tool	600T 41911
Scriber Tool	600T 41913
Magnetic pickup	600T 41911
Loupe	600T 42008
Flash Light	600T 01824
Brush	600T 41901
Tester Lead Wire (red)	600T 09583
Tester Lead Wire (black)	600T 02030

## Product Tools and Test Patterns

Table 1 Tools and Test Patterns

Description	Part Number
Geometric Test Pattern	082E 08220
Copy Paper Carrying Case	600T 01999
Copy Paper Zip Lock Bag	600T 02000
Colotech + - 90 gsm - A3	003R 94642
Service and Machine NVM Log	700P 97436
Serial cable	600T 02058
Network Interface (Crossover) cable	600T 02252
Parallel printer cable	117E 19340
PWS power cord adapter	600T 02018
L Probe	600T 02177
A3 (11" x 17") Test Pattern	082E 02000, 082P 00521
Test Pattern (Legal)	082P 00524
Test Pattern	082E 02000
A4 Test Pattern	082E 02010
8.5" x 11" Test Pattern	082E 02020
SIR 542.00 Solid area density Scale	082E 08230
SIR 494.00 Visual Scale	082P 00448

## Cleaning Materials

Table 1 Cleaning Materials

Description	NASG Part Number	ESG Part Number
Cleaning fluid (8oz., Formula A)	043P 00048	008R 90034
Film remover (8 oz.)	043P 00045	008R 90176
Lens/mirror cleaner	043P 00081	008R 90178
Lint-free (white) cleaning cloth	019P 03025	019P 03025
Lint-free Optics cleaning cloth	499T 90417	499T 90417
Cleaning towels	035P 03191	600S 04372
Drop cloth	035P 01737	035P 01737
Cotton Swab	035P 02162	035P 02162

## Machine Consumables

Table 1 Consumables

Name	Part Number
Drum Cartridge	013R 00589
Toner Cartridge	006R 01179

# Glossary of Terms

**Table 1**

Term	Description
A3	Paper size 297 millimeters (11.69 inches) x 420 millimeters (16.54 inches).
A4	Paper size 210 millimeters (8.27 inches) x 297 millimeters (11.69 inches).
AC	Alternating Current is type of current available at power source for machine.
ACT	Advanced Customer Training: teaches customers to perform some of service that is normally performed by Xerox Service Representative.
A/D	Analog to Digital refers to conversion of signal
ADF	Automatic Document Feeder
ADJ	Adjustment Procedure
Bit	Binary digit, either 1 or 0, representing an electrical state.
CCD	Charge Coupled Device (Photoelectric Converter)
CD	1: Circuit Diagram; 2: Compact Disc
CF	Copier Fax
CP	Copier Printer
CPF	Copier Printer Fax
Chip	Integrated Circuit (IC)
CRU	Customer Replaceable Unit
CVT	Constant Velocity Transport
DADF	Duplexing Automatic Document Feeder
DC	Direct Current is type of power for machine components. Machine converts AC power from power source to DC power.
DC	Digital Copier
DMM	Digital Multimeter is generic name for meter that measures voltage, current, or electrical resistance.
Duplex	2-sided printing or copying
EME	Electromagnetic Emissions are emitted from machine during normal operation and power of these emissions are reduced by machine design features.
ERU	Engineer Replaceable Unit
ESD	Electrostatic Discharge. A transfer of charge between bodies at different electrostatic potential.
FS	Fax Scanner
FS	Fast Scan (direction) - Inboard - to - Outboard
ESS	Electronic Sub-System
ENG	English
2TM	Two Tray Module
FAX	Facsimile
FIC	Final Integration Center
GND	Ground
HFSI	High Frequency Service Item
HVPS	High Voltage Power Supply

**Table 1**

Term	Description
Hz	Hertz (Cycles per second)
IIT	Image Input Terminal - the Scanner/CCD portion of the machine
IOT	Image Output Terminal - the ROS/Xero/paper handling/ fusing portion of the machine
IQ	Image Quality
KC	1000 copies
LCD	Liquid Crystal Display
LE	Lead Edge of copy or print paper, with reference to definition of term TE
LED	Light Emitting Diode
LEF	Long Edge Feed
LTR	Letter size paper (8.5 x 11 inches)
LUT	Look Up Table - array of NVM locations that store process control data
LVPS	Low Voltage Power Supply
MF	Multi-Function
MN	Multinational
MPT	Multi Purpose Tray
NBCR	New Book Scanner Control Relay
NIC	Network Interface Card
NSC	New Scanner Controller
NVM	Non Volatile Memory
OEM	Original equipment manufacturer
OGM	On-going Maintenance
PC	Personal Computer
PL	Parts List
PO	Part of (Assembly Name)
PS	Post Script
PSW	Portable Standard Workstation
PWB	Printed Wiring Board
PWS	Portable Workstation for Service
PJ	Plug Jack (electrical connections)
RAM	Random Access Memory
RAP	Repair Analysis Procedure for diagnosis of machine status codes and abnormal conditions
R/E	Reduction/Enlargement refers to features selection or components that enable reduction or enlargement
REP	Repair Procedure for disassembly and reassembly of component on machine
RIS	Raster Input Scanner
ROM	Read Only Memory
ROS	Raster Output Scanner - Device that transfers digitally processed image, using laser light, to photoreceptor.
SAD	Solid Area Density

**Table 1**

Term	Description
SCP	Service Call Procedure
SEF	Short Edge Feed
Self-test	An automatic process that is used to check Control Logic circuitry. Any fault that is detected during self-test is displayed by fault code or by LEDs on PWB.
SIMM	Single Inline Memory Module used to increase printing capacity
Simplex	Single sided copies
FS	Fast Scan (direction) - LE - to - TE
TE	Trail Edge of copy or print paper, with reference to definition of term LE
UM	Unscheduled Maintenance
UI	User Interface
USB	Universal Serial Bus
W/	With - indicates machine condition where specified condition is present
W/O	Without - indicates machine condition where specified condition is not present
XBRA	Xerox Brazil
XC	Xerox Corporation
XE	Xerox Europe - also referred to as ESG (European Solutions Group)
XLA	Xerox Latin America
XMEX	Xerox Mexico

## Change Tag Introduction

Important modifications to the copier are identified by a tag number which is recorded on a tag matrix. The tag matrix for the IOT (Processor) is molded into the inside of the Front Door. The DADF tag matrix is molded into the inside of DADF Rear Cover.

This section describes all of the tags associated with the copier, as well as multinational applicability, classification codes, and permanent or temporary modification information.

### Classification Codes

A tag number may be required to identify differences between parts that cannot be interchanged, or differences in diagnostic, repair, installation, or adjustment procedures.

A tag number may also be required to identify the presence of optional hardware, special non-volatile memory programming, or whether mandatory modifications have been installed. Each tag number is given a classification code to identify the type of change that the tag has made. The classification codes and their descriptions are listed in the table below.

**Table 1**

Classification Code	Description
M	Mandatory tag.
N	Tag not installed in the field.
O	Optional tag.
R	Repair tag.

## IOT/Processor (P) Tags

**NOTE:** At the time of publication no Change Tags had been issued to this machine



## Plug/Jack Locations

Plug/Jack Locations .....	7-3
---------------------------	-----

## Wirenets

7.3.1 Wire Net AC POWER (HOT).....	7-25
7.3.2 Wire Net AC POWER (NUT).....	7-26
7.3.3 Wire Net +3.3VDC.....	7-27
7.3.4 Wire Net DC COM (+3.3VRTN) .....	7-28
7.3.5 Wire Net +5VDC-1 .....	7-29
7.3.6 Wire Net +5VDC-2 .....	7-30
7.3.7 Wire Net +5VDC-3 .....	7-31
7.3.8 Wire Net DC COM (+5VRTN)-1 .....	7-32
7.3.9 Wire Net DC COM (+5VRTN)-2 .....	7-33
7.3.10 Wire Net DC COM (+5VRTN)-3 .....	7-34
7.3.11 Wire Net DC COM (+5VRTN)-4 .....	7-35
7.3.12 Wire Net +24VDC-1 .....	7-36
7.3.13 Wire Net +24VDC-2 .....	7-37
7.1.14 Wire Net +24VDC-3 .....	7-38
7.3.15 Wire Net DC COM (+24VRTN)-1 .....	7-39
7.3.16 Wire Net DC COM (+24VRTN)-2 .....	7-40

## BSDs

Chain 1 Standby Power .....	7-41
Chain 2 User Interface .....	7-46
Chain 3 Machine Run Control.....	7-47
Chain 4 Start Print Power.....	7-52
Chain 5 Document Transportation .....	7-53
Chain 6 Imaging .....	7-58
Chain 7 Paper Supply .....	7-63
Chain 8 Paper Feed and Transportation.....	7-72
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Chain 10 Copy Transportation and Fusing .....	7-82
Chain 16 Printer .....	7-87
Chain 17 FAX.....	7-88



## Plug/Jack Locations

### How to use the Plug/Jack Location List

The Plug/Jack Location List below is provided to locate plugs, jacks, or other terminating devices. Locate the desired termination device in the first column (Connector Number) of the list. Refer to the second column (Figure Number) to determine the figure number of the electrical termination device. Refer to the (Item Number) column to determine the item number in the adjacent Figure Number column. The fourth column supplies the title of the Figure.

**NOTE:** Connectors numbered "CN" and "FS" are listed after the "P and J" connectors.

**Table 1 Plug/Jack List**

Connector Number	Figure Number	Item Number	Figure Title
P/J1	Figure 10	14	Power Unit
P2	Figure 10	15	Power Unit
P3	Figure 10	11	Power Unit
P/J4	Figure 10	17	Power Unit
P/J6	Figure 10	10	Power Unit
J11	Figure 10	12	Power Unit
J12	Figure 10	13	Power Unit
P/J50	Figure 10	9	Power Unit
P/J56	Figure 10	4	Power Unit
P/J57	Figure 10	1	Power Unit
P/J68	Figure 10	3	Power Unit
P/J69	Figure 10	2	Power Unit
P/J72	Figure 10	8	Power Unit
P/J101	Figure 7	4	Registration Sensor, Registration Clutch
P/J101A	Figure 13	2	2TM Paper Feeder
P/J101B	Figure 13	2	2TM Paper Feeder
P/J102A	Figure 13	3	2TM Paper Feeder
P/J102B	Figure 13	3	2TM Paper Feeder
P/J104	Figure 7	3	Registration Sensor, Registration Clutch
P/J107	Figure 6	9	Duplex Unit, MPT Unit
P/J108	Figure 6	10	Duplex Unit, MPT Unit
P/J109	Figure 8	6	IOT Rear Location
P/J117	Figure 5	1	No.1 OCT, Fuser Assembly
P/J120	Figure 8	2	IOT Rear Location
P/J121	Figure 10	16	Power Unit
P/J123	Figure 6	2	Duplex Unit, MPT Unit
P/J124	Figure 6	1	Duplex Unit, MPT Unit

**Table 1 Plug/Jack List**

Connector Number	Figure Number	Item Number	Figure Title
P/J125	Figure 4	2	HVPS, Dispens Motor, ROS Unit
P/J126	Figure 4	3	HVPS, Dispens Motor, ROS Unit
P/J127	Figure 4	4	HVPS, Dispens Motor, ROS Unit
P/J130	Figure 4	7	HVPS, Dispens Motor, ROS Unit
P/J131	Figure 5	2	No.1 OCT, Fuser Assembly
P/J140	Figure 4	9	HVPS, Dispens Motor, ROS Unit
P/J150	Figure 7	2	Registration Sensor, Registration Clutch
P/J160	Figure 4	1	HVPS, Dispens Motor, ROS Unit
P/J180	Figure 11	2	1TM Paper Feeder
P/J181	Figure 11	3	1TM Paper Feeder
P/J182	Figure 11	5	1TM Paper Feeder
P/J183	Figure 11	7	1TM Paper Feeder
P/J184	Figure 11	4	1TM Paper Feeder
P/J201	Figure 4	10	HVPS, Dispens Motor, ROS Unit
P/J205	Figure 6	7	Duplex Unit, MPT Unit
P/J206	Figure 9	9	MCU PWB
P/J207	Figure 9	10	MCU PWB
P/J212	Figure 6	6	Duplex Unit, MPT Unit
P/J214	Figure 8	4	IOT Rear Location
P/J215	Figure 7	1	Registration Sensor, Registration Clutch
P/J216	Figure 4	6	HVPS, Dispens Motor, ROS Unit
P/J217	Figure 8	5	IOT Rear Location
P/J218	Figure 9	7	MCU PWB
P/J220A	Figure 13	1	2TM Paper Feeder
P/J220B	Figure 13	1	2TM Paper Feeder
P/J280	Figure 12	4	1TM Rear Location
P/J281	Figure 11	1	1TM Paper Feeder
P/J282	Figure 12	2	1TM Rear Location
P301	Figure 9	24	MCU PWB
J310	Figure 18	2	ESS PWB
J330	Figure 18	3	ESS PWB
J332	Figure 18	1	ESS PWB
J340	Figure 18	6	ESS PWB
J341	Figure 18	7	ESS PWB
J342	Figure 18	5	ESS PWB

**Table 1 Plug/Jack List**

Connector Number	Figure Number	Item Number	Figure Title
P380	Figure 18	4	ESS PWB
P/J400	Figure 9	23	MCU PWB
P/J401	Figure 9	3	MCU PWB
P/J402	Figure 9	1	MCU PWB
P/J403	Figure 9	14	MCU PWB
P/J404	Figure 9	16	MCU PWB
P/J405	Figure 9	13	MCU PWB
P/J406	Figure 9	15	MCU PWB
P/J408	Figure 9	12	MCU PWB
P/J409	Figure 9	2	MCU PWB
P/J410	Figure 9	25	MCU PWB
P/J411	Figure 9	19	MCU PWB
P/J412	Figure 9	22	MCU PWB
P/J413	Figure 9	18	MCU PWB
P/J413C	Figure 12	8	1TM Rear Location
P/J414	Figure 9	11	MCU PWB
P/J415	Figure 9	20	MCU PWB
P/J416	Figure 9	5	MCU PWB
P/J417	Figure 9	17	MCU PWB
P/J419	Figure 9	8	MCU PWB
P/J420	Figure 9	6	MCU PWB
P/J421	Figure 9	4	MCU PWB
P429	Figure 9	21	MCU PWB
P/J500	Figure 4	11	HVPS, Dispens Motor, ROS Unit
P/J521	Figure 10	5	Power Unit
P/J522	Figure 10	6	Power Unit
P/J523	Figure 10	7	Power Unit
P/J540	Figure 6	3	Duplex Unit, MPT Unit
P/J541	Figure 6	4	Duplex Unit, MPT Unit
P/J541	Figure 14	2	2TM Rear Location
P/J541C	Figure 12	1	1TM Rear Location
P/J542	Figure 6	5	Duplex Unit, MPT Unit
P/J548	Figure 14	1	2TM Rear Location
P/J548C	Figure 12	6	1TM Rear Location
P/J549	Figure 14	7	2TM Rear Location

**Table 1 Plug/Jack List**

Connector Number	Figure Number	Item Number	Figure Title
P/J549C	Figure 12	5	1TM Rear Location
P/J552	Figure 14	8	2TM Rear Location
P/J552C	Figure 12	7	1TM Rear Location
P/J554	Figure 14	3	2TM Rear Location
P600	Figure 5	3	No.1 OCT, Fuser Assembly
J600	Figure 8	1	IOT Rear Location
P/J605	Figure 8	3	IOT Rear Location
P/J609	Figure 6	8	Duplex Unit, MPT Unit
P/J610	Figure 4	12	HVPS, Dispens Motor, ROS Unit
P/J620	Figure 4	8	HVPS, Dispens Motor, ROS Unit
P/J661A	Figure 13	8	2TM Paper Feeder
P/J661B	Figure 13	9	2TM Paper Feeder
P/J661C	Figure 11	6	1TM Paper Feeder
J701	Figure 3	15	EXT/MFC PWB
J702	Figure 3	13	EXT/MFC PWB
P/J703	Figure 3	17	EXT/MFC PWB
J720	Figure 3	12	EXT/MFC PWB
P/J820	Figure 13	4	2TM Paper Feeder
P/J821	Figure 13	7	2TM Paper Feeder
P/J822	Figure 14	5	2TM Rear Location
P/J824	Figure 13	5	2TM Paper Feeder
P/J842	Figure 13	10	2TM Paper Feeder
P/J825	Figure 13	6	2TM Paper Feeder
P/J826	Figure 14	6	2TM Rear Location
P/J840	Figure 12	3	1TM Rear Location
P/J841	Figure 14	4	2TM Rear Location
P/J2011	Figure 4	5	HVPS, Dispens Motor, ROS Unit
ADC CN1	Figure 17	5	FAX KIT
ADC CN2	Figure 17	6	FAX KIT
ADC CN3	Figure 17	3	FAX KIT
ADC CN4	Figure 17	4	FAX KIT
CCD CN1	Figure 2	8	IIT Carriage Assembly
DF CN1	Figure 16	16	DADF PWB
DF CN2	Figure 16	15	DADF PWB
DF CN3	Figure 16	14	DADF PWB

**Table 1 Plug/Jack List**

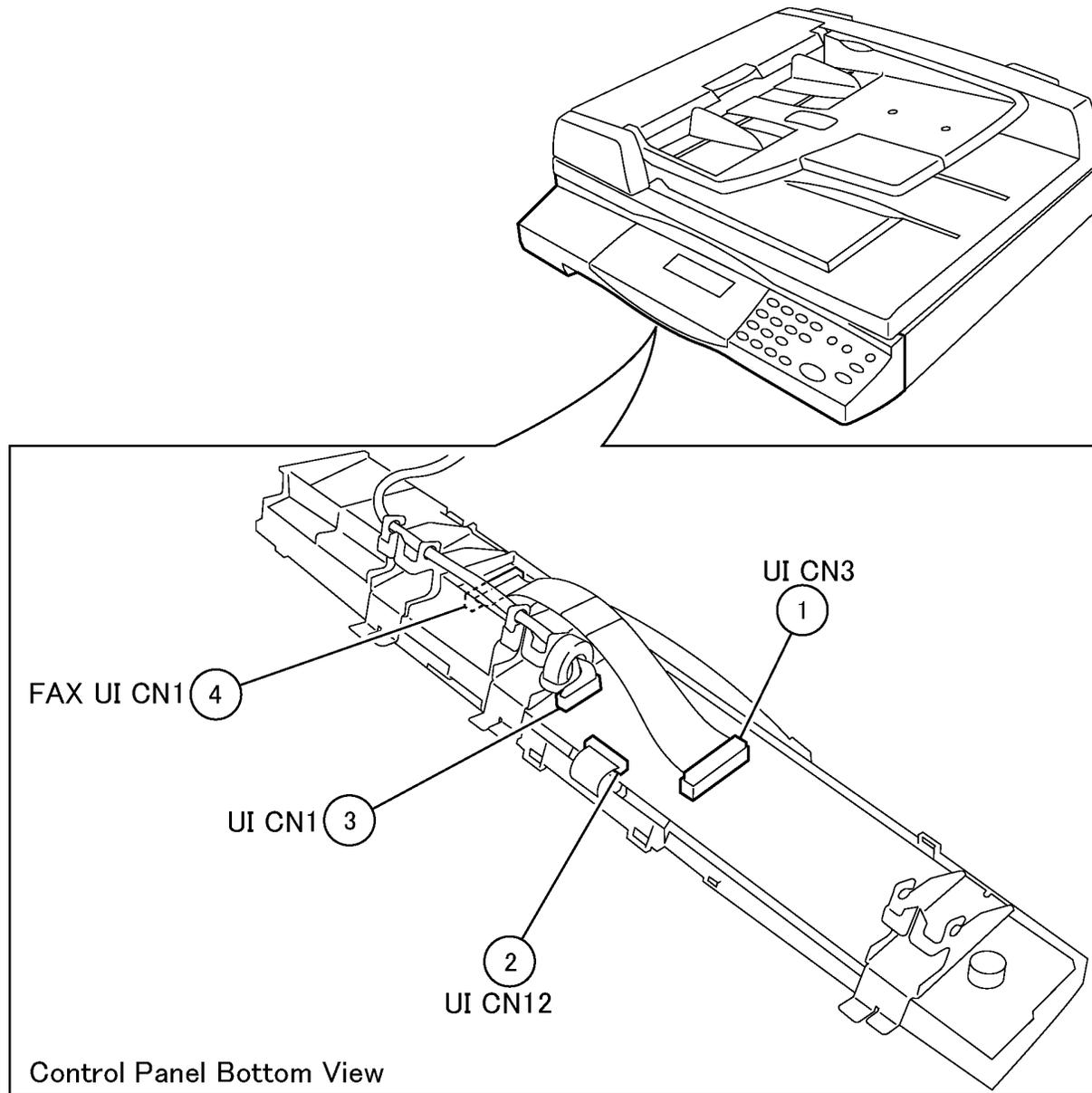
Connector Number	Figure Number	Item Number	Figure Title
DF CN4	Figure 16	12	DADF PWB
DF CN5	Figure 16	13	DADF PWB
DF CN6	Figure 16	5	DADF PWB
DF CN8	Figure 16	3	DADF PWB
DF CN9	Figure 16	2	DADF PWB
DF CN10	Figure 16	1	DADF PWB
DF CN13	Figure 16	18	DADF PWB
DF CN14	Figure 16	17	DADF PWB
DF1	Figure 3	19	EXT/MFC PWB
DF2	Figure 15	1	DADF Front Location
DF3	Figure 15	2	DADF Front Location
DF4	Figure 15	3	DADF Front Location
DF5	Figure 15	4	DADF Front Location
DF6	Figure 15	5	DADF Front Location
DF7	Figure 15	6	DADF Front Location
DF8	Figure 15	7	DADF Front Location
DF9	Figure 15	8	DADF Front Location
DF10	Figure 15	9	DADF Front Location
DF11	Figure 16	6	DADF PWB
DF12	Figure 16	7	DADF PWB
DF13	Figure 16	8	DADF PWB
DF14	Figure 16	9	DADF PWB
DF15	Figure 16	10	DADF PWB
DF16	Figure 16	11	DADF PWB
DF17	Figure 16	4	DADF PWB
EXT CN1	Figure 3	18	EXT/MFC PWB
EXT CN2	Figure 3	16	EXT/MFC PWB
EXT CN3	Figure 3	9	EXT/MFC PWB
EXT CN4	Figure 3	5	EXT/MFC PWB
EXT CN6	Figure 3	4	EXT/MFC PWB
EXT CN7	Figure 3	15	EXT/MFC PWB
EXT CN8	Figure 3	13	EXT/MFC PWB
EXT CN10	Figure 3	8	EXT/MFC PWB
EXT CN11	Figure 3	11	EXT/MFC PWB
EXT CN12	Figure 3	10	EXT/MFC PWB

**Table 1 Plug/Jack List**

Connector Number	Figure Number	Item Number	Figure Title
EXT CN13	Figure 3	14	EXT/MFC PWB
EXT CN14	Figure 3	6	EXT/MFC PWB
EXT CN15	Figure 3	12	EXT/MFC PWB
EXT CN16	Figure 3	3	EXT/MFC PWB
EXT CN18	Figure 3	7	EXT/MFC PWB
FAX CN1	Figure 17	7	FAX KIT
FAX CN2	Figure 17	1	FAX KIT
FAX CN3	Figure 17	9	FAX KIT
FAX CN4	Figure 17	2	FAX KIT
FAC CN5	Figure 17	12	FAX KIT
FAX CN6	Figure 17	13	FAX KIT
FAX UI CN1	Figure 1	4	FAX KIT
FS812	Figure 13	11	2TM Paper Feeder
FS813	Figure 13	11	2TM Paper Feeder
IIT1	Figure 2	1	IIT Carriage Assembly
IIT2	Figure 2	2	IIT Carriage Assembly
IIT3	Figure 2	5	IIT Carriage Assembly
IIT4	Figure 2	11	IIT Carriage Assembly
IIT5	Figure 2	12	IIT Carriage Assembly
IIT6	Figure 3	19	EXT/MFC PWB
IIT7	Figure 3	1	EXT/MFC PWB
INV CN1	Figure 2	7	IIT Carriage Assembly
INV CN2	Figure 2	6	IIT Carriage Assembly
MFC CN1	Figure 3	18	EXT/MFC PWB
MFC CN2	Figure 3	2	EXT/MFC PWB
NBCR CN1	Figure 2	3	IIT Carriage Assembly
NBCR CN3	Figure 2	4	IIT Carriage Assembly
NBCR CN4	Figure 2	10	IIT Carriage Assembly
NBCR CN6	Figure 2	13	IIT Carriage Assembly
NBCR CN7	Figure 2	9	IIT Carriage Assembly
NSC CN1	Figure 2	15	IIT Carriage Assembly
NSC CN2	Figure 2	14	IIT Carriage Assembly
NSC CN3	Figure 2	10	IIT Carriage Assembly
T11	Figure 10	12	Power Unit
T12	Figure 10	13	Power Unit

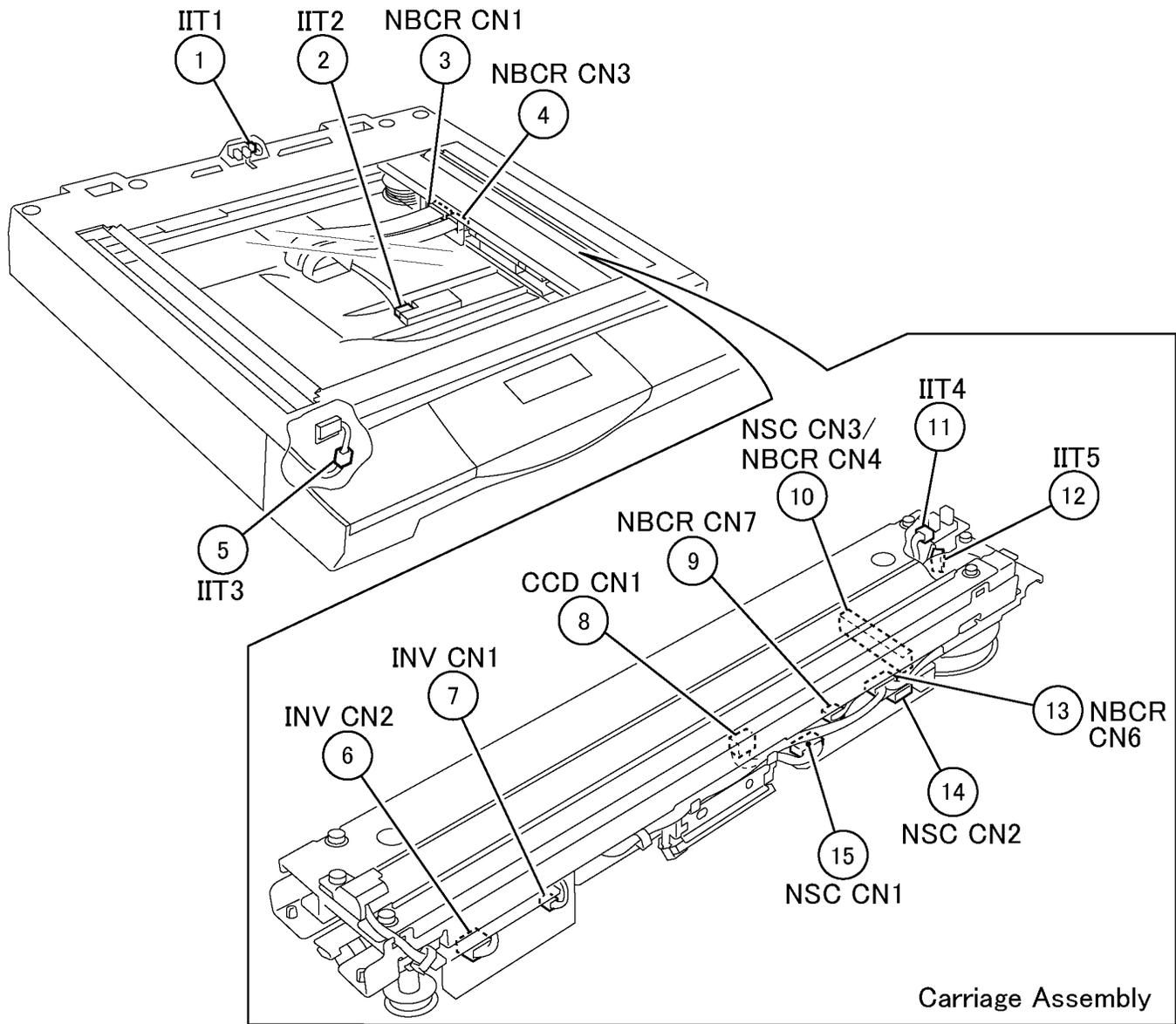
**Table 1 Plug/Jack List**

Connector Number	Figure Number	Item Number	Figure Title
TEL CN1	Figure 17	10	FAX KIT
TEL CN2	Figure 17	8	FAX KIT
TEL CN3	Figure 17	11	FAX KIT
UI CN1	Figure 1	3	Control Panel
UI CN3	Figure 1	1	Control Panel
UI CN12	Figure 1	2	Control Panel



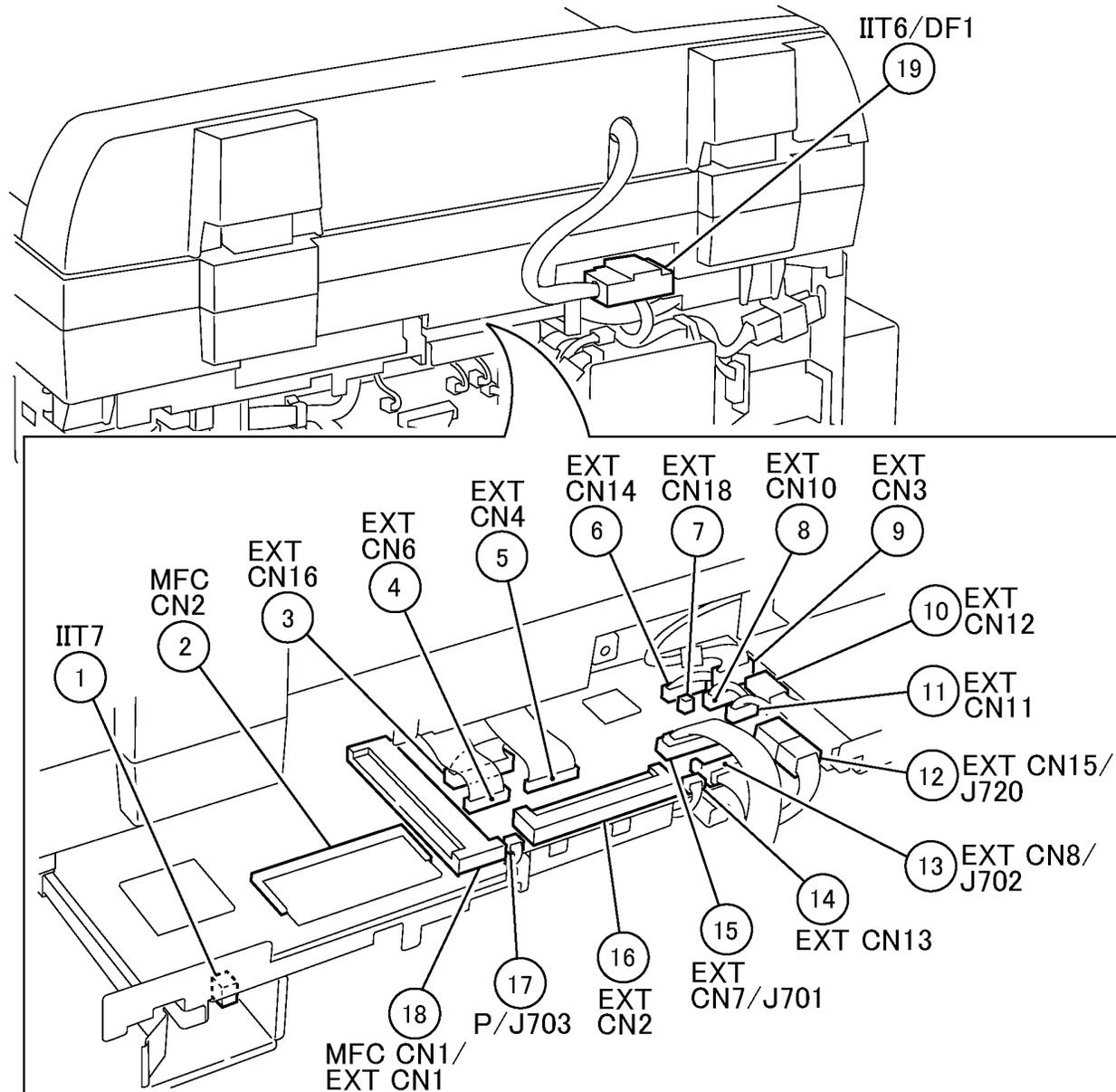
j0ch7201

Figure 1 Control Panel (j0ch7201)



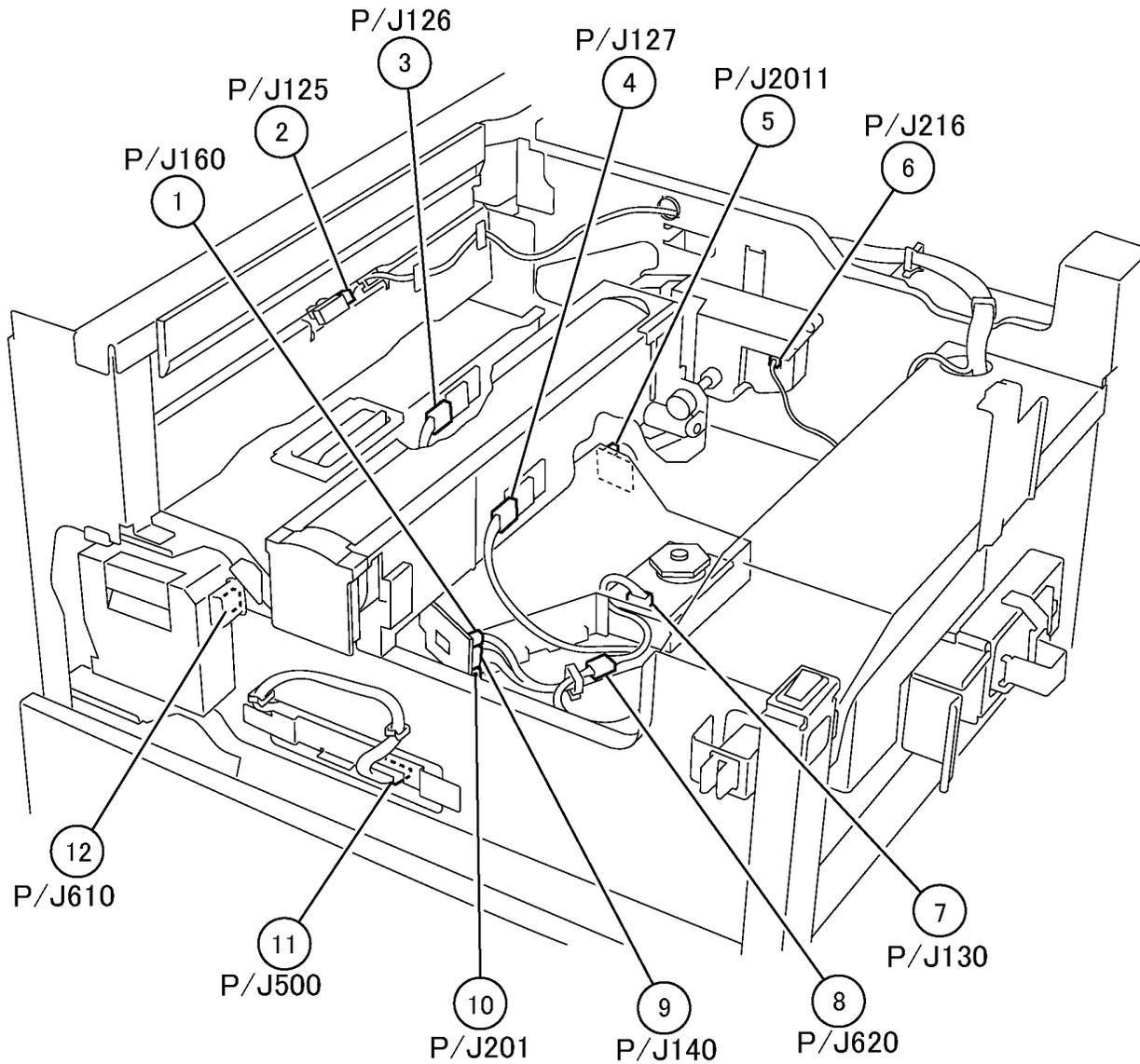
j0ch7202

Figure 2 IIT Carriage Assembly (j0ch7202)



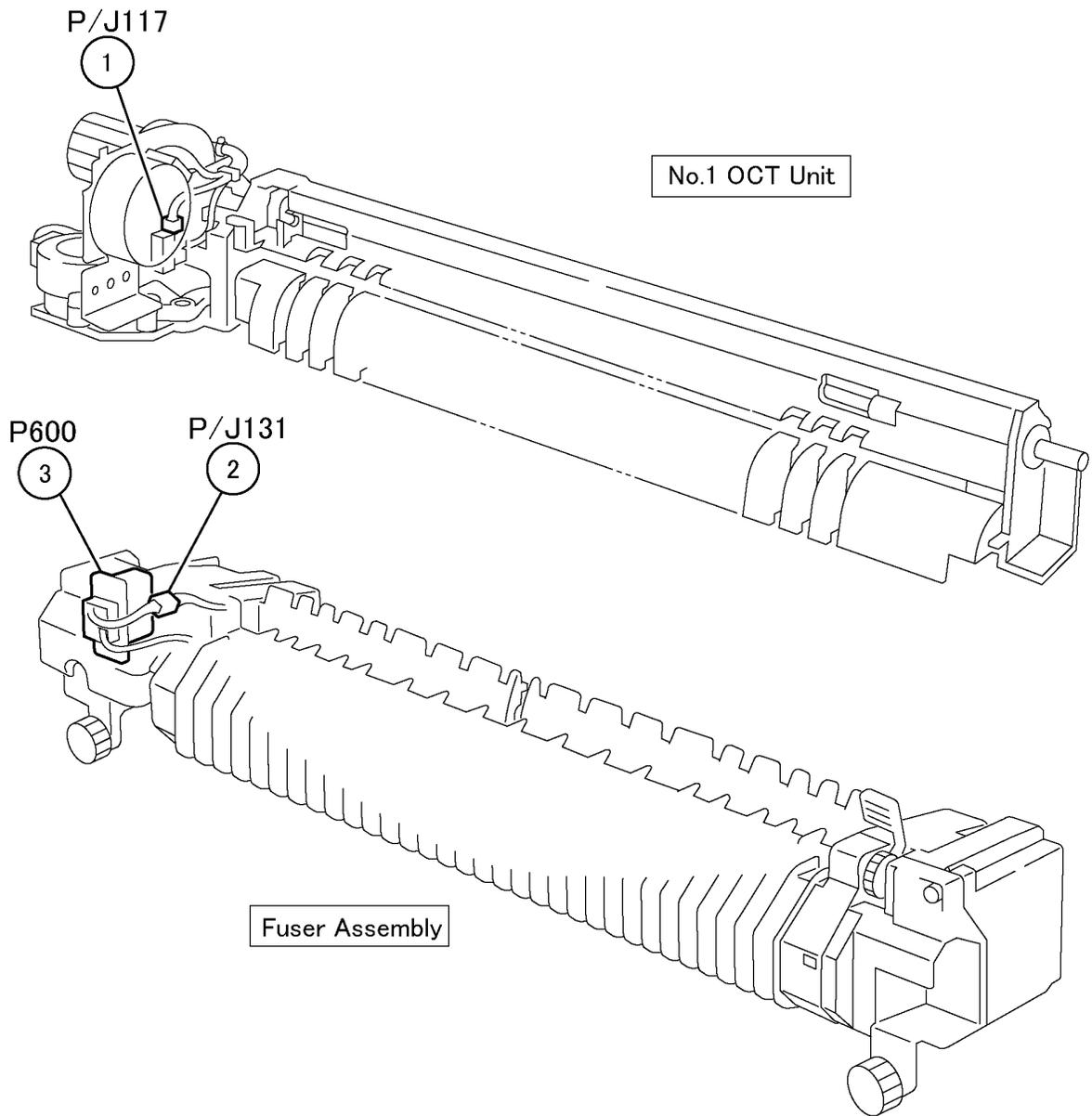
j0ch7203

Figure 3 EXT/MFC PWB (j0ch7203)



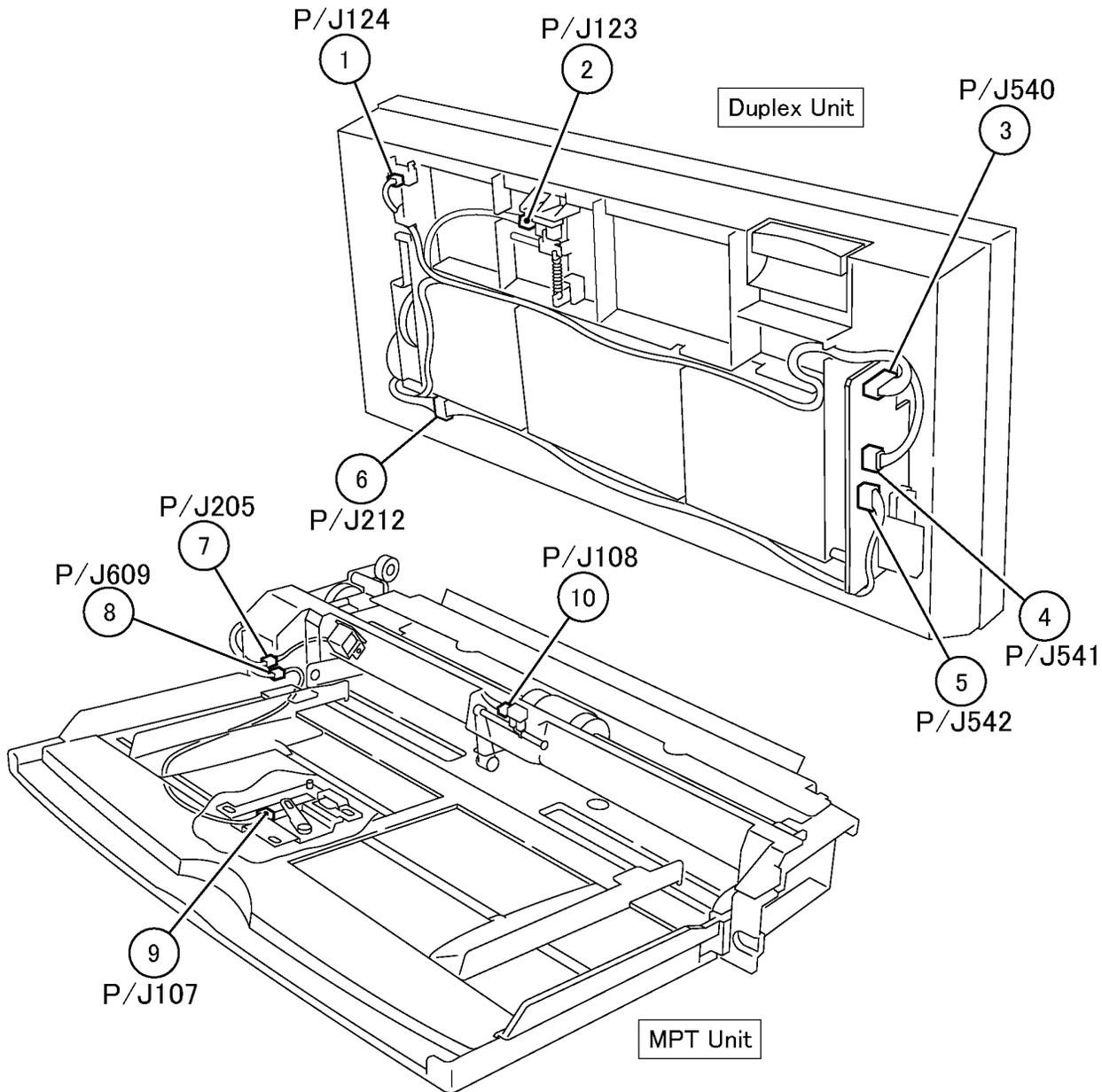
j0ch7204

Figure 4 HVPS,Dispense Motor,ROS Unit (j0ch7204)



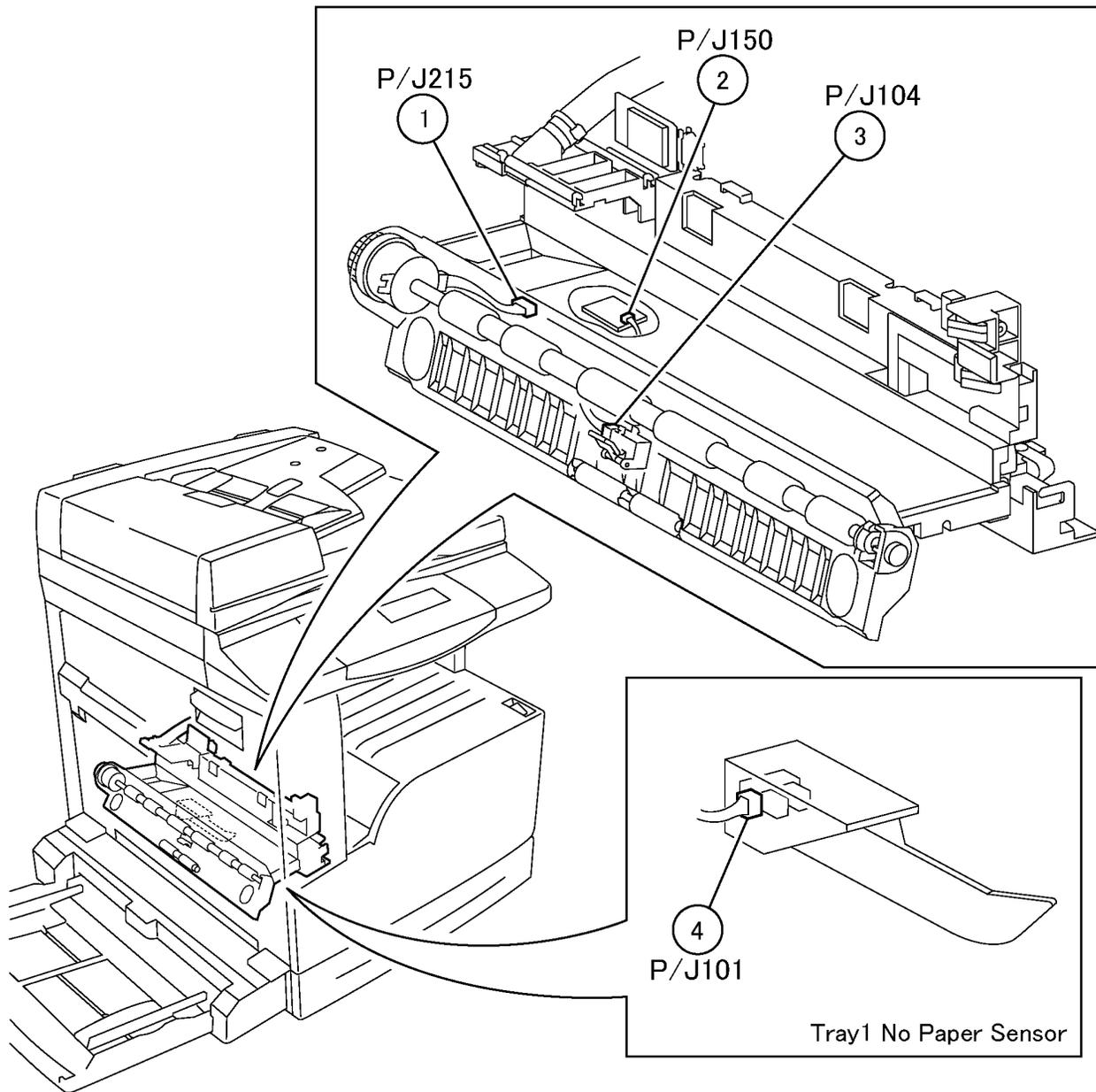
j0ch7205

Figure 5 No.1 OCT,Fuser Assembly (j0ch7205)



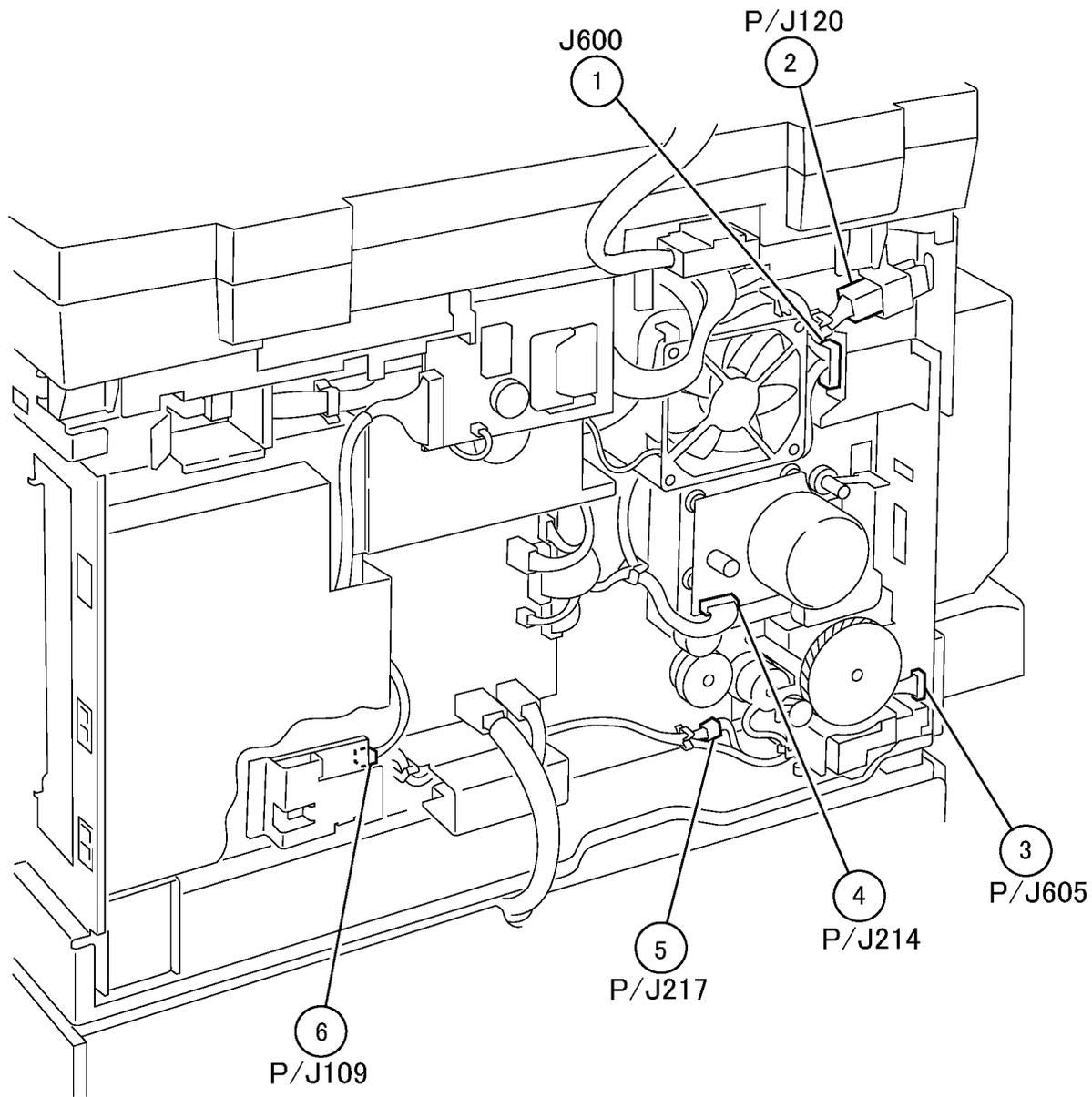
j0ch7206

Figure 6 Duplex Unit, MPT Unit (j0ch7206)



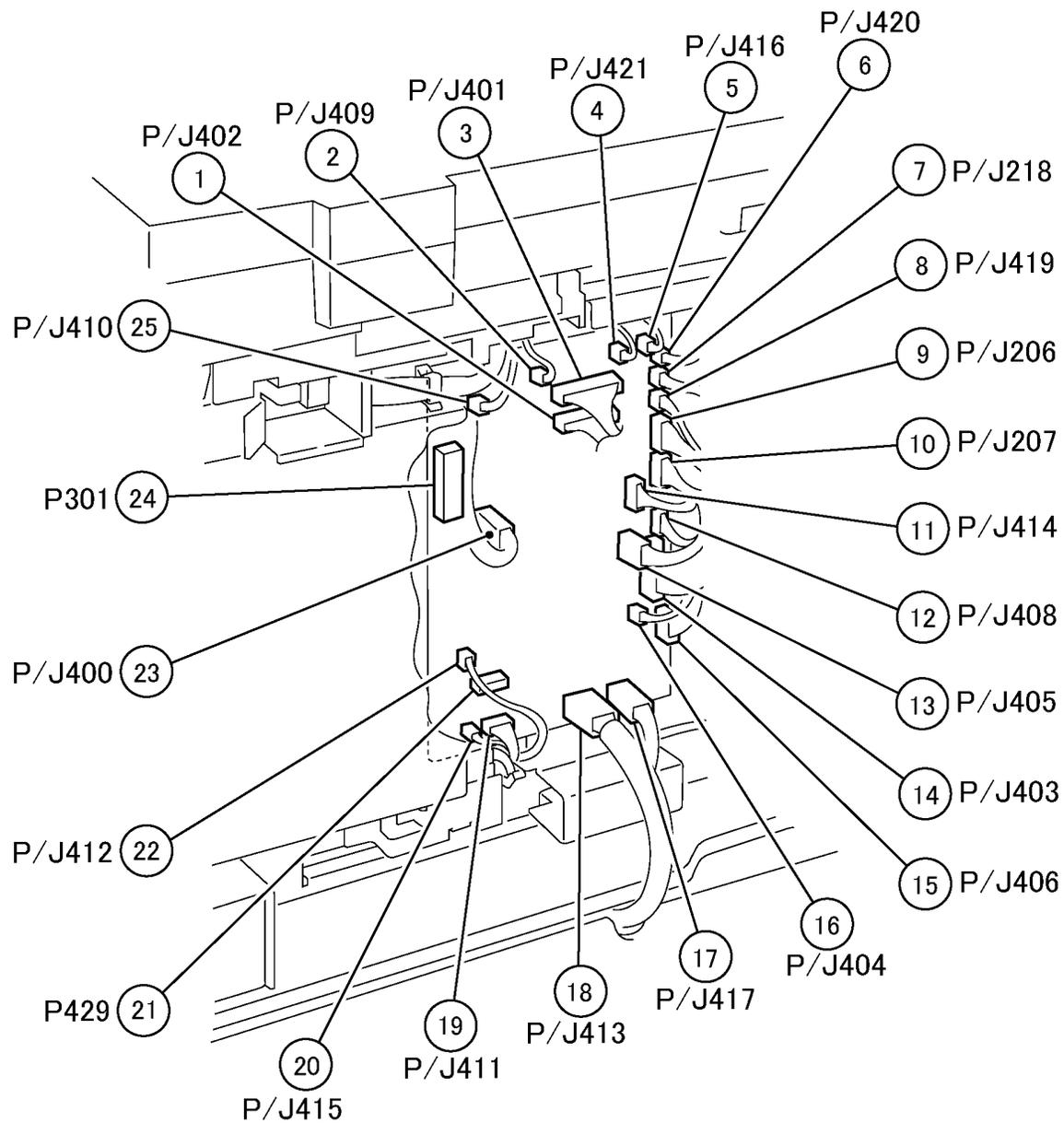
j0ch7207

Figure 7 Registration Sensor, Registration Clutch (j0ch7207)



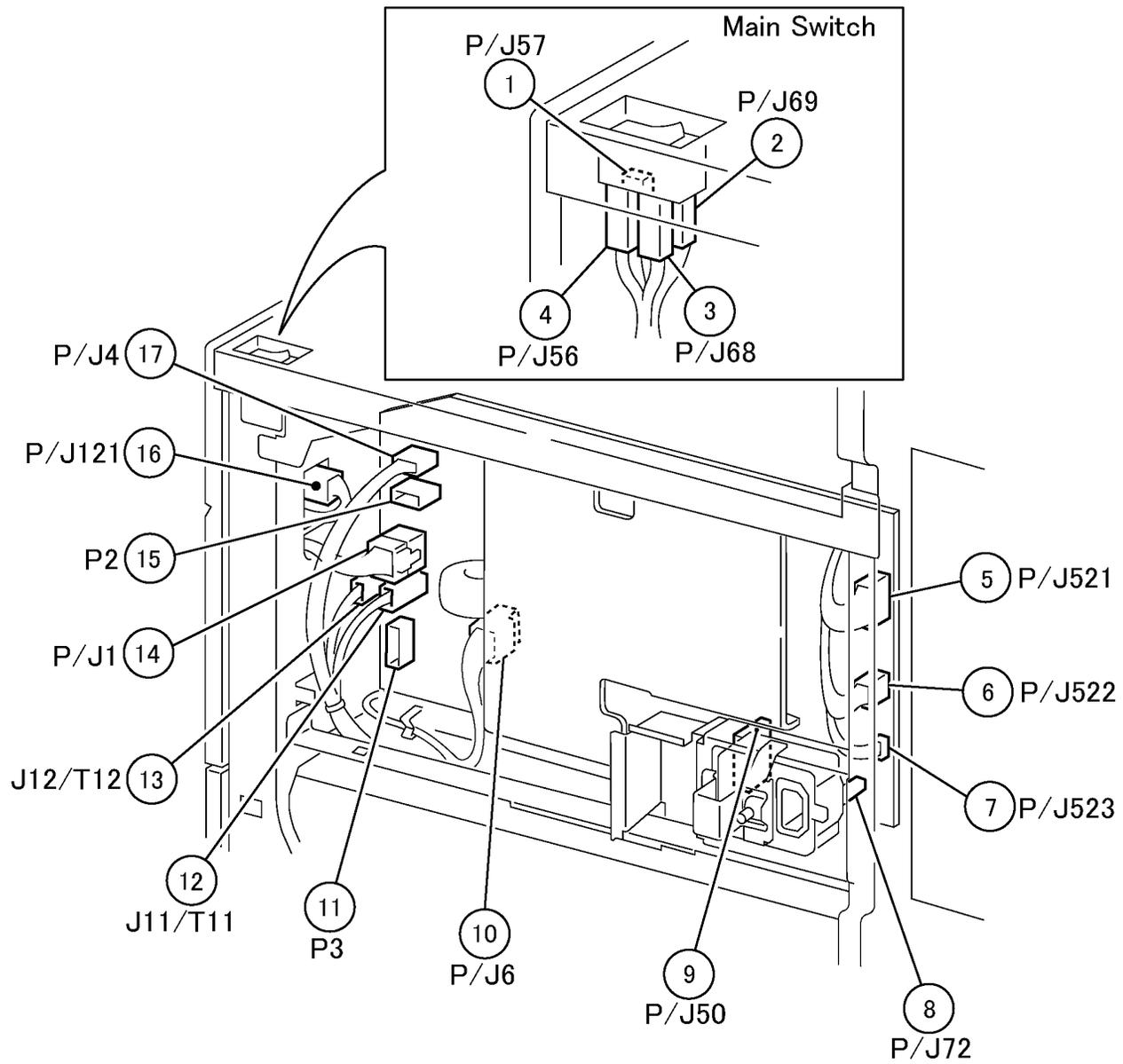
j0ch7208

Figure 8 IOT Rear Location (j0ch7208)



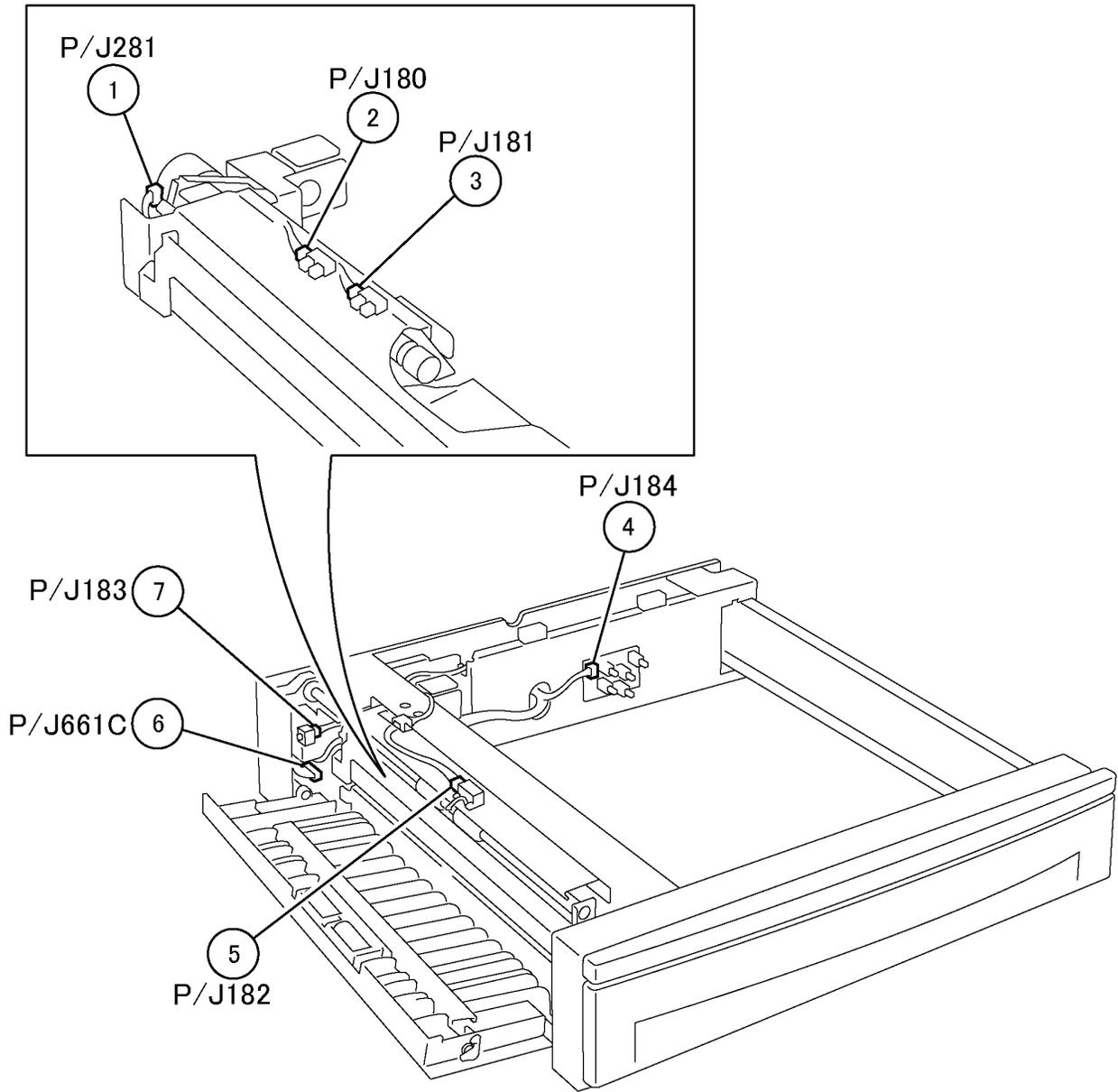
j0ch7209

Figure 9 MCU PWB (j0ch7209)



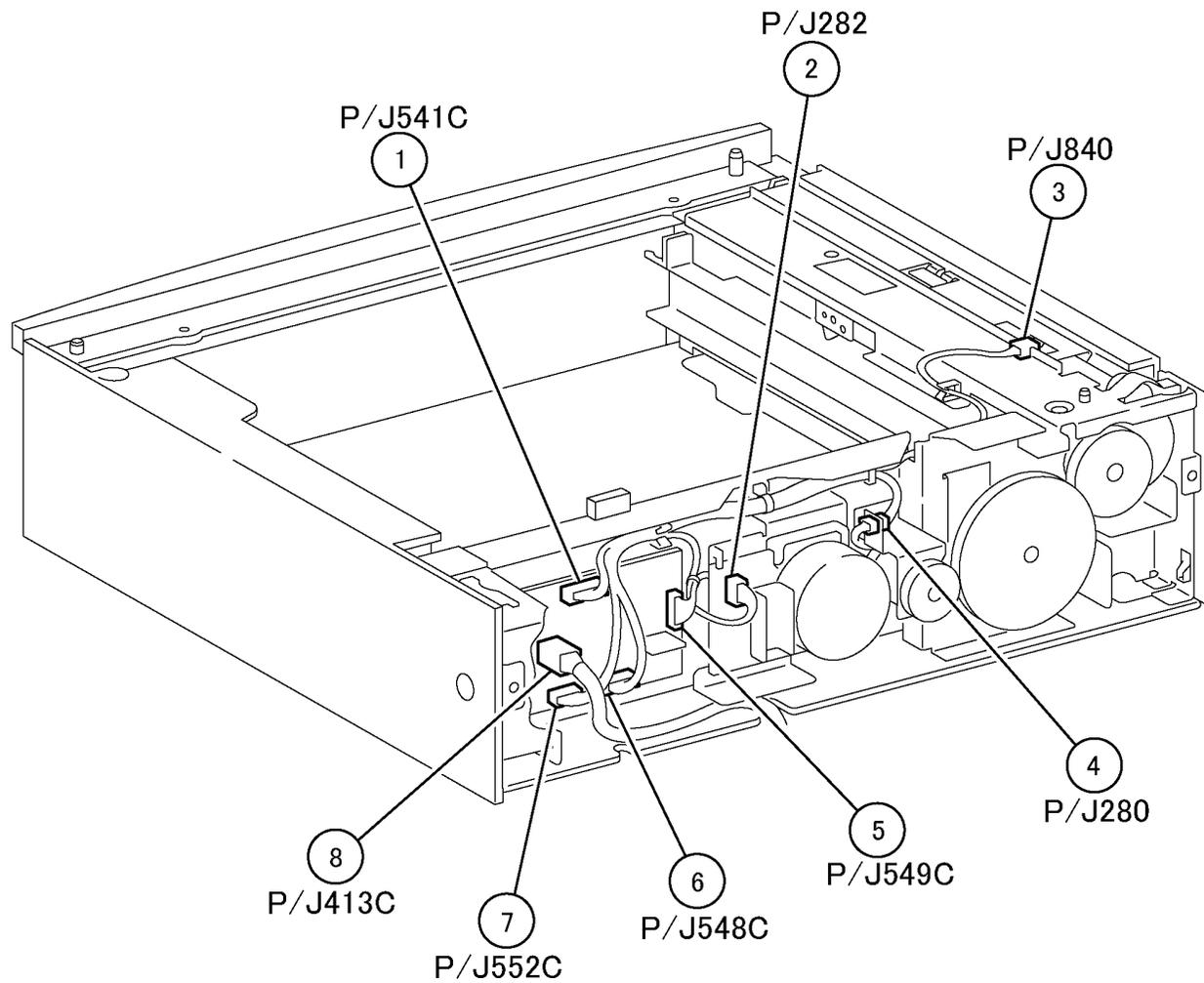
j0st7210

Figure 10 Power Unit (j0ch7210)



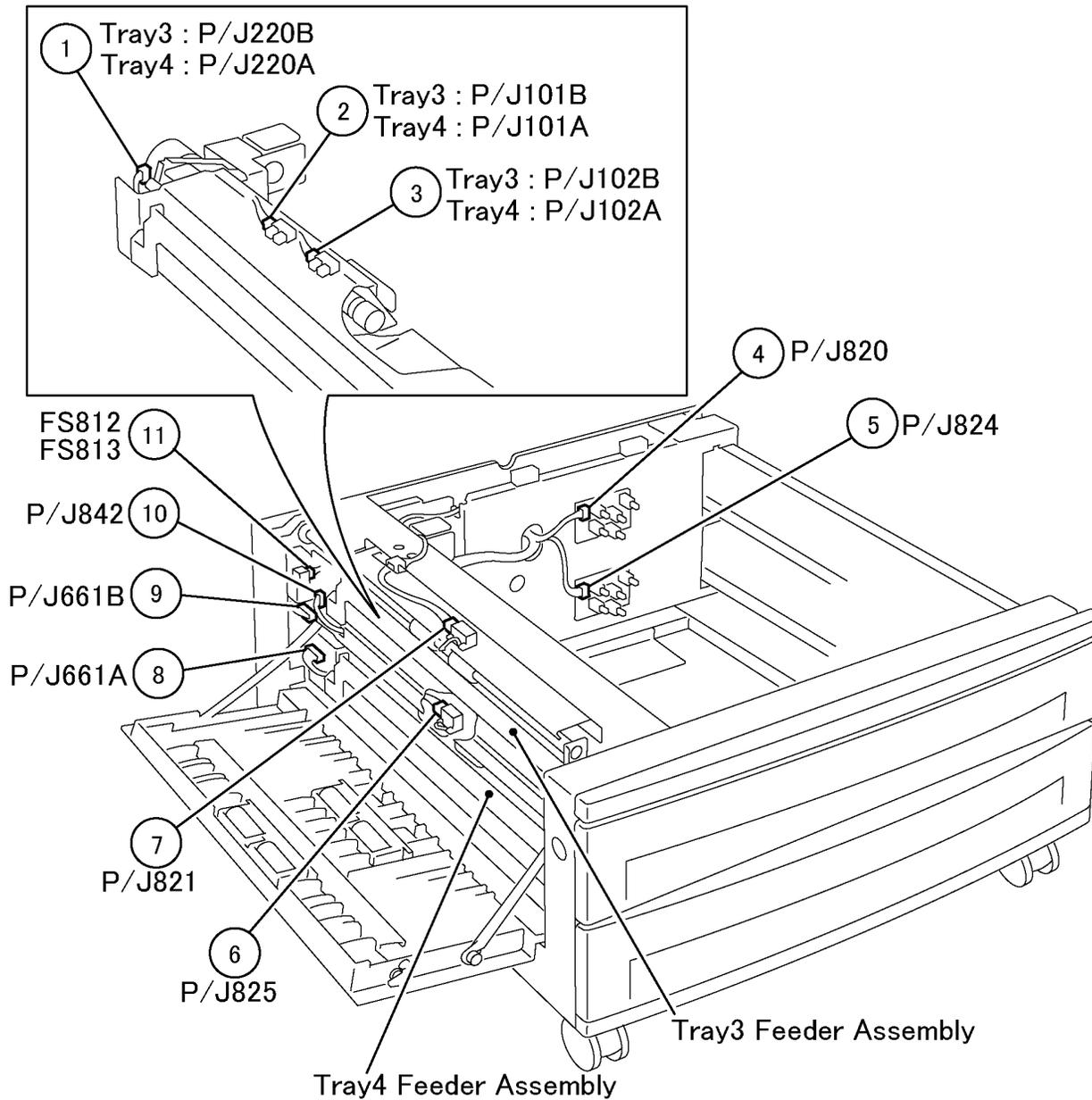
j0ch7211

Figure 11 1TM Paper Feeder (j0ch7211)



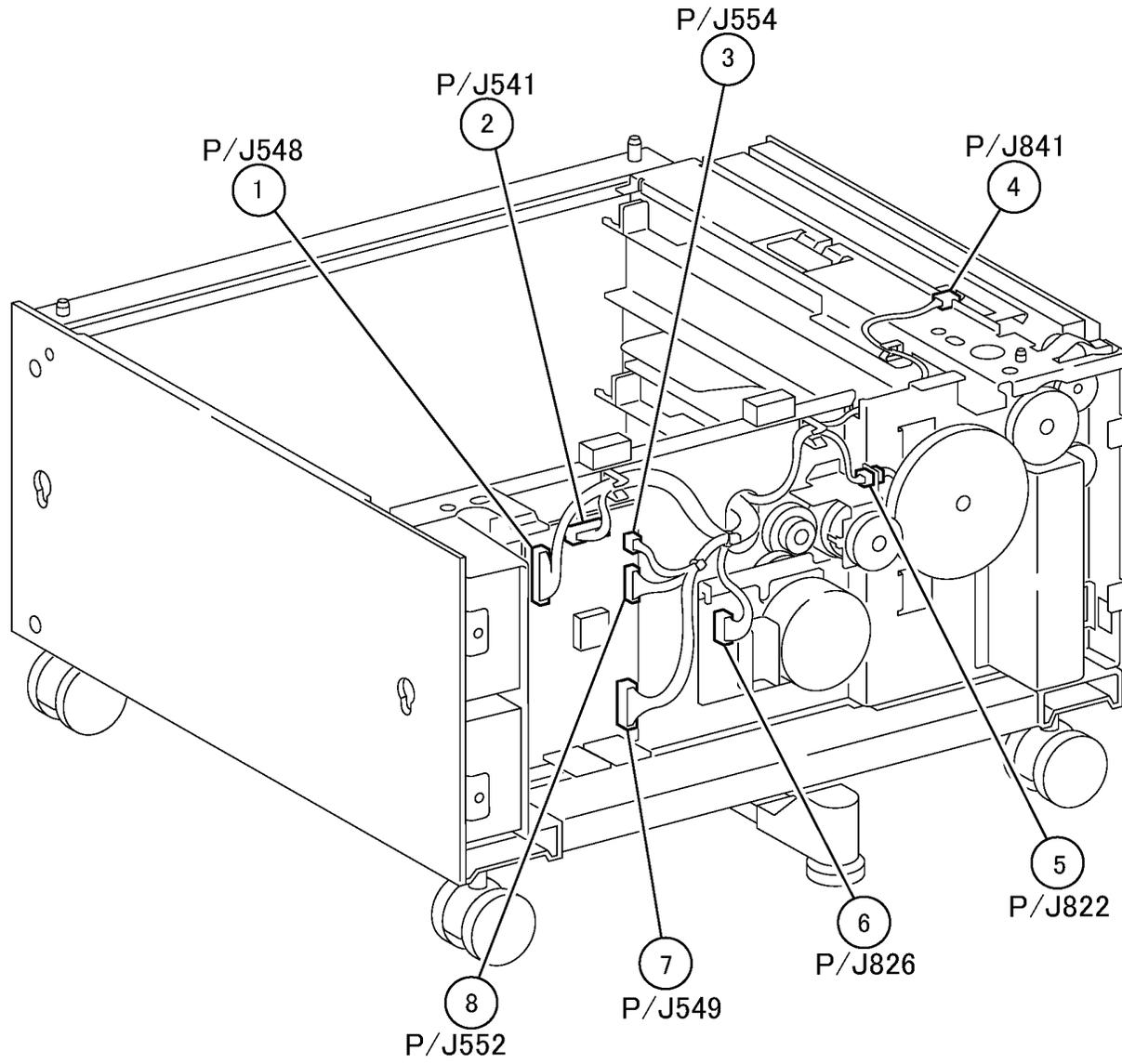
j0ch7212

Figure 12 1TM Rear Location (j0ch7212)



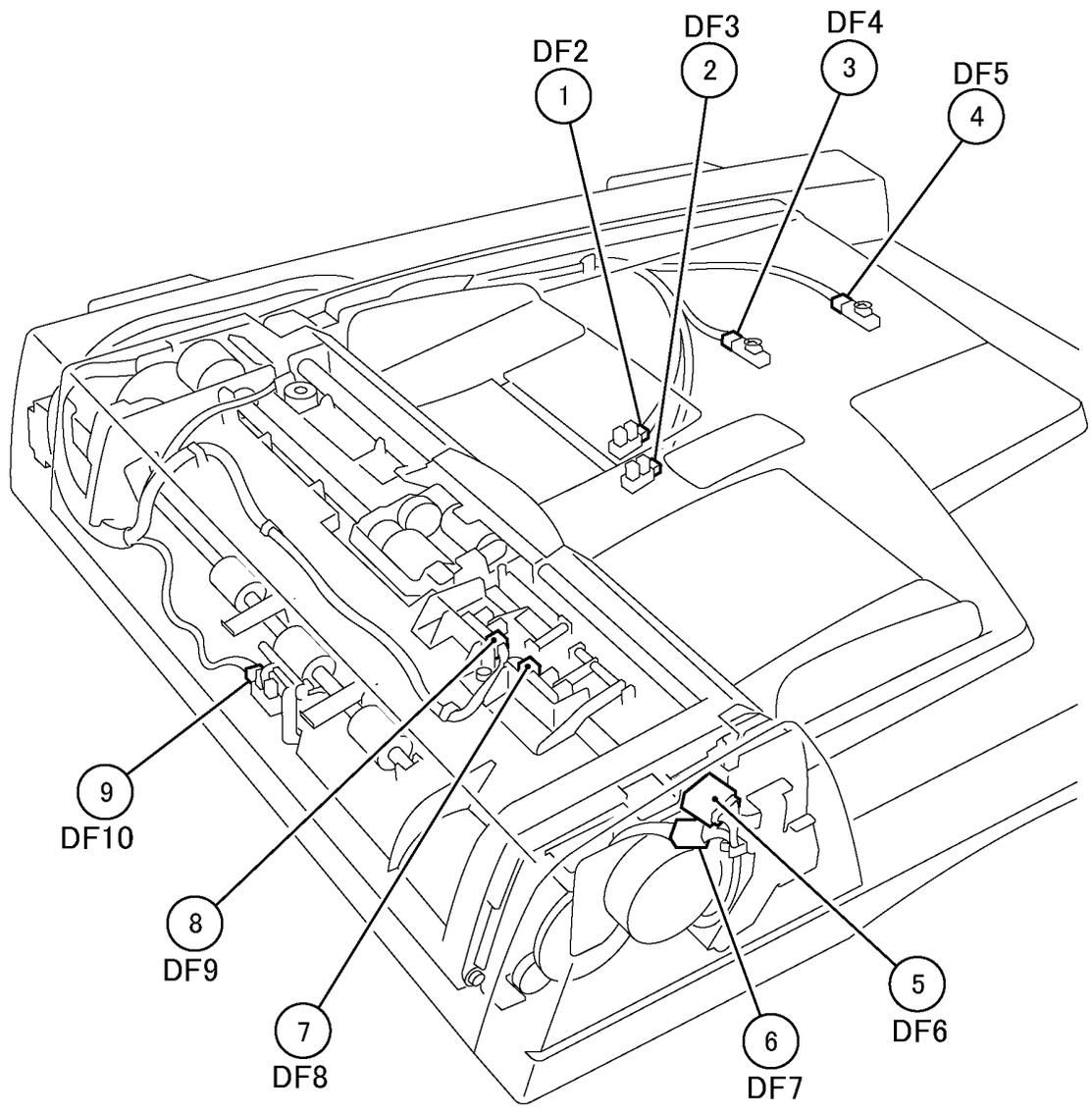
j0ch7213

Figure 13 2TM Paper Feeder (j0ch7213)



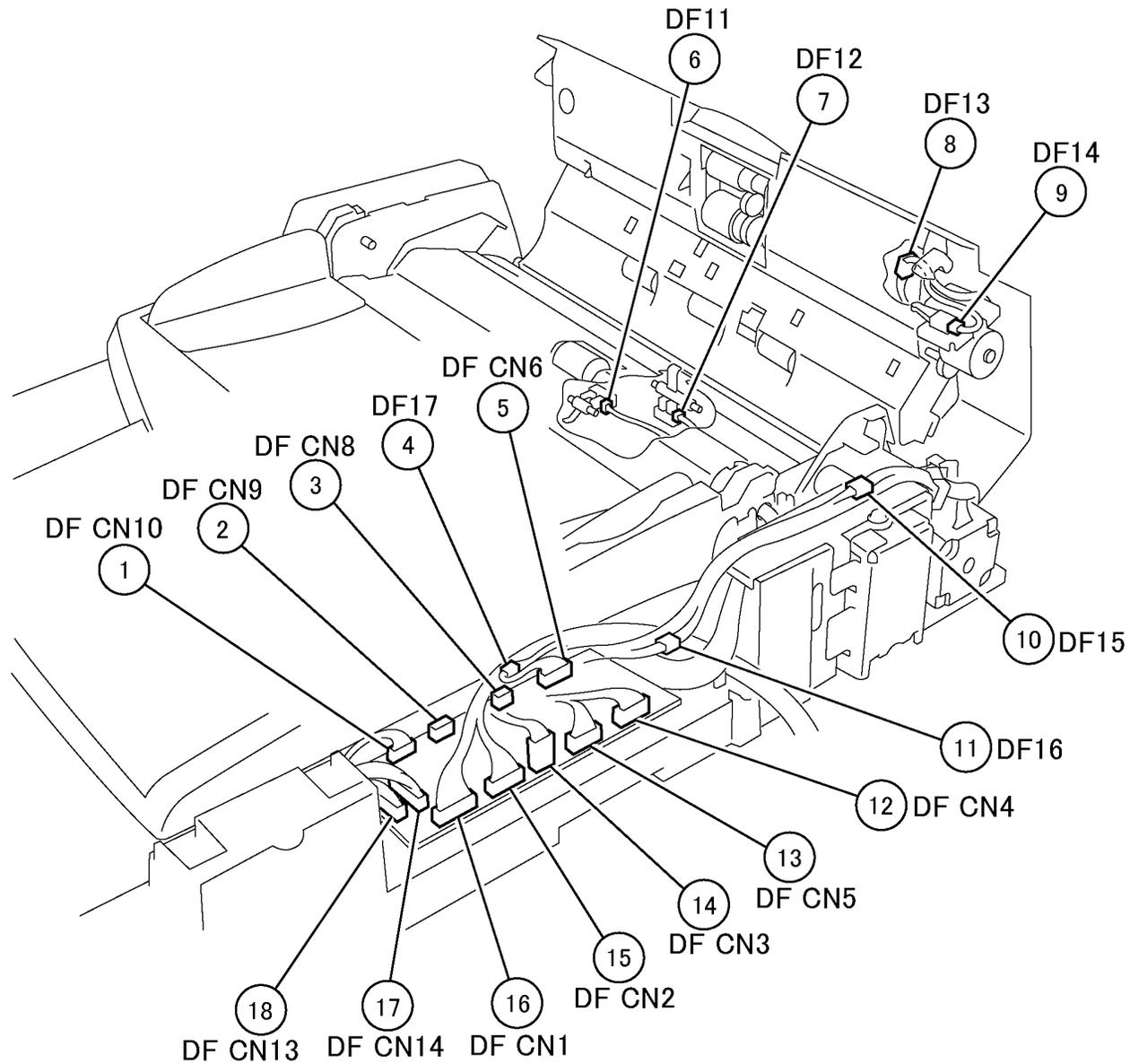
j0ch7214

Figure 14 2TM Rear Location (j0ch7214)



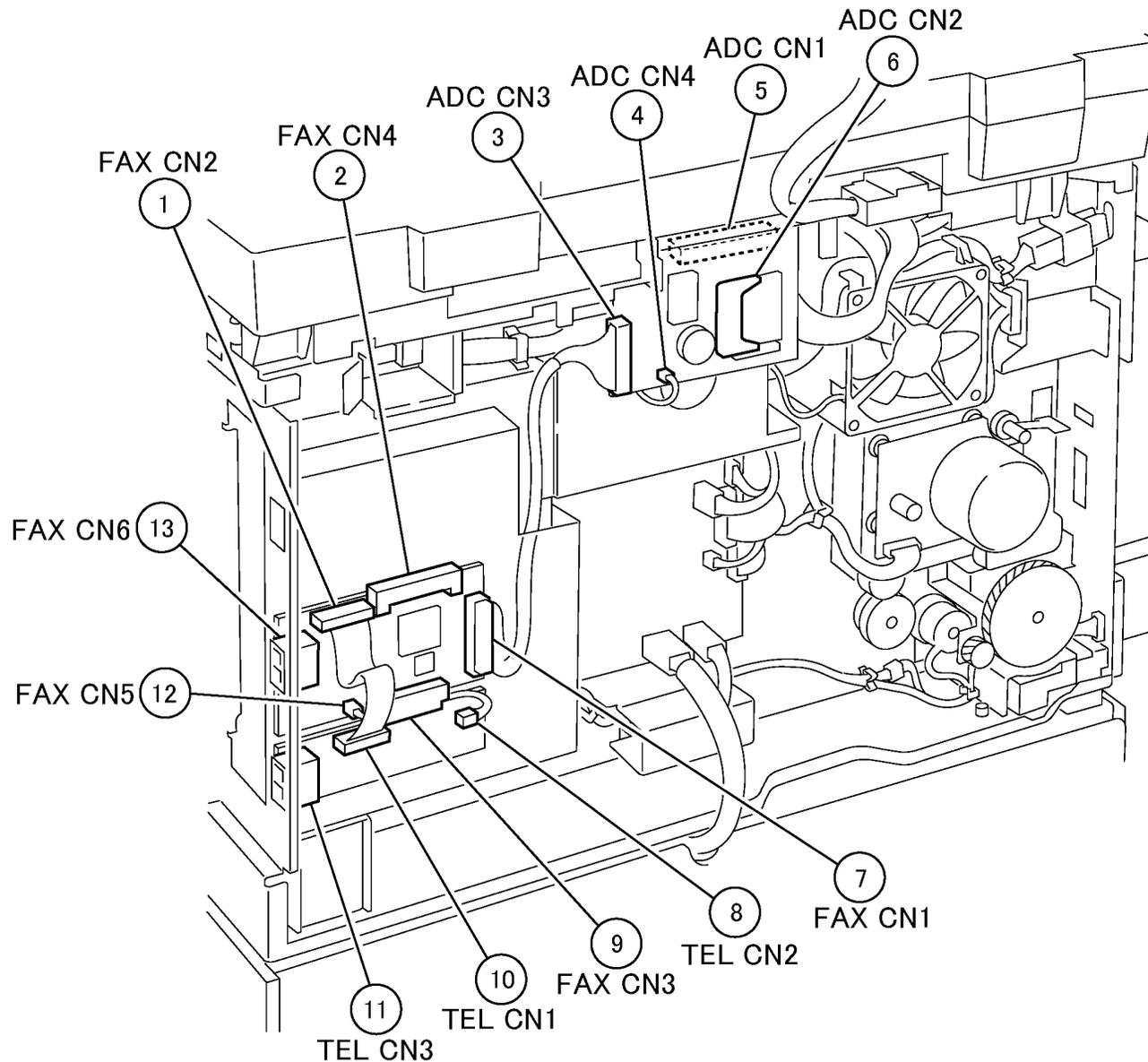
j0ch7215

Figure 15 DADF Front Location (j0ch7215)



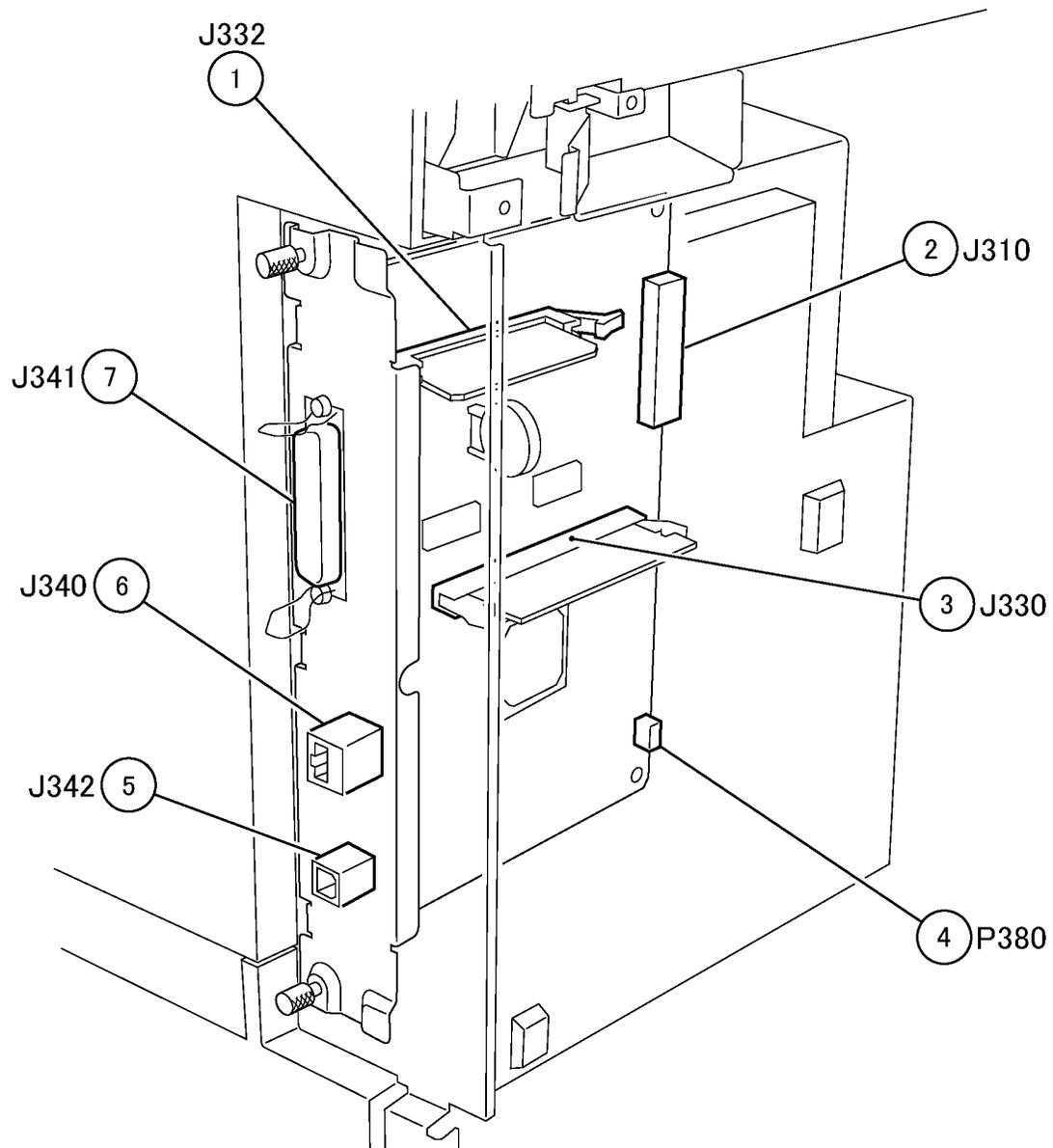
j0ch7216

Figure 16 DADF PWB (j0ch7216)



j0ch7217

Figure 17 FAX KIT (j0ch7217)

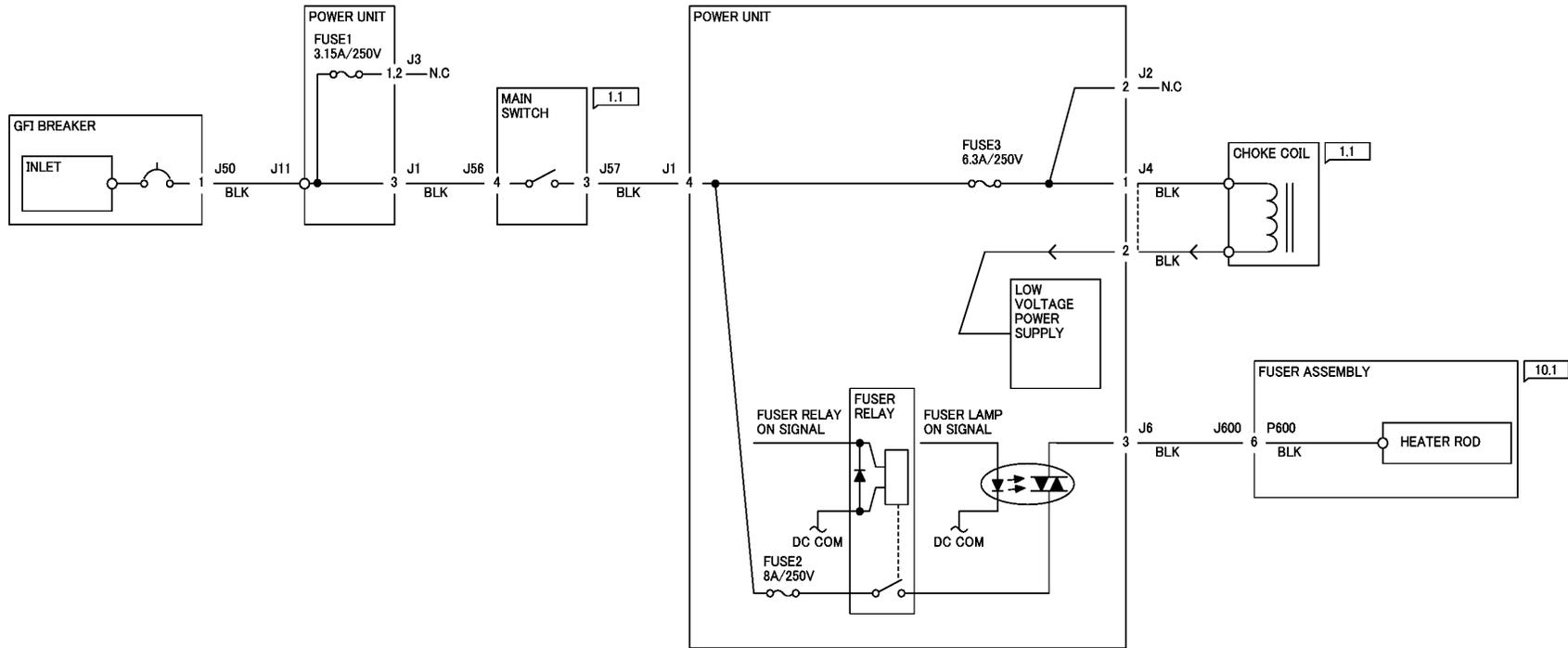


j0ch7218

Figure 18 ESS PWB (j0ch7218)

## 7.3.1 Wire Net AC POWER (HOT)

### 7.3.1 WIRE NET AC POWER(HOT)

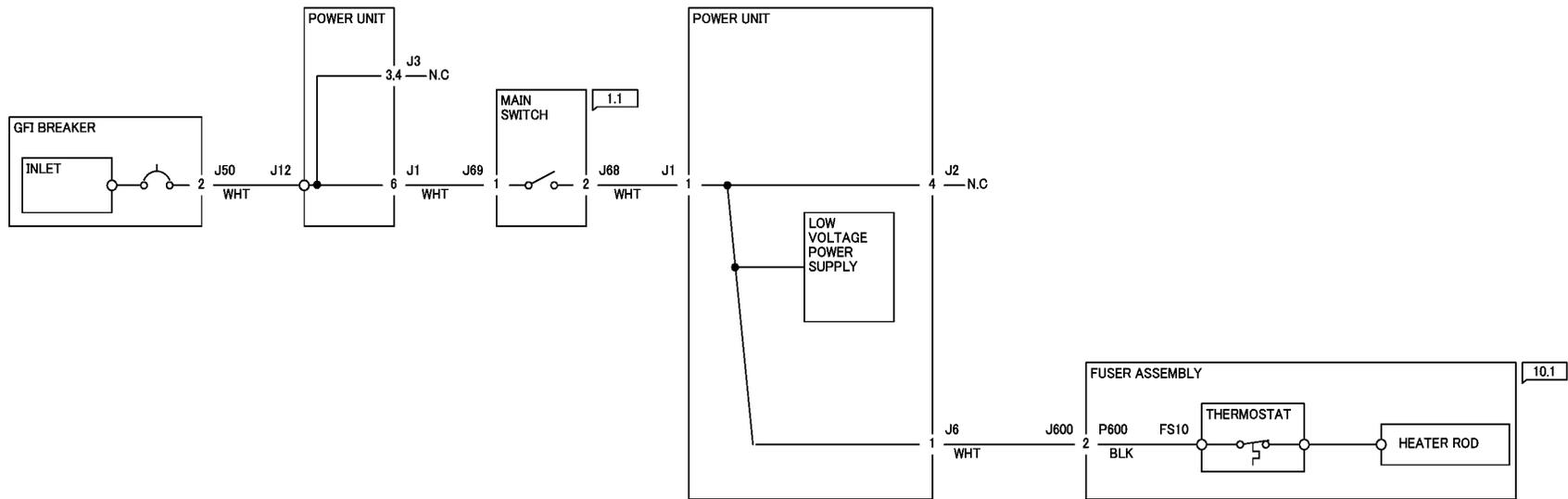


j0ch7301

Figure 1 WIRE NET AC POWER(HOT) (j0ch7301)

## 7.3.2 Wire Net AC POWER (NUT)

### 7.3.2 WIRE NET AC POWER(NUT)

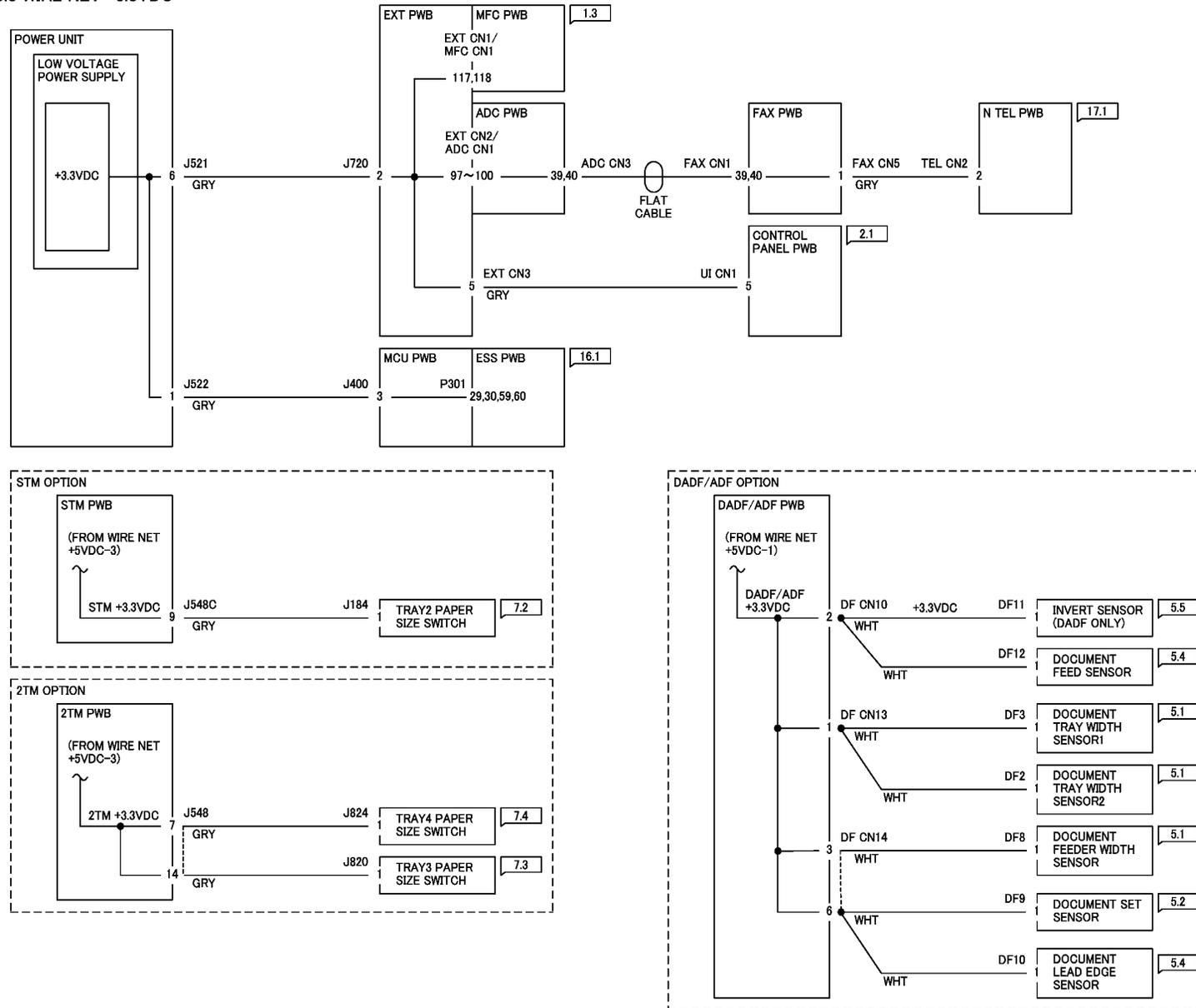


j0ch7302

Figure 1 WIRE NET AC POWER(NUT) (j0ch7302)

## 7.3.3 Wire Net +3.3VDC

### 7.3.3 WIRE NET +3.3VDC

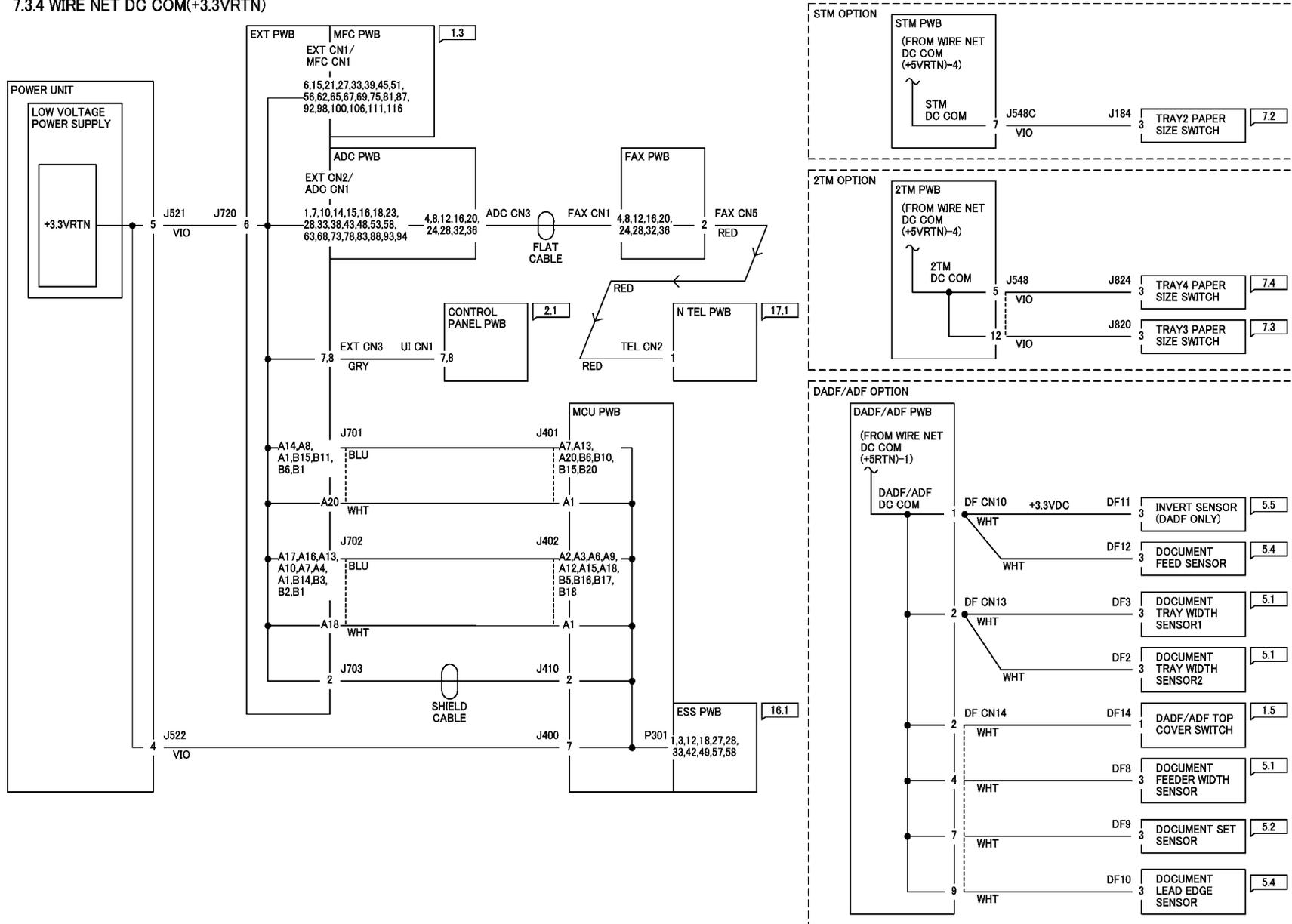


j0ch7303

Figure 1 WIRE NET +3.3VDC (j0ch7303)

## 7.3.4 Wire Net DC COM (+3.3VRTN)

### 7.3.4 WIRE NET DC COM(+3.3VRTN)

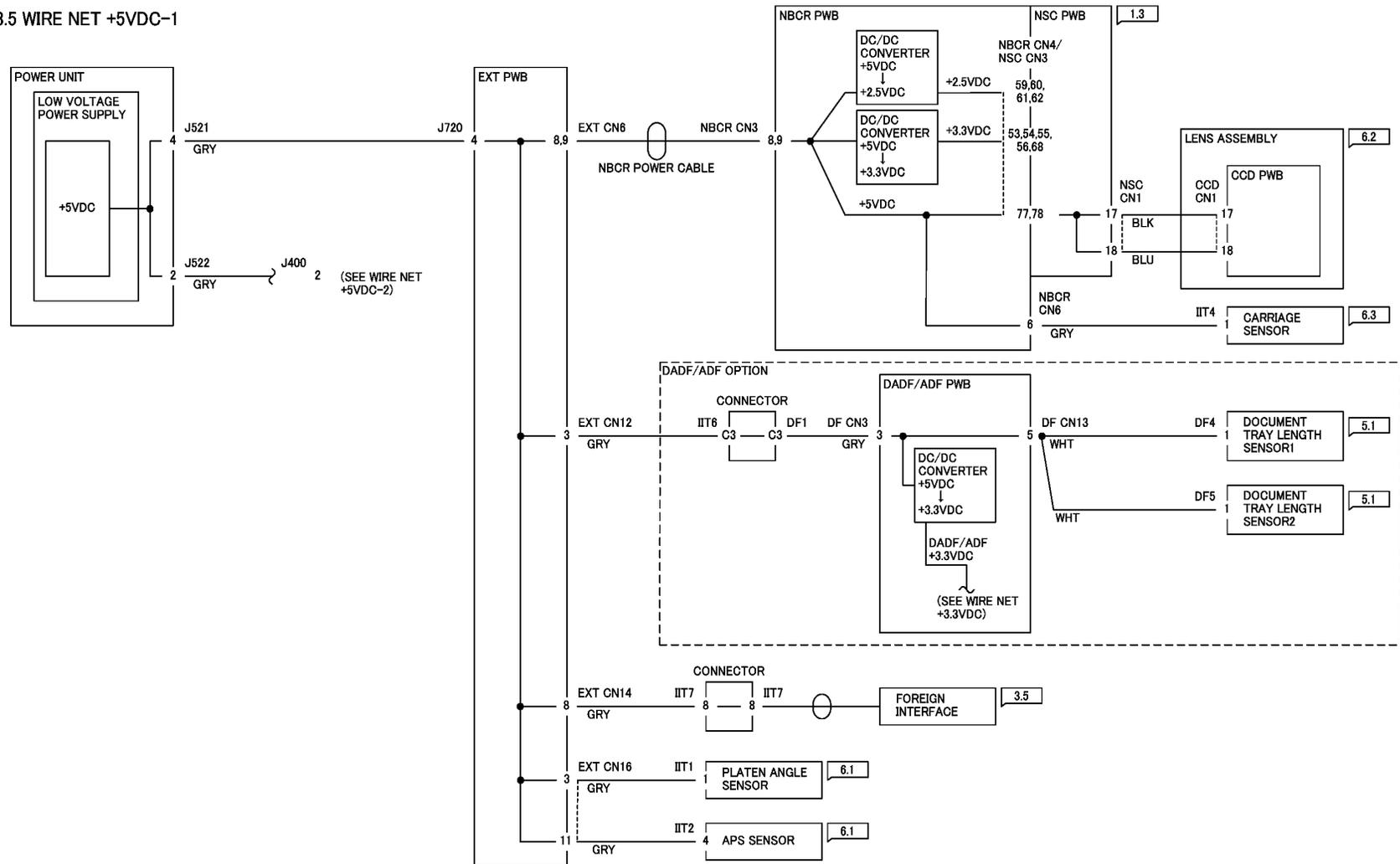


j0ch7304

Figure 1 WIRE NET DC COM(+3.3VRTN) (j0ch7304)

## 7.3.5 Wire Net +5VDC-1

### 7.3.5 WIRE NET +5VDC-1

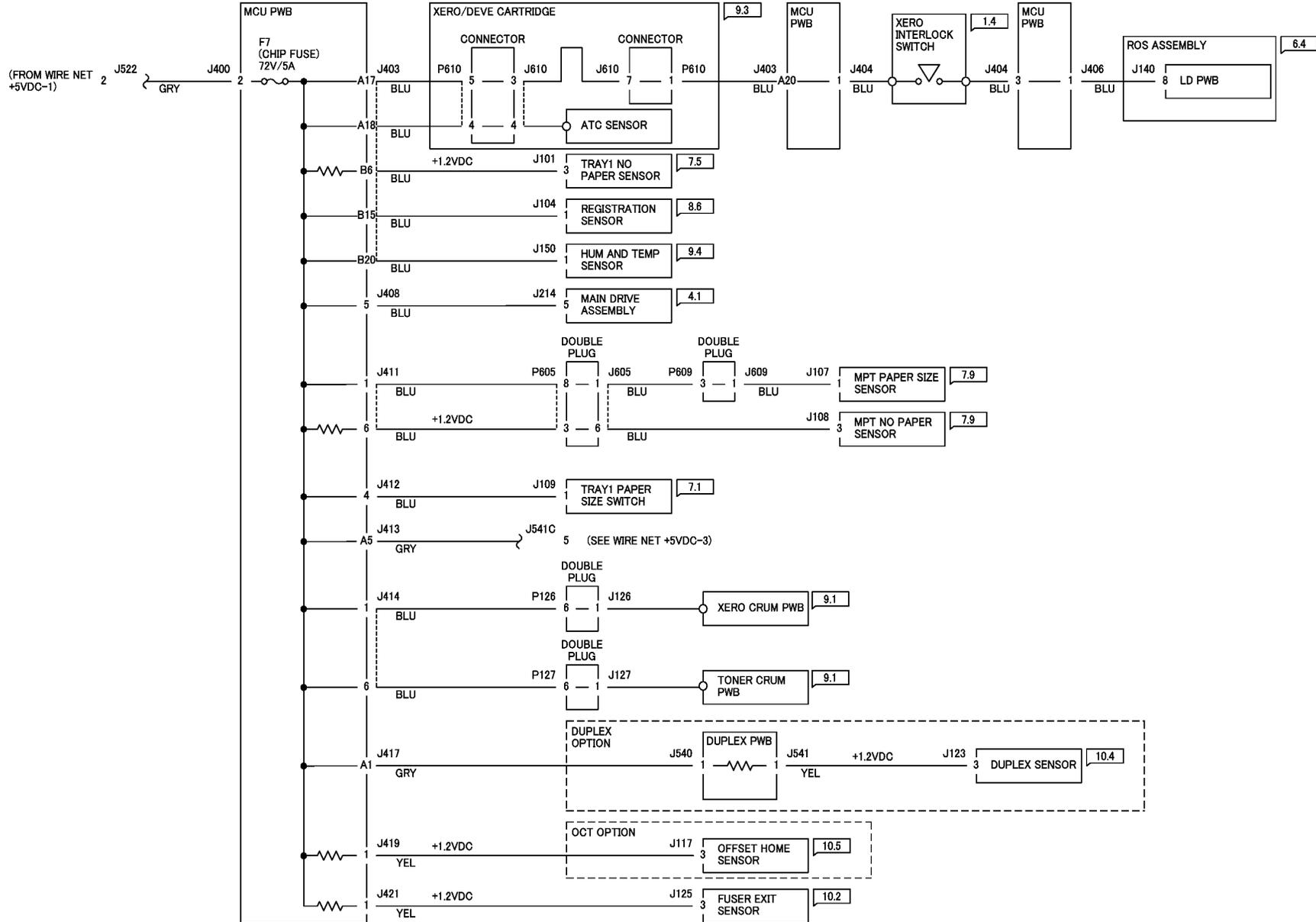


j0ch7305

Figure 1 WIRE NET +5VDC-1 (j0ch7305)

## 7.3.6 Wire Net +5VDC-2

### 7.3.6 WIRE NET +5VDC-2

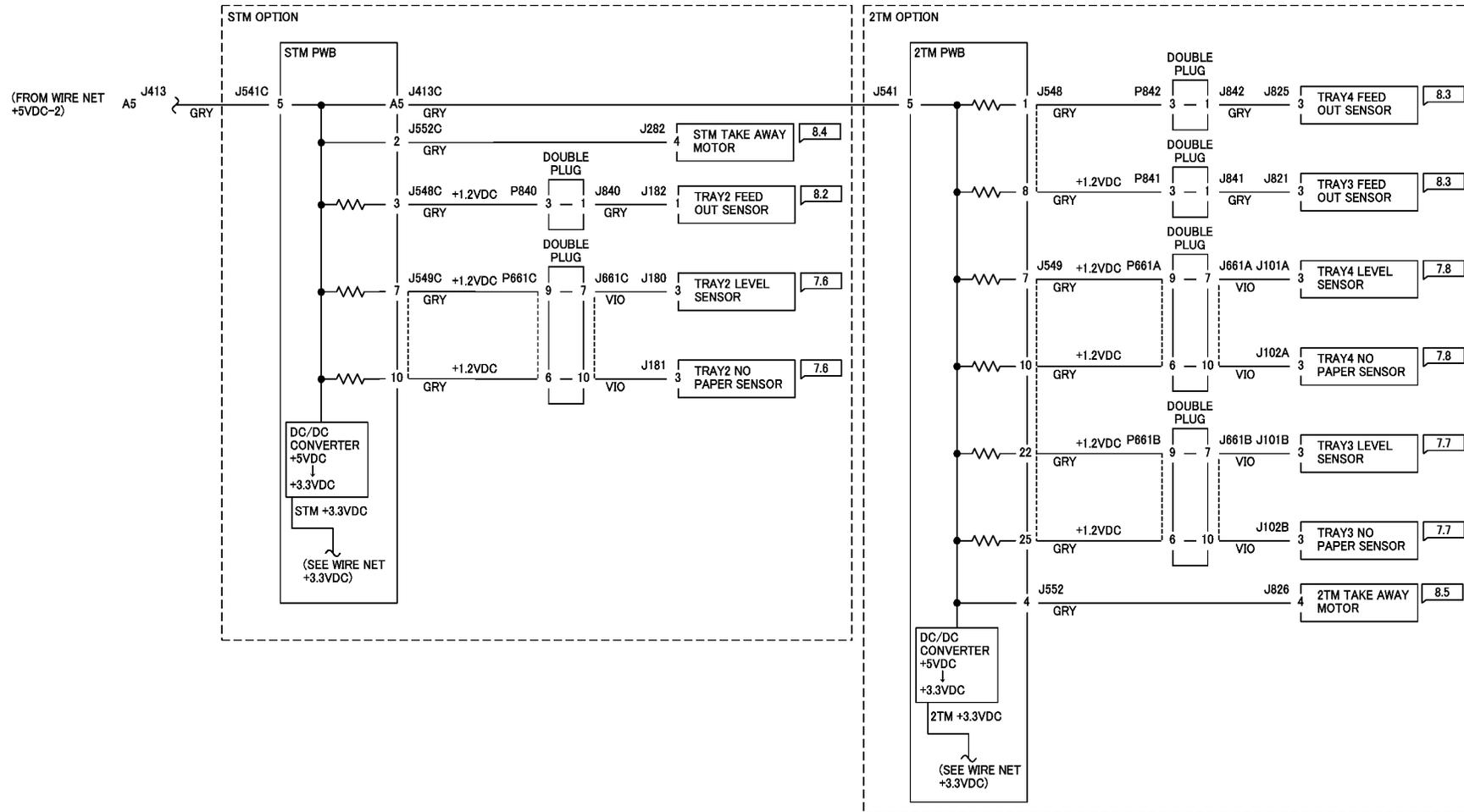


j0ch7306

Figure 1 WIRE NET +5VDC-2 (j0ch7306)

## 7.3.7 Wire Net +5VDC-3

### 7.3.7 WIRE NET +5VDC-3

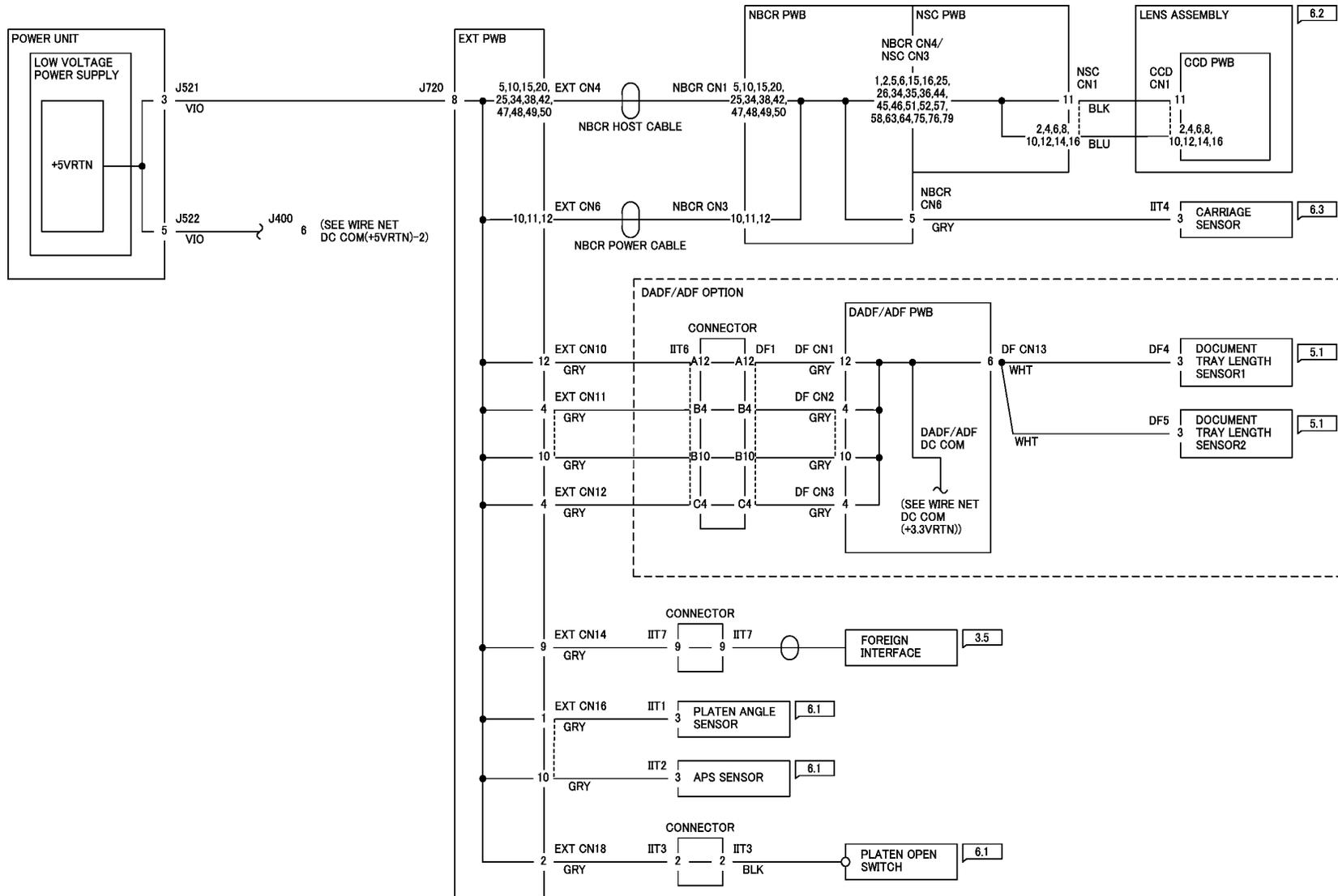


j0ch7307

Figure 1 WIRE NET +5VDC-3 (j0ch7307)

## 7.3.8 Wire Net DC COM (+5VRTN)-1

### 7.3.8 WIRE NET DC COM(+5VRTN)-1

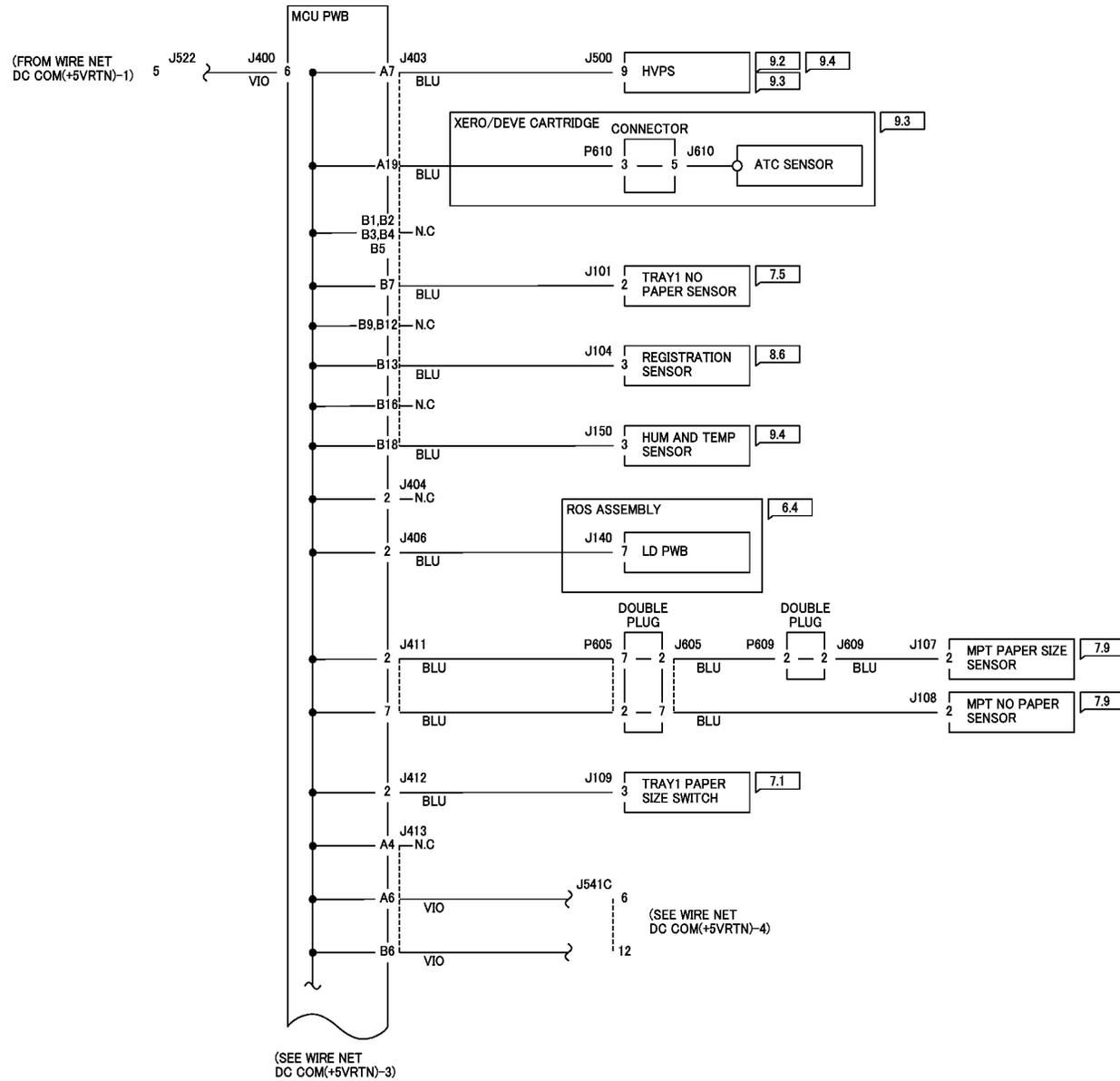


j0ch7308

Figure 1 WIRE NET DC COM(+5VRTN)-1 (j0ch7308)

## 7.3.9 Wire Net DC COM (+5VRTN)-2

### 7.3.9 WIRE NET DC COM(+5VRTN)-2

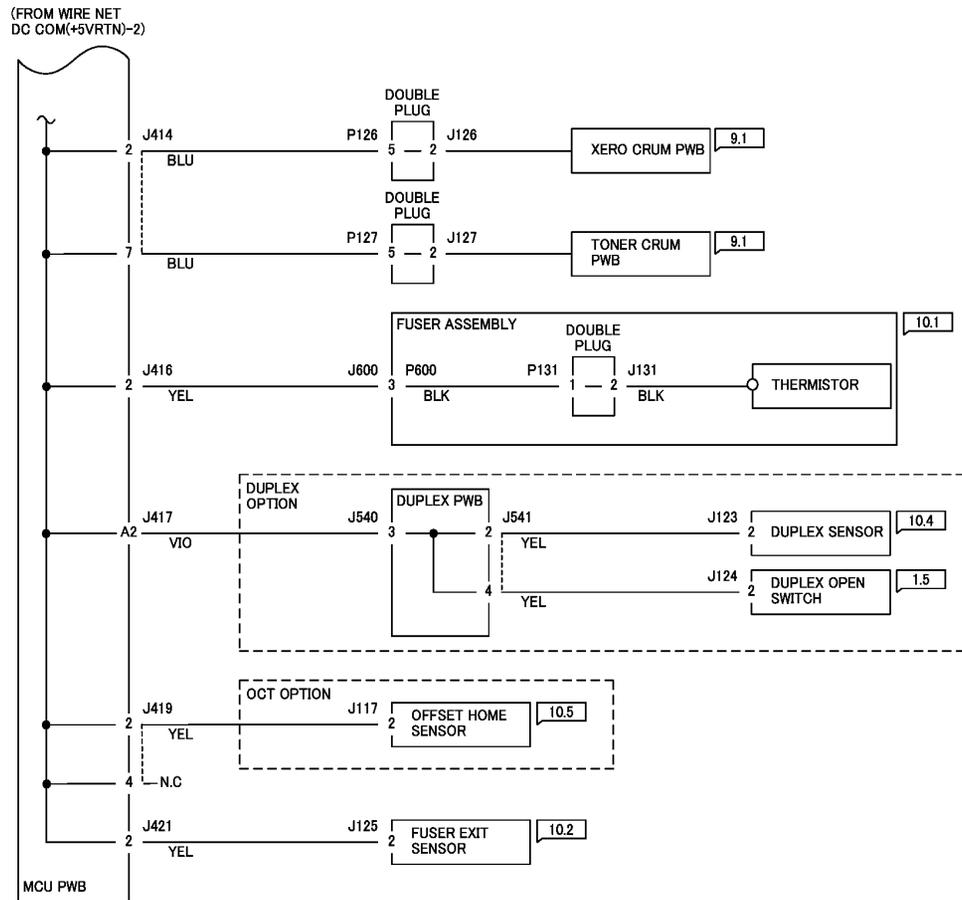


j0ch7309

Figure 1 WIRE NET DC COM(+5VRTN)-2 (j0ch7309)

## 7.3.10 Wire Net DC COM (+5VRTN)-3

### 7.3.10 WIRE NET DC COM(+5VRTN)-3

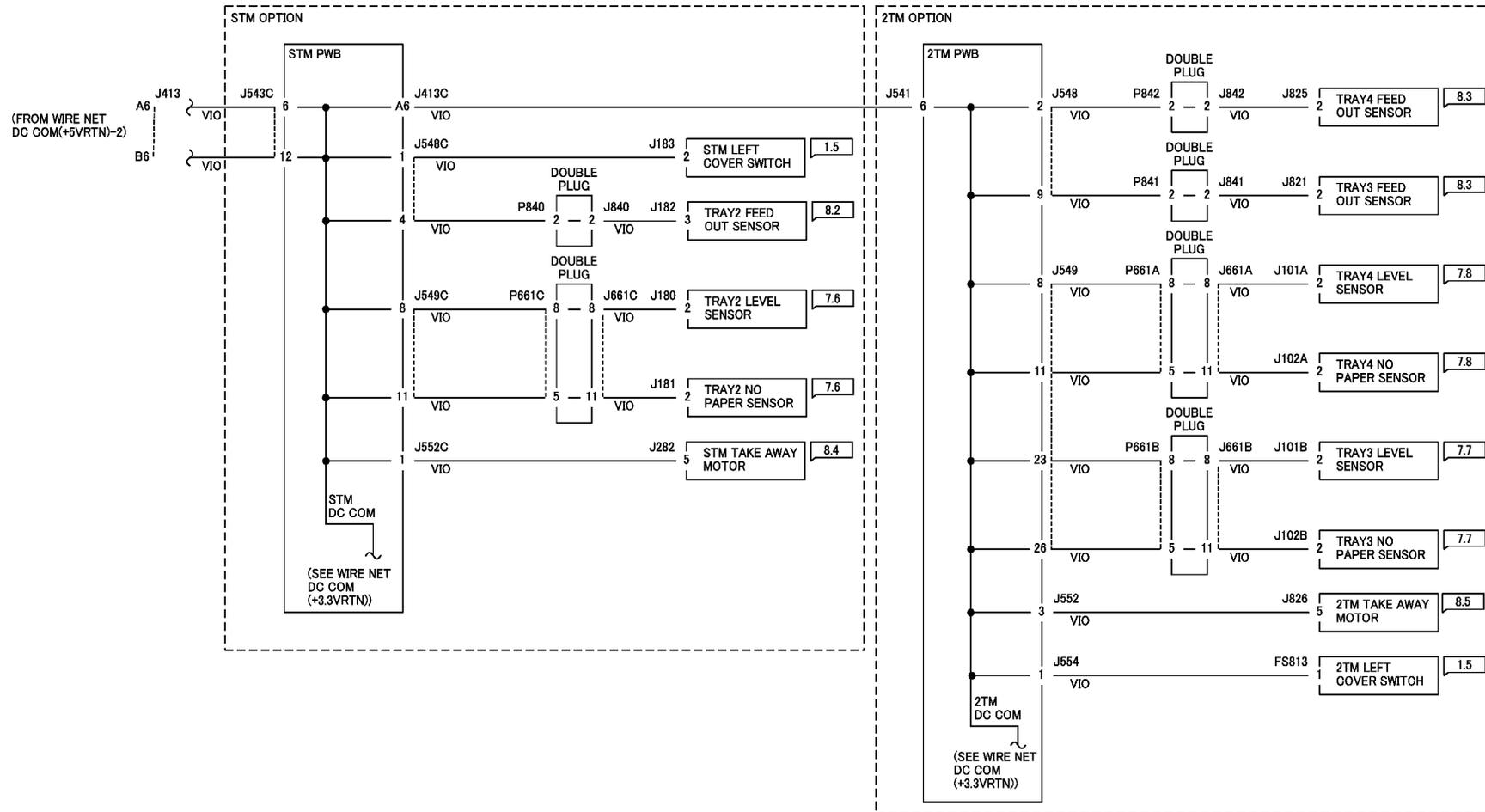


j0ch7310

Figure 1 WIRE NET DC COM(+5VRTN)-3 (j0ch7310)

## 7.3.11 Wire Net DC COM (+5VRTN)-4

### 7.3.11 WIRE NET DC COM(+5VRTN)-4

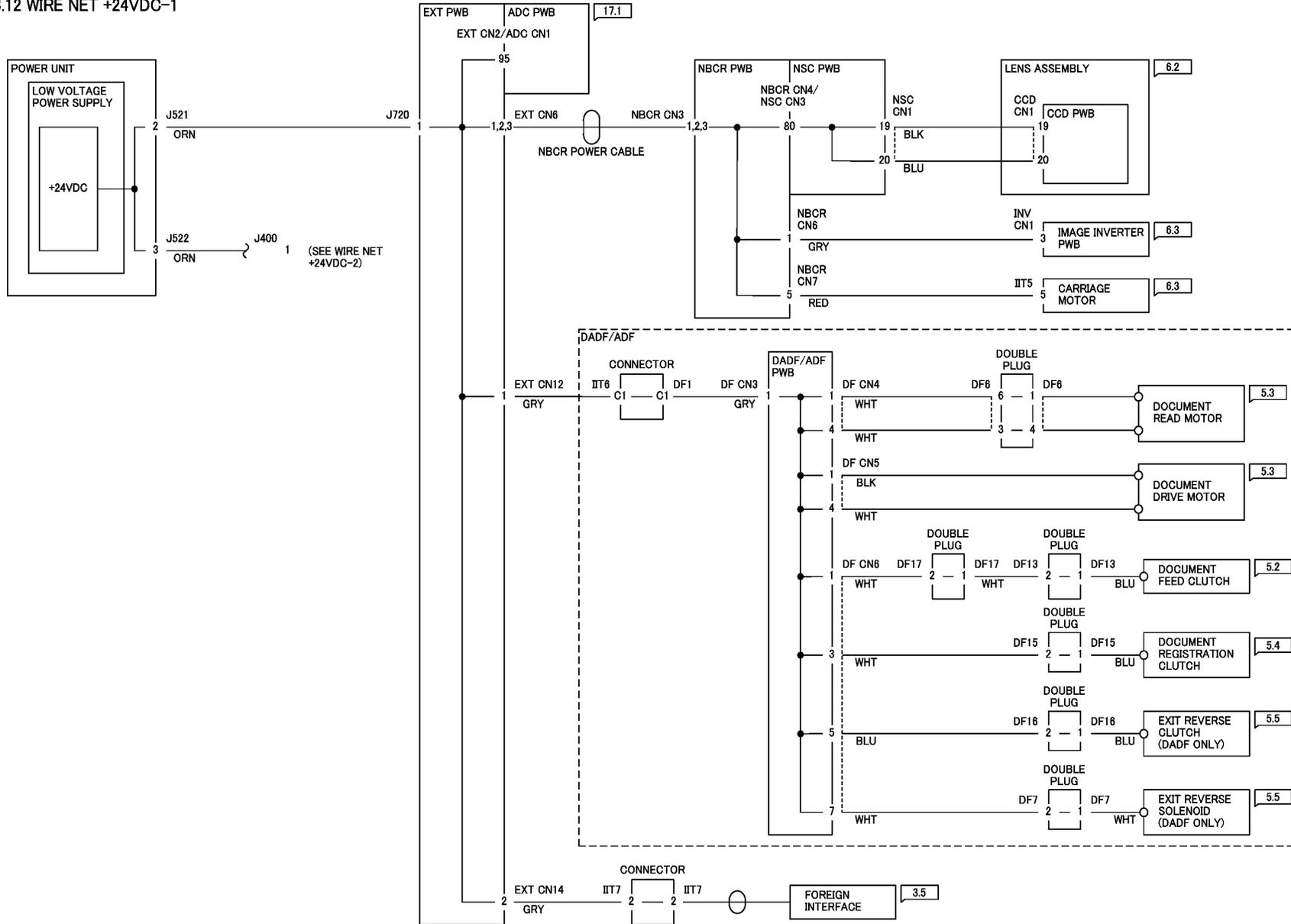


j0ch7311

Figure 1 WIRE NET DC COM(+5VRTN)-4 (j0ch7311)

## 7.3.12 Wire Net +24VDC-1

### 7.3.12 WIRE NET +24VDC-1

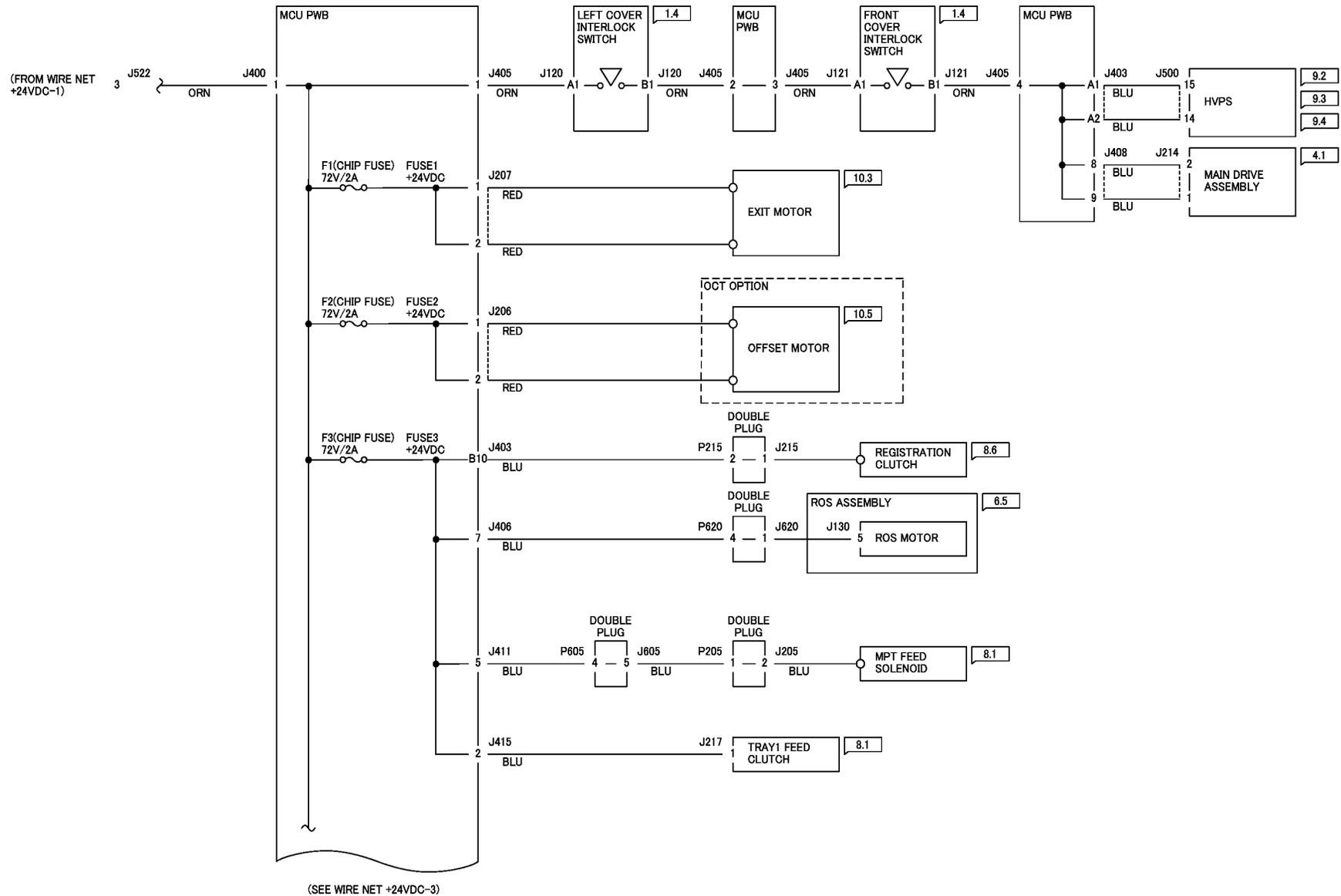


j0ch7312

Figure 1 WIRE NET +24VDC-1 (j0ch7312)

## 7.3.13 Wire Net +24VDC-2

### 7.3.13 WIRE NET +24VDC-2



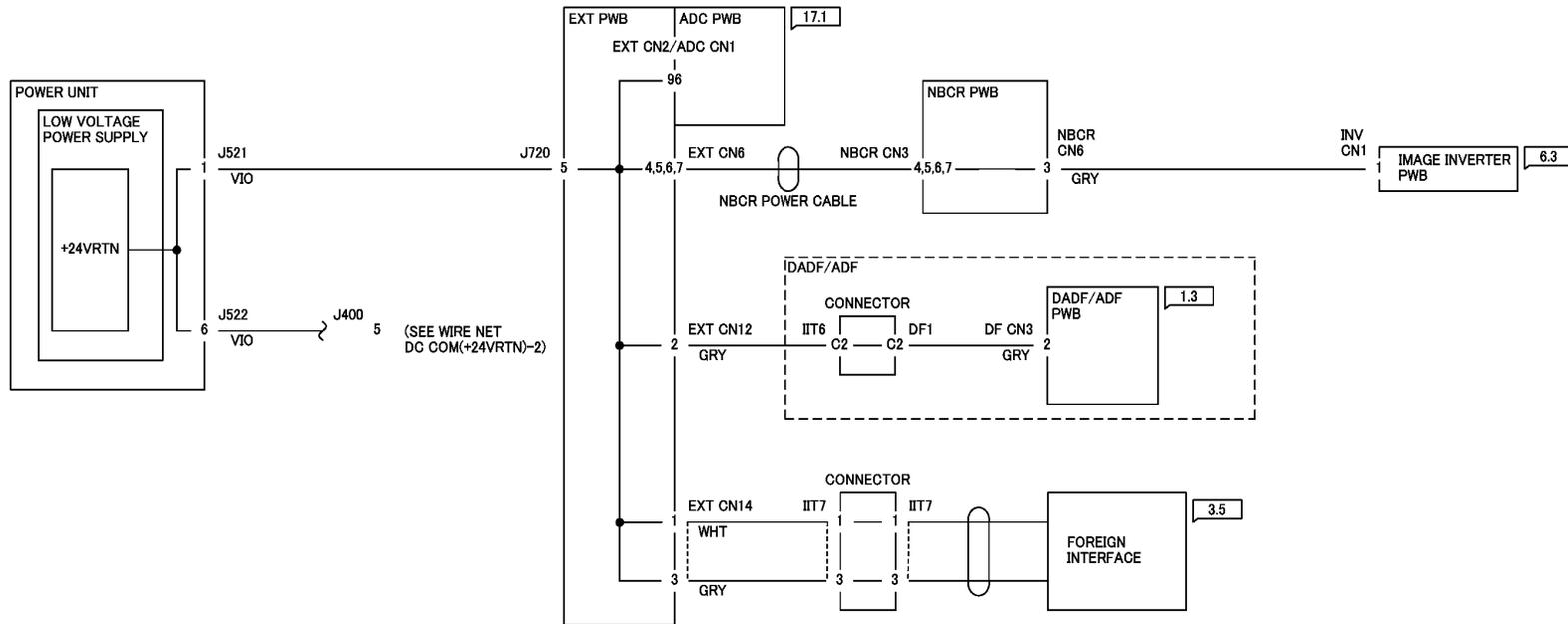
j0ch7313

Figure 1 WIRE NET +24VDC-2 (j0ch7313)



## 7.3.15 Wire Net DC COM (+24VRTN)-1

### 7.3.15 WIRE NET DC COM(+24VRTN)-1

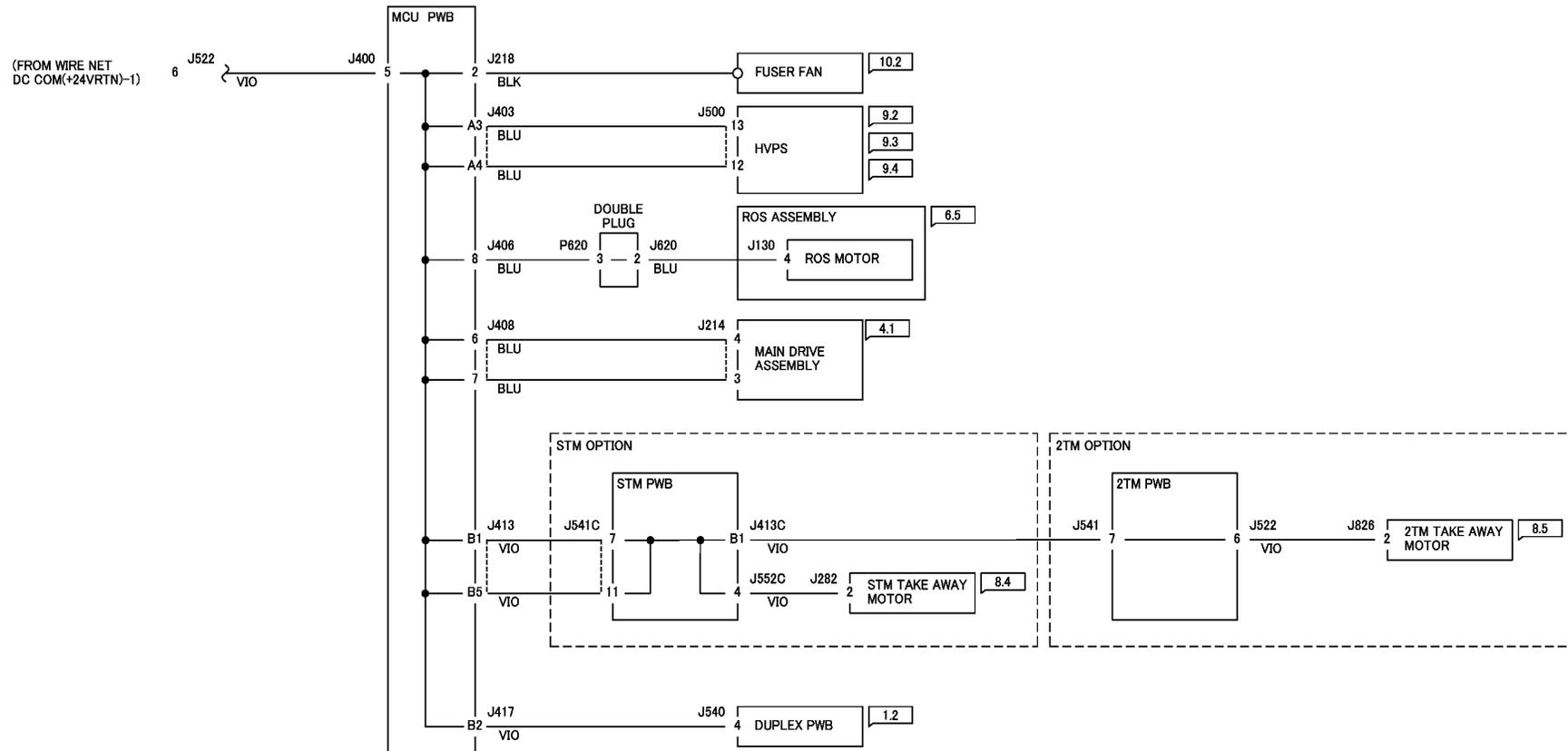


j0ch7315

Figure 1 WIRE NET DC COM(+24VRTN)-1 (j0ch7315)

## 7.3.16 Wire Net DC COM (+24VRTN)-2

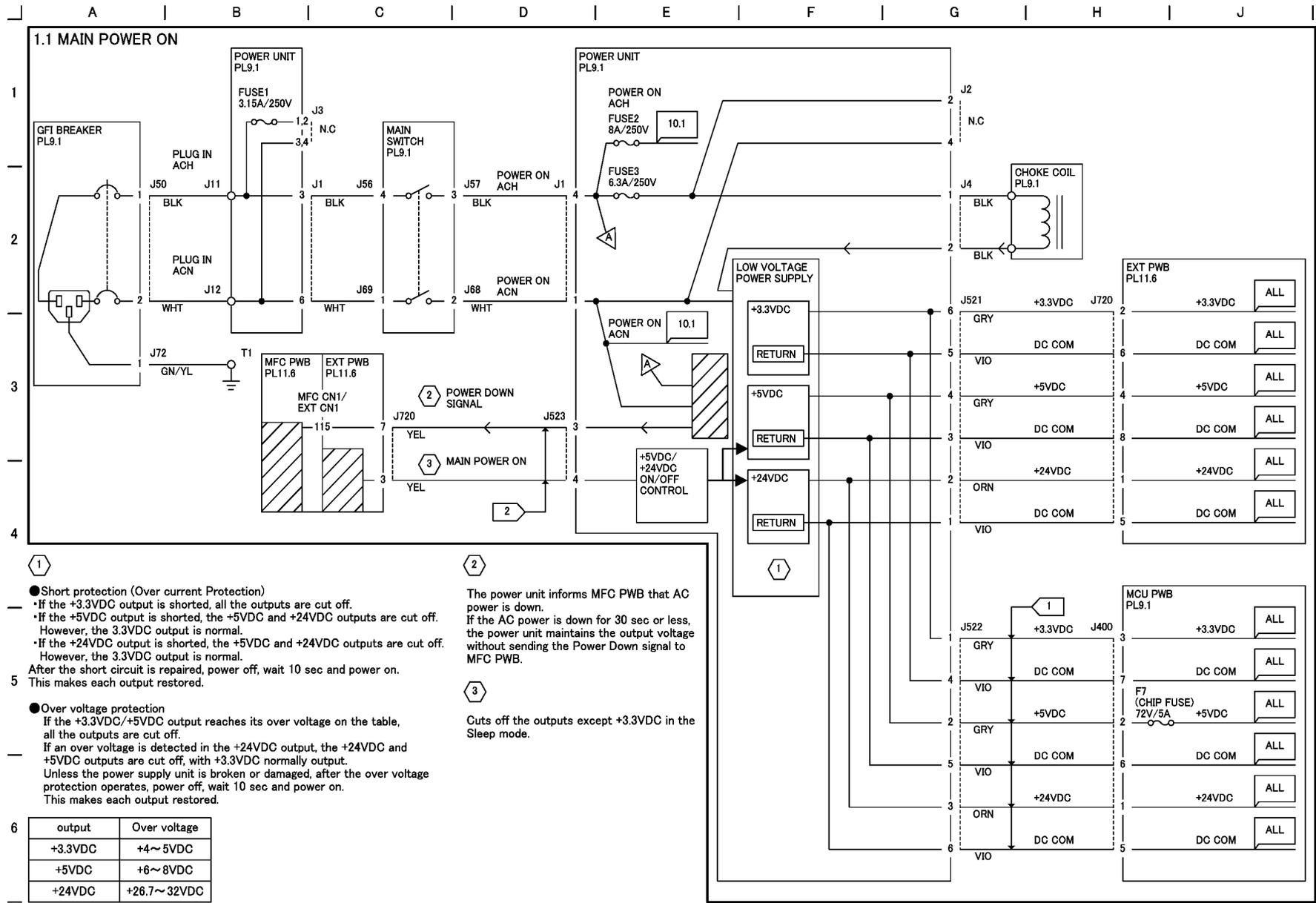
### 7.3.16 WIRE NET DC COM(+24VRTN)-2



j0ch7316

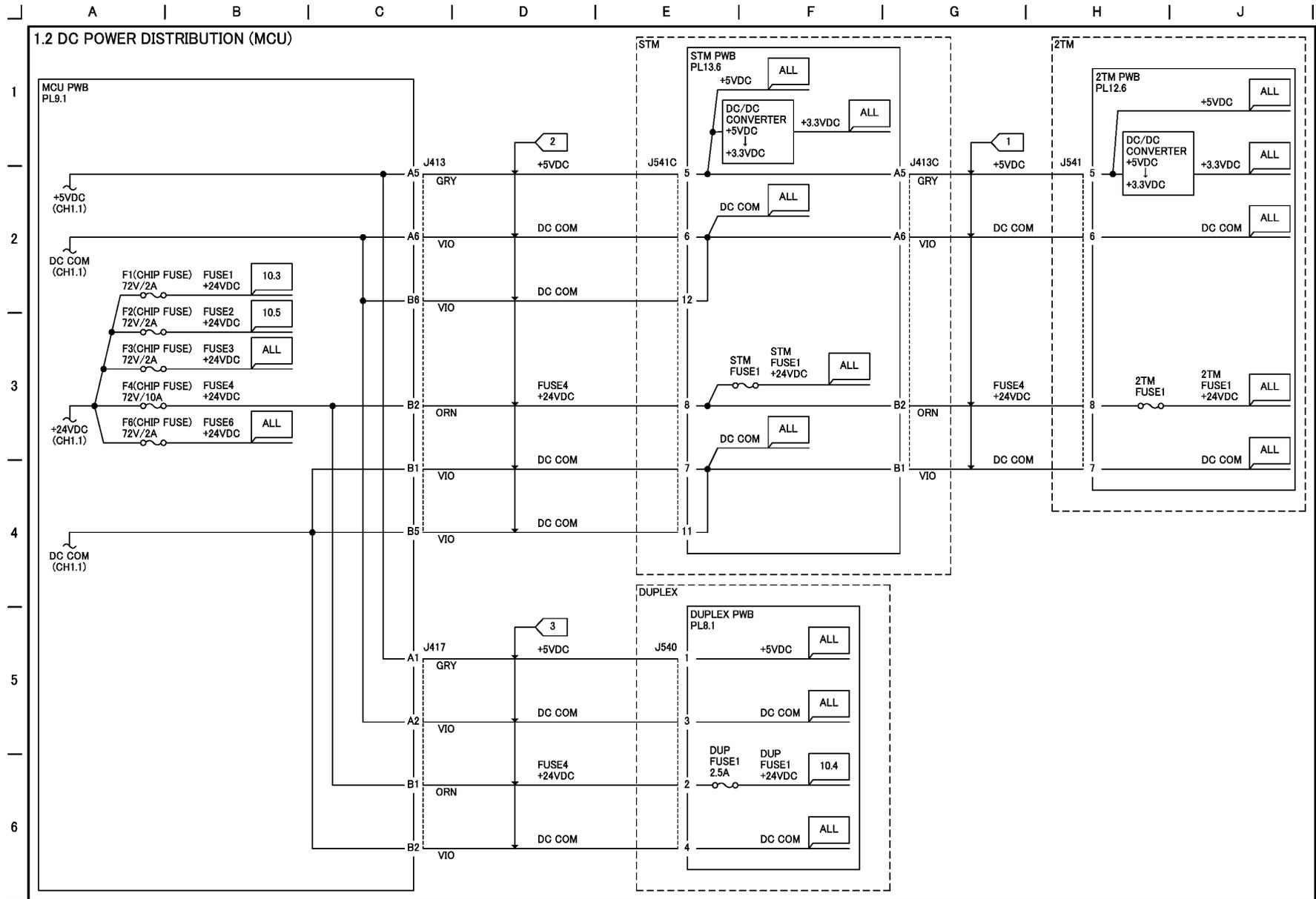
Figure 1 WIRE NET DC COM(+24VRTN)-2 (j0ch7316)

# Chain 1 Standby Power



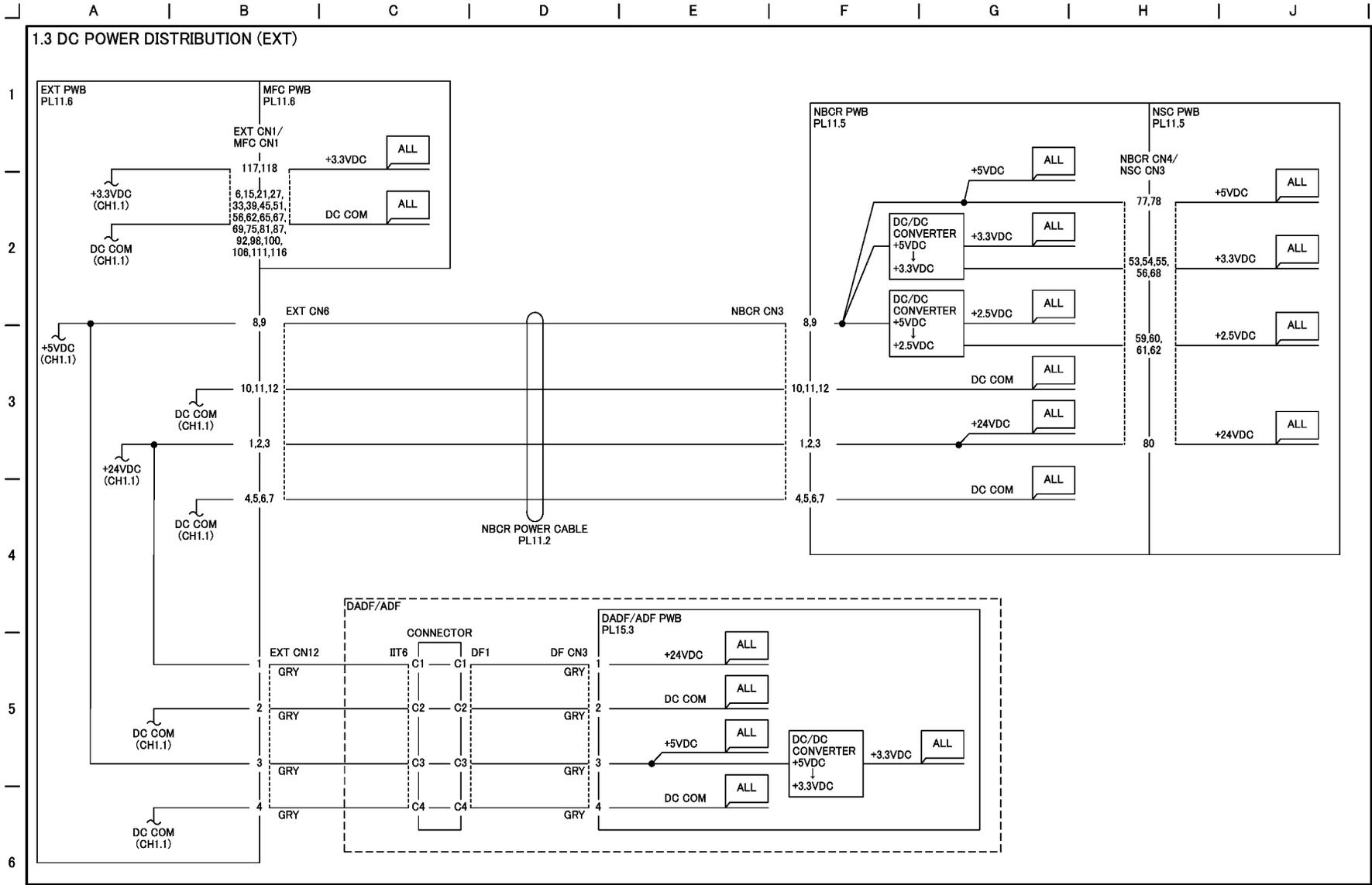
j0ch90101

Figure 1 MAIN POWER ON (j0ch90101)



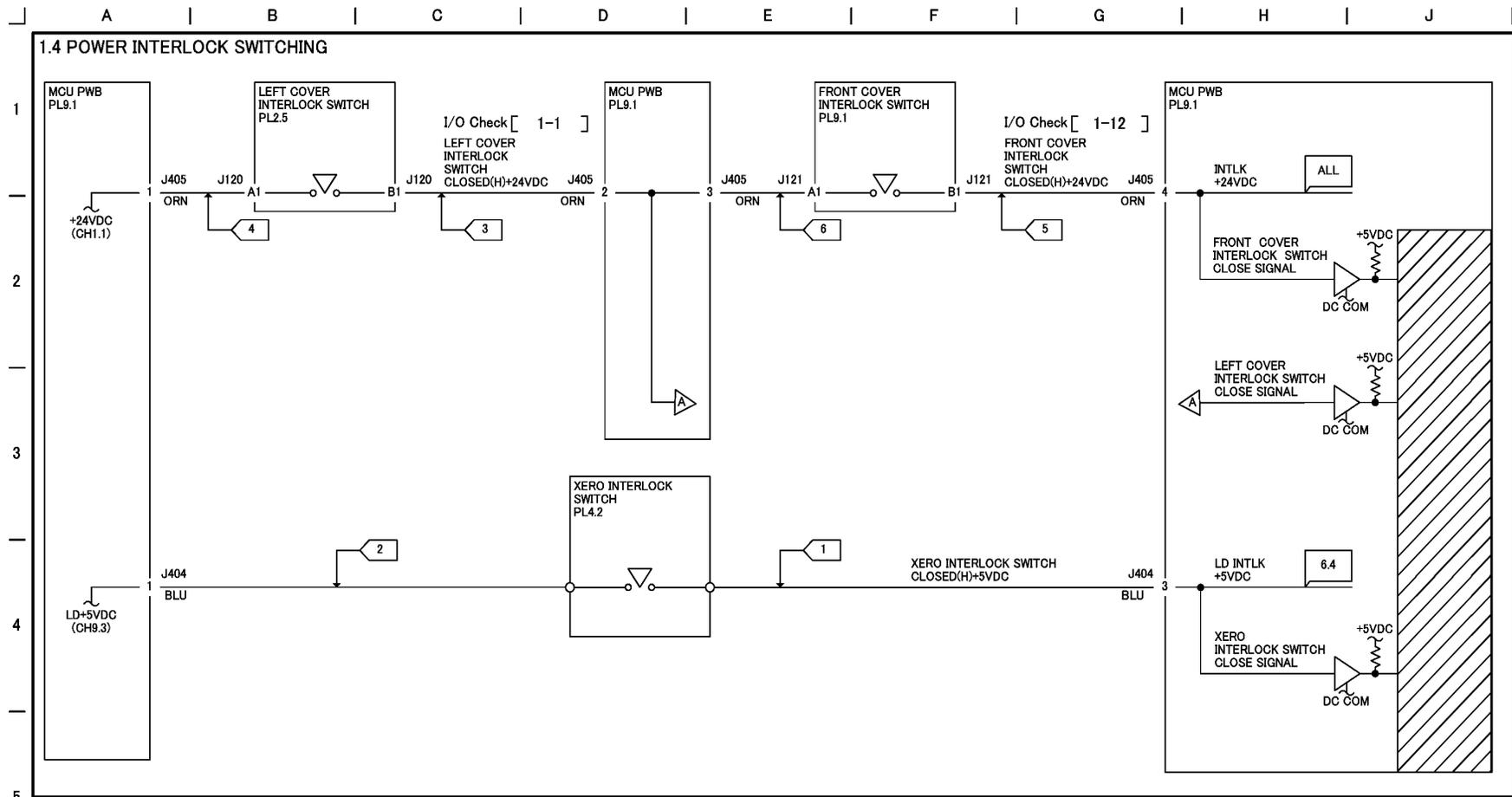
j0ch90102

Figure 2 DC POWER DISTRIBUTION (MCU)(j0ch90102)



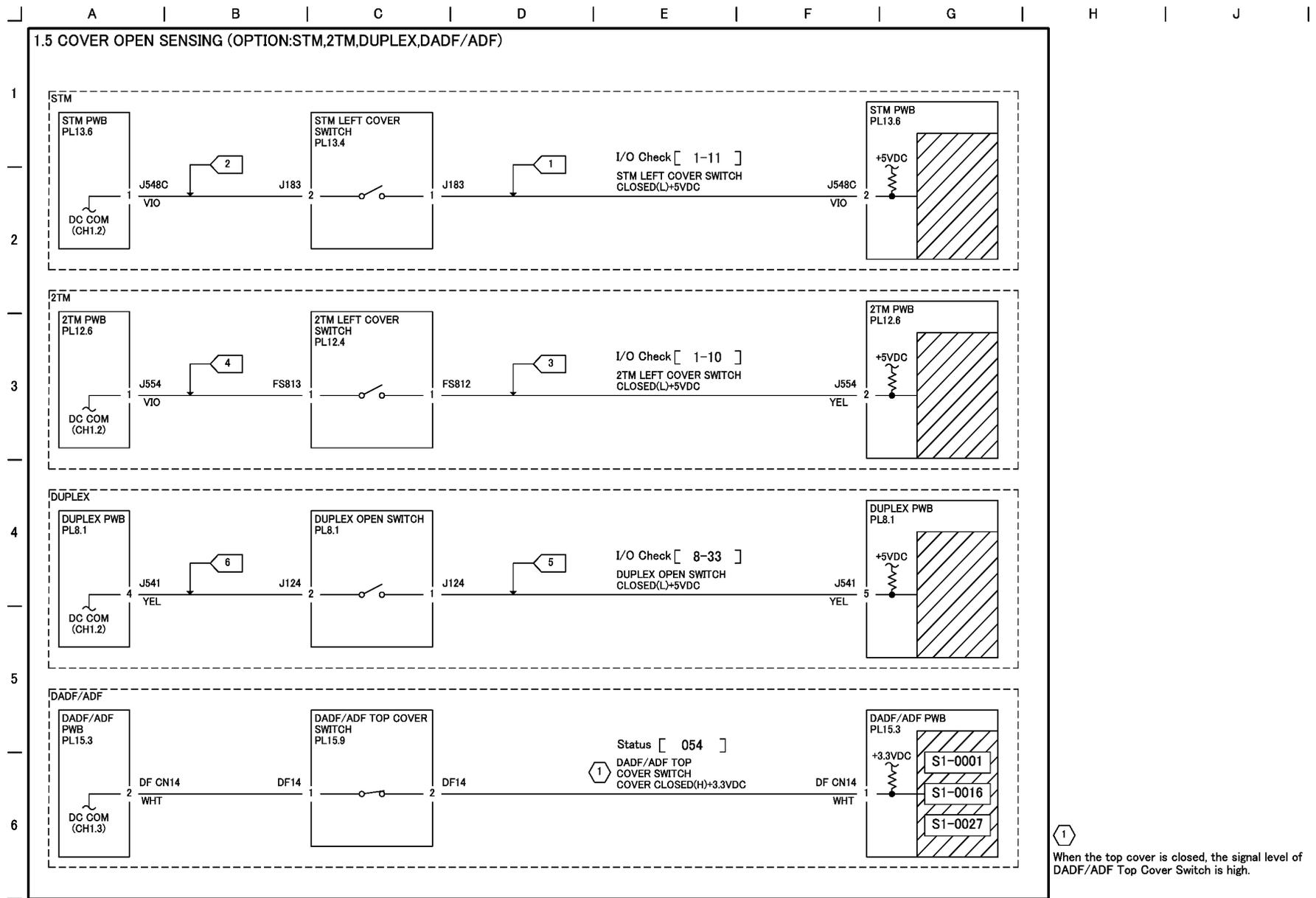
j0ch90103

Figure 3 DC POWER DISTRIBUTION (EXT)(j0ch90103)



j0ch90104

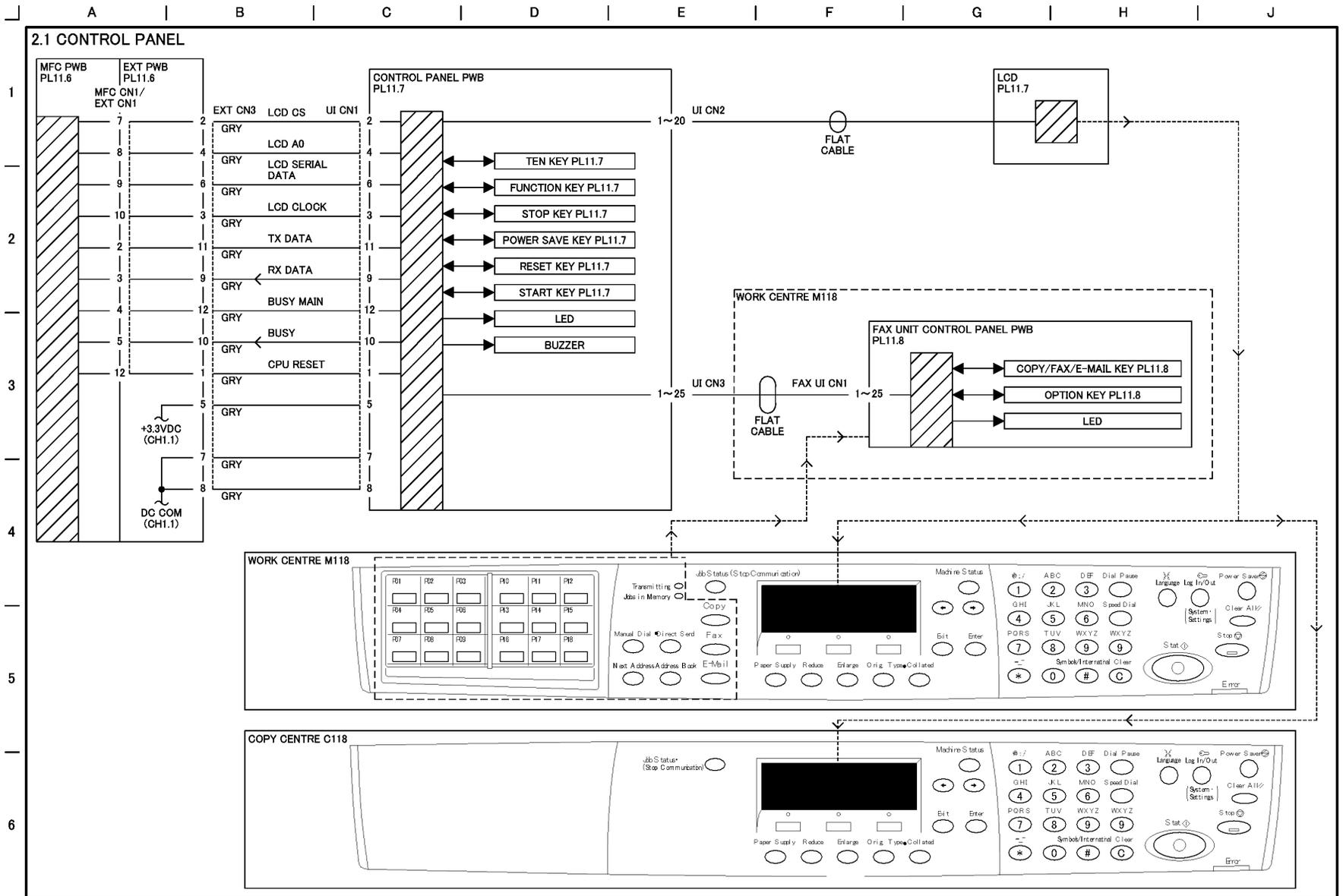
Figure 4 POWER INTERLOCK SWITCHING (j0ch90104)



j0ch90105

Figure 5 COVER OPEN SENSING(OPTION:STM,2TM,DUPLEX,DADF/ADF) (j0ch90105)

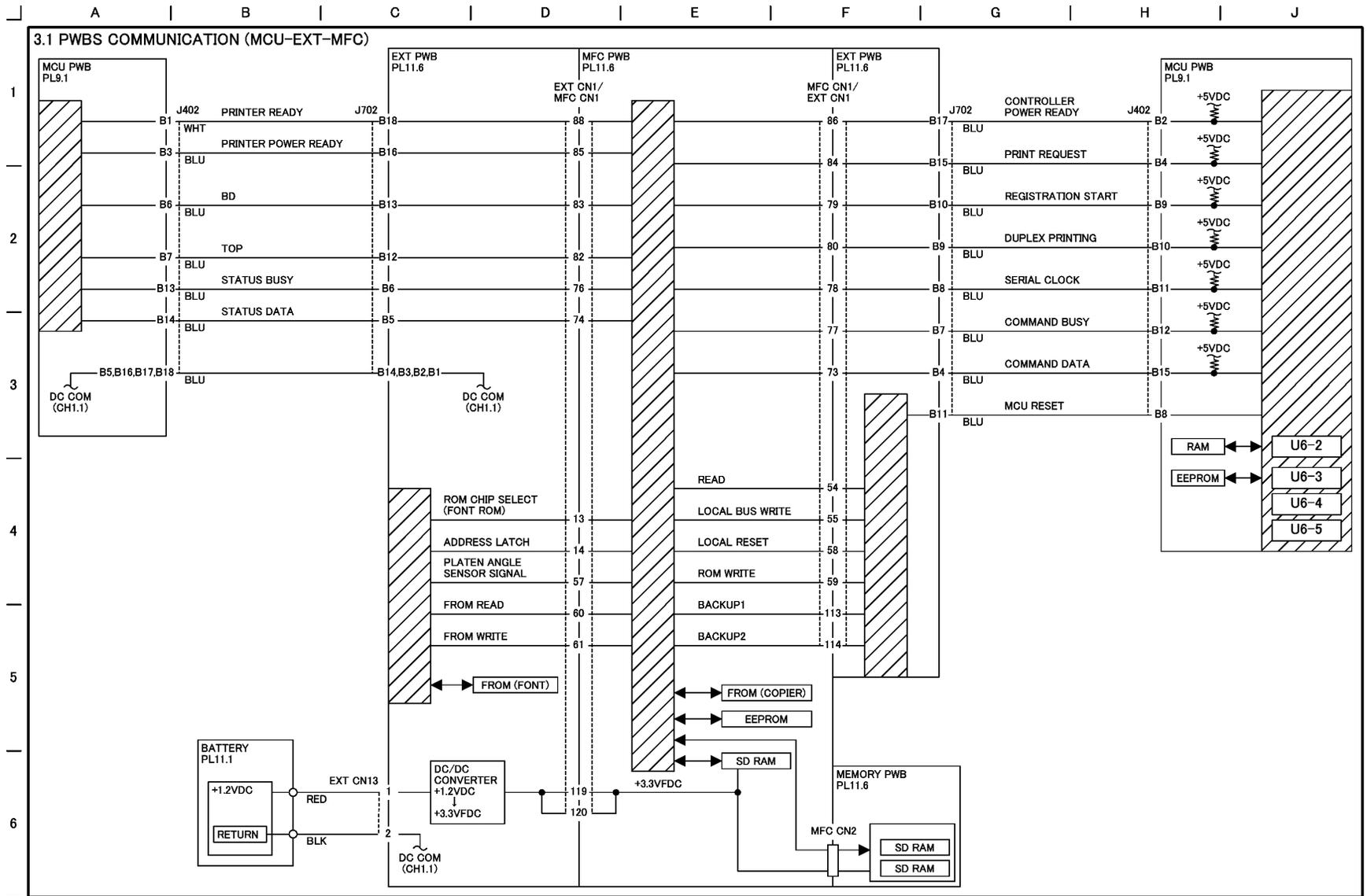
# Chain 2 User Interface



j0ch90201

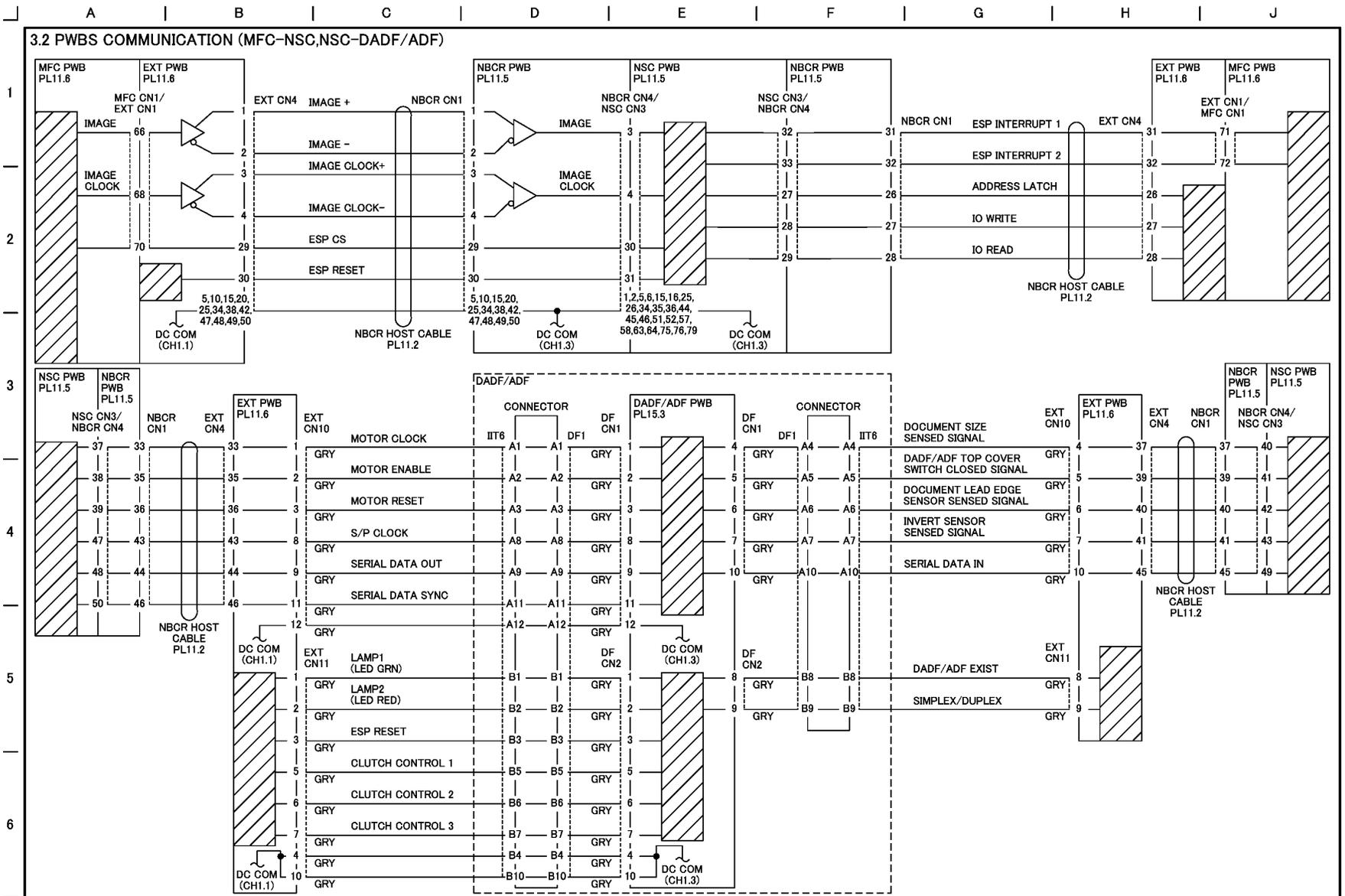
Figure 1 CONTROL PANEL (j0ch90201)

# Chain 3 Machine Run Control



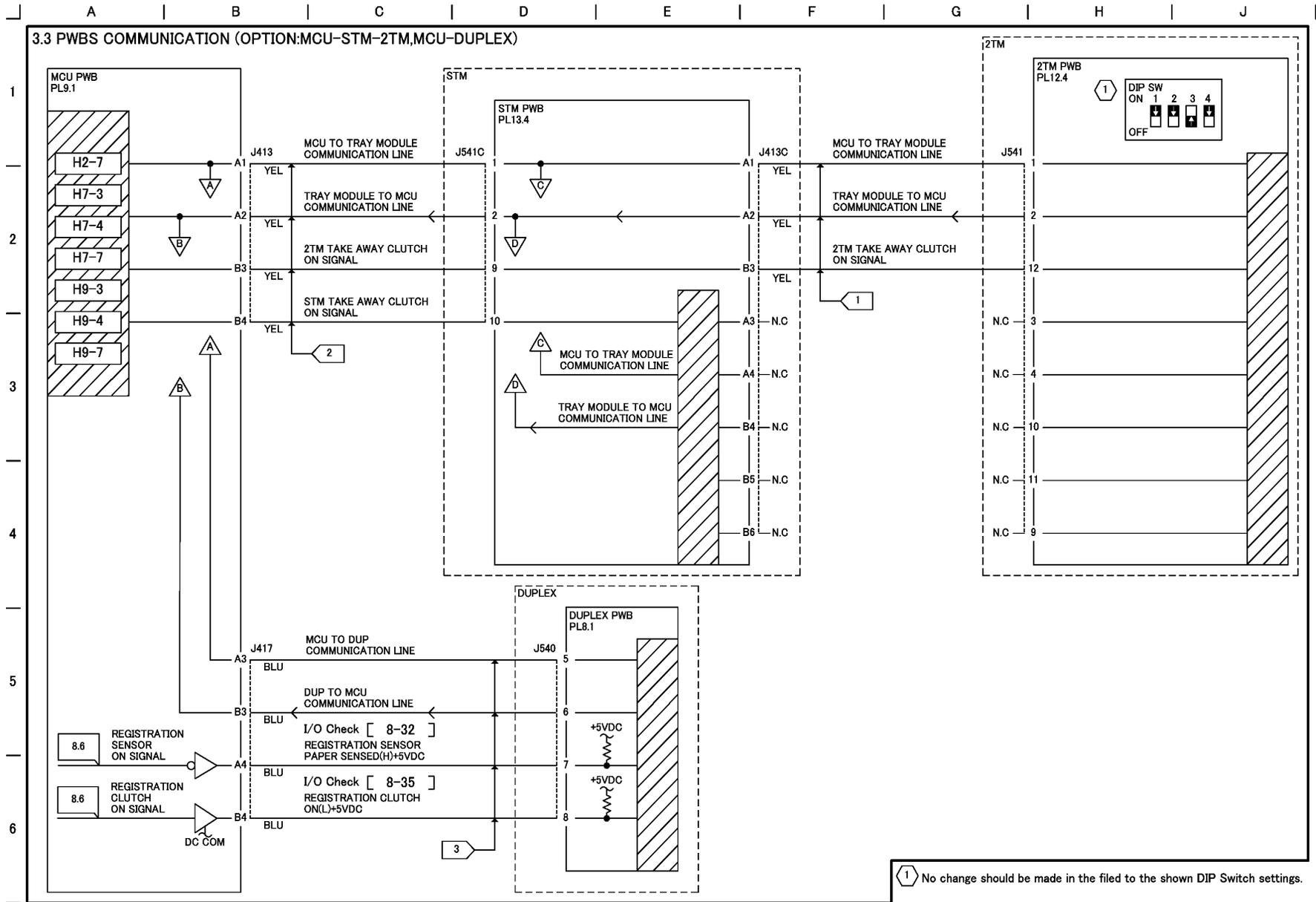
j0ch90301

Figure 1 PWBS COMMUNICATION (MCU-EXT-MFC) (j0ch90301)



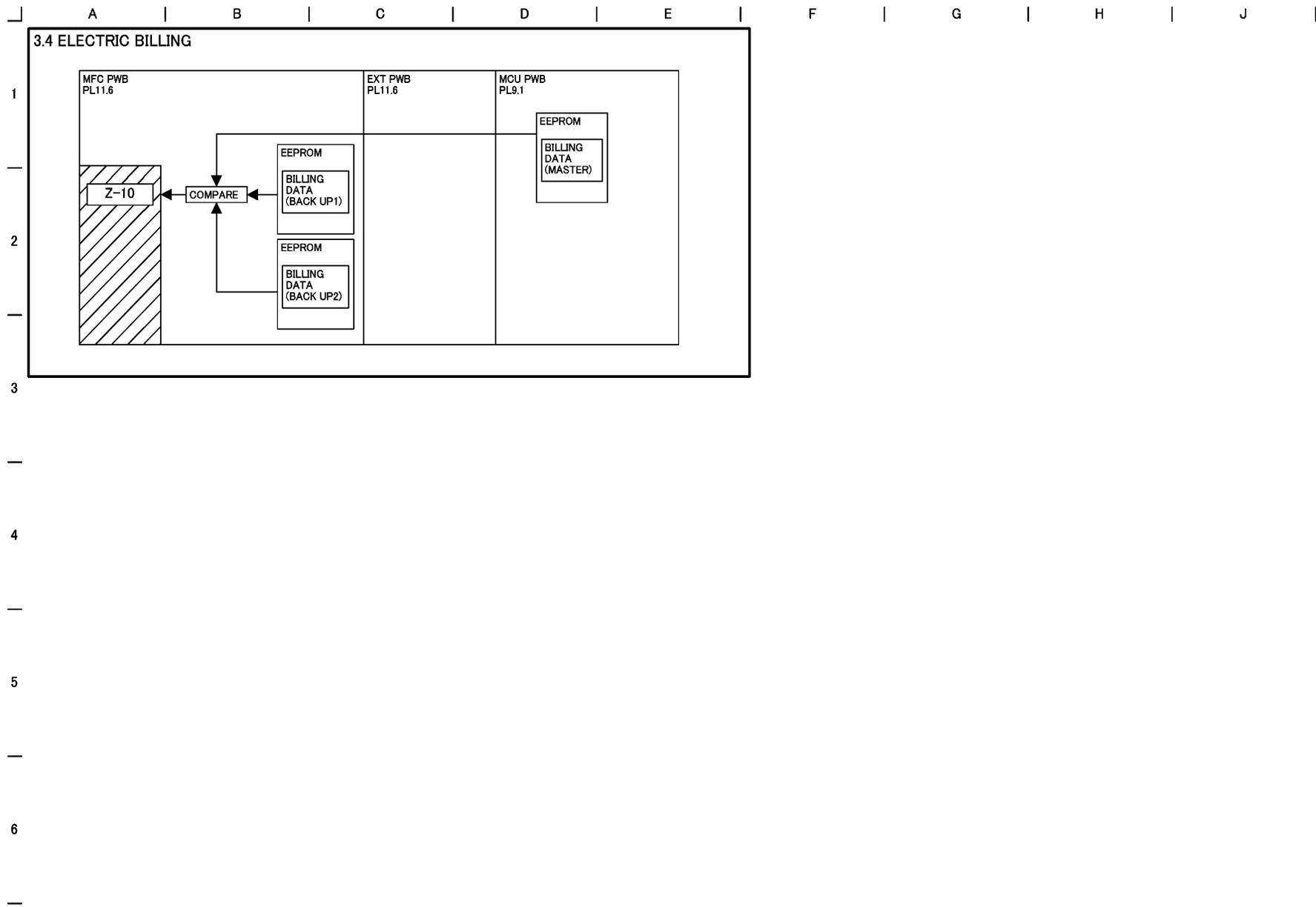
j0ch90302

Figure 2 PWBS COMMUNICATION (OPTION:MFC-NSC,NSC-DADF/ADF) (j0ch90302)



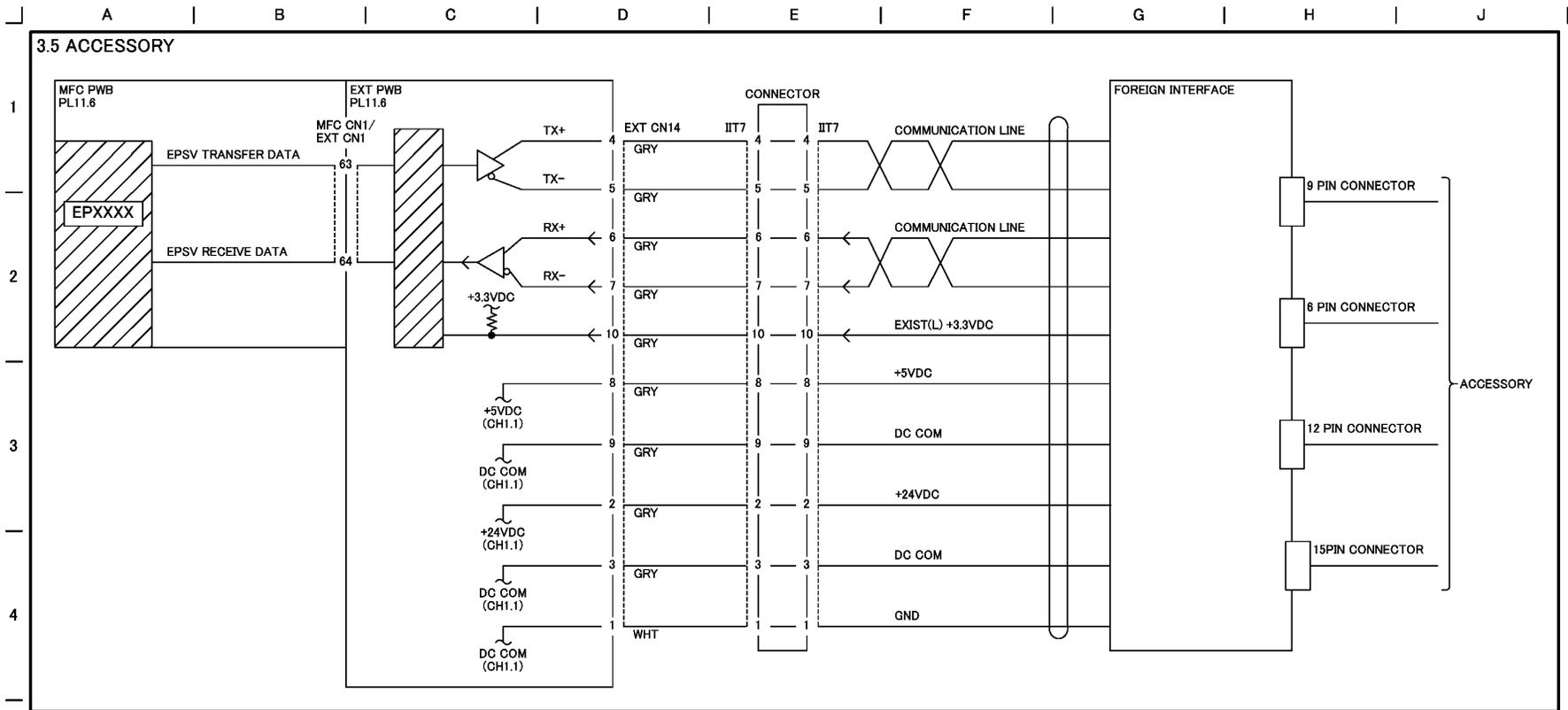
j0ch90303

Figure 3 PWBS COMMUNICATION (OPTION:MCU-STM-2TM,MCU-DUPLEX)(j0ch90303)



j0ch90304

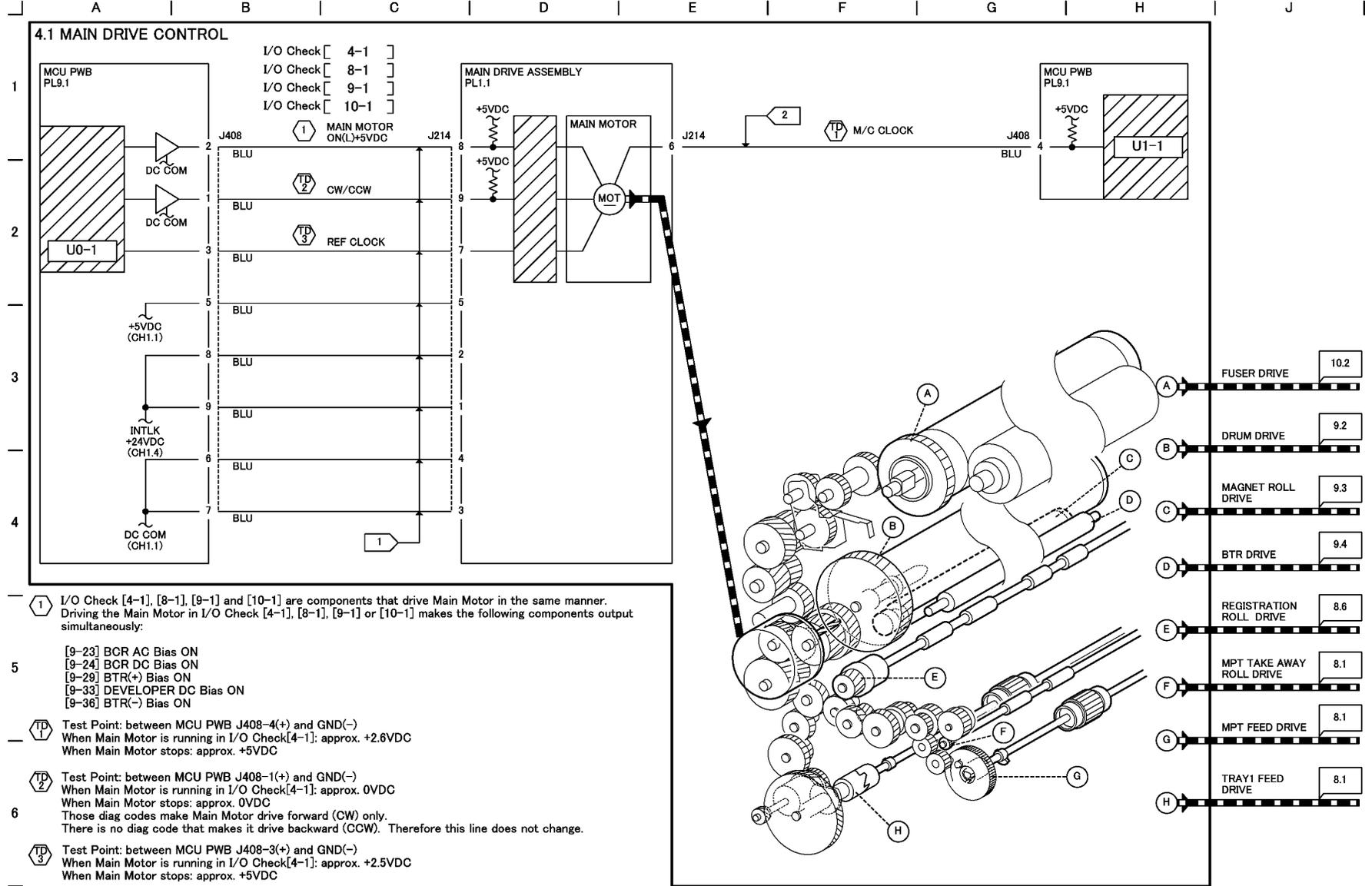
Figure 4 ELECTRIC BILLING (j0ch90304)



j0ch90305

Figure 5 ACCESSORY (j0ch90305)

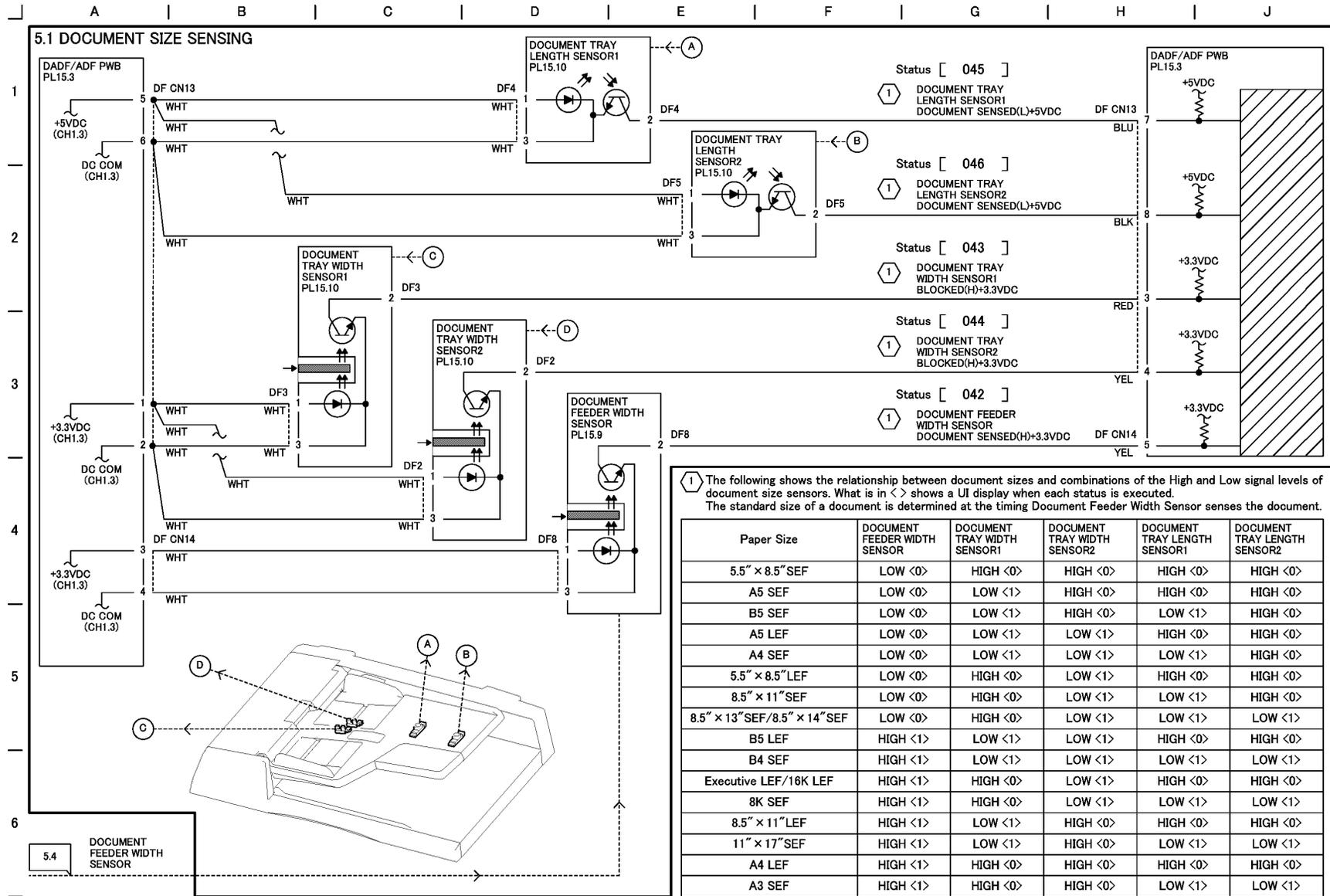
# Chain 4 Start Print Power



j0ch90401

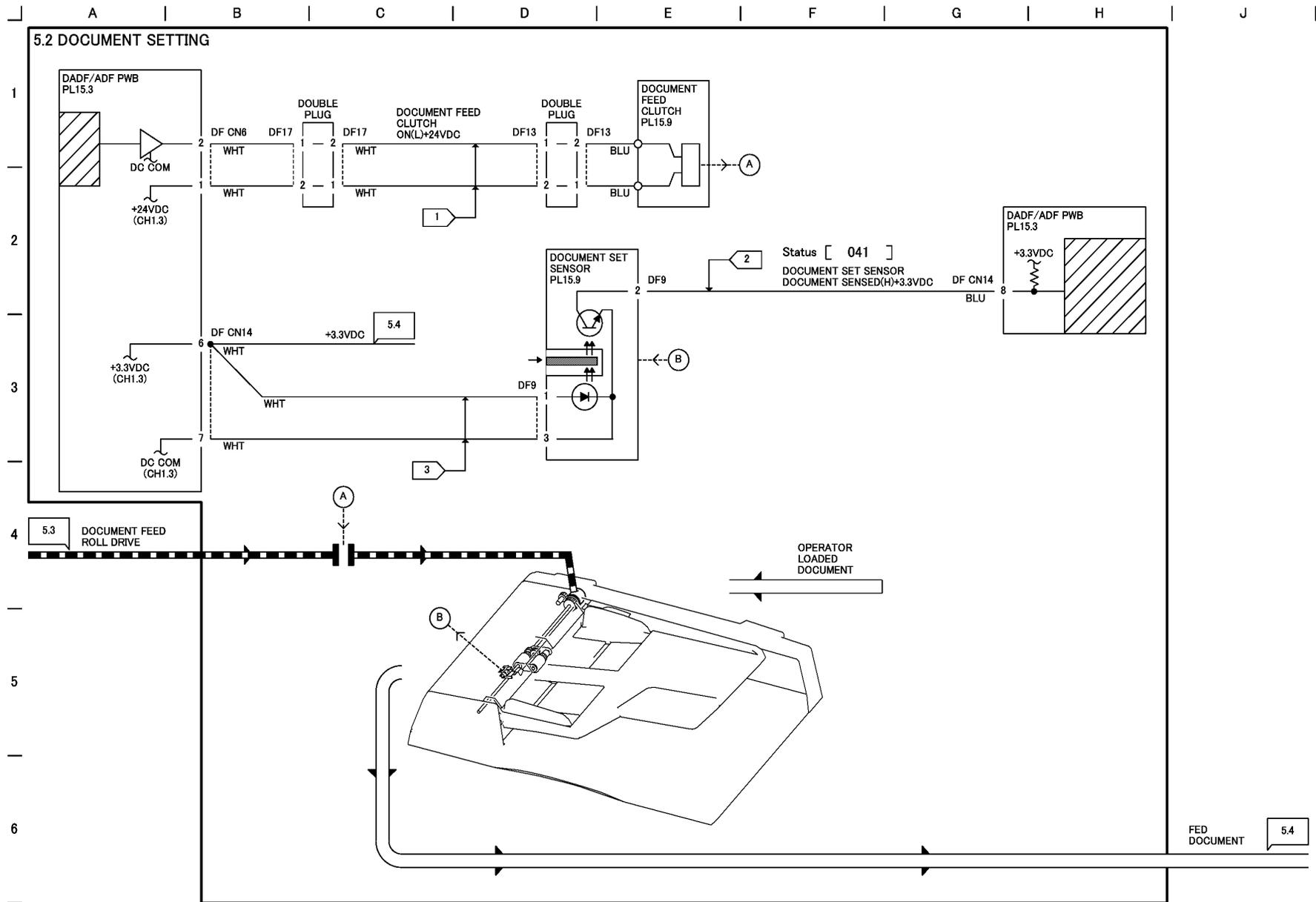
Figure 1 MAIN DRIVE CONTROL (j0ch90401)

# Chain 5 Document Transportation



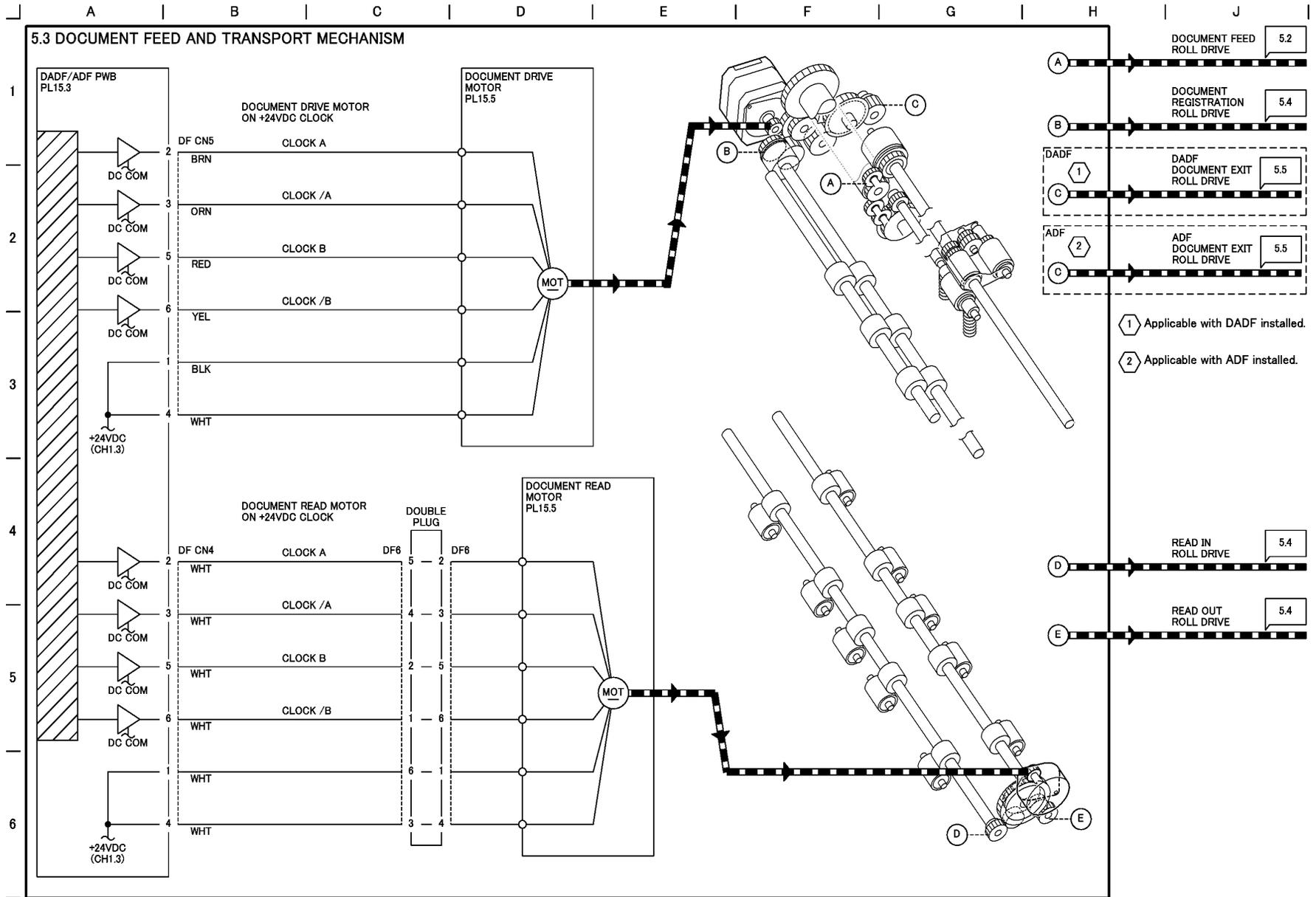
j0ch90501

Figure 1 DOCUMENT SIZE SENSING (j0ch90501)



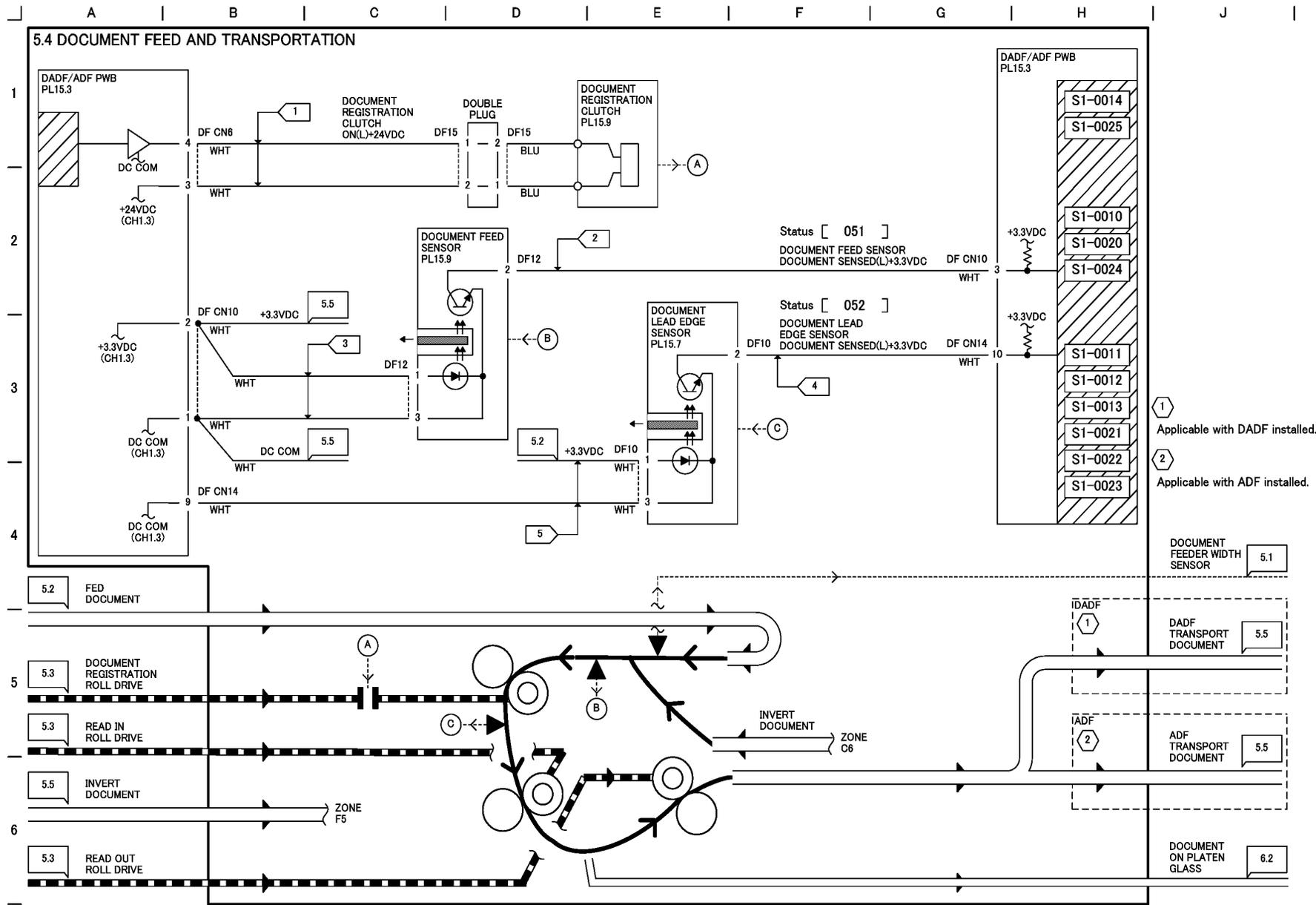
j0ch90502

Figure 2 DOCUMENT SETTING (j0ch90502)



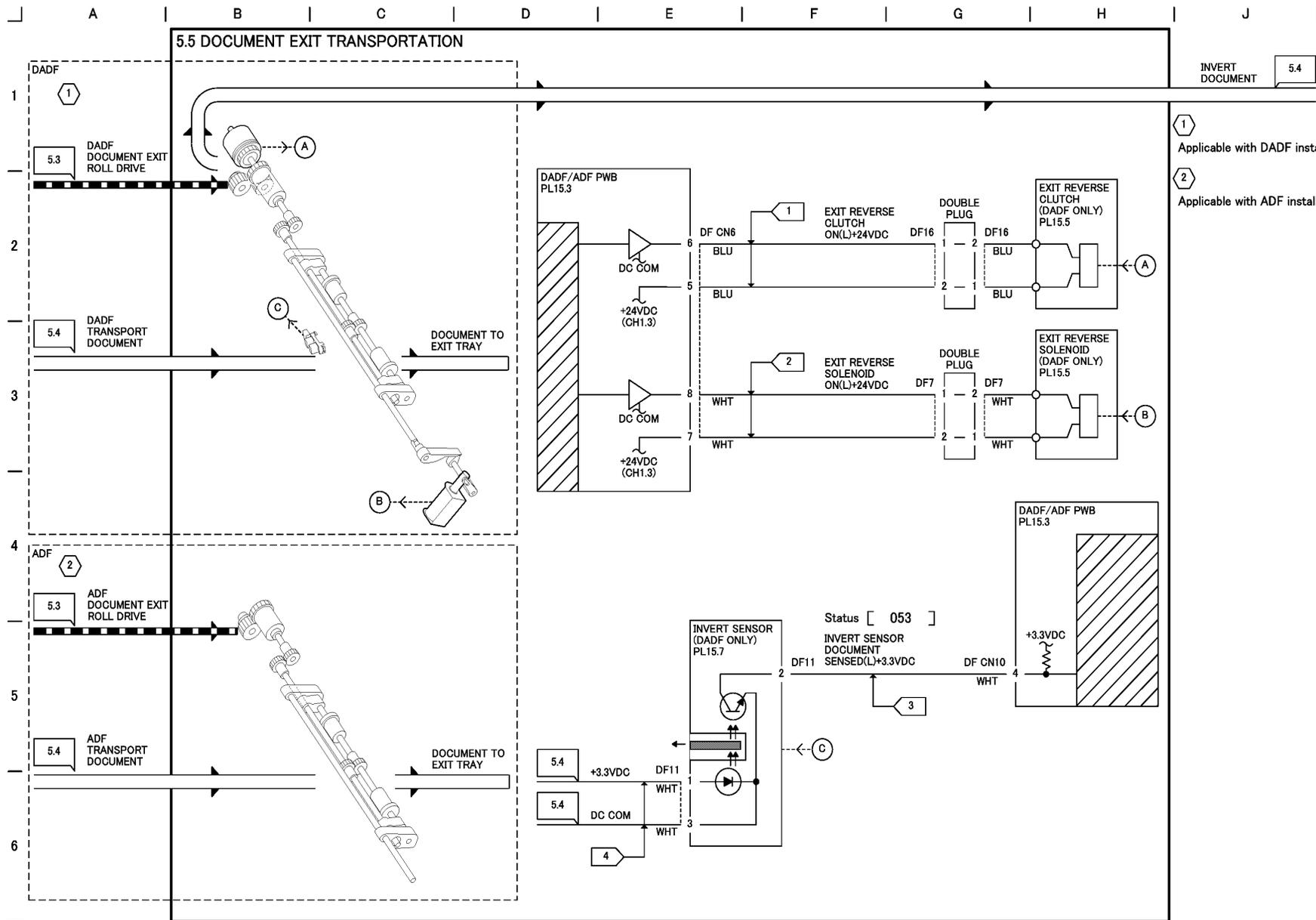
j0ch90503

Figure 3 DOCUMENT FEED AND TRANSPORT MECHANISM (j0ch90503)



j0ch90504

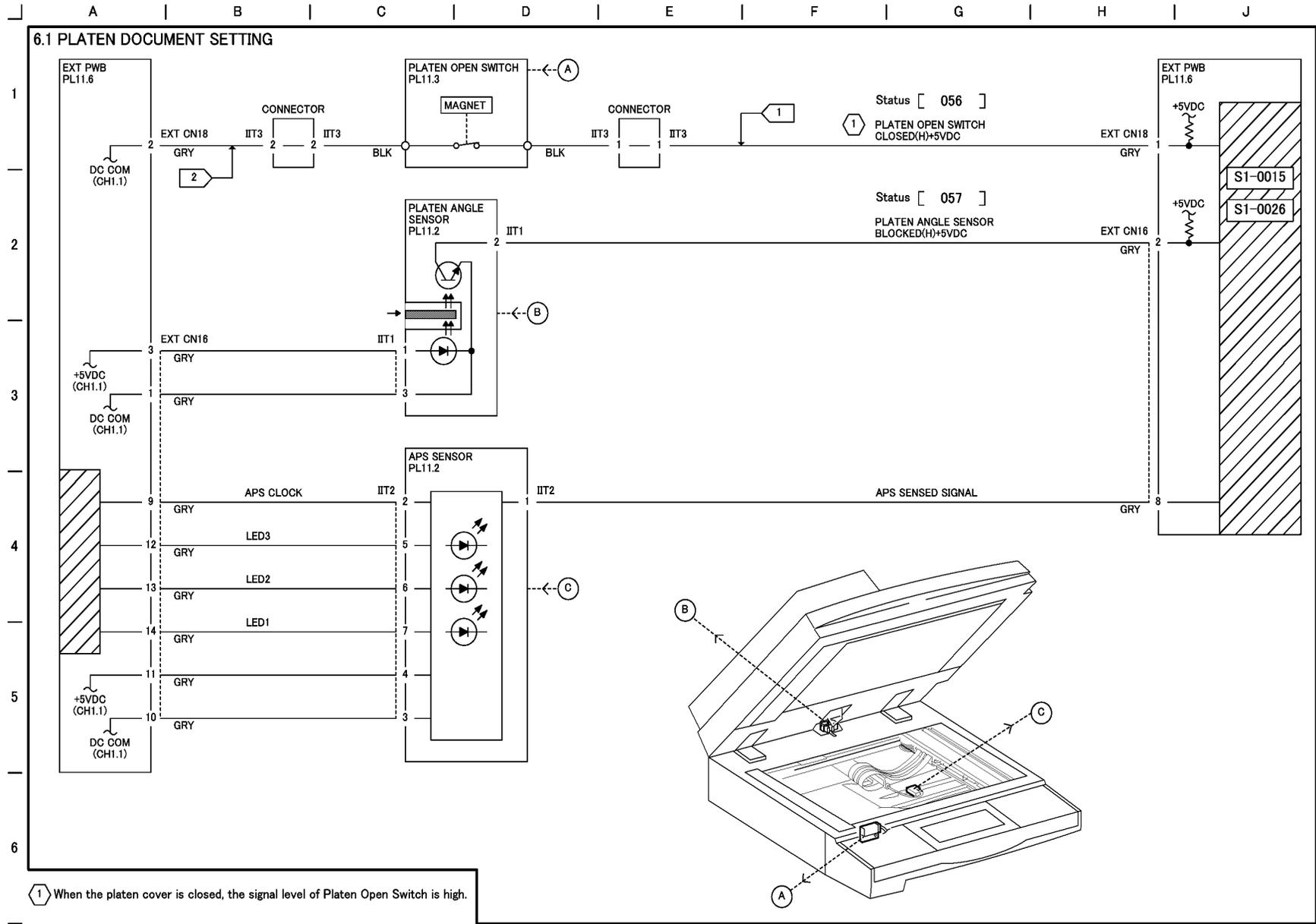
Figure 4 DOCUMENT FEED AND TRANSPORTATION (j0ch90504)



j0ch90505

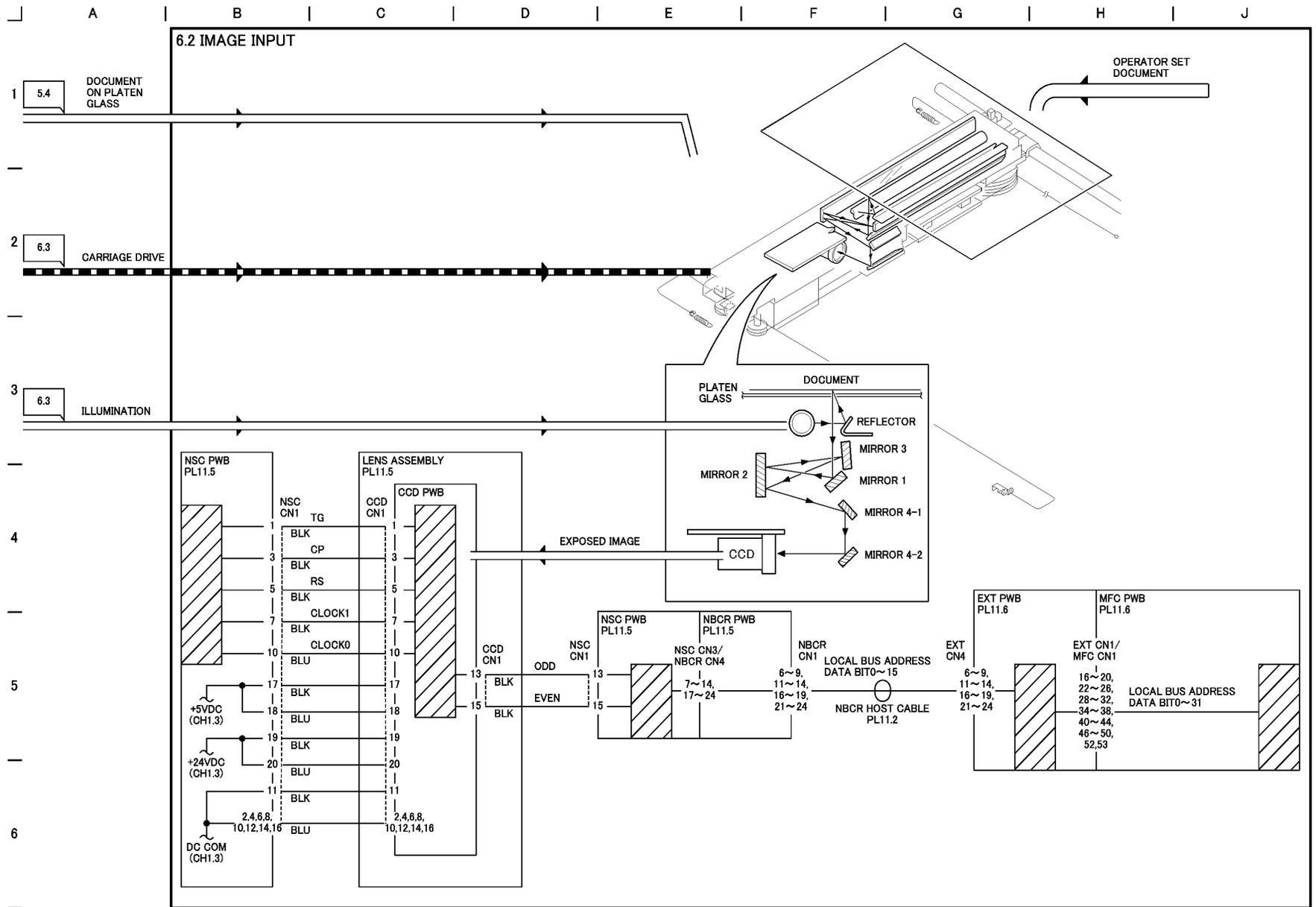
Figure 5 DOCUMENT EXIT TRANSPORTATION (j0ch90505)

# Chain 6 Imaging



j0ch90601

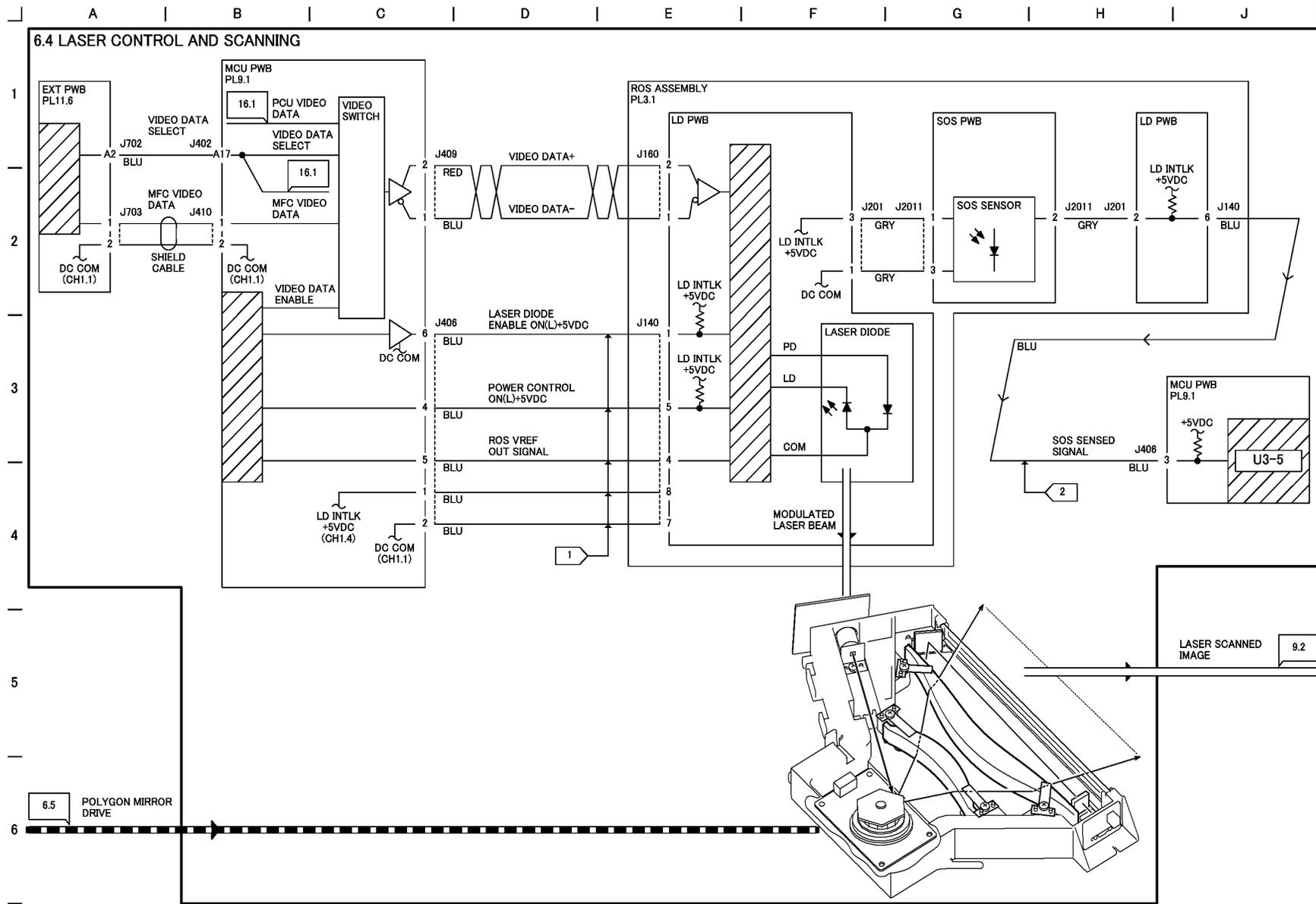
Figure 1 PLATEN DOCUMENT SETTING (j0ch90601)



j0ch90602

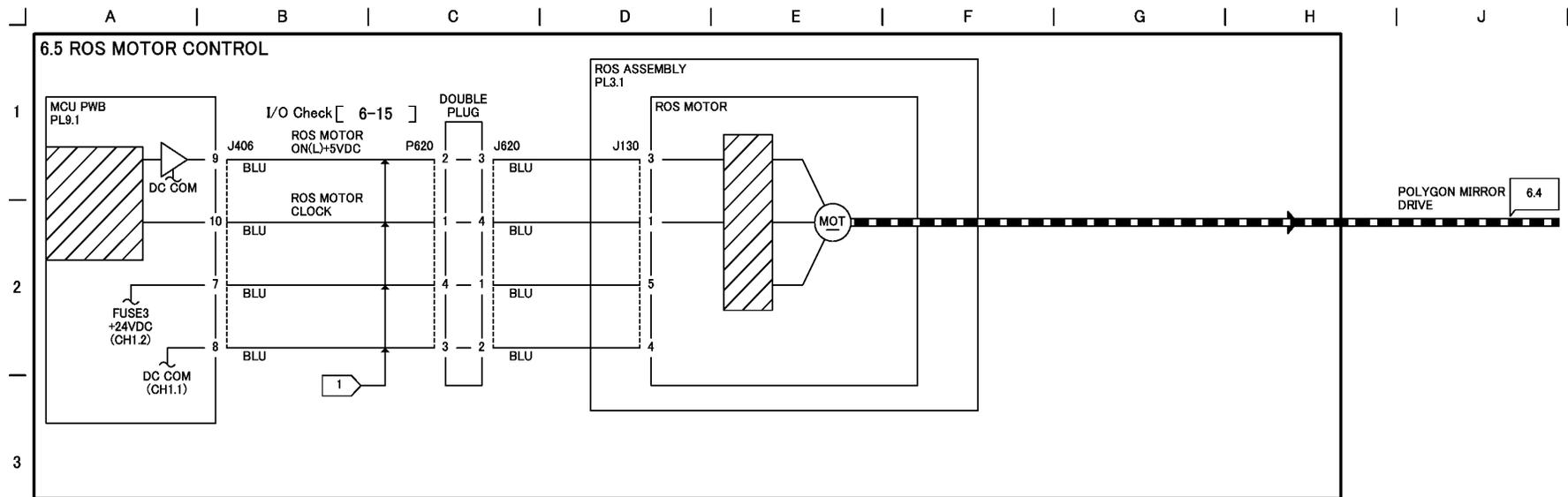
Figure 2 IMAGE INPUT (j0ch90602)





j0ch90804

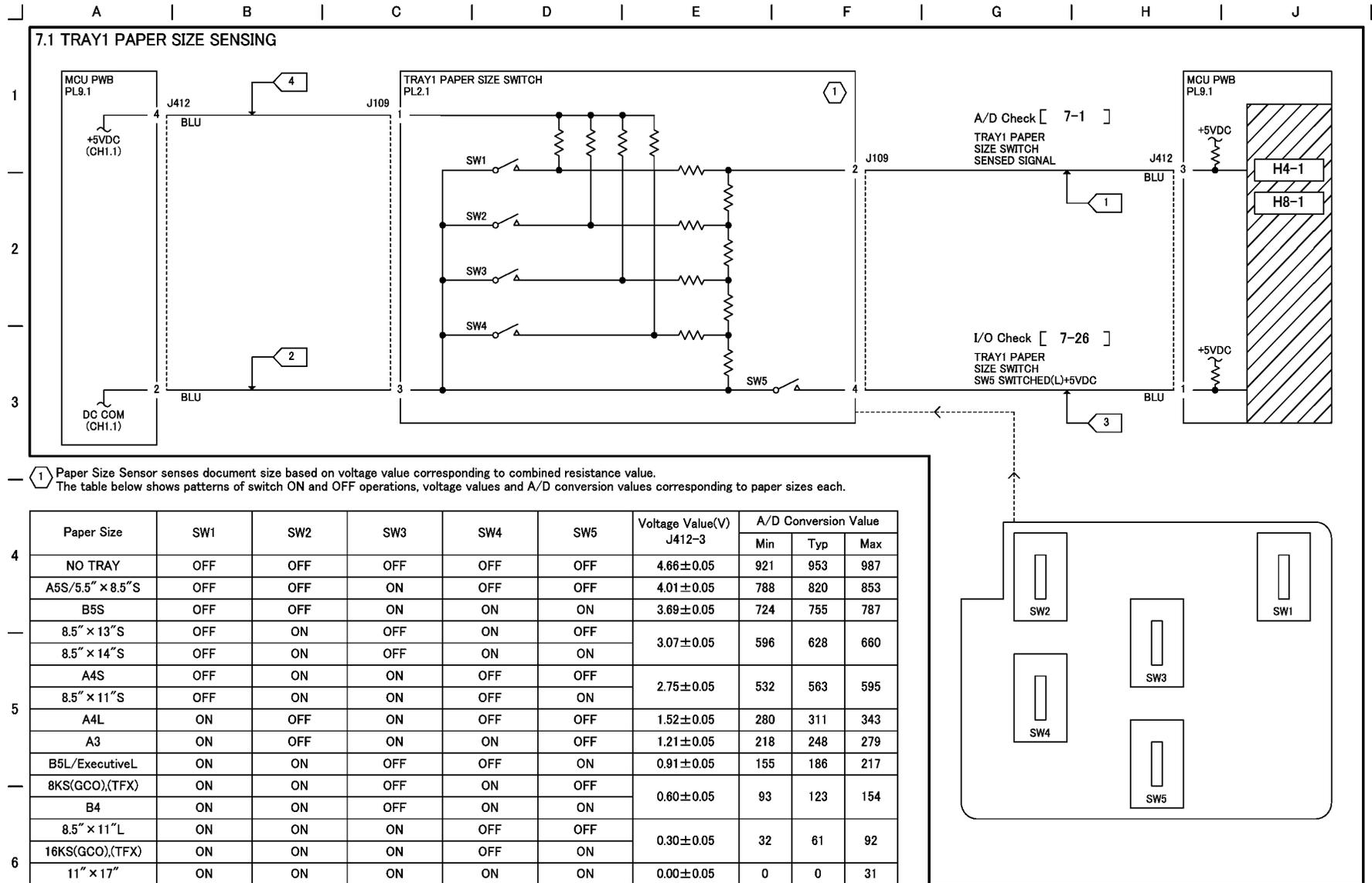
Figure 4 LASER CONTROL AND SCANNING (j0ch90604)



j0ch90605

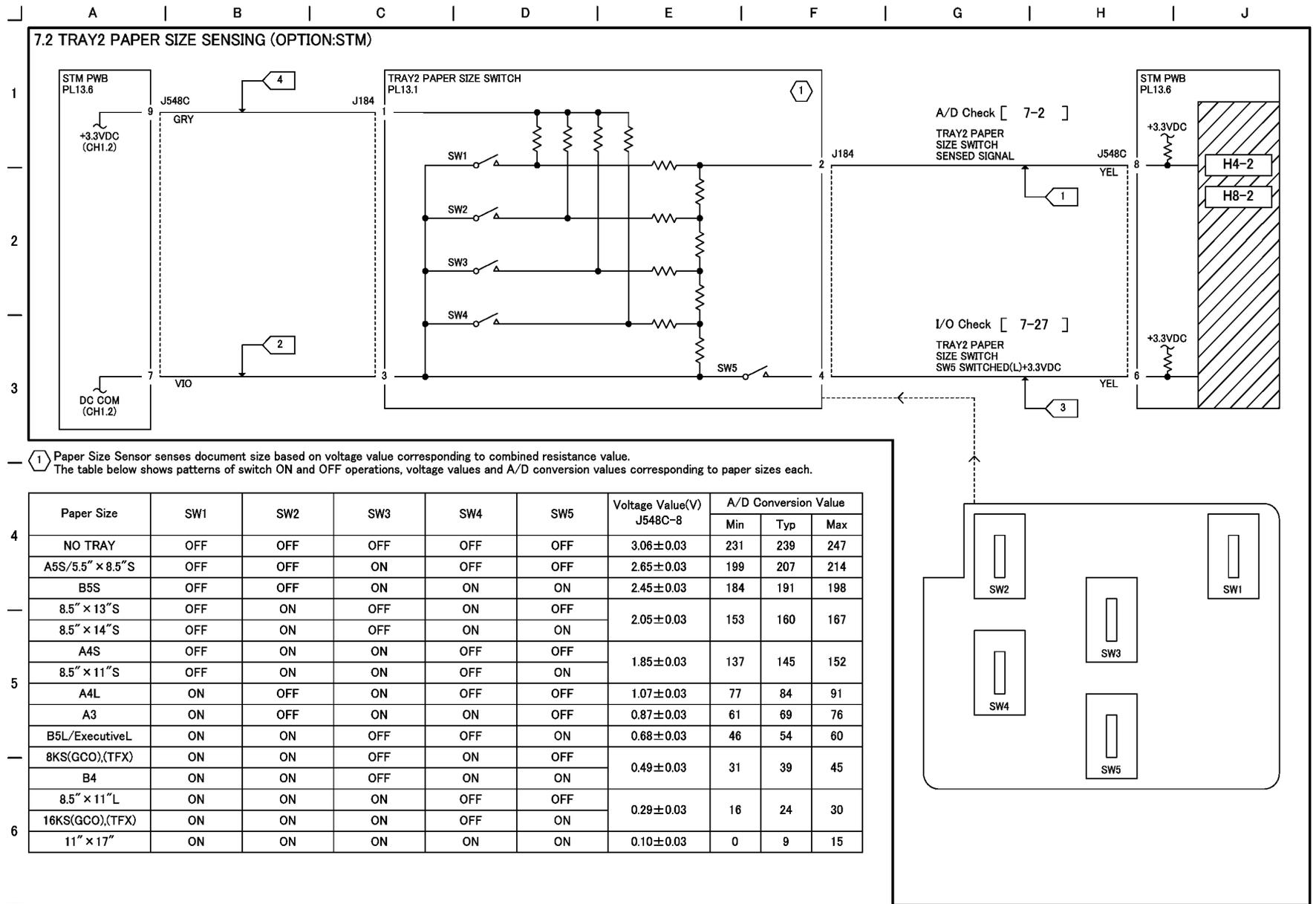
Figure 5 ROS MOTOR CONTROL (j0ch90605)

# Chain 7 Paper Supply



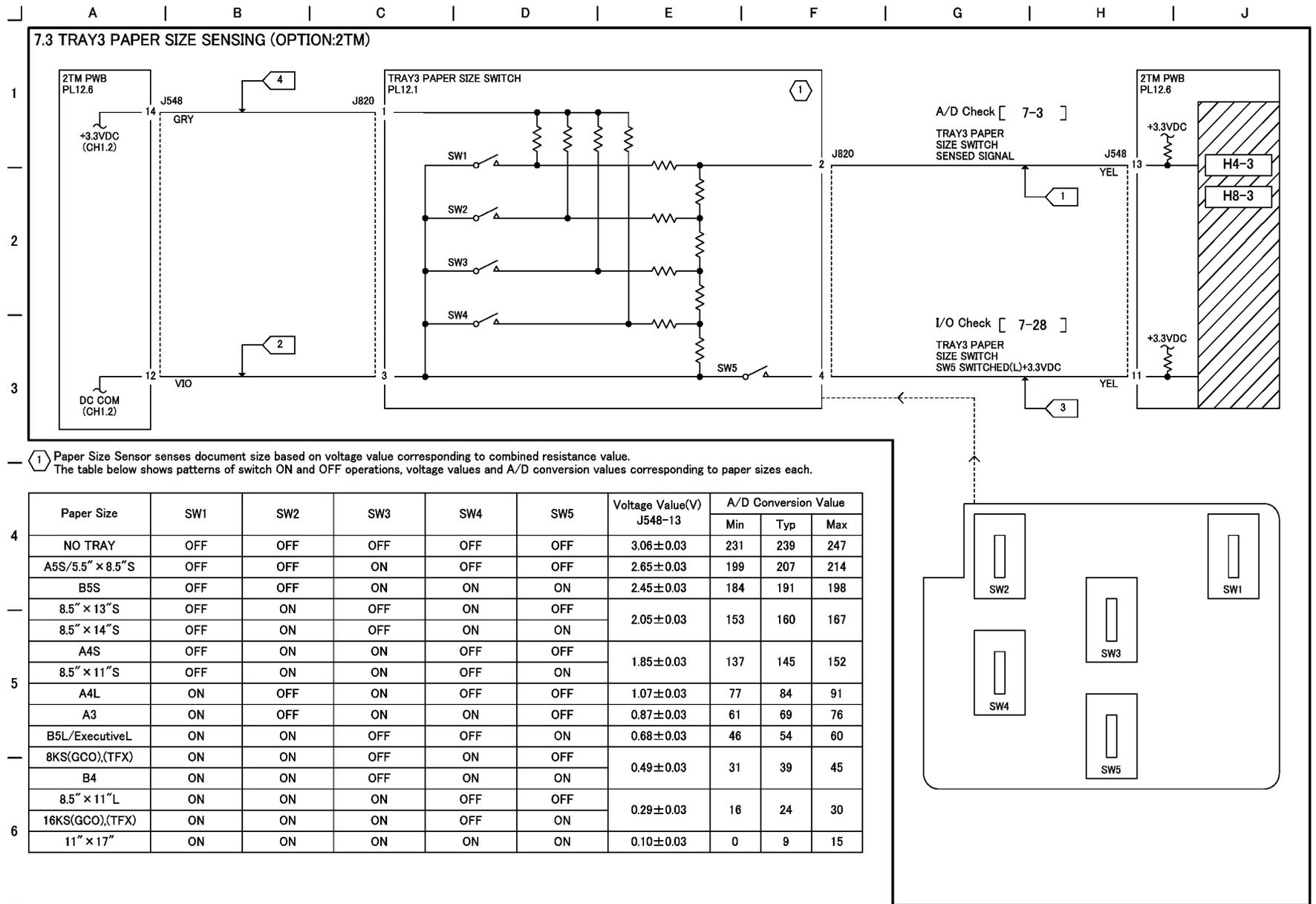
j0ch90701

Figure 1 TRAY1 PAPER SIZE SENSING (j0ch90701)



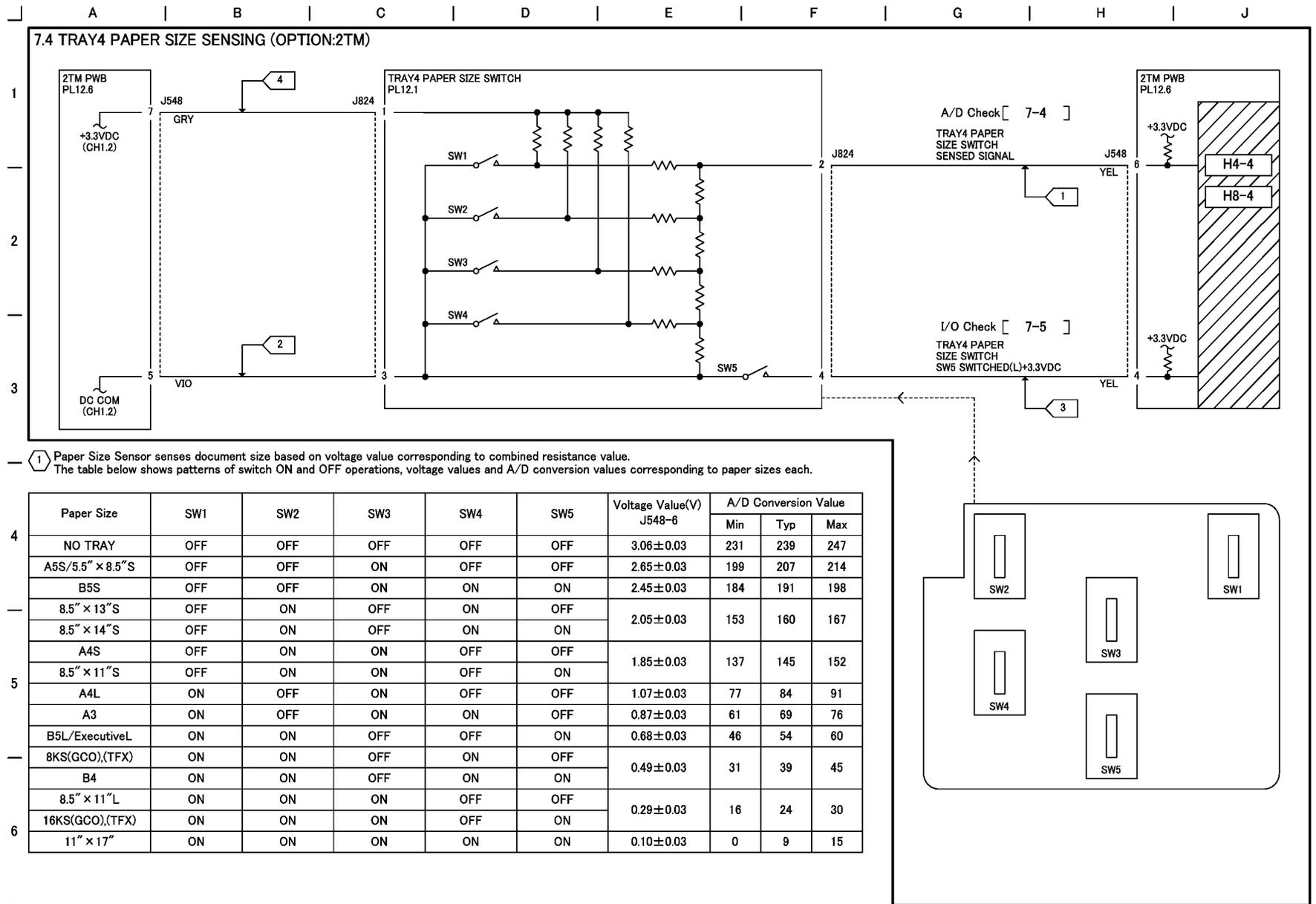
j0ch90702

Figure 2 TRAY2 PAPER SIZE SENSING (OPTION:STM) (j0ch90702)



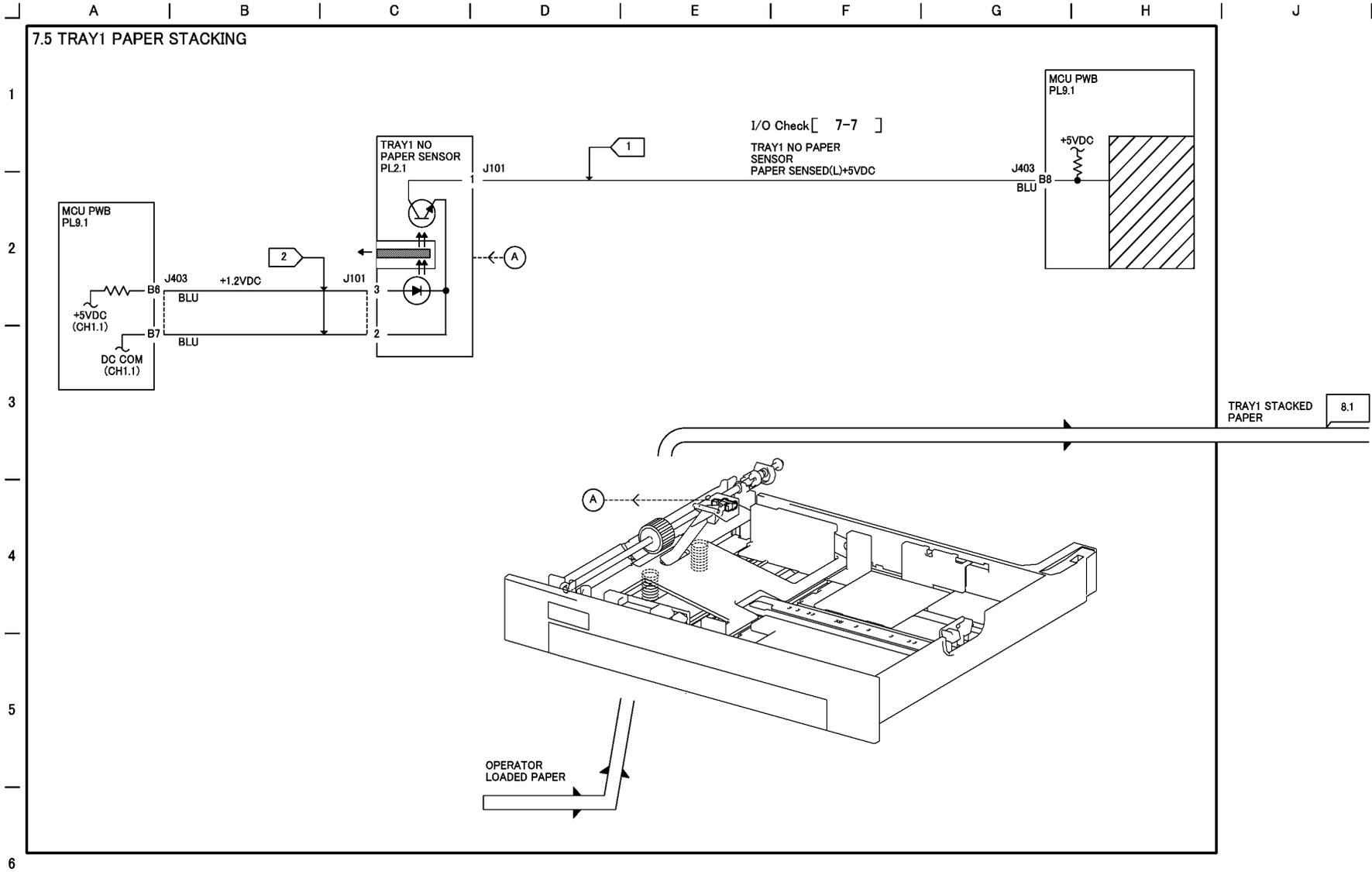
j0ch90703

Figure 3 TRAY3 PAPER SIZE SENSING (OPTION:2TM) (j0ch90703)



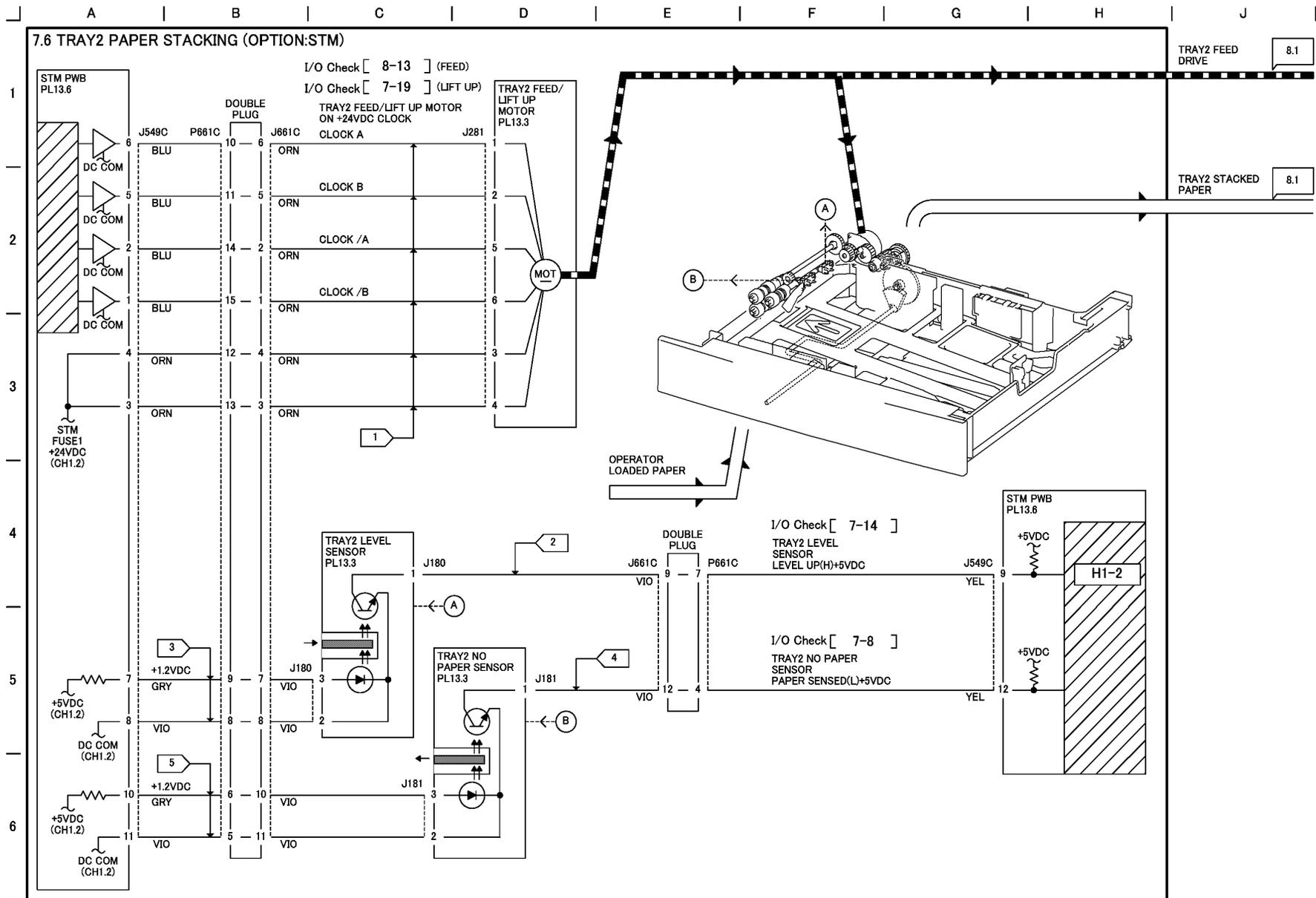
j0ch90704

Figure 4 TRAY4 PAPER SIZE SENSING (OPTION:2TM) (j0ch90704)



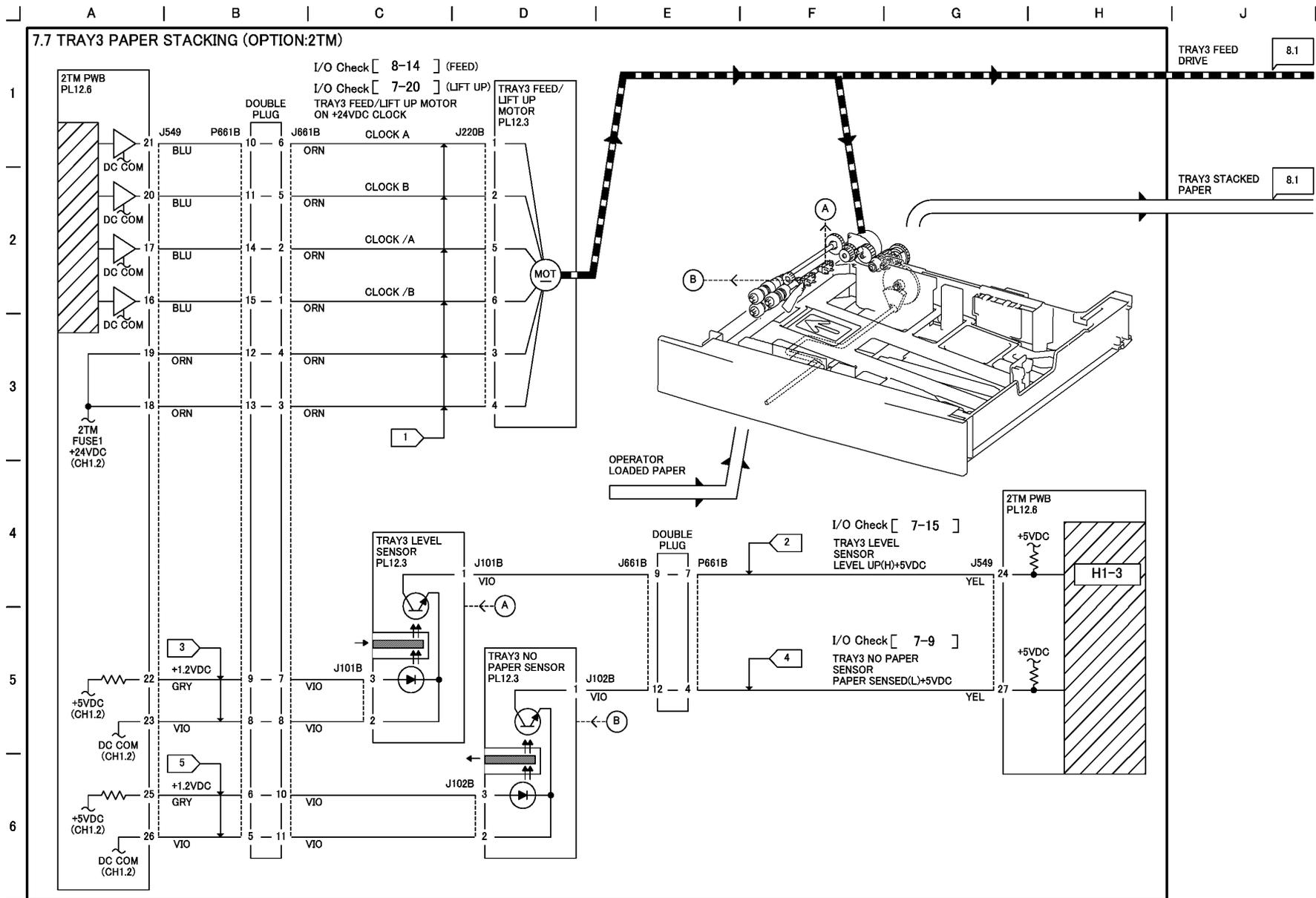
j0ch90705

Figure 5 TRAY1 PAPER STACKING (j0ch90705)



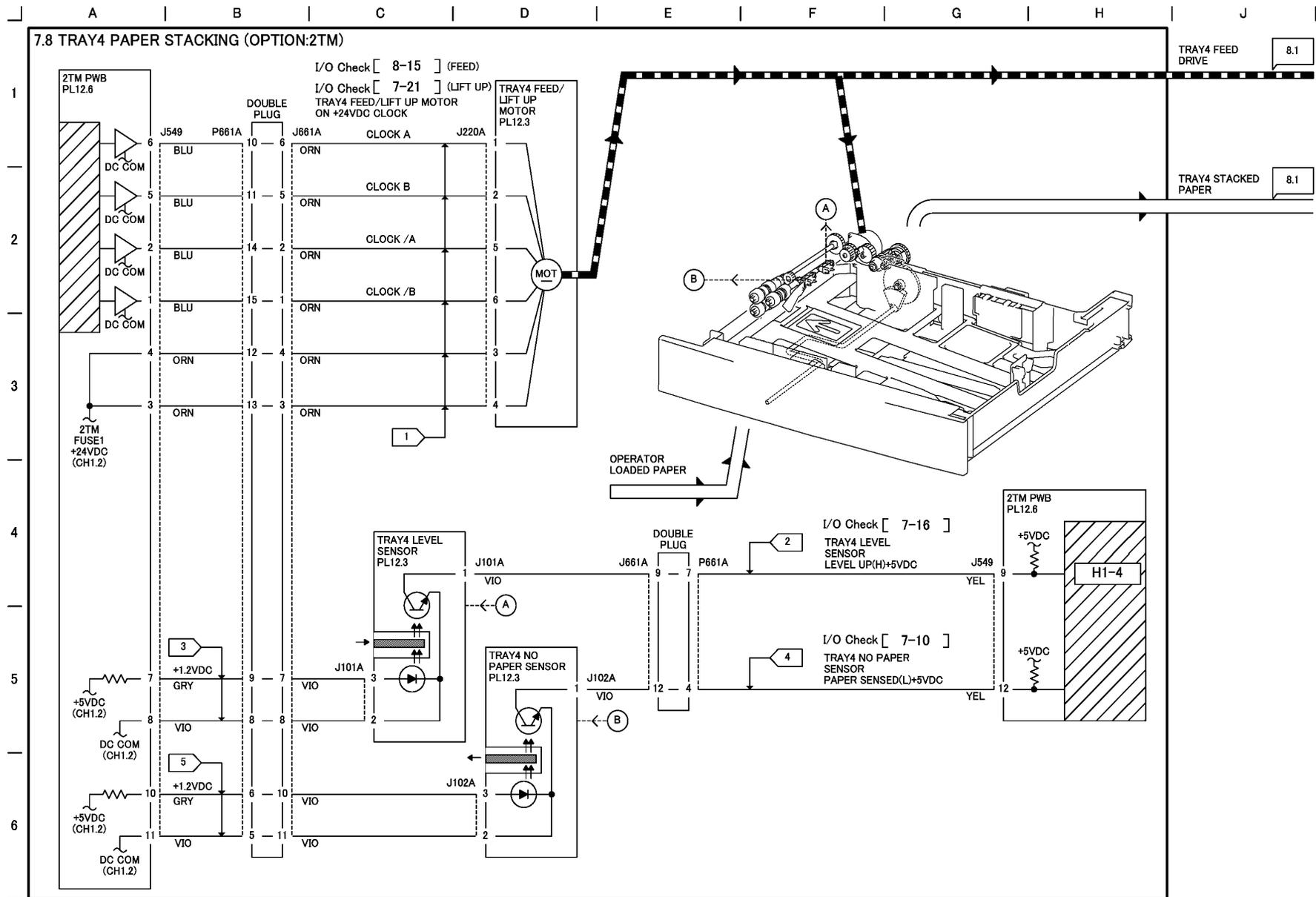
j0ch90706

Figure 6 TRAY2 PAPER STACKING (OPTION:STM) (j0ch90706)



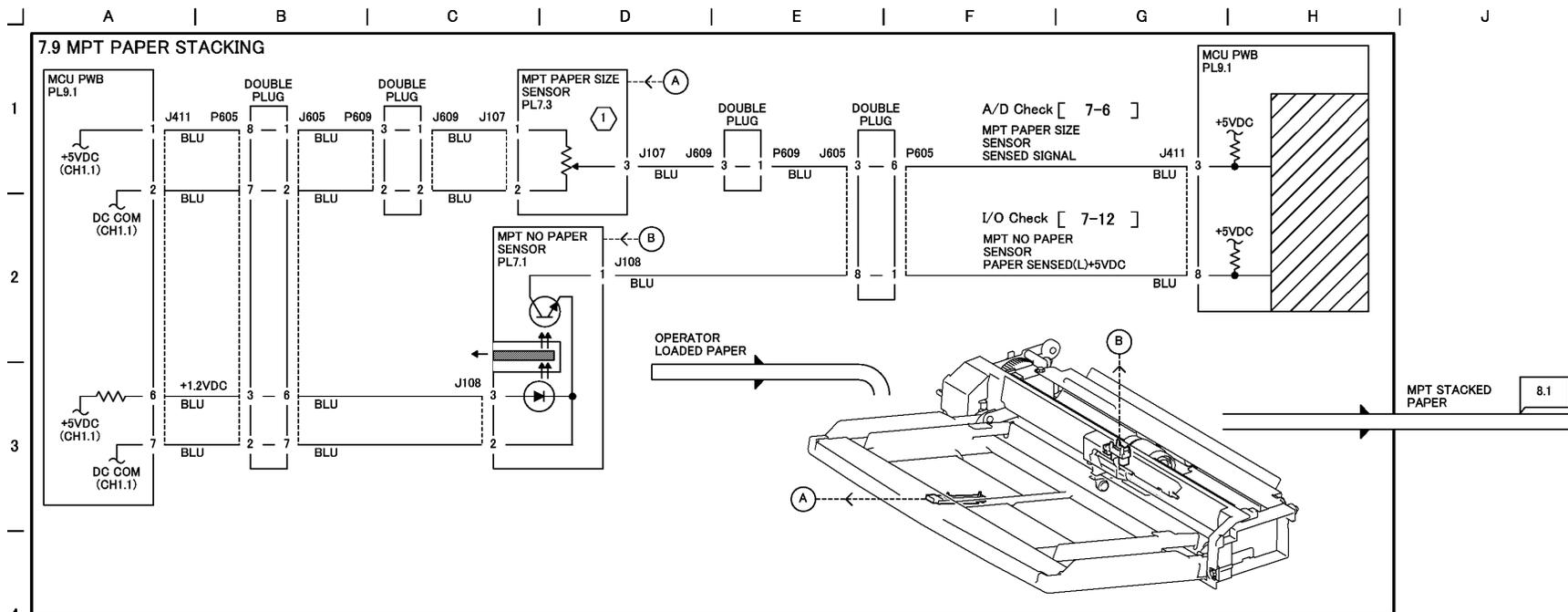
j0ch90707

Figure 7 TRAY3 PAPER STACKING (OPTION:2TM) (j0ch90707)



j0ch90708

Figure 8 TRAY4 PAPER STACKING (OPTION:2TM) (j0ch90708)



1 MPT Paper Size Sensor senses paper width (size in the Fast Scan direction) based on voltage value corresponding to combined resistance value. The table below shows voltage values and AD values corresponding to paper sizes (width) each.

Ref. Paper length (size in the Slow Scan direction) is sensed based on a period of time from Registration Clutch ON to when paper finishes passing Registration Sensor. The table below shows times (ms) corresponding to paper sizes (length) each.

Paper Size	Width(mm)	Voltage(V) J411-3	Analog Value
Side guide stopper(MIN)	84	4.72	966
3.5" x 8.5" SEF	88.9	4.71	963
Post Card SEF	101.6	4.48	916
5.5" x 8.5" SEF	139.7	3.79	775
Postcard LEF/A6 LEF/A5 SEF	148	3.64	745
Post Card LEF	152.4	3.56	728
B6 LEF/B5 SEF	182	3.03	619
Monarch LEF	190.5	2.87	588
A5 LEF/A4 SEF	210	2.52	516
5.5" x 8.5" LEF/5.5" x 1.1" SEF(Letter)	215.9	2.41	494
DL LEF	220	2.34	479
C5 LEF/C4 SEF	229	2.18	445
Vertical(Long size) No.3 LEF	235	2.07	423

Paper Size	Width(mm)	Voltage(V) J411-3	Analog Value
Com10 LEF	241.3	1.95	400
B5 LEF/B4 SEF	257	1.67	342
Executive LEF	266.7	1.50	306
16K LEF/8K SEF TFX (PRC)	267(270)	1.49(1.44)	305(294)
8.5" x 11" SEF(Letter)/11" x 17" LEF	279.4	1.27	259
A4 LEF/A3 SEF	297	0.95	194
Side guide stopper(MAX)	303	0.84	172

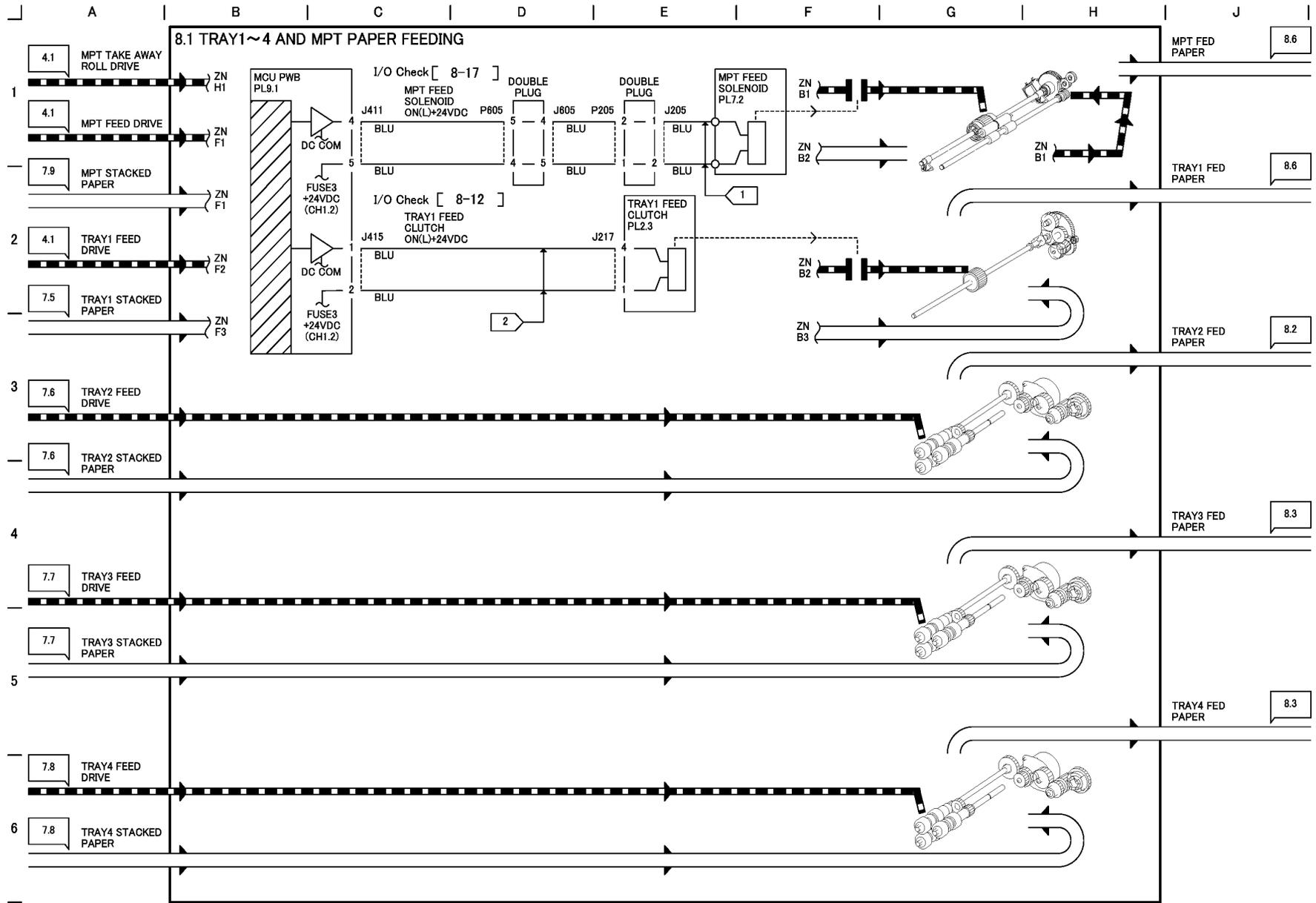
Paper Size	Time(ms)
3.5" x 8.5" SEF	2399
Post Card SEF	1693
Postcard LEF	1111
A6 LEF	1166
A5 SEF	2333
Post Card LEF	1129
B6 LEF	1428
B5 SEF	2856
Monarch LEF	1093
A5 LEF	1650
A4 SEF	3633
5.5" x 8.5" LEF	1552

Paper Size	Time(ms)
5.5" x 1.1" SEF(Letter)	3104
DL LEF	1222
C5 LEF	1800
C4 SEF	3600
Vertical(Long size) No.3 LEF	1333
Com10 LEF	1164
B5 LEF	2022
Executive LEF	2047
16K LEF TFX (PRC)	2156(2167)
8.5" x 11" SEF(Letter)	2733
A4 LEF	2333
A3 SEF	4667

j0ch90709

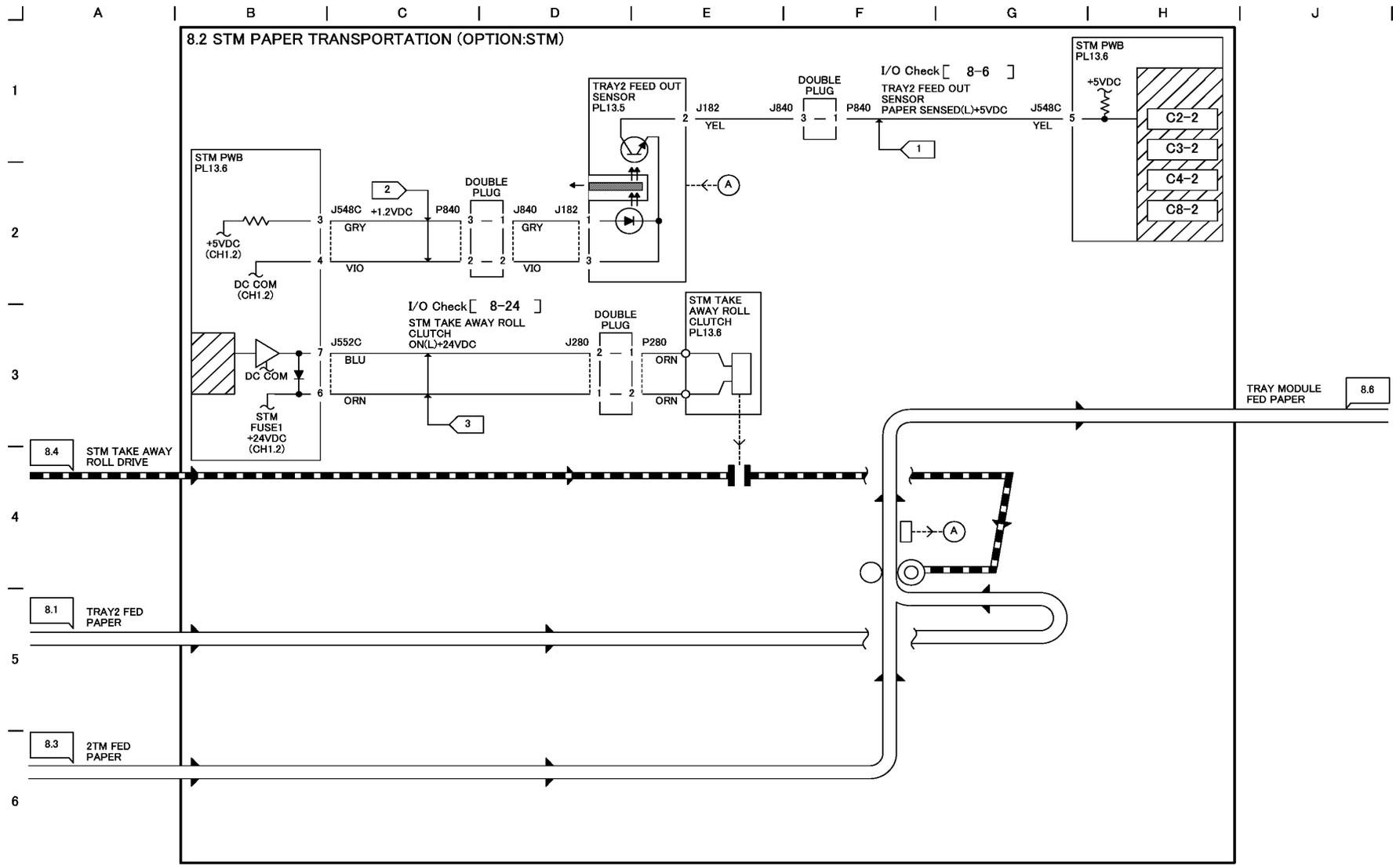
Figure 9 MPT PAPER STACKING (j0ch90709)

# Chain 8 Paper Feed and Transportation



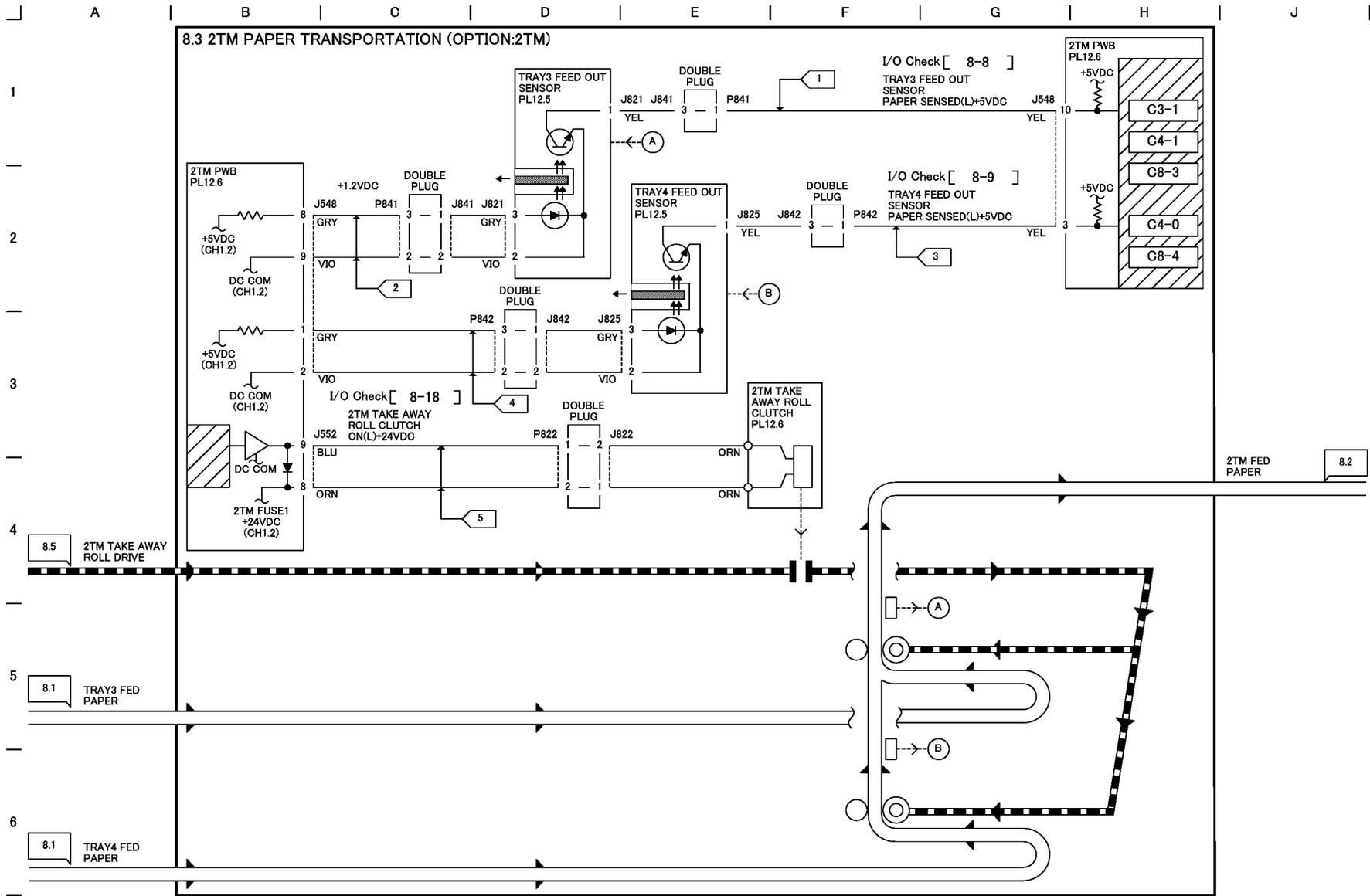
j0ch90801

Figure 1 TRAY1~4 AND MPT PAPER FEEDING (j0ch90801)



j0ch90802

Figure 2 STM PAPER TRANSPORTATION(OPTION:STM) (j0ch90802)



j0ch90803

Figure 3 2TM PAPER TRANSPORTATION (OPTION:2TM) (j0ch90803)

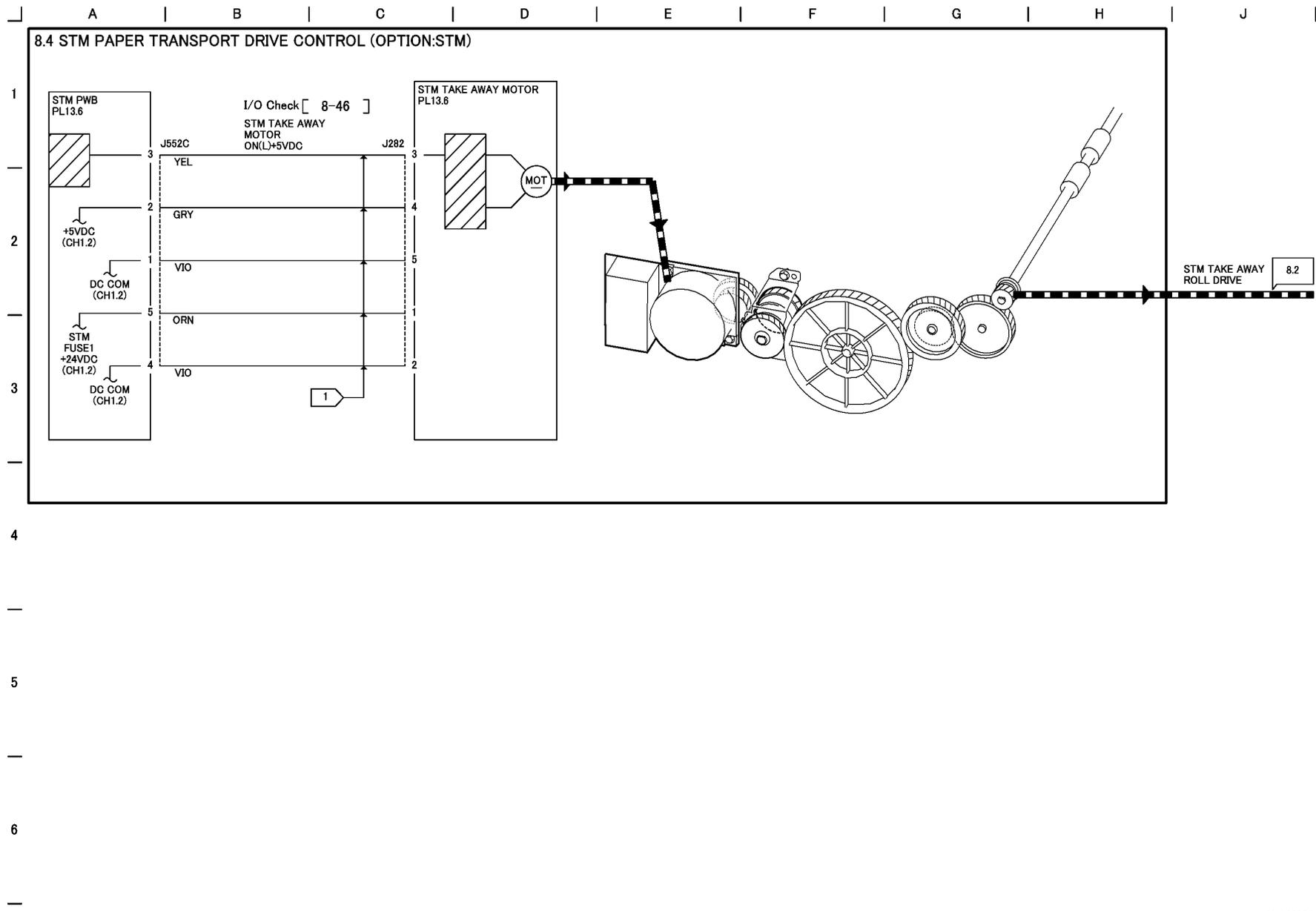
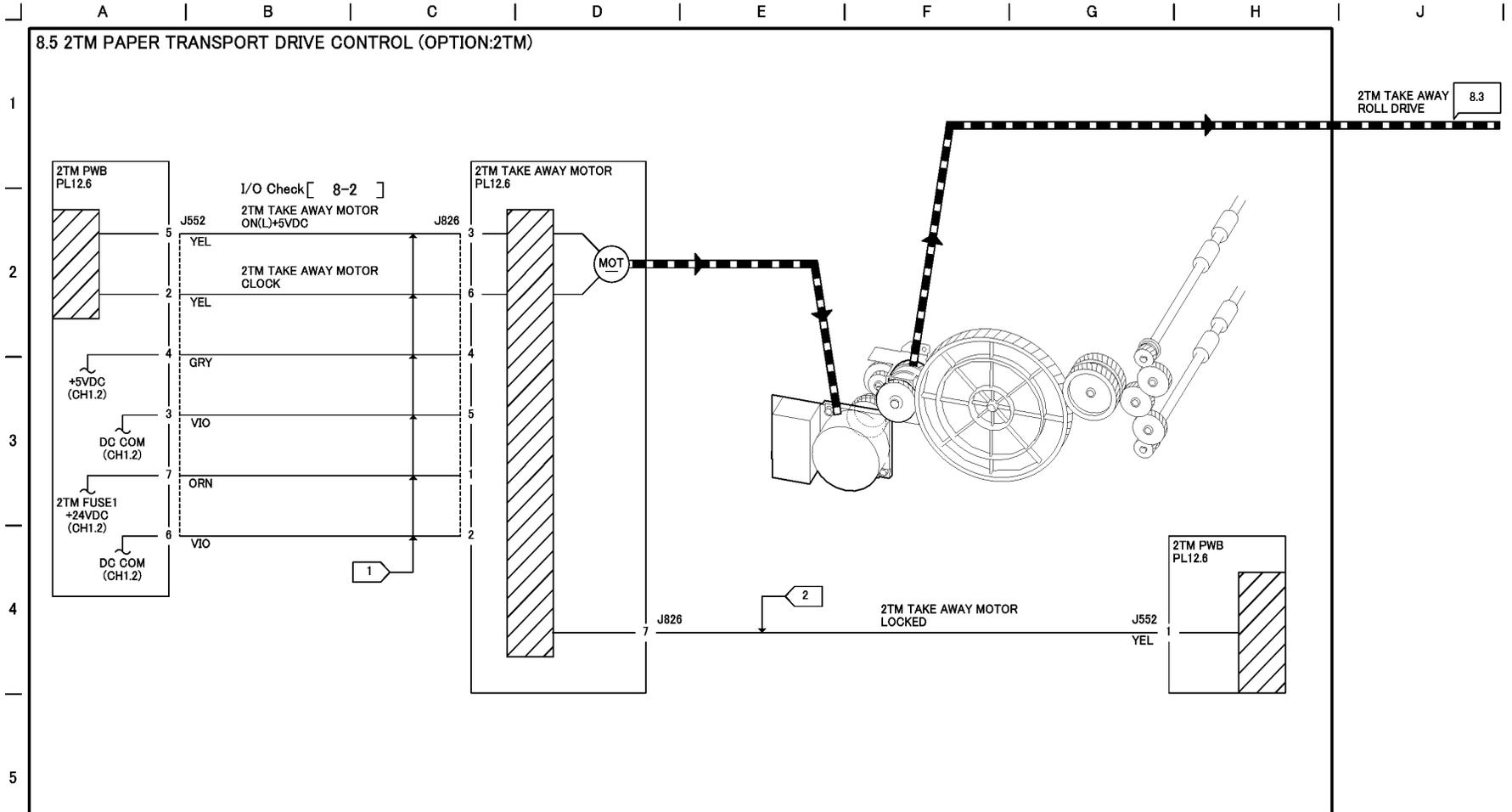


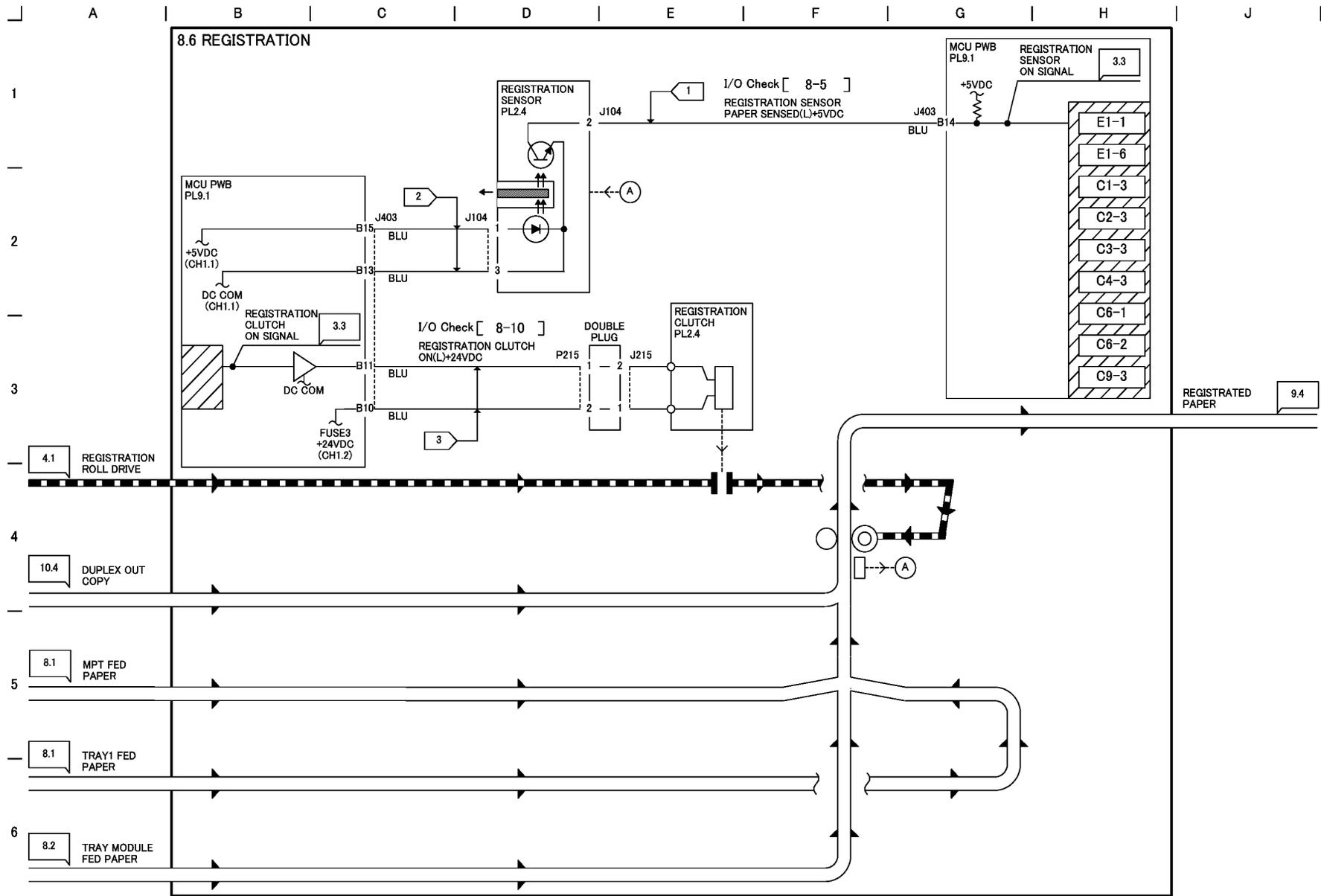
Figure 4 STM PAPER TRANSPORT DRIVE CONTROL (OPTION:STM) (j0ch90804)

j0ch90804



j0ch90805

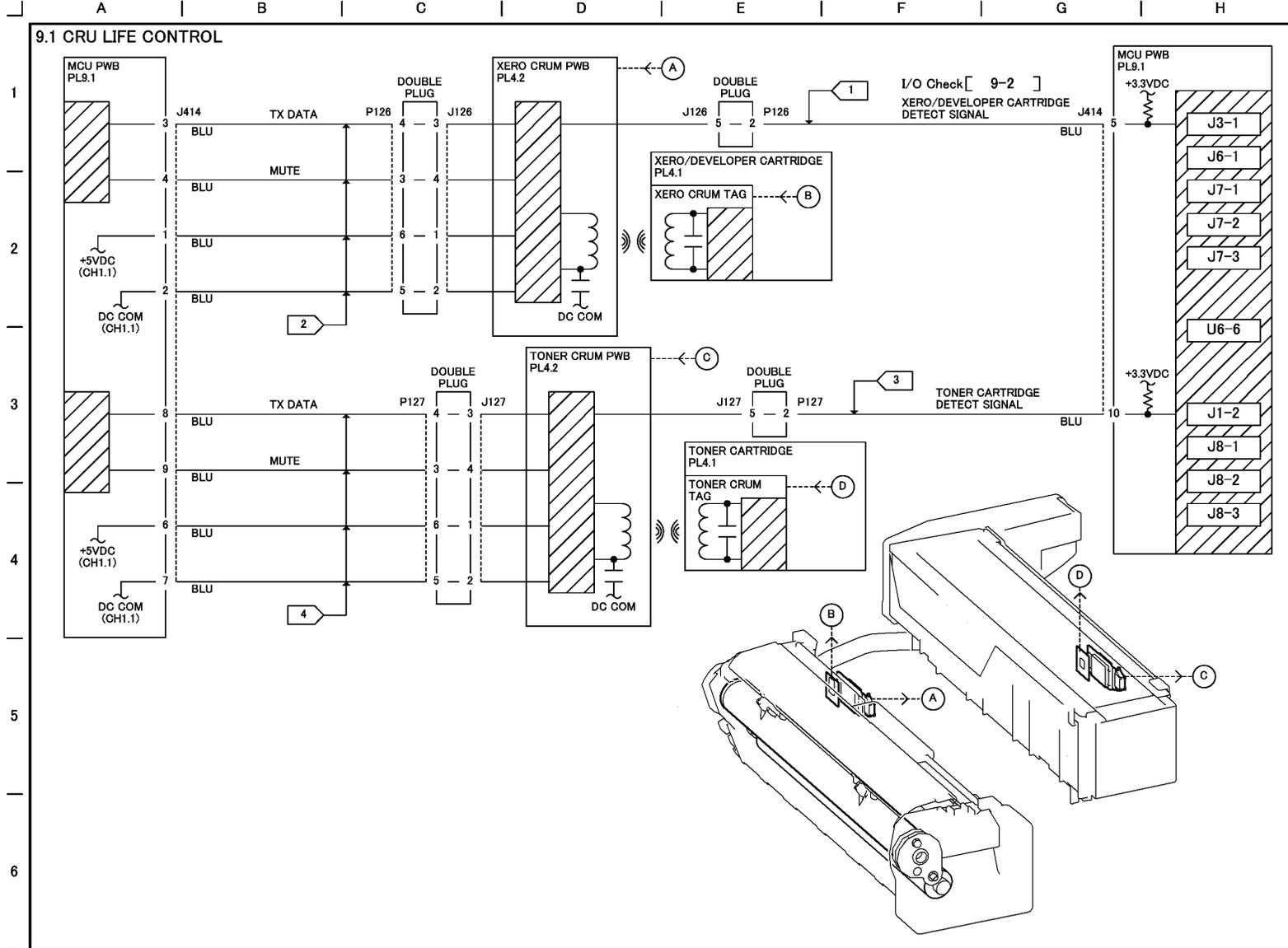
Figure 5 2TM PAPER TRANSPORT DRIVE CONTROL (OPTION:2TM) (j0ch90805)



j0ch90806

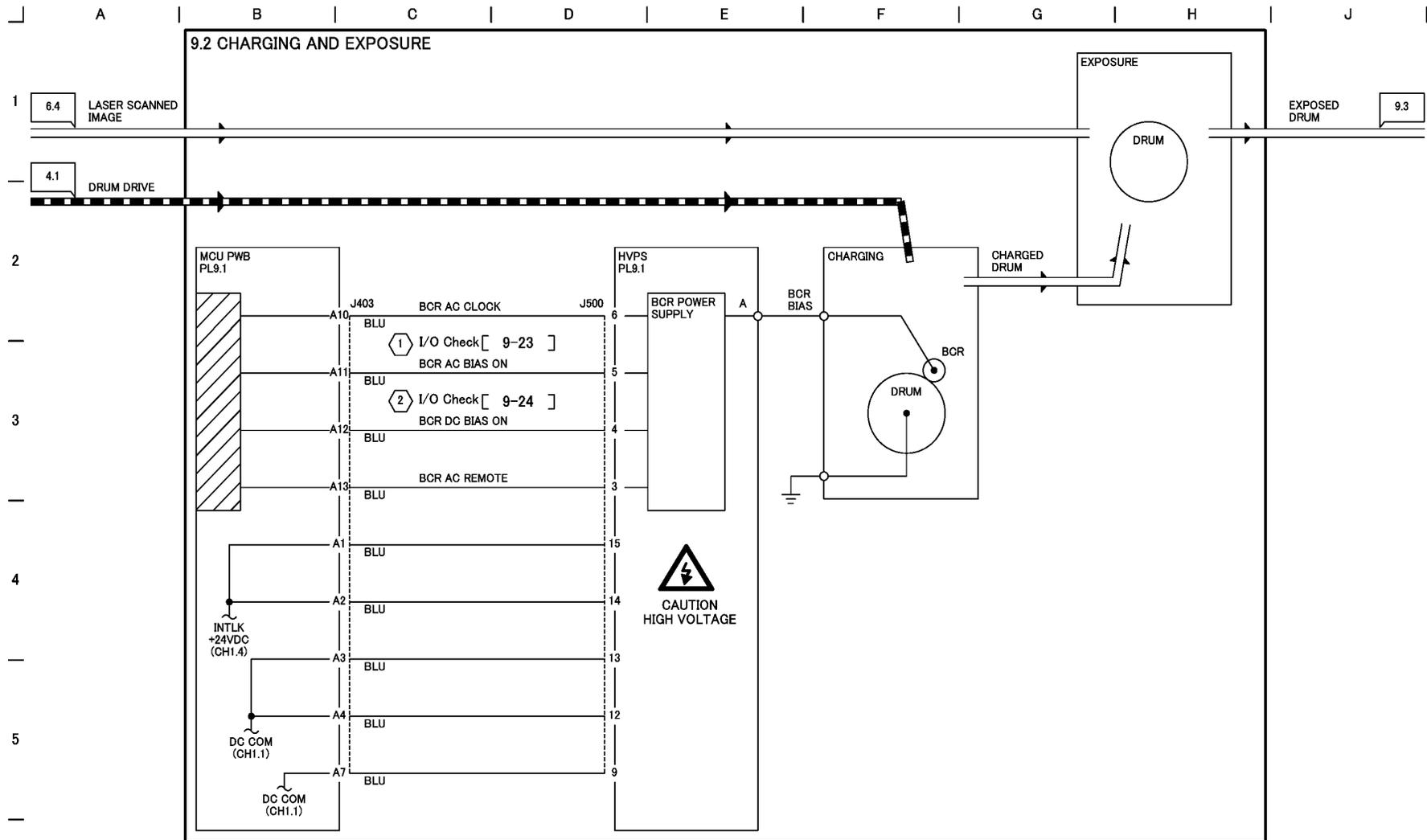
Figure 6 REGISTRATION (0ch90806)

# Chain 9 Xerographics



j0ch90901

Figure 1 CRU LIFE CONTROL (j0ch90901)



① Turning on BCR AC Bias in I/O Check [9-23] makes the following components output simultaneously:

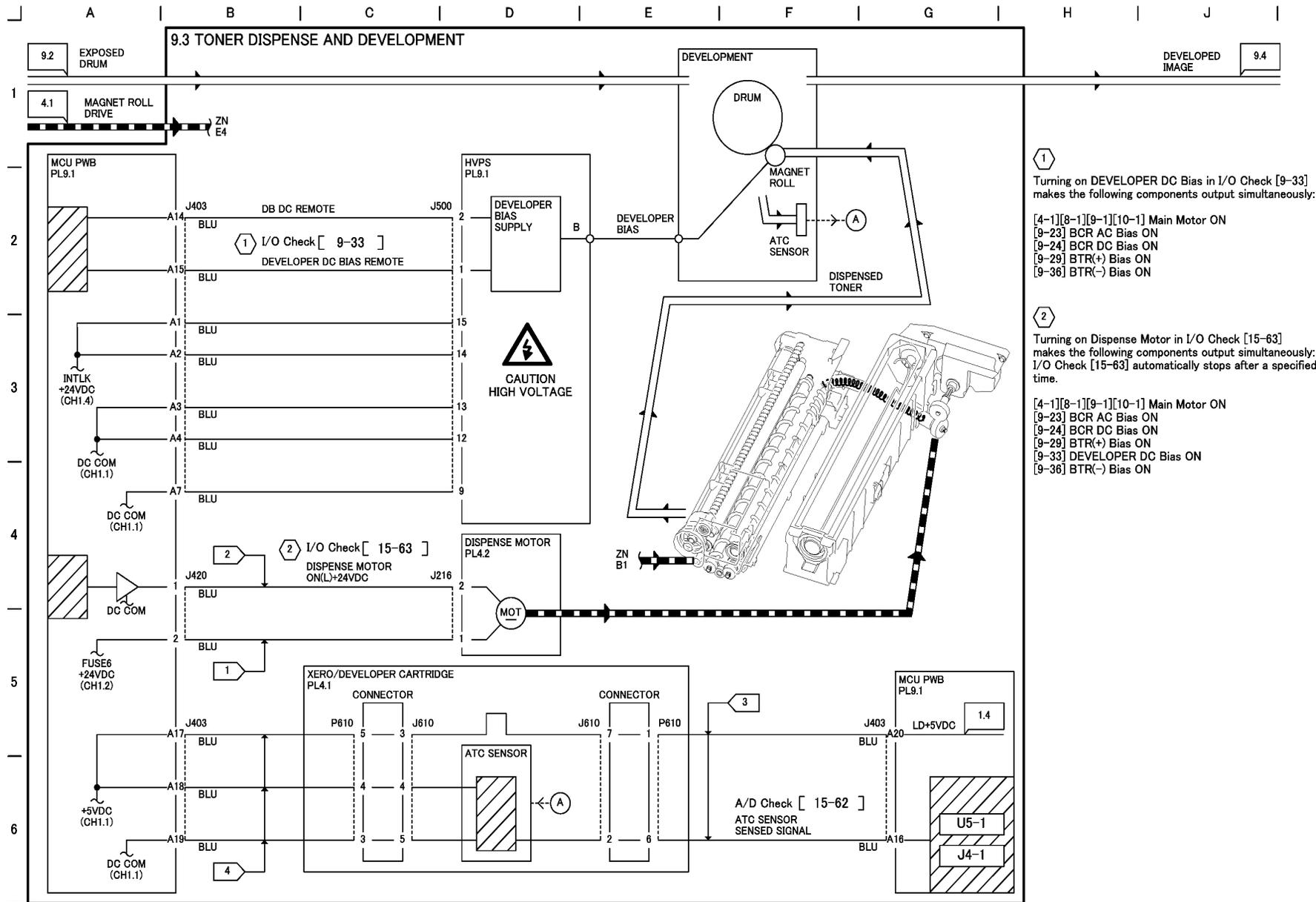
- [4-1][8-1][9-1][10-1] Main Motor ON
- [9-24] BCR DC Bias ON
- [9-29] BTR(+) Bias ON
- [9-33] DEVELOPER DC Bias ON
- [9-36] BTR(-) Bias ON

② Turning on BCR DC Bias in I/O Check [9-24] makes the following components output simultaneously:

- [4-1][8-1][9-1][10-1] Main Motor ON
- [9-23] BCR AC Bias ON
- [9-29] BTR(+) Bias ON
- [9-33] DEVELOPER DC Bias ON
- [9-36] BTR(-) Bias ON

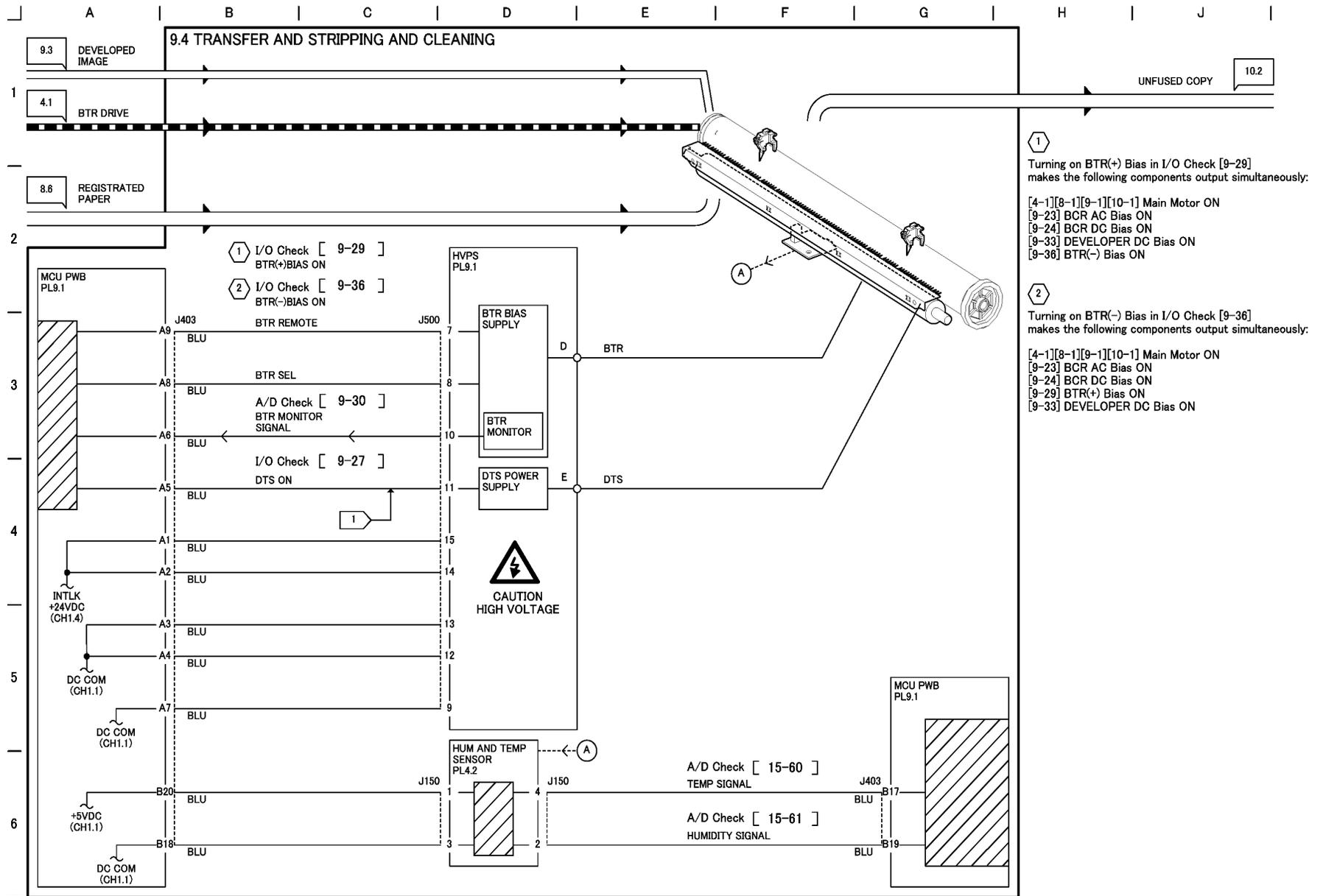
Figure 2 CHARGING AND EXPOSURE (j0ch90902)

j0ch90902



j0ch90903

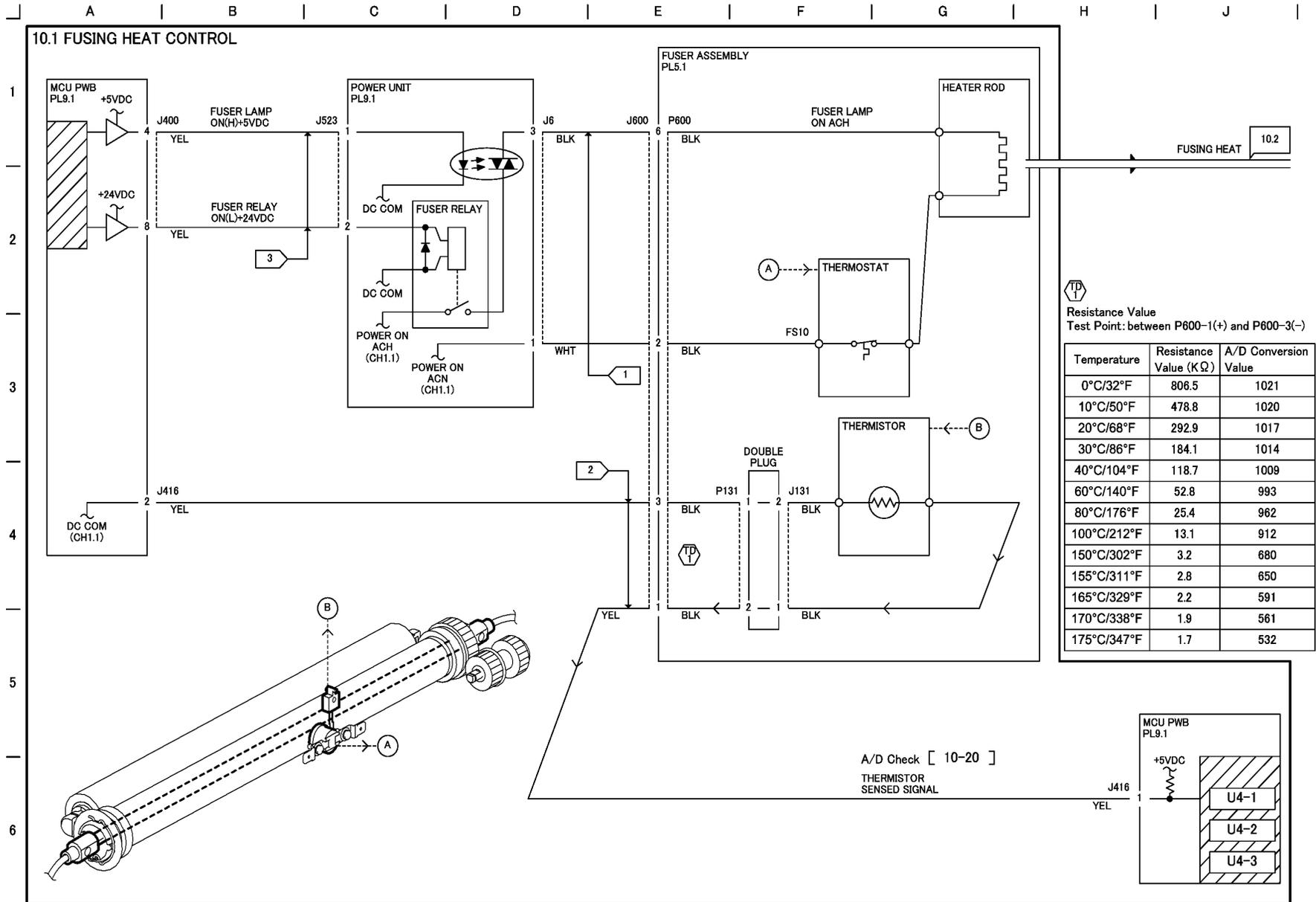
Figure 3 TONER DISPENSE AND DEVELOPMENT (j0ch90903)



j0ch90904

Figure 4 TRANSFER AND STRIPPING AND CLEANING (j0ch90904)

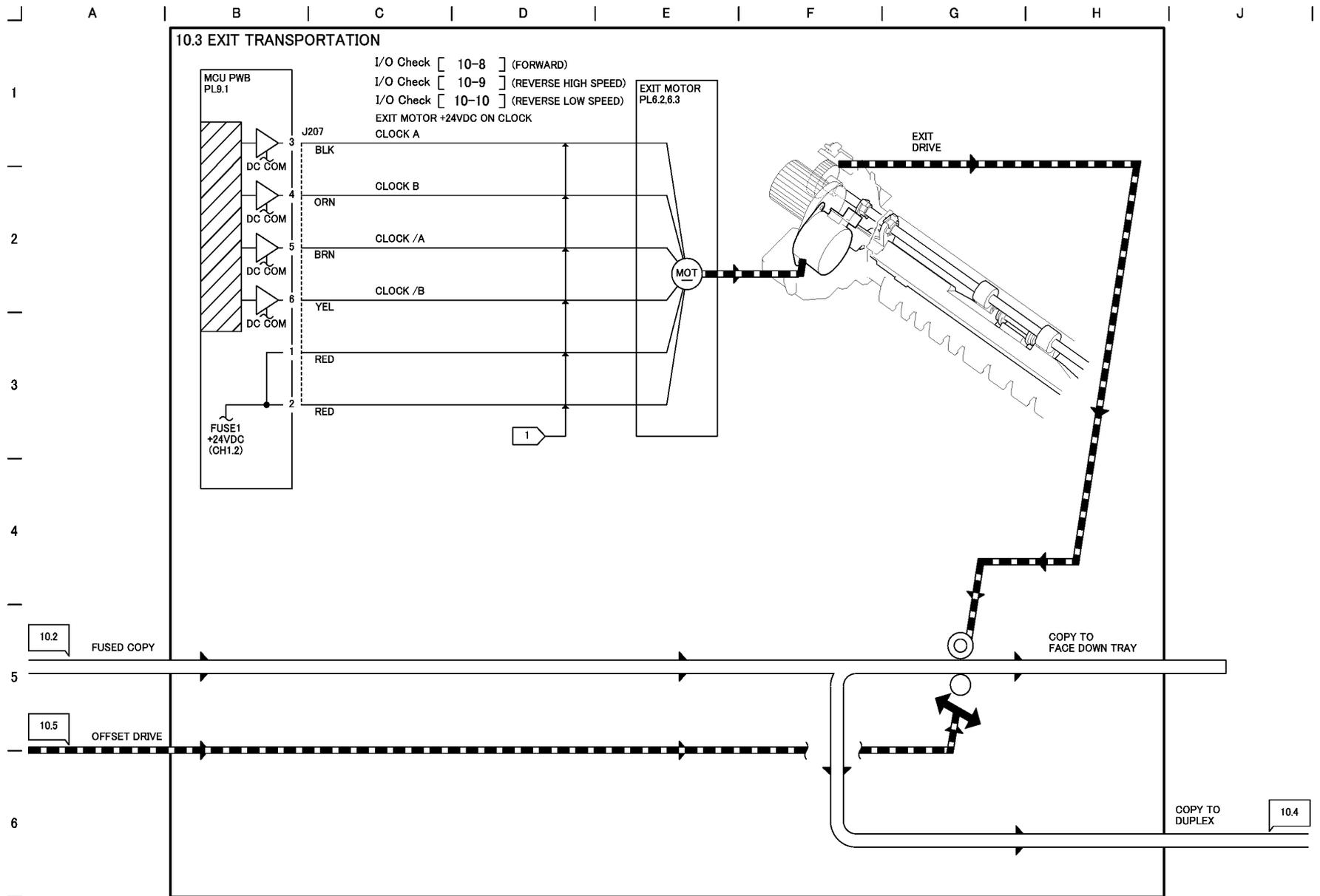
# Chain 10 Copy Transportation and Fusing



j0ch91001

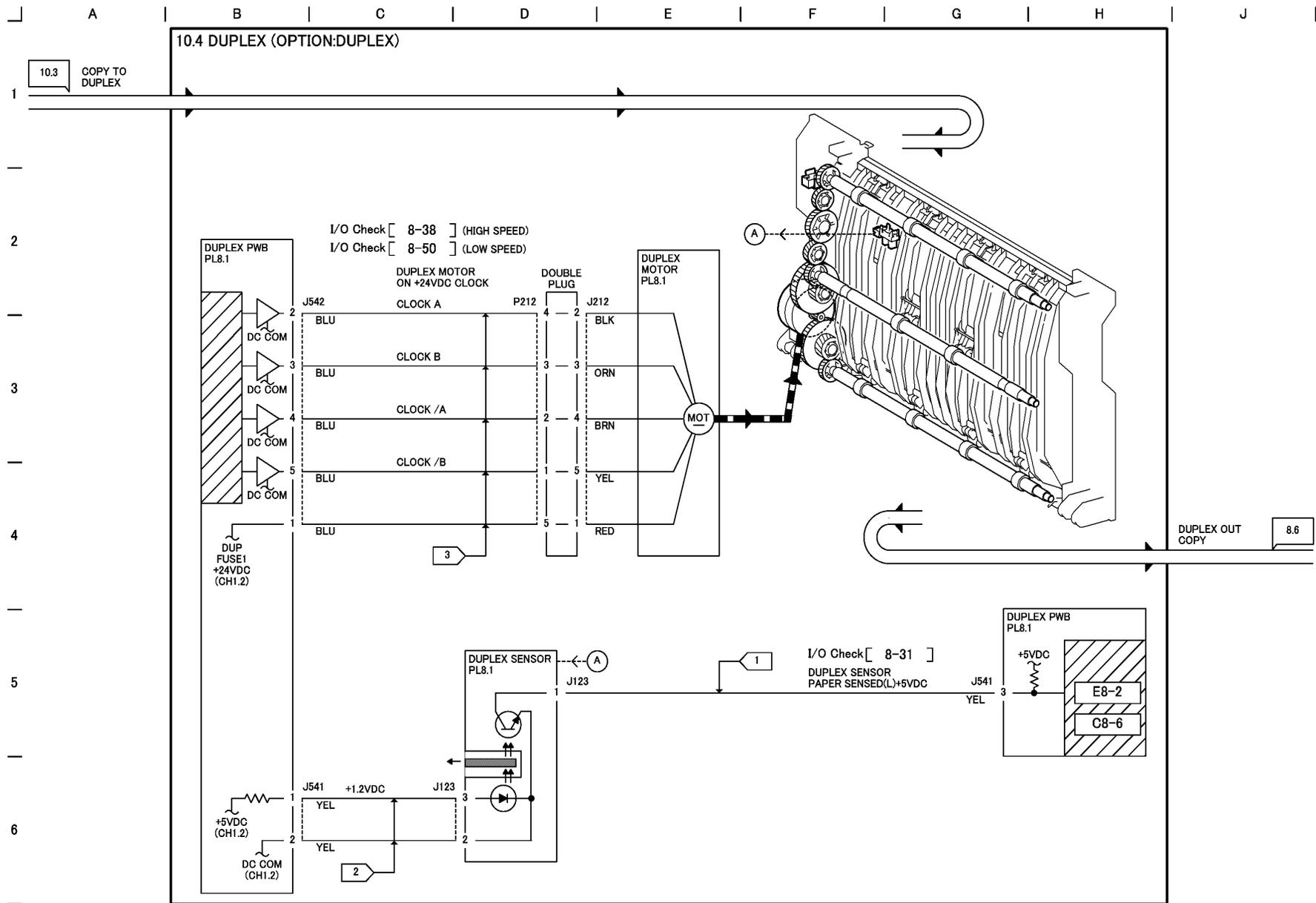
Figure 1 FUSING HEAT CONTROL (j0ch91001)





j0ch91003

Figure 3 EXIT TRANSPORTATION (j0ch91003)

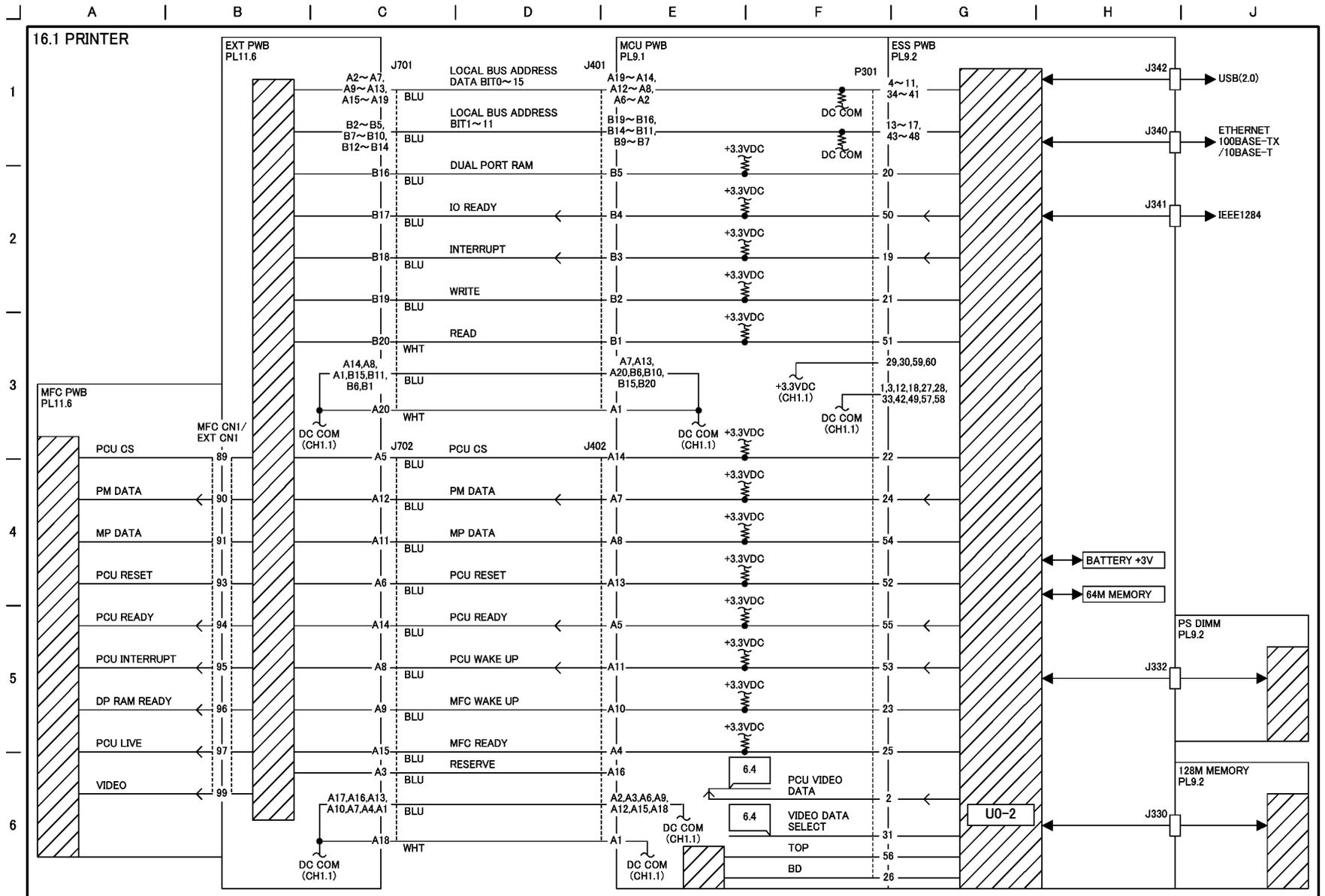


j0ch91004

Figure 4 DUPLEX (OPTION:DUPLEX) (j0ch91004)



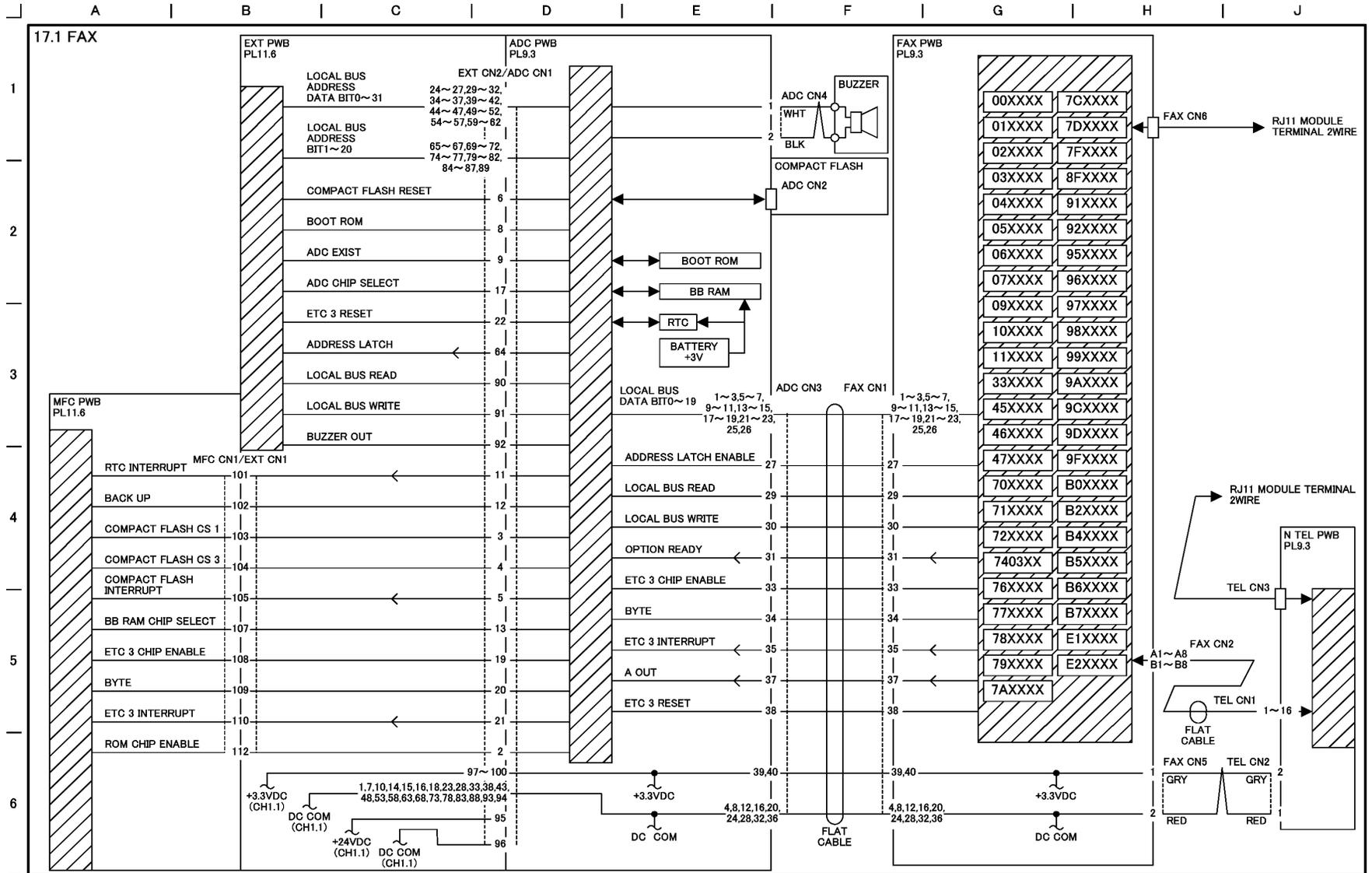
# Chain 16 Printer



j0ch91601

Figure 1 PRINTER (j0ch91601)

# Chain 17 FAX



j0ch91701

Figure 1 FAX (j0ch91701)

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## 8 Accessories

8.1 Fax Kit .....	8-3
8.2 Foreign Interface .....	8-14



## 8.1 Fax Kit

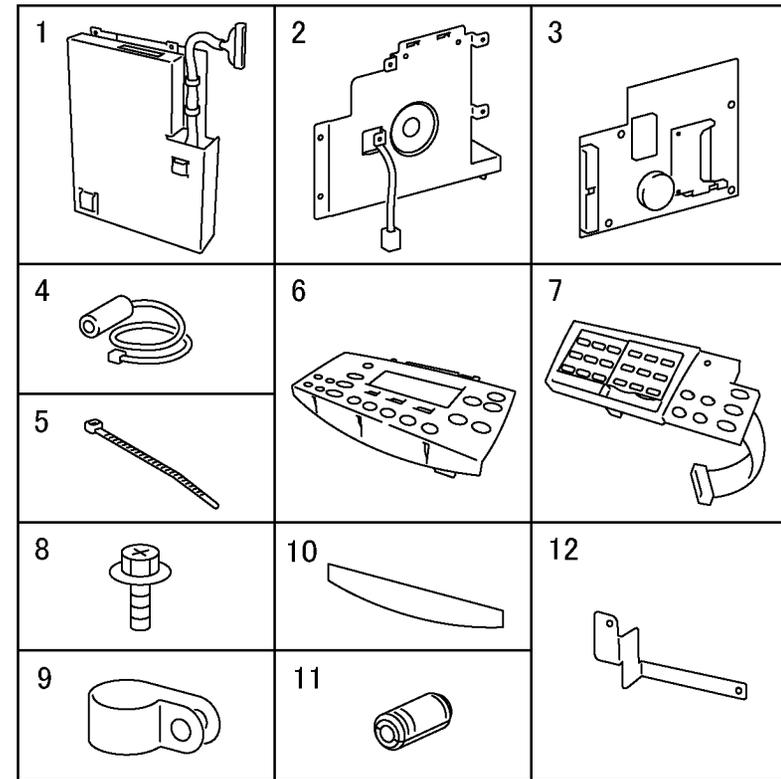
### 8.1.1 Product Code:

EL200373(XC),EL200416(EU)

- 64MB of additional memory (Product code: EL200358) is necessary for this installation. Prepare the kit and perform the installation in one continuous operation.

Bundled Items (Figure 1)

1. Fax Box: 1
2. ADC Bracket: 1
3. ADC PWB: 1
4. Battery: 1
5. Cable Ties: 2
6. LCD Cover MF: 1
7. Fax Control Panel: 1
8. Screws: 13
9. Clamp: 1
10. Model Name Labels: 2
11. Core: 1
12. Bracket: 1



j0ch82001

Figure 1 Bundled items (j0ch82001)

## WARNING

To avoid personal injury, ensure the machine is fully turned off before performing repairs or adjustments.

## CAUTION

To prevent data loss when the power is turned off, please note the following.  
[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

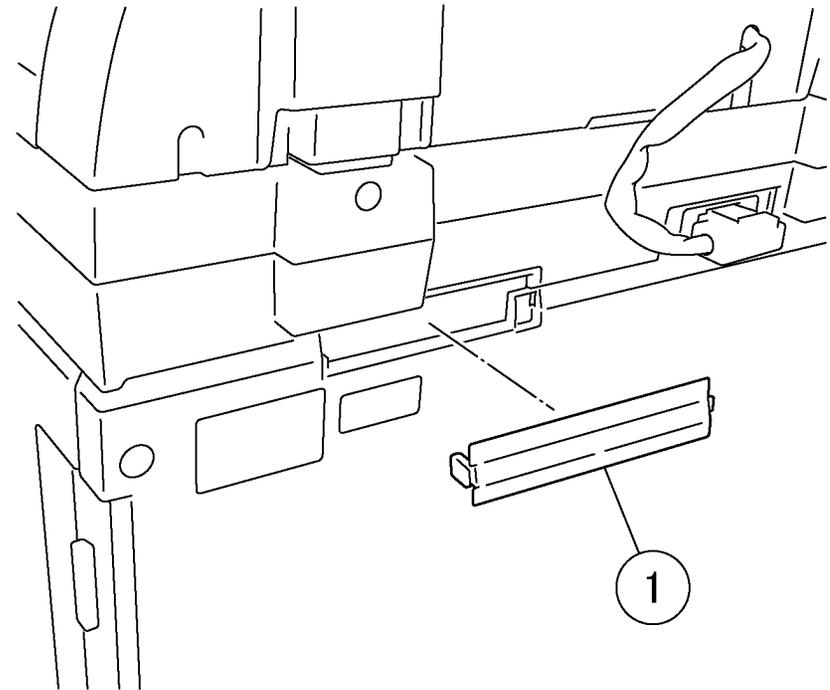
## CAUTION

Static electricity may damage electrical parts.

Always wear a wrist strap to protect electrical parts from static damage. If a wrist strap is not available, touch some metallic parts before servicing to discharge the static electricity.

### 8.2.2 Installation Procedure

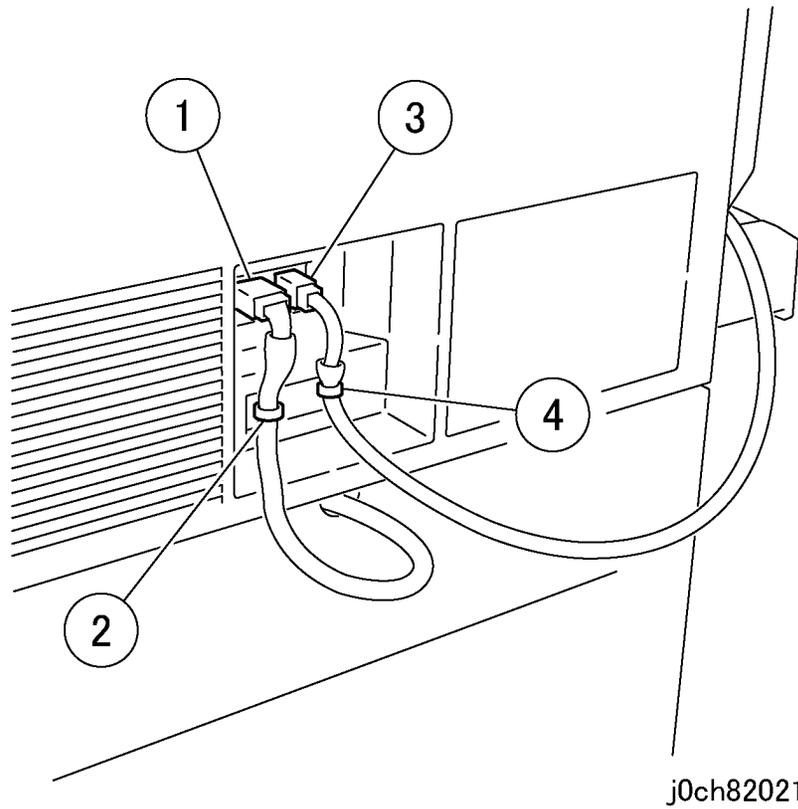
1. Remove the Memory Cover. (Figure 2)
  1. Remove the Memory Cover.



j0ch82020

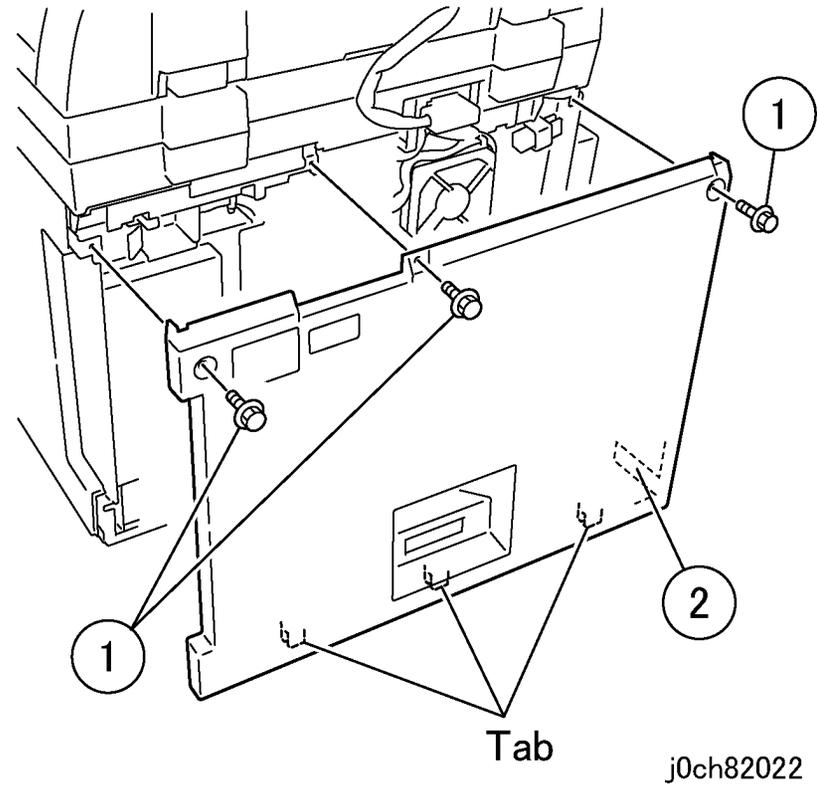
Figure 2 Removing the Memory Cover (j0ch82020)

2. For the Duplex and Tray Module machines, disconnect the connectors to the Duplex and Tray Module. (Figure 3)
  1. Disconnect the connector.
  2. Remove the clamp.
  3. Disconnect the connector.
  4. Remove the clamp.



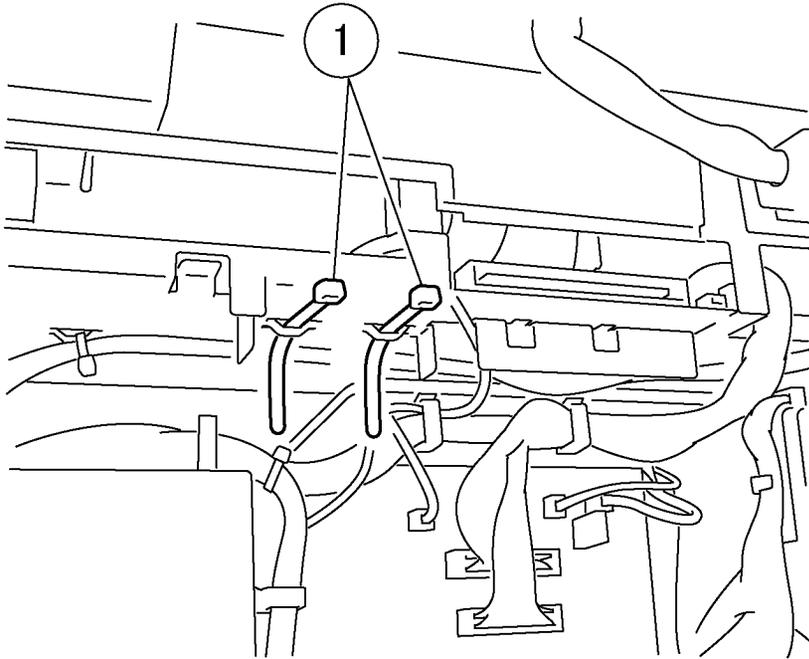
**Figure 3 Disconnecting the connectors (j0ch82021)**

3. Remove the Rear Cover. (Figure 4)
  1. Remove the screws (x3).
  2. Lift just enough to disengage tabs and remove the Rear Cover. Extension may limit vertical movement.



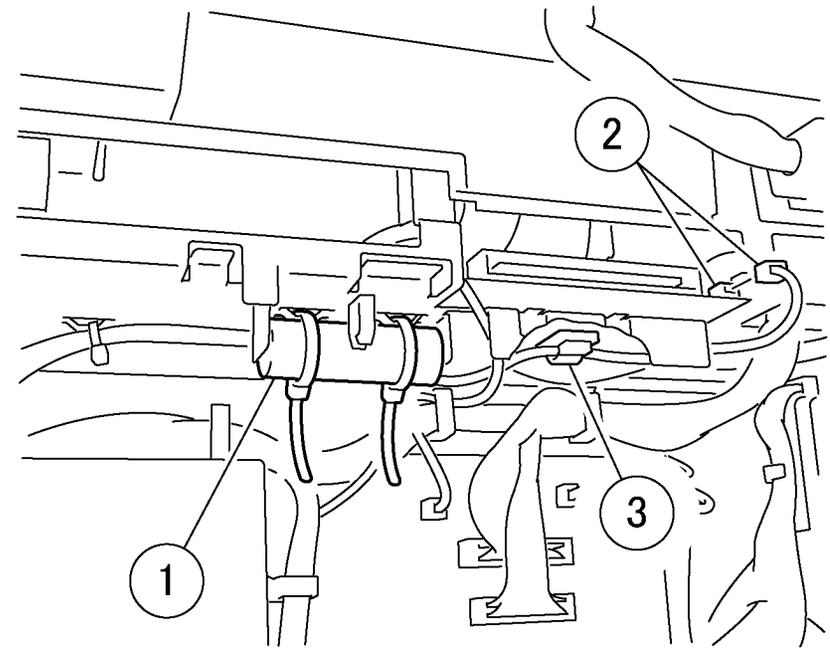
**Figure 4 Removing the Rear Cover (j0ch82022)**

4. Pull the cable ties (x2) through the holes in the frame. (Figure 5)
  1. Attach the cable ties (x2).



j0ch82002

Figure 5 Attaching the cable ties (x2) (j0ch82002)



j0ch82003

Figure 6 Installing the battery (j0ch82003)

5. Install the battery. (Figure 6)

**NOTE:** Install the battery with the Wire Harness exit facing down.

1. Secure the battery with the cable ties (x2).
2. Connect the connectors.
3. Secure the Wire Harness with the clamp.

6. Install the Fax Box. (Figure 7)

1. Install the Fax Box.
2. Tighten the screws (x4).
3. Install the Bracket
4. Tighten the screws (x2)

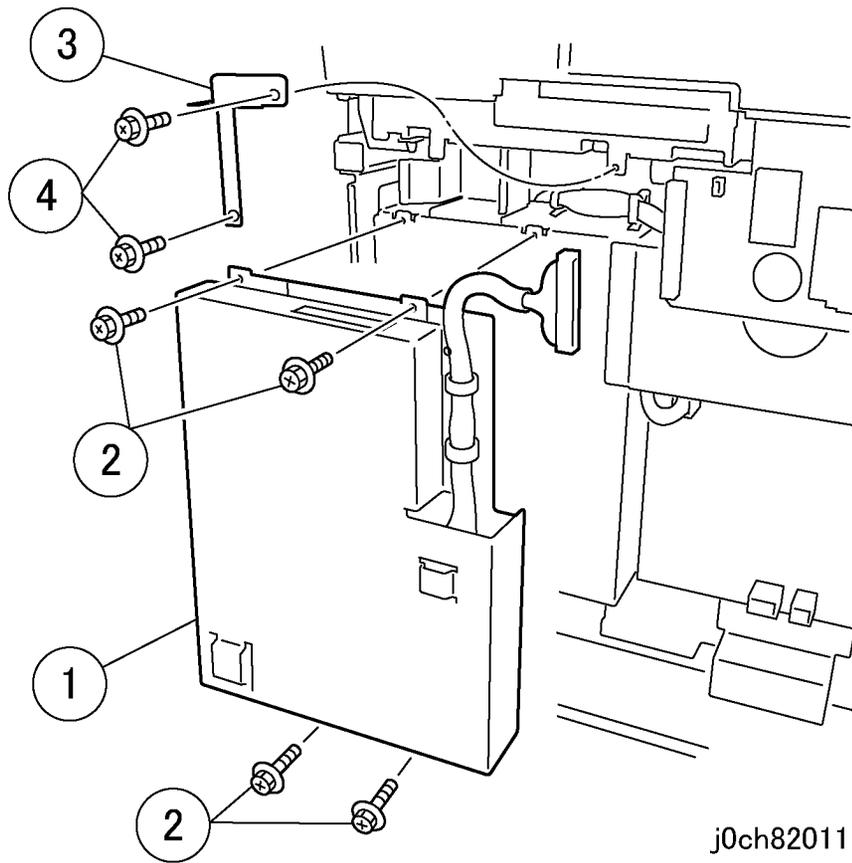


Figure 7 Installing the Fax Box (j0ch82011)

7. Install the ADC Bracket. (Figure 8)
  1. Install the ADC Bracket.
  2. Tighten the screws (x4).

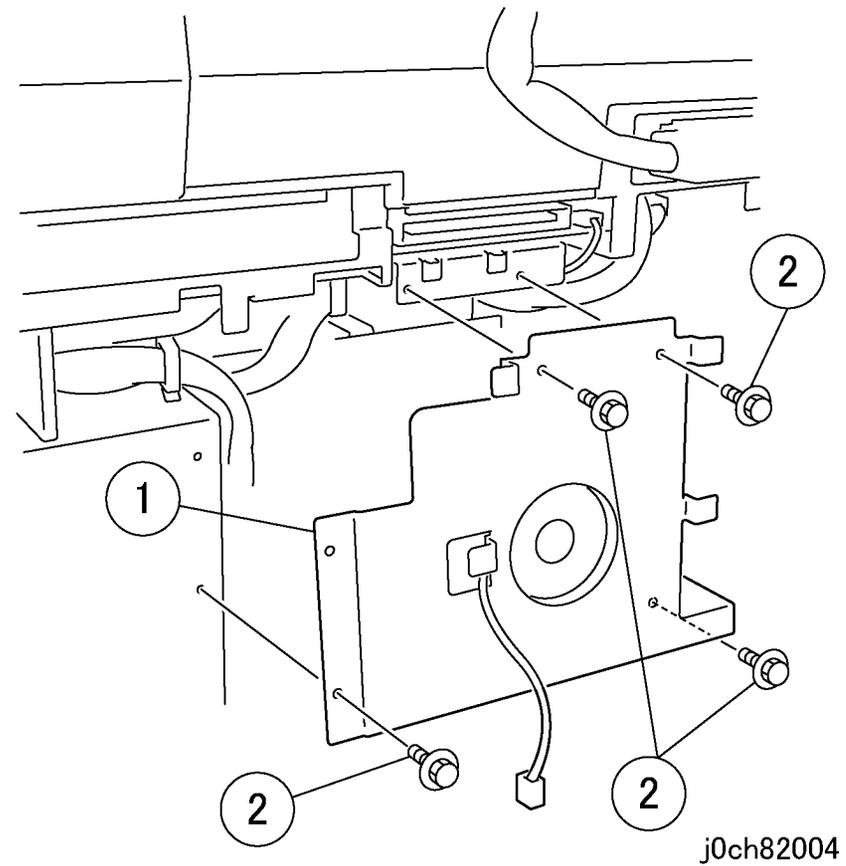
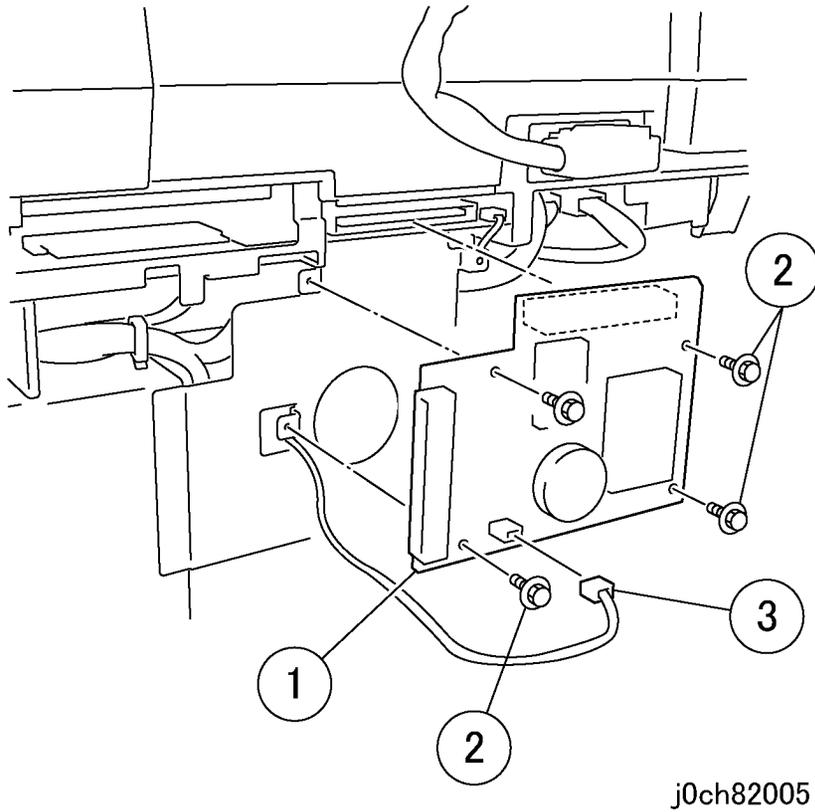


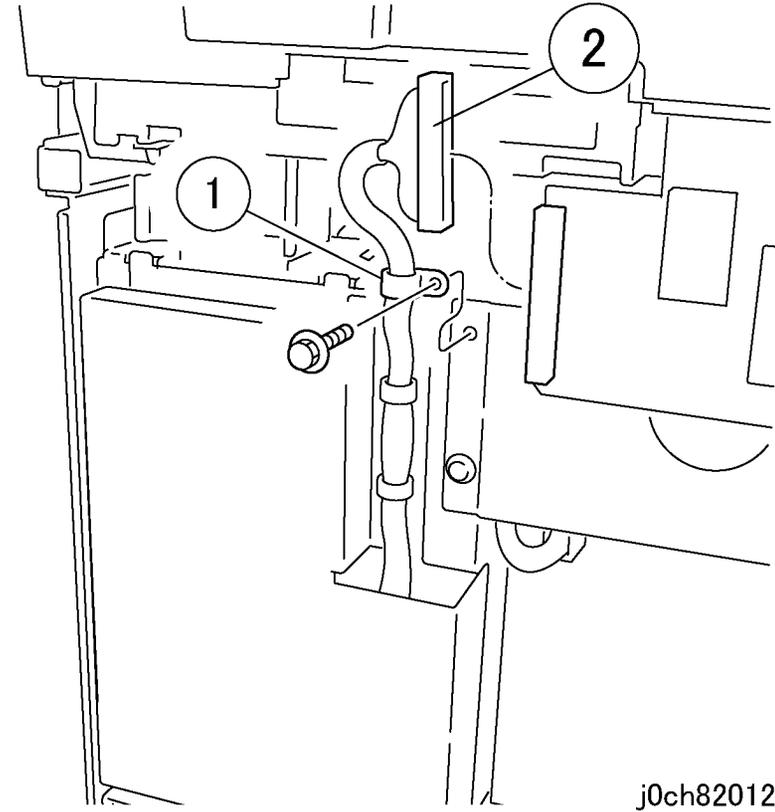
Figure 8 Installing the ADC Bracket (j0ch82004)

8. Install the ADC PWB. (Figure 9)
  1. Install the ADC PWB.
  2. Tighten the screws (x4).
  3. Connect the connectors.



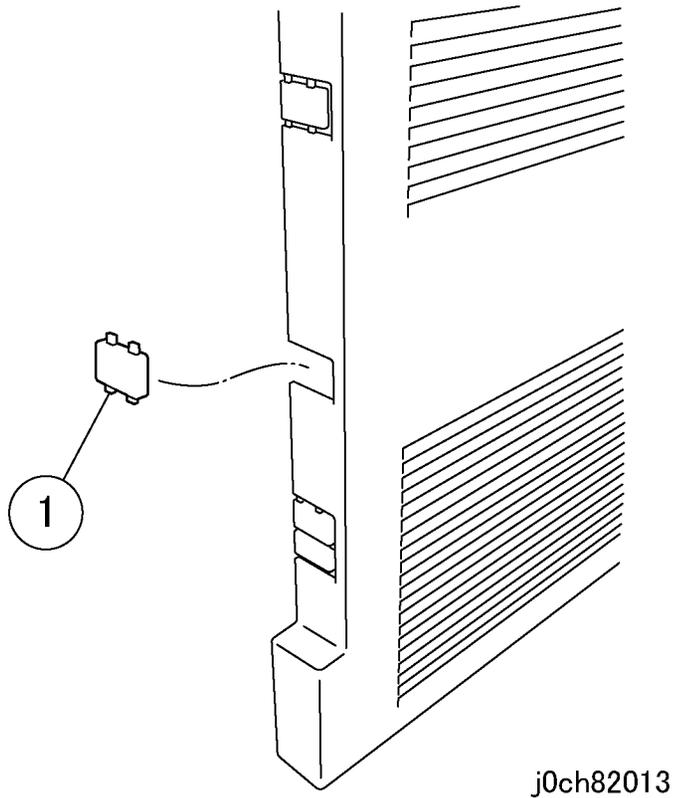
**Figure 9 Installing the ADC PWB (j0ch82005)**

9. Connect the Wire Harness. (Figure 10)
  1. Secure the Wire Harness with the clamp.
  2. Connect the Wire Harness.



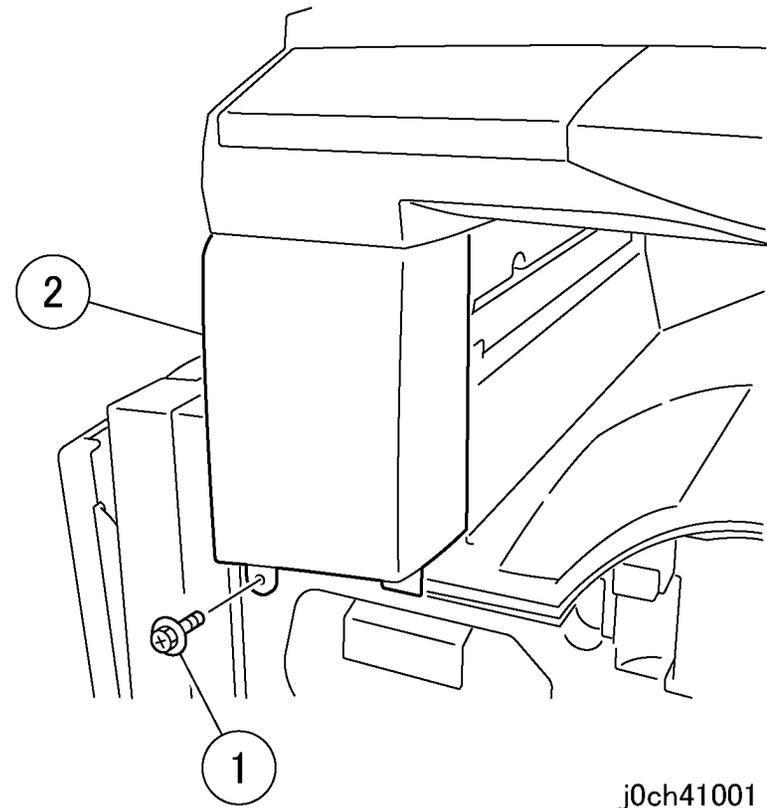
**Figure 10 Connecting the Wire Harness (j0ch82012)**

10. Remove the Blind Cover (LINE) of the Rear Cover. (Figure 11)
  1. Remove the Blind Cover (LINE).



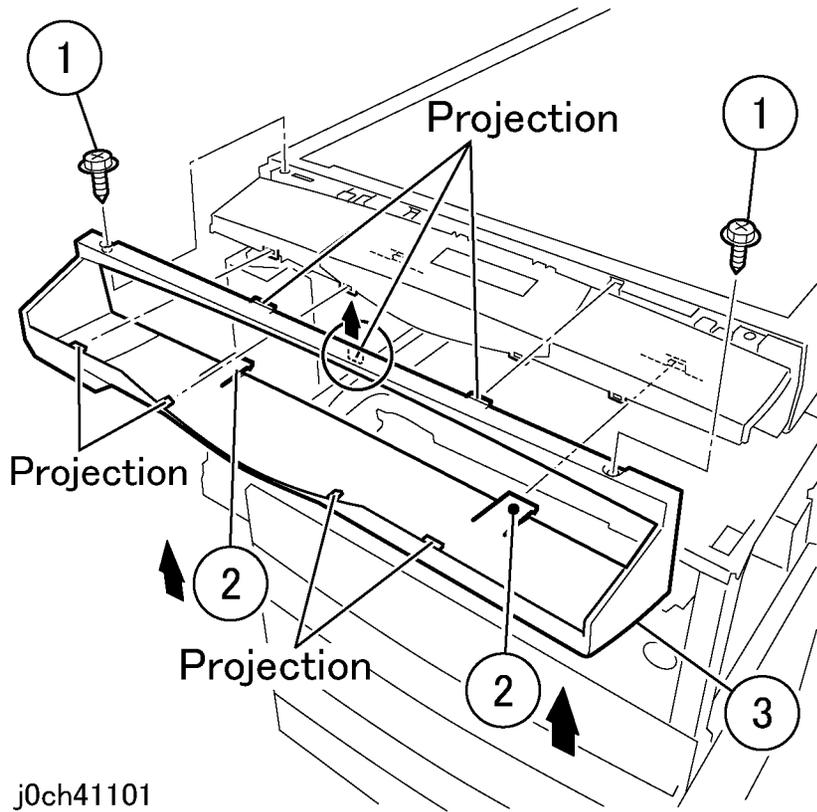
**Figure 11 Removing the Blind Cover (j0ch82013)**

11. Restore the Memory Cover and the Rear Cover to their original positions.
12. Open the Front Cover.
13. Remove the Front Left Cover. (Figure 12)
  1. Remove the screw.
  2. Remove the Front Left Cover.



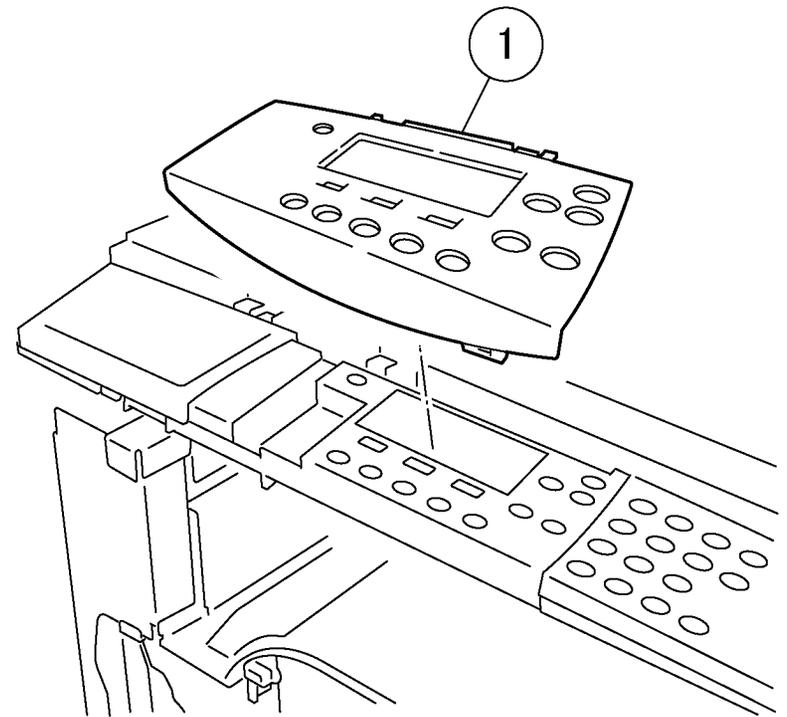
**Figure 12 Removing the Front Left Cover (j0ch41001)**

14. Close the Front Cover.
15. Open the DADF/ADF or the Platen Cover.
16. Remove the IIT Front Cover. (Figure 13)
  1. Remove the Tapping Screws (x2).
  2. Push in the hooks (x2).
  3. Remove the IIT Front Cover.



j0ch41101

Figure 13 Removing the IIT Front Cover (j0ch41101)



j0ch82014

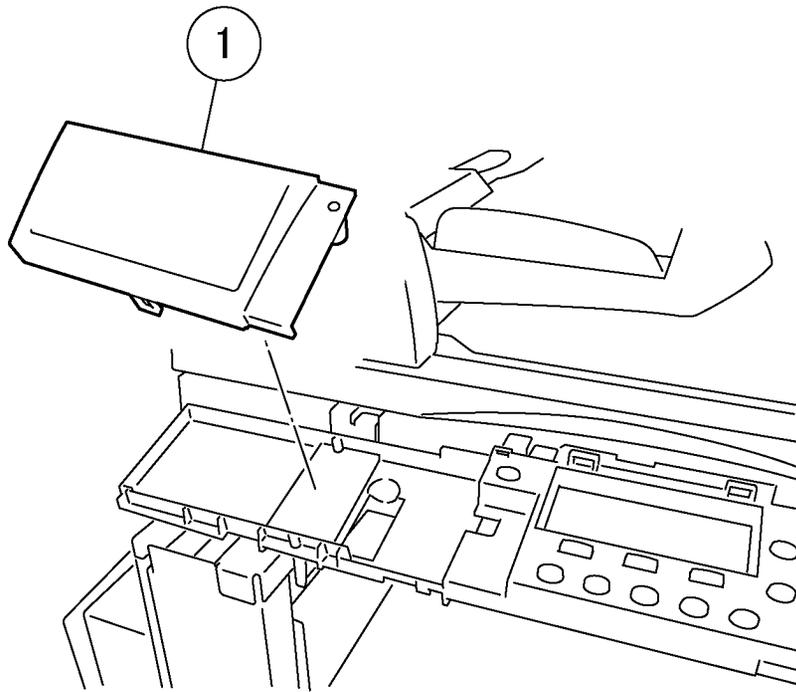
Figure 14 Removing the LCD Cover DC (j0ch82014)

17. Remove the LCD Cover DC. (Figure 14)

1. Remove the LCD Cover DC.

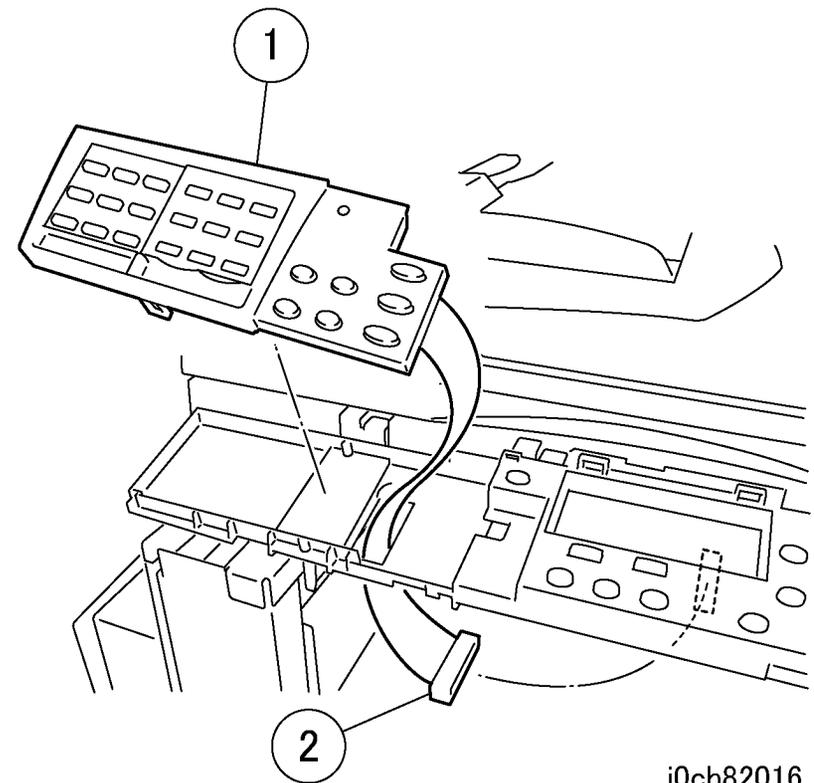
18. Remove the Clip Tray. (Figure 15)

1. Remove the Clip Tray.



j0ch82015

Figure 15 Removing the Clip Tray (j0ch82015)



j0ch82016

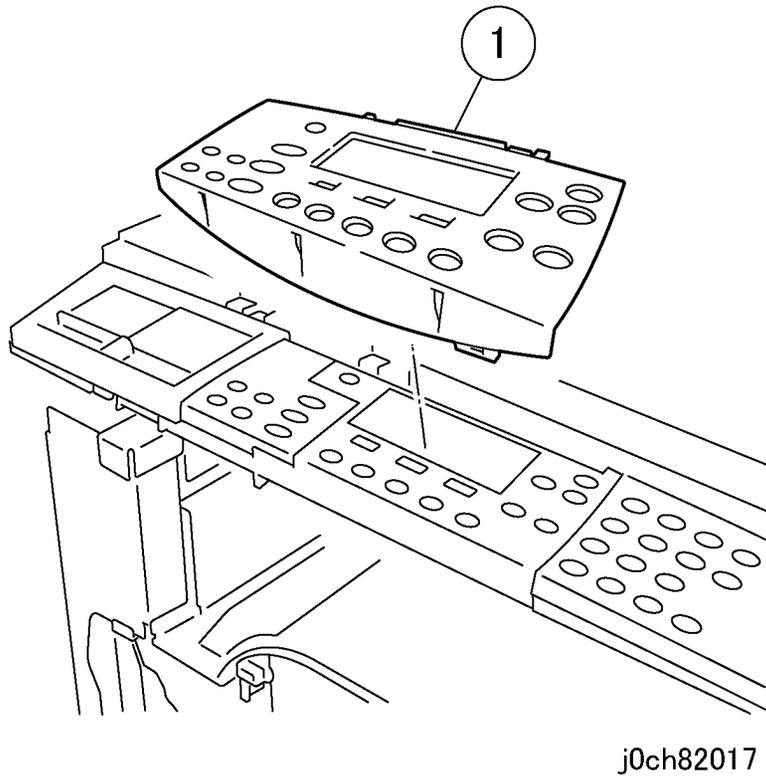
Figure 16 Installing the Fax Control Panel (j0ch82016)

19. Install the Fax Control Panel. (Figure 16)

1. Install the Fax Control Panel.
2. Connect the connectors.

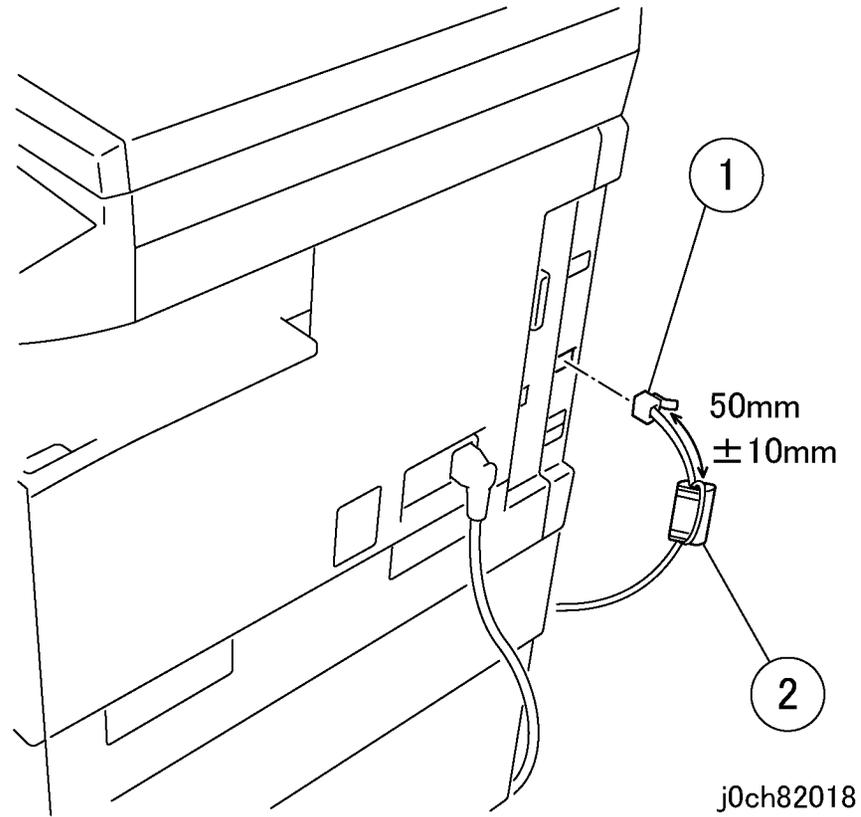
20. Install the LCD Cover MF. (Figure 17)

1. Install the LCD Cover MF.



**Figure 17 Installing the LCD Cover MF (j0ch82017)**

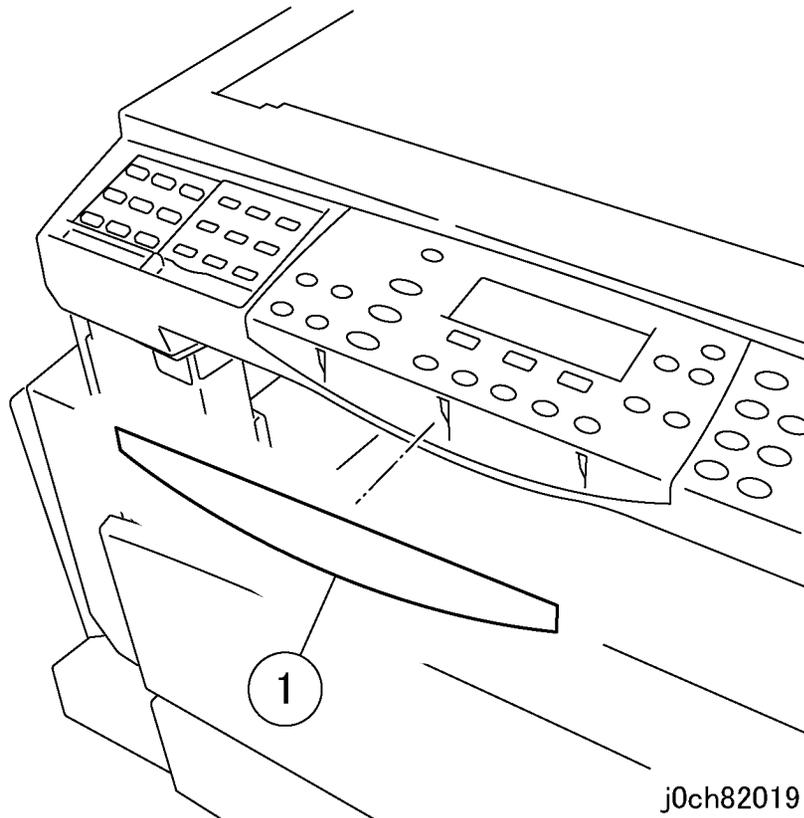
21. Restore the Front Left Cover and the IIT Front Cover to their original positions.
22. Connect the data cable to the LINE. (Figure 18)
  1. Install the Core.
  2. Connect to the LINE.



**Figure 18 Connecting the data cable (j0ch82018)**

23. Paste on the model name label according to the machine model. (Figure 19)
  1. Paste the model name label.

- Extension/Outside Line
4. Enter [Date/Time], set the current date and time.



**Figure 19 Pasting on the model name label (j0ch82019)**

24. Restore the machine to its original state.
25. Turn on the power.
26. Enter Diagnostic Mode (refer to Entering Diagnostic Mode)
27. Enter CE Settings (refer to CE Settings)
28. Select MFC and Country Code.
29. Check the Country Code is appropriate code.
30. Perform the Country Code changing if needed (refer to GP 4 Country Code changing)
31. Perform Fax settings.
  1. Press the [Log In/Out] button and enter [System Settings].
  2. Enter [Fax Settings] and then [Local Terminal Information].
  3. Set the following.
    - Line Type
    - Fax No.

## 8.2 Foreign Interface

### Bundled Items

#### Foreign Interface (Third Vendor)

1. Foreign Interface: 1
2. Fastener Tape: 3

#### **WARNING**

Switch off the machine and disconnect the power cord.

#### **CAUTION**

To prevent data loss when the power is turned off, please note the following.

[FAX Models]

Check that the "Stored Documents" lamp is not on.

Press the [Job Status] button to ensure that there are no jobs in progress.

[Printer Models]

Press the [Job Status] button to ensure that there are no jobs in progress.

1. Remove the cover. (Figure 1)
  1. Remove the cover.

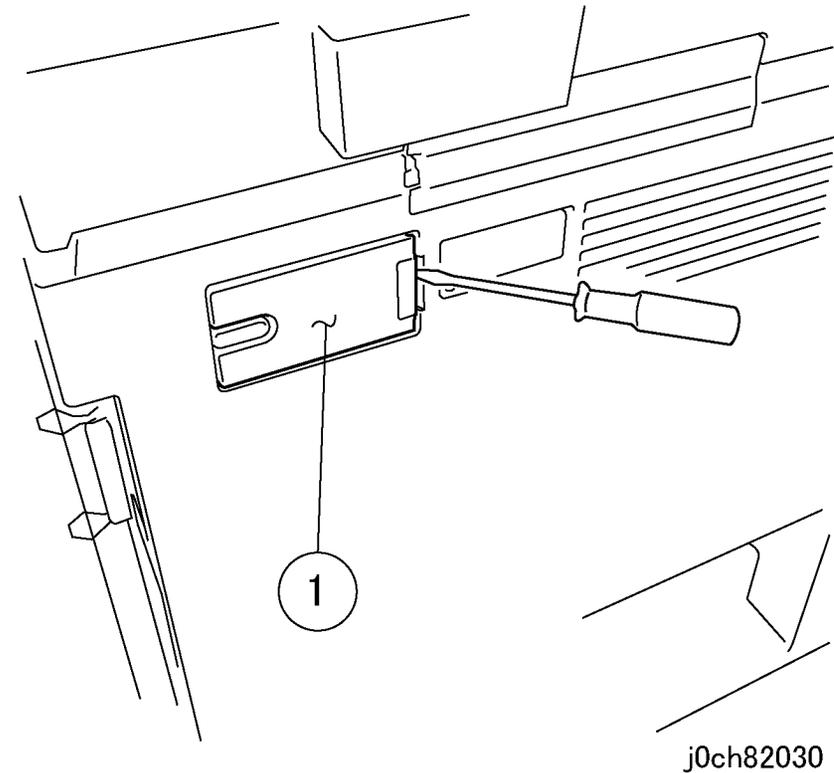
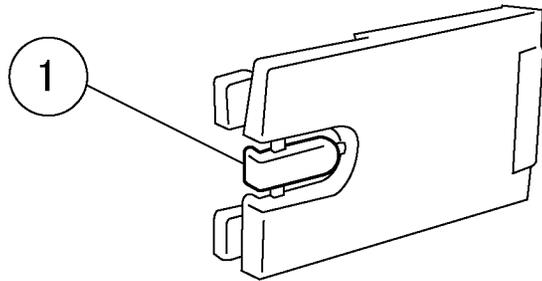


Figure 1 Removing the cover (j0ch82030)

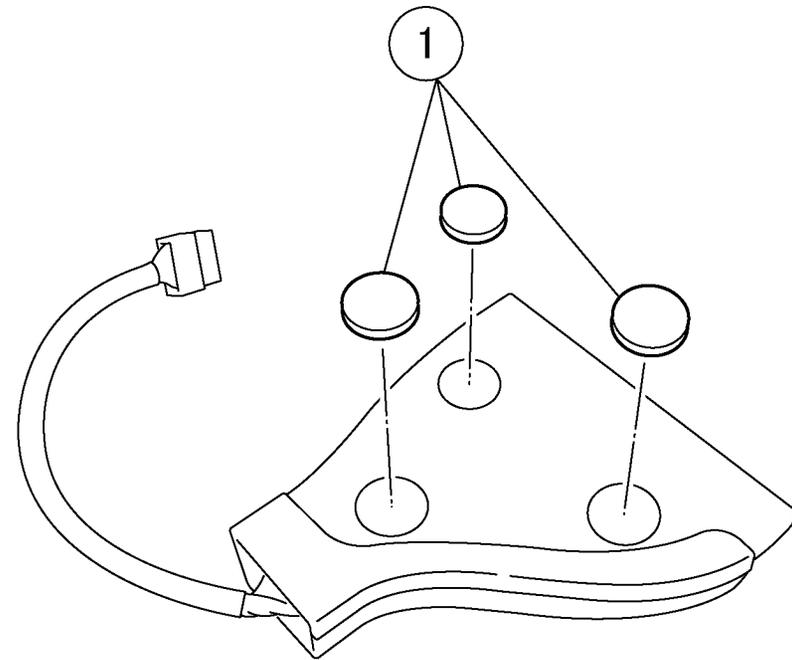
2. Remove the Blind Cover of the cover. (Figure 2)
  1. Remove the Blind Cover.



j0ch82031

**Figure 2 Removing the Blind Cover (j0ch82031)**

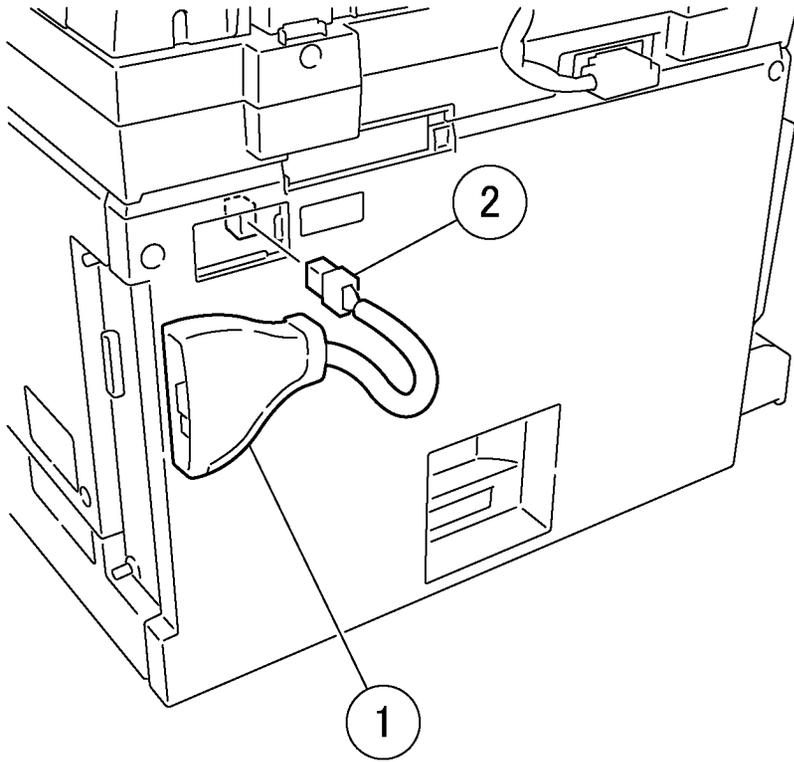
3. Attach fasteners onto the Foreign Interface. (Figure 3)
  1. Attach the fasteners (x3).



j0ch82023

**Figure 3 Attaching the fasteners (j0ch82023)**

4. Connect the Foreign Interface to the main unit IIT7 connector. (Figure 4)
  1. Attach the Foreign Interface.
  2. Connect the Wire Harness.



j0ch82032

**Figure 4 Connecting the Foreign Interface (j0ch82032)**

5. Restore the cover removed in Step 1 to its original position.
6. Enter Diag. mode. Select [System Settings], [CE Settings] and then [MFC]. Ensure that [EP-A] setting is "On" .

**NOTE:** When removal of the Foreign Interface, back the setting "off" for [EP-A] before disconnecting.